AWARD NUMBER: W81XWH-14-1-0570

TITLE: A Nonpharmacologic Method for Enhancing Sleep in PTSD

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REPORT DATE: OCT 2019

TYPE OF REPORT: Annual Report

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
Oct 2019	Y5 Annual Report	30 SEP 2018 - 29 SEP 2019

4. TITLE AND SUBTITLE
A Nonpharmacologic Method for Enhancing Sleep in PTSD

5a. CONTRACT NUMBER

5b. GRANT NUMBER
W81 WXH-14-1-0570

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)
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5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
University of Arizona
888 N. Euclid Ave.
Tucson, AZ 85719-4824

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for Public Release; Distribution Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

Since 2001, more than 2 million U.S. military personnel have deployed in to Iraq and Afghanistan. Recent estimates suggest that between 17-20% of Soldiers returning from these conflicts meet criteria for posttraumatic stress disorder (PTSD) upon their return. Notably, sleep disturbance is one of the primary complaints of combat-related PTSD patients. Recent evidence suggests that sleep may play a critical role in the ability to effectively extinguish conditioned fear responses and is necessary for consolidating positively valenced emotional memories. Furthermore, many PTSD patients do not respond to currently available treatments, and sleep disturbance is a frequent residual symptom even among those patients who do respond. Thus, sleep disturbance, as a symptom of PTSD, may lead to a vicious circle that prevents full resolution of the conditioned fear responses, sustaining continuation of the disorder. Thus, rather than conceptualizing sleep problems as a secondary effect of PTSD, a novel approach would involve directly targeting and ameliorating the sleep problems, potentially leading to improved emotional regulation and symptom reduction. Although pharmacologic treatments for sleep problems exist, an alternative non-pharmacologic method to improve sleep is to phase shift and strengthen the circadian entrainment. Bright light therapy (BLT), particularly in the blue wavelength, is an effective treatment for sleep and mood disorders, and is thought to exert its effects through suppression of hypothalamic melatonin production. Although preliminary data support the efficacy of BL therapy in treating PTSD, comprehensive randomized placebo-controlled trials are needed. This project aims to address such needs.

15. SUBJECT TERMS
Posttraumatic stress, PTSD, traumatic stress, combat, sleep, sleep disorders, light therapy, BLT, white matter, brain imaging, neuropsychological performance

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USAMRMC
Unclassified	Unclassified	Unclassified	Unclassified	489	19b. TELEPHONE NUMBER *(Include area code)* (520) 621-0605

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1. INTRODUCTION

Sleep disturbance is one of the most common symptoms reported by individuals with posttraumatic stress disorder (PTSD) and is a major problem among Service members returning from combat deployments (Capaldi, Guerrero et al. 2011). In fact, sleep problems are often considered to be among the most prevalent complaint of individuals with PTSD (Ross, Ball et al. 1989), and may contribute significantly to the persistence and severity of the disorder (Maher, Rego et al. 2006, Mellman and Hipolito 2006, Germain, Buysse et al. 2008). Several studies have demonstrated that sleep is necessary for adequate emotional health (Killgore, Kahn-Greene et al. 2008, Walker 2009, Walker and van der Helm 2009, Harvey 2011, Rosales-Lagarde, Armony et al. 2012, Simon, Oren et al. 2015). Furthermore, recent evidence suggests that adequate restorative sleep may be a crucial component of the ability to generalize fear extinction learning, and may ultimately be a key feature in the process of recovery from PTSD (Pace-Schott, Milad et al. 2009). The present study aims to test a novel, inexpensive, and easy to use non-pharmacologic approach to improving sleep and regulating circadian rhythms among individuals with PTSD. In this study, we will evaluate the effectiveness of a brief daily blue wavelength light exposure therapy (BLT) for improving sleep compared to similar use of an amber light placebo device within a sample of individuals diagnosed with PTSD. There is convincing evidence that BLT has therapeutic effects on anxiety and depression (Anderson, Glod et al. 2009), and has strong regulatory effects on the normal circadian rhythms of alertness and sleep-wake cycles. These features are all central to the symptomatology of PTSD, yet no published studies have examined the effects of BLT on PTSD. For this study, we plan to collect data from a sample of participants meeting diagnostic criteria for PTSD. Following a baseline assessment, the participants will be randomly assigned to one of two treatment conditions (45 active treatment; 45 placebo). Participants will complete two comprehensive sessions including neurobehavioral assessments, experimental fear conditioning and extinction, repeated polysomnographic sleep studies, and neuroimaging sessions separated by six weeks of home monitored actigraphy with active or placebo light device treatment. Participants will be randomly assigned to receive 30 minutes of daily morning blue light therapy (BL) or an amber light placebo treatment (PL). Sleep quality and quantity will be measured using daily self-report questionnaires, objective actigraph readings, and polysomnography. Globally, we hypothesize that BL will improve sleep quality and quantity relative to PL, and these improvements will be associated with improvements in neurocognitive and brain function. If the BL treatment is demonstrated as effective, this approach would be readily available for nearly immediate large-scale implementation, as the devices have been widely used for years in other contexts, are already safety tested, and commercially available from several manufacturers at a very low cost. Thus, the impact of this research as a treatment for emotional and sleep problems associated with PTSD would be high and immediate.

2. KEYWORDS:

trauma, anxiety, stress, depression, nightmares, irritability, light therapy, veteran, military, assault, combat, fMRI, hyperarousal, posttraumatic stress disorder, neuroimaging, flashbacks

3. ACCOMPLISHMENTS:

- **What were the major goals of the project?**
  According to the Statement of Work (SOW), the following major tasks were proposed:

Major Task 1: Prepare Regulatory Documents and Research Protocol (Y1: Q1)
Completed: 22 OCT 2014

Major Task 2: Acquire necessary materials and equipment (Y1: Q1-2)
Completed: 01 FEB 2015

Major Task 3: Hire and Train Study Staff (Y5: Q3-4)
Completed: 23 SEP 2019

- Ayla Bullock was hired as Research Technician. Ms. Bullock began work on 3 JUNE 2019. She has completed all regulatory trainings and has become fully trained on all aspects of the project.

Major Task 4: Collect Data (Y1: Q3-4, Y2, Y3, Y4, Y5)
In progress: Data collection is ongoing (see accomplishments below).

Major Task 5: Analyze and Report Data (Y6: Q3-4)
Pending: Awaiting completion of data collection.

- **What was accomplished under these goals?**

1) Major Activities:

During Year 5 of this project, major activities included recruiting (i.e. advertisements on local newspaper, distributing flyers, the online platform StudyKIK), conducting phone screenings, scheduling participants, conducting psycho-diagnostic interviews (i.e. Structured Clinical Interviews for the DSM-5), administering neurocognitive assessments, collecting and analyzing behavioral, fMRI, EEG, skin conductance, and heart rate data.

2) Specific Objectives:

We are approaching our recruitment goals, so the primary objective for this year was to continue extensive recruitment efforts and data collection. As shown in Figure 1, recruitment has generally progressed steadily through the course of the project (Figure 1 green line). However, in Y3 Q4, an MRI closure that extended into Y4 Q2 (Figure 1, blue shaded area) resulted in a 6-month disruption in data collection efforts, which led to a significant delay in overall recruitment until the scanner was back online and functional. Since the scanner was reactivated, we have been recruiting at a steady level and project recruitment to be completed in the coming year.

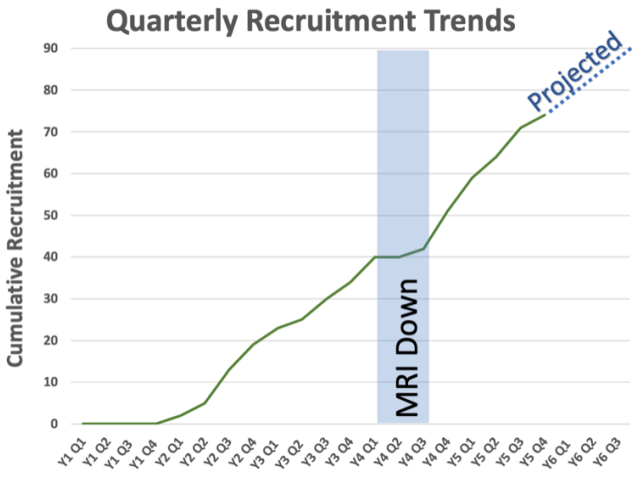


Figure 1. Quarterly recruitment. Green line shows the quarterly recruitment thus far. Blue shaded bar indicates the period of no recruitment due to the MRI scanner shutdown. Blue dotted line is projected recruitment trend based on the past quarter.

3) Significant Results/Key Outcomes:

Recruitment:

Recruitment efforts have been steady. Between October 1st 2014 and September 29, 2019, a total of 3823 individuals have expressed interest in our study and provided us with their contact information, either through direct phone calls or via our online interest form. We have conducted 3680 phone interviews to screen potentially interested volunteers. Most volunteers are excluded for a variety of reasons. Specifically, only 7% of these volunteers (275 individuals) were thus far deemed to be eligible to come in to the lab for a more extensive screening visit, while 93% of the volunteers (3407 individuals) were determined to be ineligible at this initial telephone screening level (Figure 2).

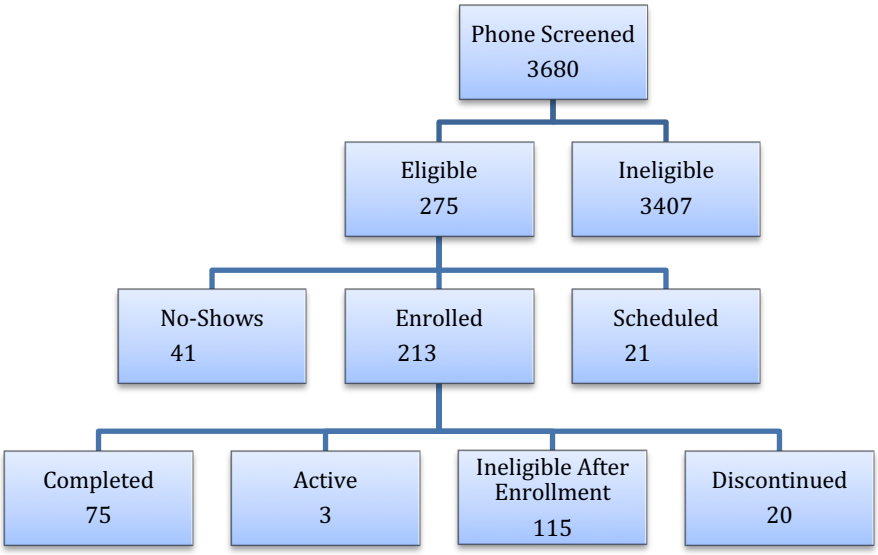


Figure 2: Participant flow diagram of cumulative participant numbers

Exclusion of a large number of individuals has been necessary in order to ensure validity of PTSD diagnoses, eliminate potential confounds in the data, and to ensure participant safety (see Figure 3 for the breakdown of ineligibility reasons over the first five years of the study). The most common reasons for ineligibility over Y1-Y5 included taking exclusionary medications (16% of individuals) and suffering from a co-morbid disorder (11% of individuals). Additional screening criteria that lead to immediate exclusion include: ferrous metal in the body (contraindication for MRI), age outside of inclusion range, non-qualifying traumatic event, traumatic brain injury with loss of consciousness exceeding 30 minutes, English as a non-primary language, failure to meet DSM-5 criteria for PTSD, trauma occurring more than 10 years before time of screening, suffering from seizures or light induced migraines, or left handedness.

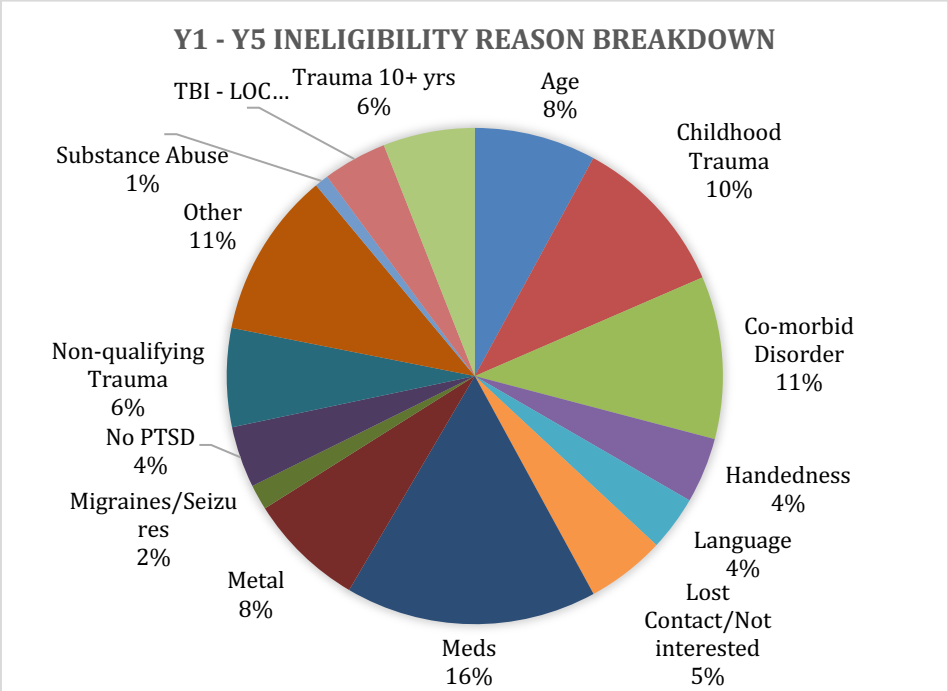


Figure 3: Cumulative ineligibility reasons over the first five years of the study

As shown in Figure 3, 11% of participants were screened out for reasons coded as "Other," a category that encompasses exclusionary reasons ranging from colorblindness to working overnight shifts. After the exclusion of 3407 potential volunteers, we had 275 potentially eligible volunteers. Of these, 40 failed to show up for their initial visit and were unable or unwilling to be rescheduled, 213 completed the consenting process and underwent a structured clinical interview for DSM-5, and 21 are currently scheduled to come in for their SCID interview. Of those 213 participants who completed the consenting process and a clinical interview, 115 were found to be ineligible upon completion of the SCID (i.e., did not meet diagnostic criteria for PTSD or met criteria for certain psychiatric disorders such as bipolar disorder) or were identified to be unable to continue due to other issues such as or current substance abuse, legal problems, or admitting to taking exclusionary medications.

As of this reporting period, 75 participants have now completed all phases of the study and 3 are currently enrolled and undergoing one of the treatment conditions. A total of 20 participants discontinued or were excluded before completing all phases of the study due to incompliance with study procedures (n=7), suicidality (n=1), pregnancy (n=2), metal in body (n=1), becoming incarcerated (n=1), moving away (n=2) and miscellaneous personal circumstances. Thus far, no participants have discontinued due to difficulties tolerating the treatment.

In addition to the total recruitment numbers described above, we also report here the specific recruitment numbers for the past year. In Year 5, a total of 1,109 individuals expressed interest in our study, and a total of 1,031 phone screenings were conducted. After phone screening, 8% of the volunteers screened (75 individuals) were found to be eligible and 92% of the volunteers (956 individuals) were determined to be ineligible (see Figure 4).

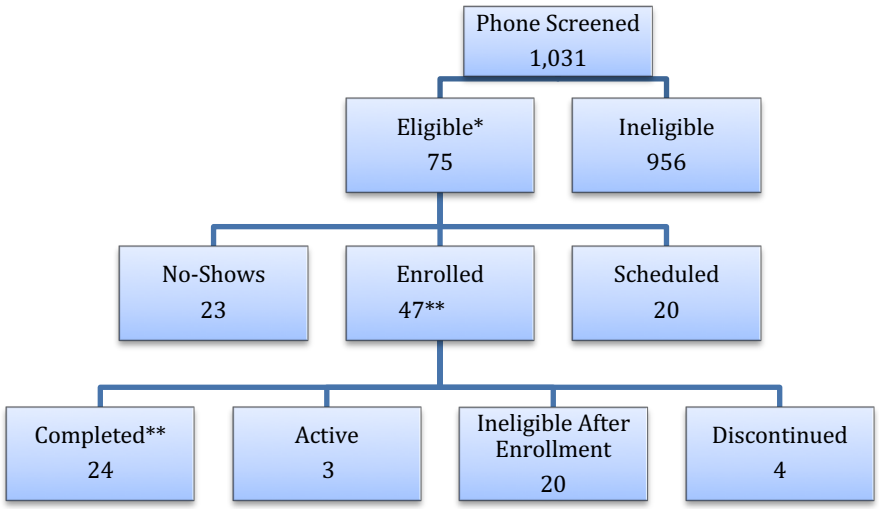


*Figure 4: Participant flow diagram only for Y5 participant recruitment numbers for this study. *6 individuals had been phone screened in previous quarters, hence are not reflected in the count of 75 eligible people. **The number for "Completed" refers to participants whose post-treatment visit dates were in Y5 (i.e.: 9 participants had enrolled in Y4).*

The most common reasons for ineligibility during this past year (Y5) were taking exclusionary medications (19%), suffering from a co-morbid disorder (18% of individuals) and indicating that their index trauma occurred in childhood (15%), mirroring ineligibility patterns across the four previous years (see Figure 5).

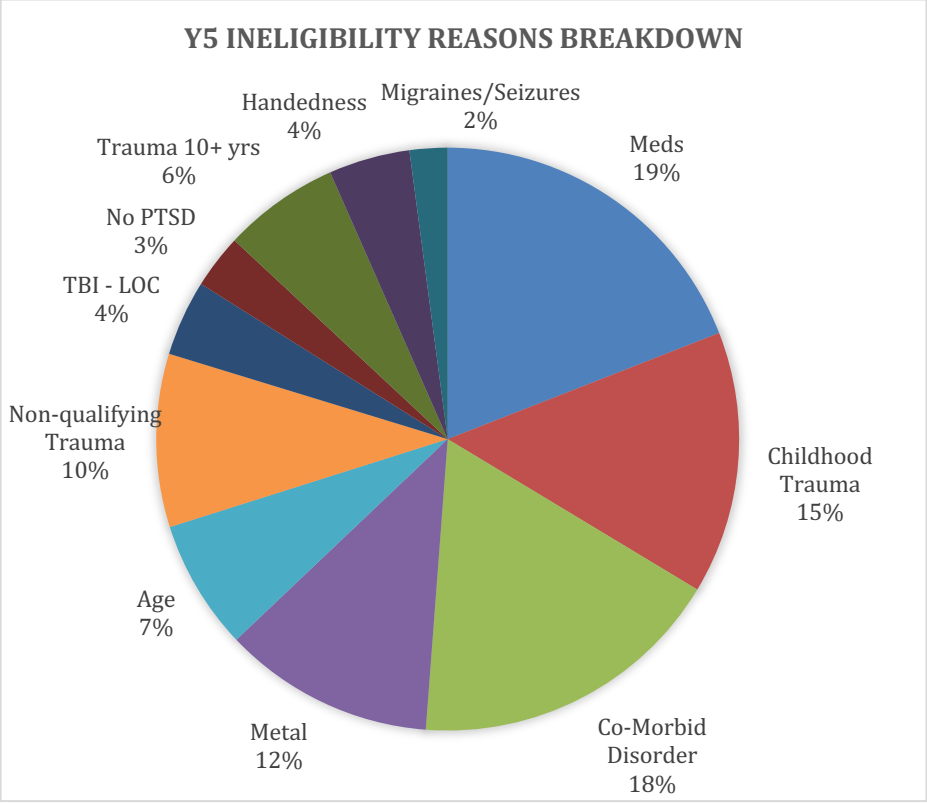


Figure 5: Ineligibility reasons for Y5 of the study

Thus, 956 potential participants were excluded. After the exclusion of these individuals, we had 75 potentially eligible participants. Of these, 23 failed to show up for their initial visit and were either unable or unwilling to be rescheduled, 47 completed the consenting process and underwent a Structured Clinical Interview for DSM-V (SCID-5), and 20 are currently scheduled

to come in for their SCID interview. Of those 47 participants who completed the consenting process and a structured clinical interview, 20 were found to be ineligible upon completion of the SCID (i.e. did not meet diagnostic criteria for PTSD) or were unable to continue due to exclusionary disorders (e.g. bipolar, psychotic, or substance abuse disorders), legal problems, or disclosing exclusionary medication use.

In Y5, 24 participants completed all phases of the study, bringing the number of completed data sets up to 75 (65.4% Female, 34.6% Male). The breakdown of ethnicity for these participants is 61.5% White (*n*=48), 24.4% Hispanic/Latino (*n*=19), 5.1% Black/African-American (*n*=4), 3.8% Native American (*n*=3) and 5.1% Other (*n*=4). Thus, we are only 15 participants shy of reaching the final recruitment goal of *n* = 90.

Advertising/Recruitment Success:

In Year 5, we focused on our past most successful advertisement venues. StudyKIK, an online advertisement platform that brings research projects and clinical trials together with interested participants continues to reach the greatest number of volunteers. We have increased our dissemination of study flyers around local businesses and support groups, which has improved recruitment. We continue to send mass emails to University of Arizona listservs, and advertising on Tucson Weekly, a local newspaper. We trialed advertising through the local movie theater film guide. Due to its its low return in volunteer call-ins, we will explore other novel advertising opportunities in the future. Figures 6 and 7 show the breakdown of data for the number of interested callers who found out about the study from each recruitment outlet.

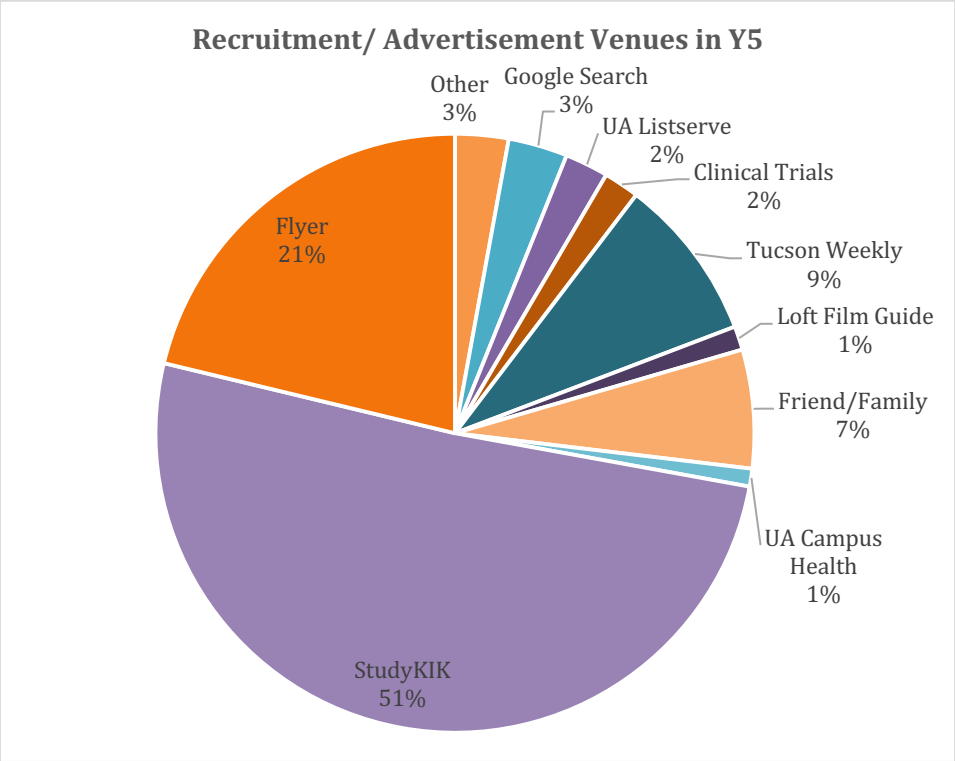


Figure 6: Y5 recruitment venues

StudyKIK was the most successful platform for recruitment, bringing a total of 477 calls, followed by flyers (n=199), advertisements on Tucson Weekly (n=83). Rereferrals from

friends and family have also been beneficial (n=60). Figure 7 breaks down the recruitment venues for the participants who were eligible after the phone screening.

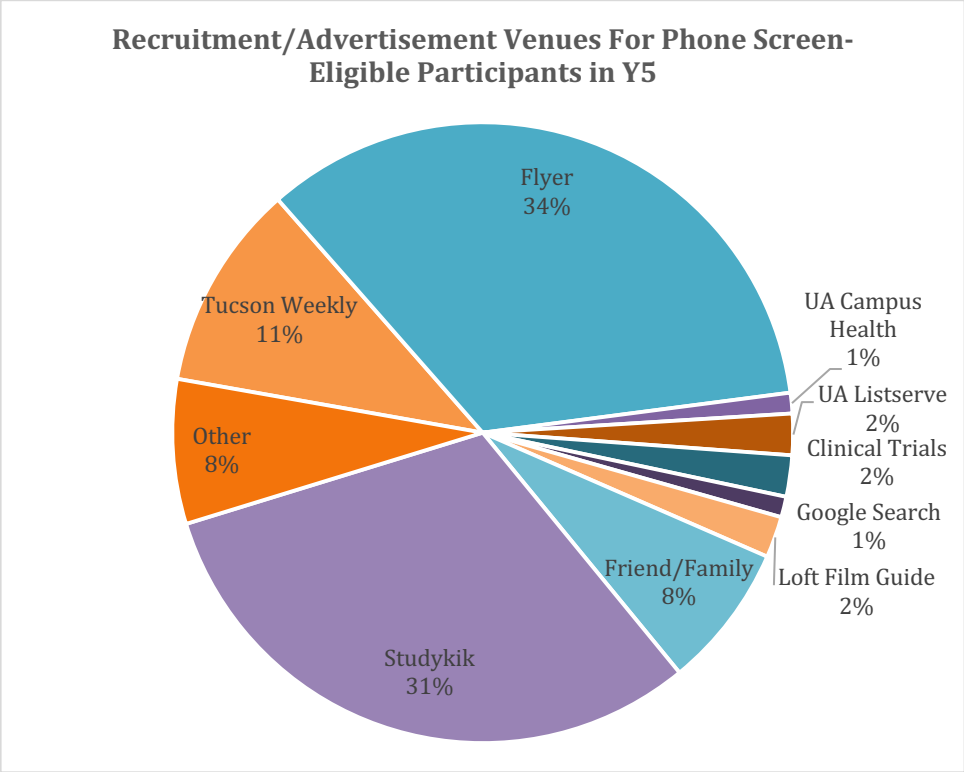


Figure 7: Y5 recruitment venues for participants who were eligible after phone screening

Preliminary Findings:

This past year, we have continued to conduct preliminary analyses and present our findings at scientific conferences. Below is a summary of these analyses:

Neuroimaging of Fear Extinction Neurocircuitry

In the preceding Annual Report for 2018, we summarized the data for 51 participants who had undergone a classical fear conditioning and extinction paradigm that has previously been shown to reveal deficits in fear extinction recall in patients with PTSD (Milad, Pitman et al. 2009, Pace-Schott, Milad et al. 2009) (Marin, Zsido et al. 2017). In the previous report, we described how BLUE wavelength light was associated with increased sleep duration relative to AMBER placebo light, and how the increase in sleep duration was associated with significant declines in PTSD symptoms, including daytime sleepiness, CAPS Arousal Severity, and PCL5 Checklist severity. Moreover, we showed that BLUE light was associated with greater retention of fear extinction recall than AMBER light, when participants with PTSD were tested after 6-weeks of treatment. Here we follow on with further analysis of the same sample by also examining the functional neuroimaging outcomes.

As shown in panel A of Figure 8 below, during the baseline session, participants underwent fear conditioning using a well-validated protocol (Milad, Pitman et al. 2009, Pace-Schott, Milad et al. 2009) (Marin, Zsido et al. 2017). Specifically, the participant is first conditioned to fear a particular stimulus (e.g., a blue or red vehicle) in a specific context (e.g., city street in Baghdad), by providing a mild electric shock when the conditioned stimuli are shown. A third stimulus (e.g., yellow bus) is never paired with the electric shock and serves as a

"safety cue" or CS-. Our participants showed a rapid acquisition of the conditioned fear response for the red and blue vehicles, as evidenced by increased skin conductance. Next, as shown in Panel B of Figure 8 below, the goal is to extinguish one conditioned stimulus (i.e., blue truck) by repeatedly showing the stimuli in a novel context (e.g., a dirt road in Afghanistan), but without any pairing with electric shock. After 16 trials where the stimuli are shown without any further shock, the skin conductance response of the blue truck returns to normal. Thus, at this phase of the task, the fear response to the blue truck has been successfully "extinguished". However, the red vehicle, which was previously paired with the electric shock, is never shown again in this context, so it retains its conditioned fear response. The yellow bus was never paired with shock, so it continues to evoke very little skin conductance response. After 6-weeks of light exposure therapy (BLUE or AMBER), participants returned to the lab and were shown the same stimuli again, without any new shock stimuli (see Panel C in Figure 8 below). As was described in the previous Annual Report from 2018, the fear extinction memory was retained (as evidenced by reduced skin conductance to the previously feared stimuli) for those in the BLUE group relative to those in the AMBER PLACEBO group. Panel D of Figure X below, shows that the final step was to examine brain activation patterns to the same stimuli during functional magnetic resonance imaging (fMRI).

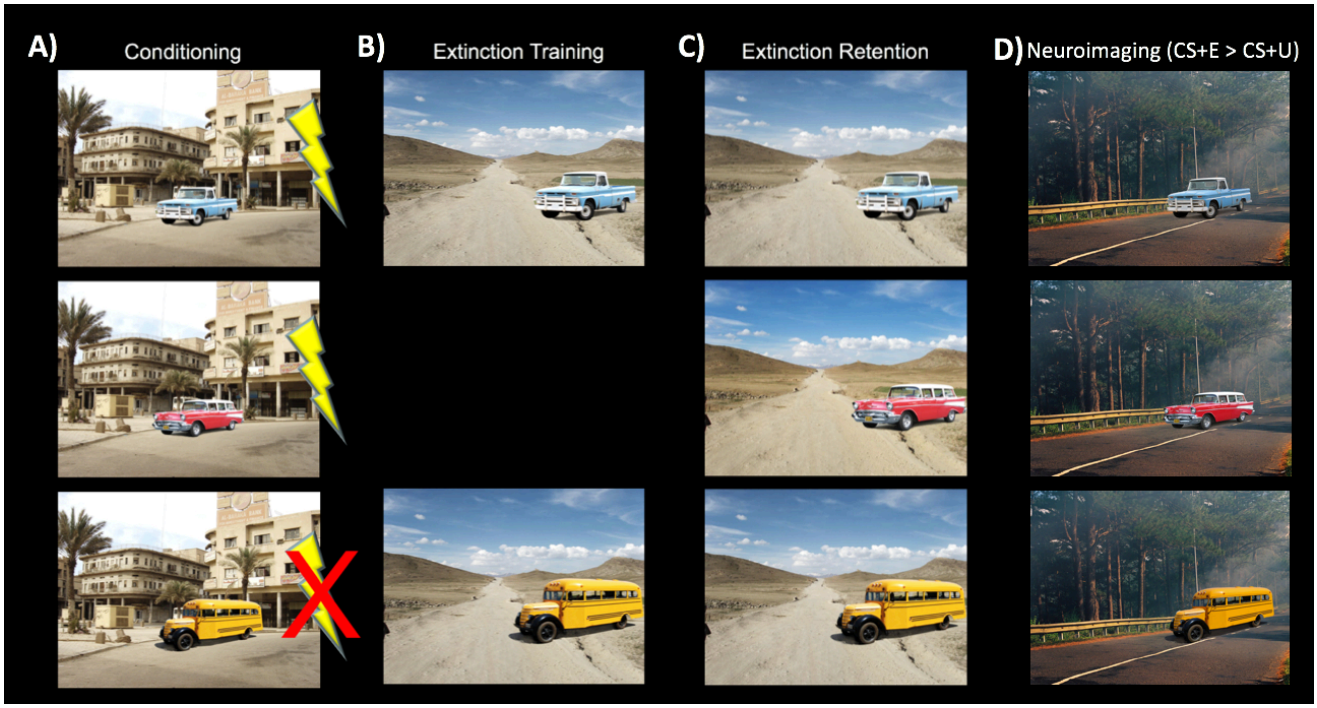


Figure 8. Overview of the modified fear-conditioning/fear-extinction protocol. A) at baseline, participants were conditioned to fear two of three stimuli (i.e., blue truck and red car) by a mild but not painful electric shock (Milad et al., 2009), and skin conductance was measured. B) On the same day, participants underwent extinction of the blue truck, but not the red car. Extinction was demonstrated by a reduction in skin conductance. C) After six weeks of morning light treatment (blue or amber), participants returned to the lab and were shown the same stimuli again and skin conductance was measured. D) Participants were shown the same stimuli, in a different visual context, while undergoing functional magnetic resonance imaging (fMRI).

As shown in panel D of Figure 8, while undergoing fMRI, participants were shown various images that included the three previously seen target stimuli (i.e., blue truck, red car, yellow school bus), without any new shocks. The stimuli were shown in a new visual context. Scanning occurred on a 3T Siemens Skyra MRI scanner. Contrasts were created that

directly compared brain activation patterns from the previously extinguished stimuli (CS+E; blue truck) versus the never extinguished stimuli (CS+U; red car). These contrast maps were then compared at post treatment between the BLUE and AMBER conditions. Based on prior research by Milad and colleagues (2009), we restricted our analyses to four a priori regions of interest comprising the fear neurocircuitry, including the ventromedial prefrontal cortex (vmPFC; a region associated with the regulation of fear responses), the dorsal anterior cingulate cortex (dACC; a region associated with the expression of fear memories), the hippocampus (a region associated with contextual fear memory), and the amygdala (a region associated with threat detection).

First, we examined the between-condition differences between the BLUE and AMBER groups with regard to activation in the vmPFC. However, even at a liberal threshold ($p < .001$, uncorrected) we did not find any activation differences between the light groups in this region. This suggests that the observed differences in retention of extinction memory produced by BLUE light are not due to greater top down inhibition or activation of this region of the brain.

Second, we compared the BLUE and AMBER groups with regard to activation in the dACC. As shown in Figure 9 below, we found that the BLUE light condition was associated with significant reduction of activation within the dACC compared to the AMBER condition ($p < .07$, FDR corrected). This finding suggests that BLUE light may be inhibiting fear memory expression when individuals see a previously extinguished CS.

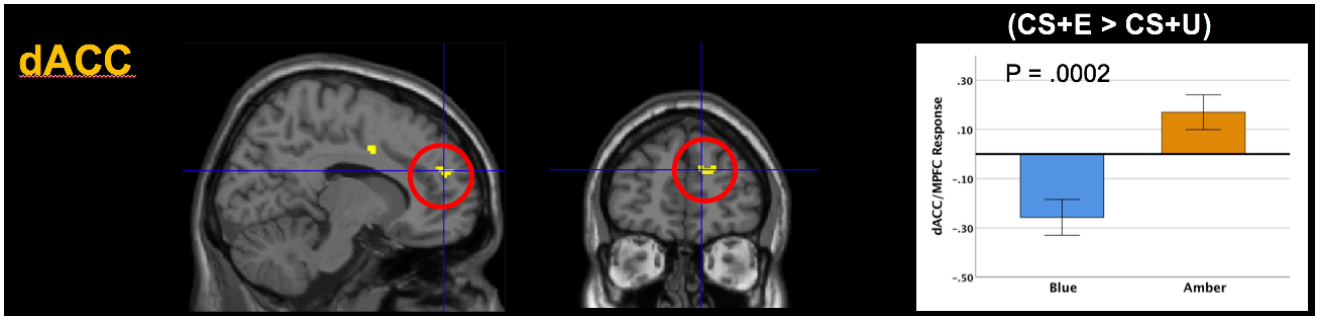


Figure 9. The contrast between extinguished (CS+E) versus unextinguished (CS+U) was compared between the blue and amber placebo conditions at post-treatment. Participants in the blue light condition showed a significant reduction of activation in the dorsal anterior cingulate gyrus (dACC).

Third, we compared the light conditions within the hippocampus, a region that is typically associated with greater activation in response to contextual cues associated with fear memory conditioning. Similar to the findings above, we observed that BLUE light was associated with decreased activation within the right hippocampus compared to AMBER placebo light, $p < .05$, FDR corrected; see Figure 10 below). This finding raises the possibility that BLUE light was associated with suppression of fear renewal when the previously feared but extinguished stimulus was seen in the new visual context.

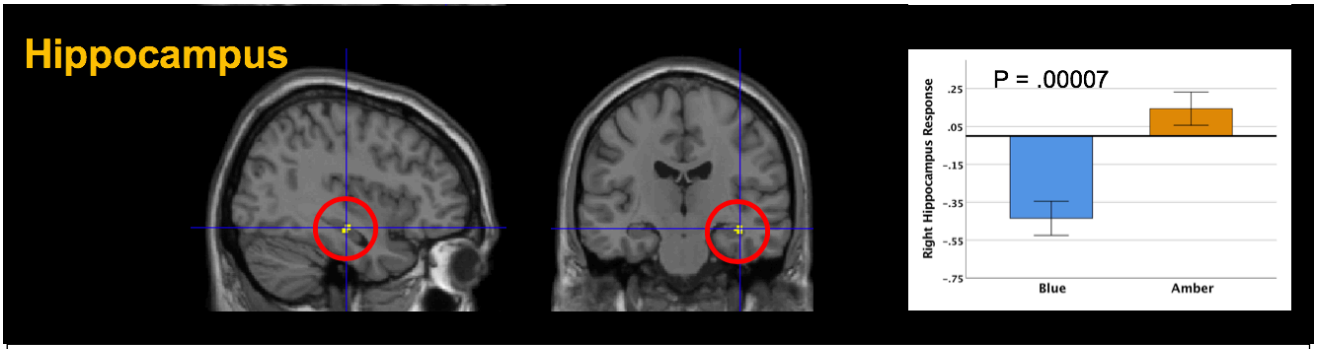


Figure 10. The contrast between extinguished (CS+E) versus unextinguished (CS+U) was compared between the blue and amber placebo conditions at post-treatment. Participants in the blue light condition showed a significant reduction of activation in the hippocampus.

Finally, we examined the difference between BLUE and AMBER light on the responses of the amygdala. As shown in the figure below, we found that BLUE light led to significantly greater reduction of activation within the right amygdala when viewing previously feared stimuli compared to the AMBER condition ($p < .05$, FDR corrected; see Figure 11 below). This suggests that BLUE wavelength light therapy may also have led to an inhibition of the threat response within the primary salience/threat detecting region of the brain. Overall, these findings suggest that BLUE wavelength light therapy appears to be improving sleep, enhancing the consolidation of fear extinction memories, and reducing activation within the fear neurocircuitry of the brain.

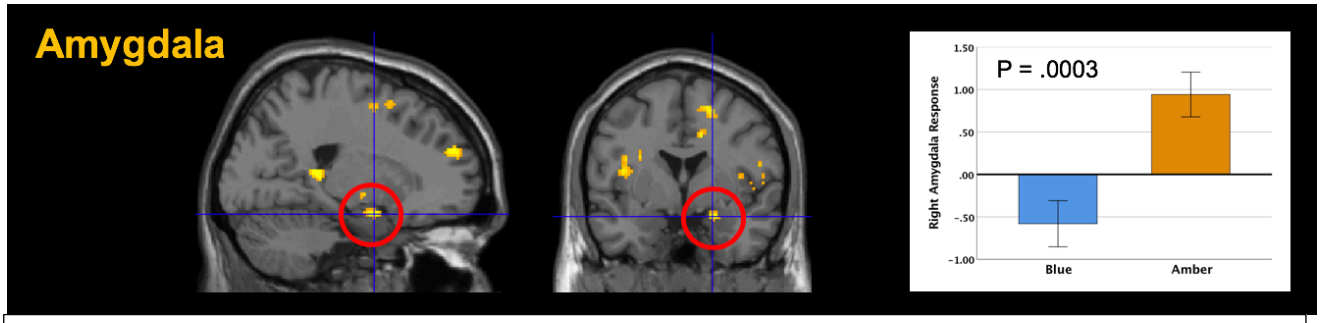
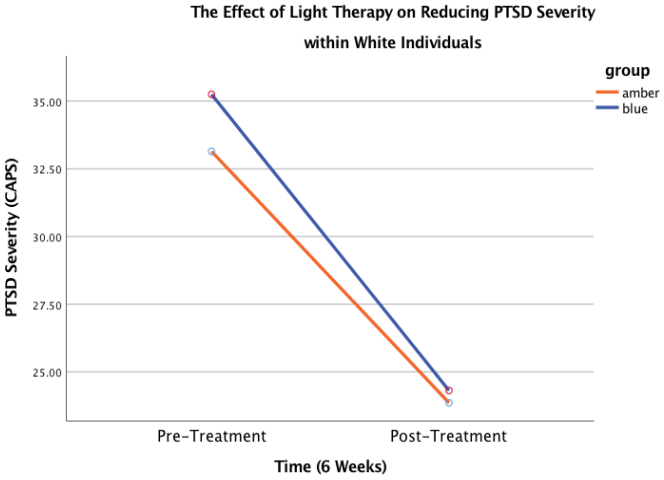


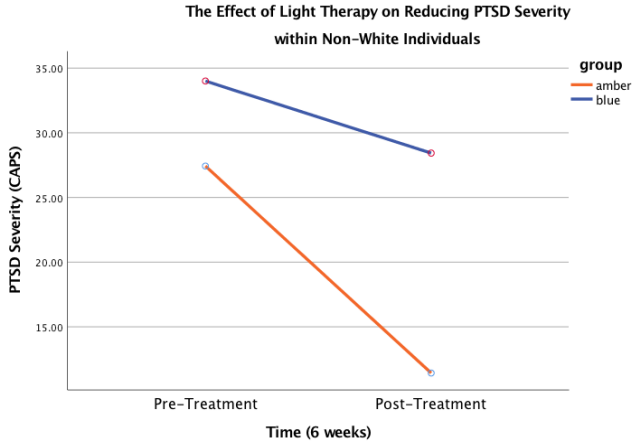
Figure 11. The contrast between extinguished (CS+E) versus unextinguished (CS+U) was compared between the blue and amber placebo conditions at post-treatment. Participants in the blue light condition showed a significant reduction of activation in the amygdala.

Race Differences in Efficacy of Blue Light Therapy

While not a primary goal of the study, we were also interested in determining whether the treatment has similar effects for various racial/ethnic groups, given that the military is quite diverse. First, we examined potential differences in the effectiveness of BLT for reducing PTSD severity between majority (White/Caucasian; n=30) and minority (Hispanic/Latino, African American/Black, Native American/American Indian, or Other; n=14) racial groups.

A repeated-measures ANOVA showed a significant decrease in PTSD severity over time, regardless of race or light condition ($F(1,39)=61.58$, $p=.001$). However, there was a group x time x race interaction, such that BLT was found to be more effective at reducing PTSD severity for those in the racial majority than the minority group ($F(1,39)=5.14$, $p=.029$).



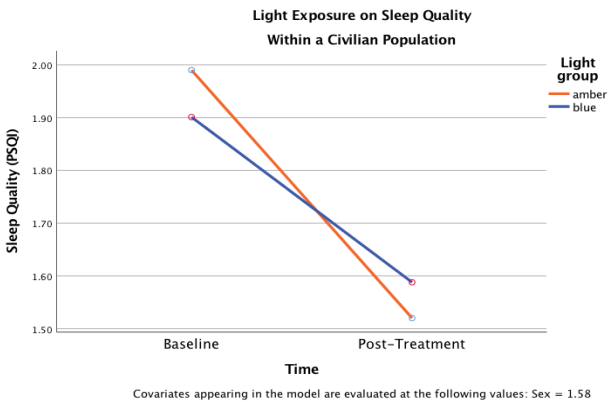


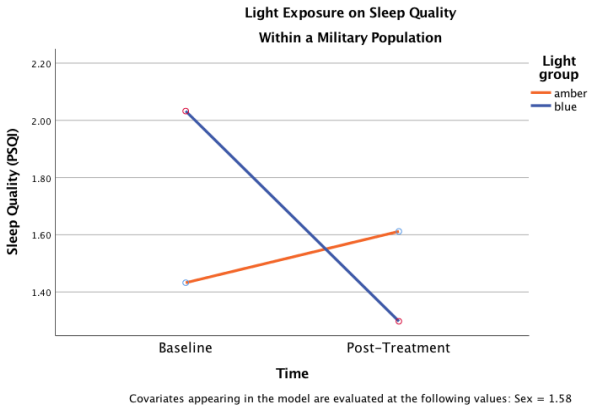
BLT was more effective at reducing PTSD severity for those who identified as White/Caucasian, while the amber light condition was more effective at reducing PTSD severity within the racial minority category. The results highlight that race is an important factor to consider when evaluating light therapy effectiveness, and that further analyses regarding the effect of amber light therapy as a treatment for PTSD should be examined. However, the sample sizes were small, and so these findings will require further examination with the full sample to determine their validity.

Veteran and Civilian Differences in Efficacy of Blue Light Therapy

Although the present study was not focused exclusively on military personnel, we wanted to examine whether effects might differ between those with and without military experience. Therefore, we investigated if BLT would be similarly effective in improving sleep quality among both Veterans and civilians suffering from sleep disturbance due to PTSD.

As shown in the figure below, a mixed analysis of variance was conducted using 58 complete datasets (12 veterans; 46 civilians). This test revealed that sleep quality scores on the PSQI were not statistically different between military and civilian groups at baseline or at post-treatment. However, a mixed ANOVA indicated a light group x military status x time interaction, in which only the BLT condition improved sleep quality for the military group, but both BLT and the placebo amber light group did not differ for civilians ($F(1,49)=5.42$, $p=.024$) after controlling for the influence of subject sex. These findings raise the possibility that there are differences between Veteran and civilian populations in their response to treatment, which are most likely accounted for by different trauma types. Again, the sample sizes are too small to draw definitive conclusions, but these factors will be assessed closely once the final dataset has been fully collected.

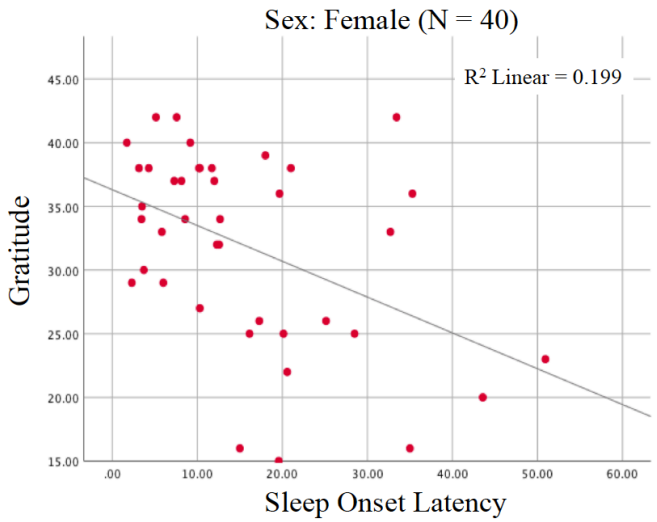




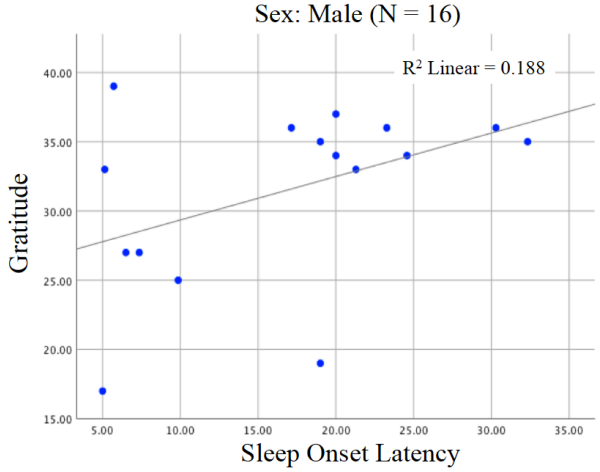
PTSD and Gratitude

There is considerable evidence that one component of resilience against emotional trauma is the regular practice of gratitude. In general, individuals who show higher levels of trait-gratitude tend to show higher levels of wellbeing and greater resistance to adversity (Alkozei, Smith et al. 2017). Our recent data suggest that gratitude is related to sleep quality as well (Alkozei, Smith et al. 2019). Therefore, we investigated the relationship between gratitude and sleep disruption.

The Relationship Between Sleep Onset Latency and Gratitude



The Relationship Between Sleep Onset Latency and Gratitude

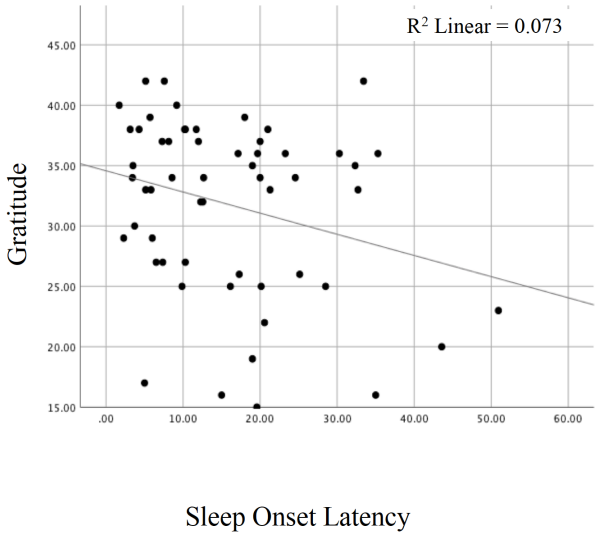


A two-tailed Pearson's correlation showed that sleep onset latency was negatively correlated with gratitude ($r = -.271$, $p = .043$), suggesting that those with lower trait gratitude tended to take longer to fall asleep based on their actigraphy data. Additionally, there was a significant negative correlation between sleep onset latency and gratitude for women ($r = -.477$, $p = .004$). For men, there was a nonsignificant trend in the opposite direction ($r = .433$, $p = .094$). A Fisher's r-to-z transformation revealed that the relationship between sleep onset latency and gratitude was significantly different between women and men ($Z = -3.05$, $p = .002$, two-tailed).

Trauma Narratives and Sleep Outcomes

Another secondary area of analysis involved the possibility that certain types of cognitive constructs related to the traumatic experience might be associated with greater sleep disruption than others. Specifically, we were interested to see if trauma concepts related to the individual's perceived sense of security in the sleeping situation might affect the quality of their sleep. To assess this, we had initially asked each participant to complete a written narrative regarding their traumatic experience. We then performed linguistic analyses on the trauma narratives we collected. We hypothesized that among individuals with PTSD, mentioning words related to "home" in their personal trauma narratives would be associated with worse sleep outcomes, as this would likely influence their general sense of security at home.

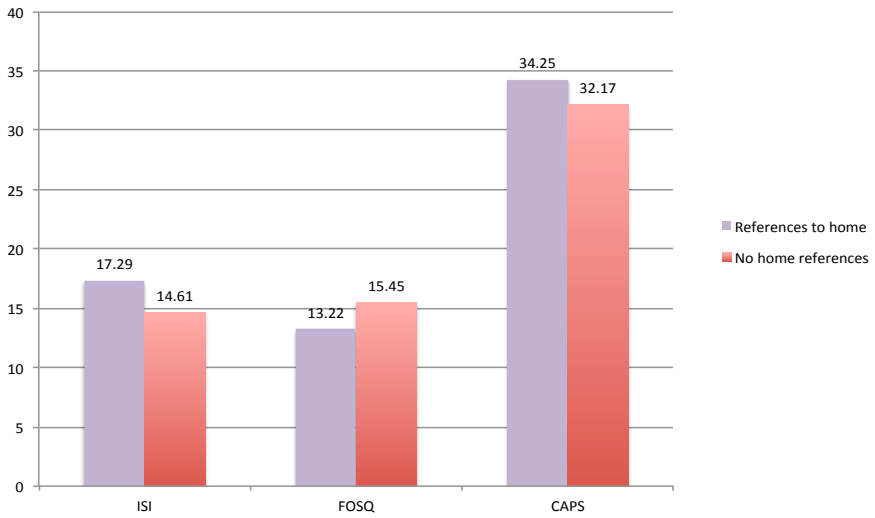
The Relationship Between Sleep Onset Latency and Gratitude

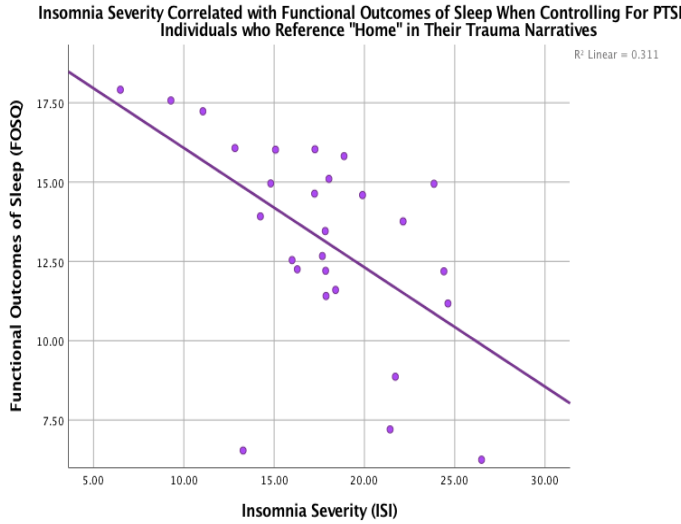


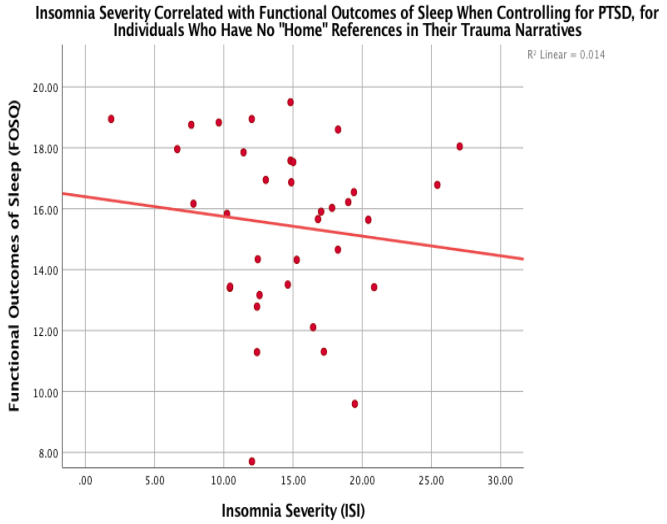
We utilized the Linguistic Inquiry and Word Count (LIWC) 2015 text analysis tool to quantify the percentage of references to "home" within each participant's narrative.

Out of the sixty-three participants with complete data sets, 28 participants referred to "home" several times in their narratives (M=3.94, SD=3.30). These individuals had significantly higher Insomnia Severity Index (ISI) scores (M=17.29, SD=5.18 $t(62)=2.01$, $p<.05$) and significantly lower Functional Outcomes of Sleep Questionnaire (FOSQ) scores (M=13.22, SD=3.44, $t(61)=-2.80$, $p<.01$) compared to individuals who did not have "home" references (ISI: M=14.61, SD=5.37; FOSQ: M=15.45, SD=2.88). There was no significant difference in Clinician-Administered PTSD Scale (CAPS) scores between the two groups. Controlling for PTSD severity, ISI and FOSQ scores were significantly negatively correlated for individuals who had "home" references in their narratives ($r=-.56$, $p<.01$), but not for the remaining participants. The strength of association between the two groups was significantly different ($z=-2.61$, $p<.01$).

Insomnia, sleep quality and PTSD severity for individuals who refer to "home" in their trauma narratives vs. have no "home" references







These findings suggest that individuals with PTSD who experienced traumatic events in the context of their homes have significantly worse sleep outcomes and experience more impairment due to their sleep difficulties, possibly due to increased hypervigilance in their homes. This could have important implications for treatment.

Somatic Symptoms and PTSD

This year, we also began analyses of our somatic symptoms (SS) data. On the basis of prior findings that cognition and mood can influence physical health, we hypothesized that alterations in cognitive and mood symptoms would predict the severity of SS.

A hierarchical linear regression analysis was conducted using data from seventy-five completed data sets (65.3% female; mean age=31.8, *SD*=8.8) with Beck Depression Inventory (BDI) and Insomnia Severity Index (ISI) scores entered in the first step as covariates and the four PTSD symptom classes (arousal, cognition/mood, intrusion, and avoidance) entered stepwise in the second step.

BDI and ISI scores significantly predicted SS (R^2=.22, p<.001). Of the four symptom classes, only cognition/mood significantly predicted an additional 5% of the variance in somatic symptoms (SS) (R^2 change=.05, β=.298, p=.030). This finding suggests a possible influence of maladaptive changes in mood and cognition on SS in individuals with PTSD, perhaps via increased allostatic load and HPA-axis dysfunction secondary to perceived stresses. These results point to a potential intervention avenue for addressing somatic issues via treatments aimed at cognition and mood.

- **What opportunities for training and professional development has the project provided?**

  Our team members continue to be supported in their professional development goals during their involvement with the project.

  Lab members receive regular training and supervision on the administration, scoring and interpretation of neuropsychological assessments, the application of electrodes for EEGs, the analysis of sleep waves for Multiple Sleep Latency Tests (MSLTs) as well as

the administration of psycho-diagnostic assessments and phone screening for PTSD. Lab members are encouraged to explore data that align with their interests. They are supported in creating and submitting abstracts.

1 member of our lab presented research findings and attended lectures at Annual Biomedical Research Conference for Minority Students, Indianapolis, IN, November 14-17, 2018.

3 members of our lab presented research findings and attended lectures at the SLEEP Conference, San Antonio, TX June 8-22, 2019.

1 member of our lab presented research findings and was selected to attend the Research Symposium at the American Speech-Language Hearing Association, Orlando, FL, November 21-23, 2019.

4 members of our lab presented research findings and attended lectures at International Neuropsychological Society, New York, NY, February 20-23, 2019.

3 members of our lab presented research findings and attended lectures at the Military Health Systems Research Symposium, Kissimmee, FL, August 19-22, 2019.

Multiple members of our lab have attended regular training in MRI analysis methods and safety as part of an ongoing training series offered at the University of Arizona.

All members of our lab receive regular one-on-one instruction and supervision in the administration and scoring of neuro-psychological assessments, psycho-diagnostic testing, electrode placement, and patient interviewing to ensure best data collection practices.

14 college undergraduate students obtained training in research methods during a summer training program in our lab this year, 11 who were sponsored by the University of Arizona and the other by the National Institutes of Health MARC Undergraduate Student Training in Academic Research (U-STAR) Award.

2 undergraduate students were supervised for their Senior Honors Theses in our lab this year.

Over 10 members of our lab have undergone regular in-house training in the use of various brain-imaging software, including SPM12, Matlab, FSL, Freesurfer, TracVis, and MRIcron.

- **How were the results disseminated to communities of interest?**
  The findings of our research continue to be disseminated through published abstracts, poster and oral presentations at various conferences, published articles in the peer reviewed literature, and hosting military groups at our lab. Our team members have attended the following conferences this year:

  American Speech-Language Hearing Association (November 2018), International Neuropsychological Society (February 2019) in New York City, NY

Military Health System Research Symposium (August 2019) in Kissimmee, FL
SLEEP (June 2019) in San Antonio, TX, Annual Biomedical Research Conference for Minority Students (November 2018), Indianapolis, IN.

- **What do you plan to do during the next reporting period to accomplish the goals?**
  We will continue to move forward with data collection during the coming reporting period. We are in the process of increasing our visit ability by discussing the possibility of running the MRI on weekends. We will continue to supplement historically reliable and data-driven recruitment methods (StudyKIK, Tucson Weekly, distribution of flyers) with novel advertising ideas.

4. **IMPACT:**

- **What was the impact on the development of the principal discipline(s) of the project?**
  Nothing to report.

- **What was the impact on other disciplines?**
  Nothing to report.

- **What was the impact on technology transfer?**
  Nothing to report.

- **What was the impact on society beyond science and technology?**
  Nothing to report.

5. **CHANGES/PROBLEMS**

- **Changes in approach and reasons for change**
  Nothing to report.

- **Actual or anticipated problems or delays and actions or plans to resolve them**
  We do not anticipate problems or delays in the coming quarters. There was a brief IRB suspension of one scan included in our protocol (MRI MEGAPRESS Spectroscopy). This protocol was suspended for a few weeks due to an oversight in paperwork by the University of Arizona Department of Medical Imaging (i.e., <u>not</u> due to our negligence). This was an administrative shutdown and was not related to participant safety. Consequently, this scan was not administered for 3 volunteers; however, this issue has been resolved and the MEGAPRESS Spectroscopy will continue to be administered to active and upcoming participants.

- **Changes that has a significant impact on expenditures**
  Nothing to report.

- **Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents**
  Nothing to report.

6. **PRODUCTS**

- **Publications, conference papers, and presentations**
  - **Journal publications**
    Nothing to Report

  - **Books or other non-periodical one-time publications**
    Nothing to Report

  - **Other publications, conference papers, and presentations**
    The following conference abstracts were published:

Burns, A., Shepard, K.C., Ozcan, M., Alkozei, A., Vanuk, J. R., & Killgore, W.D.S. *The Association Between Morningness-Eveningness and Nightmares in PTSD.* 2019, INS. (Accepted)

Burns, A., Ozcan, M., Shepard, K.C., Alkozei, A., Vanuk, J. R., & Killgore, W.D.S. *The Association Between PTSD Severity and Life Satisfaction is Mediated by Trait Gratitude*. 2019, INS. (Accepted)

Shepard, K.C., Burns, A., Ozcan, M., Alkozei, A., Vanuk, J. R., & Killgore, W.D.S. *Differences in Anxiety Reduction between Minority and Majority Racial Groups Participating in Morning Blue Light Exposure*. 2019, INS. (Accepted)

Shepard, K.C., Ozcan, M., Burns, A., Alkozei, A., Vanuk, J. R., & Killgore, W.D.S. *Racial Differences Regarding the Effectiveness of Blue Light Therapy in Reducing PTSD Severity*. 2019, INS. (Accepted)

Ozcan, M., Shepard, K.C., Burns, A., Alkozei, A., Killgore, W.D.S. *Trait gratitude and the impact of excessive daytime sleepiness on daily functioning predict PTSD severity over time.* 2019, INS. (Accepted)

Ozcan, M., Shepard, K.C., Burns, A., Raikes, A., Dailey, N., Gradner, M., Killgore, W.D.S. *Individuals with PTSD whose traumatic experiences occurred within the home have worse sleep outcomes.* 2019*,* SLEEP. (Accepted)

Ozcan, M., Shepard, K.C., Burns, A., Raikes, A., Dailey, N., Gradner, M., Killgore, W.D.S. *PTSD Severity and Use of Negative Emotion Words in Trauma Narratives Predict Nightmares in Individuals with PTSD.* 2019, SLEEP. (Accepted)

Killgore, W.D.S., Pace-Schott, E., Ozcan, M., Shepard, K.C., Burns, A., Gradner, M., Vanuk, J., Alkozei, A. *Morning Blue Light Exposure Improves Sleep and Fear Extinction Recall in PTSD* 2019, SLEEP. (Accepted)

Shepard, K.C., Ozcan, M., Burns, A., Vanuk, J., Gradner, M., Alkozei, A. Killgore, W.D.S. *The Relationships between Psychopathology and Sleep Problems Differ Between Racial Majority and Minority Groups.* 2019, SLEEP(Accepted)

Shepard, K.C., Ozcan, M., Burns, A., Gradner, M., Killgore, W.D.S. *Use of Anger Words in Trauma Narratives is Negatively Associated with Sleep Quality for*

Single Individuals with PTSD. 2019, SLEEP. (Accepted)

Burns, A., Ozcan, M., LaFollette, K., Alkozei, A., Gradner, M., Killgore, W.D.S. *The Association Between PTSD Severity and Insomnia is Mediated by Nightmares.* 2019, SLEEP. (Accepted)

Burns, A., Shepard, K.C., Ozcan, M., LaFollette, K., Alkozei, A., Vanuk, J., Raikes, A., Gradner, M., Killgore, W.D.S. *Gratitude and Frequency of Naps Predict Resilience for Individuals with PTSD.* 2019, SLEEP. (Accepted)

Burns, A., Ozcan, M., Shepard, K.C., Alkozei, A., Vanuk, J., Killgore, W.D.S. *The Relationship Between Sleep Onset Latency and Gratitude.* 2019, MHSRS. (Accepted)

Shepard, K.C., Ozcan, M., Burns, A., Alkozei, A., Killgore, W.D.S. *Blue Light Therapy Differences in Sleep Quality Improvement in Military and Civilian Populations.* 2019, MHSRS. (Accepted)

Killgore, W.D.S., Ozcan, M., Shepard, K.C., Burns, A., *Blue Light Exposure Enhances Sleep and Fear Extinction Recall in PTSD.* 2019, MHSRS. (Accepted)

Ozcan, M., Burns, A., Shepard, K.C., Alkozei, A., Killgore, W.D.S. *The relationship between combat and non-combat trauma and risk-taking propensity in individuals with PTSD.* 2019, MHSRS. (Accepted)

Bullock, A., Burns, A., Shepard, K.C., Alkozei, A., Killgore, W.D.S. *Alterations in Cognitive Symptoms of PTSD are Correlated with Somatic Symptoms.* INS, 2020. (Submitted)

- **Website(s) or other Internet site(s)**
  Nothing to Report

- **Technologies or techniques**
  Nothing to Report

- **Inventions, patent applications, and/or licenses**
  Nothing to Report

- **Other products**
  Nothing to Report

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

- **What individuals have worked on the project?**
  Name: William D. “Scott” Killgore, Ph.D.
  Project Role: Primary Investigator
  Nearest person month worked: 3
  Contribution to Project: Dr. Killgore oversaw all aspects of the project progress, including formal presentations, data analysis and publication efforts.
  Funding Support: USAMRAA W81XWH-14-1-0570
  USAMRAA W81XWH-14-1-0571

USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-16-1-0062
USAMRAA W81XWH-12-1-0386

Name: Theodore Trouard, Ph.D.
Project Role: Co-PI
Nearest person month worked: 1
Contribution to Project: Dr. Trouard assisted with neuroimaging sequences and analysis.
Funding support: No change

Name: Emily Taylor
Project Role: Lab Manager
Nearest person month worked: 5
Contribution to Project: Ms. Taylor oversaw the administrative needs of the study and study staff, and provided regulatory support and periodic quality control checks.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-16-1-0062
USAMRAA W81XWH-12-1-0386

Name: Michael Miller
Project Role: Research Specialist
Nearest person month worked: 3
Contribution to Project: Mr. Miller oversaw the administrative needs of the study and study staff, and provided scientific/regulatory support and periodic quality control checks.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-16-1-0062
USAMRAA W81XWH-12-1-0386

Name: Anna Alkozei, Ph.D.
Project Role: Postdoctoral Fellow
Nearest person month worked: 3
Contribution to Project: Dr. Alkozei performed data analysis and processing for the project.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Sahil Bajaj, Ph.D.
Project Role: Postdoctoral Fellow
Nearest person month worked: 4
Contribution to Project: Dr. Bajaj performed data analysis and processing for the project.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Natalie Dailey, Ph.D.
Project Role: Postdoctoral Fellow
Nearest person month worked: 2

Contribution to Project: Dr. Dailey performed data analysis and processing for the project.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Brieann Satterfield, Ph.D.
Project Role: Postdoctoral Fellow
Nearest person month worked: 2
Contribution to Project: Dr. Satterfield performed data analysis and processing for the project.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Ryan Smith, Ph.D.
Project Role: Postdoctoral Fellow
Nearest person month worked: 1
Contribution to Project: Dr. Smith performed data analysis and processing for the project.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Adam Raikes, Ph.D.
Project Role: Postdoctoral Fellow
Nearest person month worked: 2
Contribution to Project: Dr. Raikes performed data analysis and processing for the project.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Matthew Allbright
Project Role: Research Technician
Nearest person month worked: 4
Contribution to Project: Mr. Allbright provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Ron Ian Victor Anlap
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Mr. Anlap provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Cameron Akira Barnes
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Ms. Barnes provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Ayla Bullock
Project Role: Research Technician
Nearest person month worked: 2
Contribution to Project: Ms. Bullock provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Anna Burns
Project Role: Research Technician
Nearest person month worked: 6
Contribution to Project: Ms. Burns provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Miriam Chinkers
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Ms. Chinkers provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Sara Cloonan
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Ms. Cloonan provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: James Eric Joshua Del Toro
Project Role: Research Technician

Nearest person month worked: 1
Contribution to Project: Mr. Del Toro provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Elizabeth Anne Dolbeck
Project Role: Research Technician
Nearest person month worked: 3
Contribution to Project: Ms. Dolbeck provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Simon Louis Esbit
Project Role: Research Technician
Nearest person month worked: 16
Contribution to Project: Mr. Esbit provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Brittany Elizabeth Forbeck
Project Role: Research Technician
Nearest person month worked: 35
Contribution to Project: Ms. Forbeck provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Yinya Huang
Project Role: Research Technician
Nearest person month worked: 2
Contribution to Project: Ms. Huang provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Kyle Lafollette
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Mr. Lafollette provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570

USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Michael Phillip Lazar
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Mr. Lazar provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Meltem Ozcan
Project Role: Research Technician
Nearest person month worked: 4
Contribution to Project: Ms. Ozcan provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Molly Richards
Project Role: Research Technician
Nearest person month worked: 5
Contribution to Project: Ms. Richards provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Kristin Caleigh Shepard
Project Role: Research Technician
Nearest person month worked: 6
Contribution to Project: Ms. Shepard provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Alan Gerald Shoemaker
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Mr. Shoemaker provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Jeffrey Skalamera
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Mr. Skalamera provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Michael James Strong
Project Role: Research Technician
Nearest person month worked: 2
Contribution to Project: Mr. Strong provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

Name: Rebecca Ann Woods-Lubbert
Project Role: Research Technician
Nearest person month worked: 1
Contribution to Project: Ms. Woods-Lubbert provided support with data collection and recruitment activities.
Funding support: USAMRAA W81XWH-14-1-0570
USAMRAA W81XWH-14-1-0571
USAMRAA W81XWH-11-1-0056
USAMRAA W81XWH-12-1-0386

- **Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?**
  Ms. Emily Taylor assumed the role of laboratory manger.

- **What other organizations were involved as partners?**
  Nothing to report.

8. SPECIAL REPORTING REQUIREMENTS

Please see updated Quad Chart attached in Appendix.

CONCLUSION

The study is progressing forward at an adequate pace. Preliminary findings suggest that the data collection methods and procedures are effective and that valid data is continuing to be acquired. Preliminary findings have been quite encouraging, suggesting that BLUE wavelength light therapy improves sleep and a number of symptom outcome measures, is important for consolidating fear extinction memory, and reduces the responsivity of the fear neurocircuitry of the brain when confronted with previously feared images. We have continued to submit manuscripts for publication based on our preliminary findings. If

projections hold, we should be able to finish data collection within the coming year and to initiate full data analysis and publication of the findings.

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9. APPENDICES: **Page**

A Nonpharmacologic Method for Enhancing Sleep in PTSD

List of Assessments and Computer-Administered Tasks

Structured Clinical Interview for DSM-V (SCID-V)

Edinburgh Handedness Inventory (EHI)

CES (Combat Exposure Scale)

Morningness-Eveningness Questionnaire (MEQ)

Alcohol Use Disorders Identification Test (AUDIT)

Rivermead Post Concussive Symptoms Questionnaire (RPCSQ)

Marijuana Use Questionnaire (MUSE)

Wide Range Achievement Test 4 (WRAT 4)

Wechsler Abbreviated Scale of Intelligence (WASI-II)

Day of Scan Questionnaire

Psychomotor Vigilance Task (PVT)

Stanford Sleepiness Scale (SSS)

Beck Depression Inventory (BDI-II)

Beck Anxiety Inventory (BAI)

Evaluation of Risk Scale (EVAR)

State Trait Anxiety Inventory (STAI)

Connor-Davidson Resilience Scale (CD RISC)

PTSD Checklist for DSM-V (PCL-5)

Insomnia Severity Index (ISI)

Pittsburgh Sleep Quality Index (PSQI)

Patient Health Questionnaire (PHQ-9)

Disturbing Dreams and Nightmare Severity Index (DDNSI)

Functional Outcomes of Sleep Questionnaire (FOSQ)

Repeated Battery for the Assessment of Neuropsychological Status (RBANS)

Clinician Administered PTSD Scale for DSM-V (CAPS-5)

Balloon Analog Risk Task (BART)

STRUCTURED CLINICAL INTERVIEW FOR DSM-5® DISORDERS

SCID-5-RV (Research Version)

Version 1.0.0

Michael B. First, MD; Janet B.W. Williams, PhD;
Rhonda S. Karg, PhD; and Robert L. Spitzer, MD

Study: _____ Study No.: __ __ __ __ P1

Subject: _____ I.D. No.: __ __ __ __ P2

Rater: _____ Rater No.: __ __ __ P3

Date of Interview: __ __ __ __ __ __ P4
Month. Day Year

Sources of information (check all that apply):
__ Subject/Patient P5
__ Family/friends/associates P6
__ Health professional/chart/referral note P7

Edited and checked by: _____ Date: _____

For citation: First MB, Williams JBW, Karg RS, Spitzer RL: Structured Clinical Interview for DSM-5—Research Version (SCID-5 for DSM-5, Research Version; SCID-5-RV, Version 1.0.0). Arlington, VA, American Psychiatric Association, 2015

Web page: **http://www.scid5.org** E-mail: **scid5@columbia.edu**

SCID Code	Diagnosis	Inadequate Info.	Absent	Sub-threshold	Threshold	Absent	Present	
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past Month		
BIPOLAR AND RELATED DISORDERS								
01	Bipolar I Disorder (D.1/lifetime) (D.14/past month)	?	1	2	3 → 1		3	P8 P9
						Current or most recent episode: 1 Manic 2 Hypomanic 3 Depressed 4 Unspecified		P10
02	Bipolar II Disorder (D.3/lifetime) (D.14/past month)	?	1	2	3 → 1		3	P11 P12
						Current or most recent episode: 1 Hypomanic 2 Depressed		P13
			Current Only			Meets Symptomatic Dx. Crit. Past 2 Years		
03	Cyclothymic Disorder (A.29/past 2 years only)	?				1	3	P14
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past Month		
04	Other Specified Bipolar Disorder (D.7/lifetime)(D.8/past month)	?	1	2	3 → 1		3	P15 P16
05	Bipolar Disorder Due to Another Medical Condition (A.43/lifetime)(A.43/past month) Specify AMC:_____	?	1		3 → 1		3	P17 P18
06	Substance/Medication-Induced Bipolar Disorder (A.45/lifetime) (A.45/past month) Specify substance:_____	?	1		3 → 1		3	P19 P20
DEPRESSIVE DISORDERS								
07	Major Depressive Disorder (D.9/lifetime)(D.17/past month)	?	1	2	3 → 1		3	P21 P22
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past 2 Years		
08	Persistent Depressive Disorder (A.32/past two years)(A.36/prior to past two years)	?	1	2	3 → 1		3	P23 P24
			Current Only			Meets Symptomatic Dx. Crit. Past 12 Months		
09	Premenstrual Dysphoric Disorder (A.41/past 12 months)	?				1	3	P25
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past Month		
10	Other Specified Depressive Disorder (D.12/lifetime) (D.13/past month)	?	1		3 → 1		3	P26 P27
11	Depressive Disorder Due to Another Medical Condition (A.48/lifetime)(A.48/past month) Specify AMC:_____	?	1		3 → 1		3	P28 P29

SCID Code	Diagnosis	Inadequate Info.	Absent	Sub-threshold	Threshold	Absent	Present	
12	Substance/Medication-Induced Depressive Disorder (A.51/lifetime)(A.51/past month) Specify substance:___	?	1		3 ---------> 1		3	P30 P31
SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS								
13	Schizophrenia (C.5/lifetime) (C.17/past month)	?	1	2	3 ---------> 1		3	P32 P33
14	Schizophreniform Disorder (C.7/lifetime)(C.19/past month)	?	1	2	3 ---------> 1		3	P34 P35
15	Schizoaffective Disorder (C.9/lifetime)(C.17/past month)	?	1	2	3 ---------> 1		3	P36 P37
16	Delusional Disorder (C.11/lifetime)(C.17/past month)	?	1	2	3 ---------> 1		3	P38 P39
17	Brief Psychotic Disorder (C.14/lifetime)(C.19/past month)	?	1	2	3 ---------> 1		3	P40 P41
18	Psychotic Disorder Due to Another Medical Condition (C.22/lifetime)(C.19/past month) Specify GMC:_____	?	1		3 ---------> 1		3	P42 P43
19	Substance-Induced Psychotic Disorder (C.24/lifetime) (C.19/past month) Specify substance:_____	?	1		3 ---------> 1		3	P44 P45
20	Other Specified Psychotic Disorder(C.16/lifetime) (C.19/past month)	?	1		3 ---------> 1		3	P46 P47
			Lifetime Prevalence			**Meets Symptomatic Dx. Crit. Past 12 Months**		
SUBSTANCE USE DISORDERS								
21	Alcohol (E.4/past 12 months) (E.9/prior to past 12 months)	?	1	2	3 ---------> 1		3	P48 P49
22	Sedative-Hypnotic-Anxiolytic (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P50 P51
23	Cannabis (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P52 P53
24	Stimulants/Cocaine (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P54 P55
25	Opioids (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P56 P57
26	PCP (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P58 P59
27	Other Hallucinogens (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P60 P61
28	Inhalants (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P62 P63
29	Other/Unknown (E.17/past 12 months) (E.26/prior to past 12 months)	?	1	2	3 ---------> 1		3	P64 P65

SCID Code	Diagnosis	Inadequate Info.	Absent	Sub-threshold	Threshold	Absent	Present	
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past Month		
ANXIETY DISORDERS								
30	Panic Disorder (F.5/lifetime)(F.5/past month)	?	1	2	3 ---------> 1		3	P66 P67
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past 6 Months		
31	Agoraphobia (F.11/lifetime) (F.12/past 6 months)	?	1	2	3 ---------> 1		3	P68 P69
32	Social Anxiety Disorder (F.16/lifetime)(F.17/past 6 months)	?	1	2	3 ---------> 1		3	P70 P71
33	Specific Phobia (F.21/lifetime) (F.22/past 6 months)	?	1	2	3 ---------> 1		3	P72 P73
34	Generalized Anxiety Disorder (F.30/lifetime)(F.26/past 6 months)	?	1	2	3 ---------> 1		3	P74 P75
			Current Only			Meets Symptomatic Dx. Crit. Past 6 Months		
35	Separation Anxiety Disorder (OPTIONAL) (Opt-F.4/past 6 months only)	?	1			1	3	P76
			Lifetime Prevalence			Meets Symptomatic Dx. Crit. Past Month		
36	Other Specified Anxiety Disorder (F.32/lifetime) (F.32/past month)	?	1		3 ---------> 1		3	P77 P78
37	Anxiety Disorder Due to Another Medical Condition (F.34/lifetime)(F.34/past month) Specify AMC:_____	?	1		3 ---------> 1		3	P79 P80
38	Substance/Medication-Induced Anxiety Disorder (F.36/lifetime)(F.36/past month) Specify substance:_____	?	1		3 ---------> 1		3	P81 P82
OBSESSIVE-COMPULSIVE AND RELATED DISORDERS								
39	Obsessive Compulsive Disorder (G.5/lifetime)(G.6/past month)	?	1	2	3 ---------> 1		3	P83 P84
40	Hoarding Disorder (OPTIONAL) (Opt-G.3/lifetime)(Opt-G.4/past month)	?	1	2	3 ---------> 1		3	P85 P86
41	Body Dysmorphic Disorder (OPTIONAL) (Opt-G.7/lifetime) Opt-G.9/past month)	?	1	2	3 ---------> 1		3	P87 P88
42	Trichotillomania (Hair-Pulling Disorder) (OPTIONAL) (Opt-G.11/lifetime) (Opt-G.12/past month)	?	1	2	3 ---------> 1		3	P89 P90
43	Excoriation (Skin-Picking) Disorder (OPTIONAL) (Opt-G.14/lifetime) (Opt-G.15/past month)	?	1	2	3 ---------> 1		3	P91 P92

SCID Code	Diagnosis	Inadequate Info.	Absent	Sub-threshold	Threshold	Absent	Present	
44	Other Specified Obsessive Compulsive and Related Disorder (G.9/lifetime)(G.9/past month)	?	1	2	3 ---------> 1		3	P93 P94
45	Obsessive-Compulsive and Related Disorder Due to Another Medical Condition (G.13/lifetime)(G.13/past month) Specify AMC: _____	?	1	2	3 ---------> 1		3	P95 P96
46	Substance/Medication-Induced Obsessive-Compulsive and Related Disorder (G.16/lifetime) (G.16/past month). Specify substance: _____	?	1	2	3 ---------> 1		3	P97 P98
			Current Only			**Meets Symptomatic Dx. Crit. Past 3 Months**		
SLEEP-WAKE DISORDERS								
47	Insomnia Disorder (OPTIONAL) (Opt-H.3/past 3 months)	?				1	3	P99
48	Hypersomnolence Disorder (OPTIONAL) (Opt-H.7/past 3 months)	?				1	3	P100
49	Substance-Induced Sleep Disorder (OPTIONAL) (Opt-H.11) Specify substance:_____	?				1	3	P101
			Lifetime Prevalence			**Meets Symptomatic Dx. Crit. Past 3 Months**		
FEEDING AND EATING DISORDERS								
50	Anorexia Nervosa (I.1/lifetime) (I.2/past 3 months)	?	1	2	3 ---------> 1		3	P102 P103
51	Bulimia Nervosa (I.5/lifetime) (I.6/past 3 months))	?	1	2	3 ---------> 1		3	P104 P105
52	Binge Eating Disorder (I.8/lifetime)(I.9/past 3 months)	?	1	2	3 ---------> 1		3	P106 P107
			Current Only			**Meets Symptomatic Dx. Crit. Past Month**		
53	Avoidant/Restrictive Food Intake Disorder (OPTIONAL) (Opt-I.3/past month)	?				1	3	P108
			Lifetime Prevalence			**Meets Symptomatic Dx. Crit. Past Month**		
54	Other Specified Feeding or Eating Disorder (I.10/lifetime) (I.10/past month)	?	1	2	3 ---------> 1		3	P109 P110

SCID Code	Diagnosis	Inadequate Info.	Absent	Sub-threshold	Threshold	Absent	Present	
				Current Only		Meets Symptomatic Dx. Crit. Past 6 Months		
SOMATIC SYMPTOM AND RELATED DISORDERS								
55	Somatic Symptom Disorder (OPTIONAL) (Opt-J.2/past 6 months)	?				1	3	P111
56	Illness Anxiety Disorder (OPTIONAL) (Opt-J.4/past 6 months)	?				1	3	P112
EXTERNALIZING DISORDERS								
57	Adult Attention-deficit/ Hyperactivity Disorder (K.5/past 6 months)	?				1	3	P113
				Current Only		Meets Symptomatic Dx. Crit. Past 12 Months		
58	Intermittent Explosive Disorder (OPTIONAL) (Opt-K.4/past 12 months)	?				1	3	P114
59	Gambling Disorder (OPTIONAL) (Opt-K.7/past 12 months)	?				1	3	P115
				Current Only		Meets Symptomatic Dx. Crit. Past Month		
TRAUMA- AND STRESSOR-RELATED DISORDERS								
60	Acute Stress Disorder (L.10/past month)	?				1	3	P116
				Lifetime Prevalence		Meets Symptomatic Dx. Crit. Past Month		
61	Posttraumatic Stress Disorder (L.18/lifetime)(L.18/past month)	?	1	2	[3] ---------> 1		3	P117 P118
				Current Only		Meets Symptomatic Dx. Crit. Past 6 Months		
62	Adjustment Disorder (L.22/past 6 months)	?				1	3	P119
				Lifetime Prevalence		Meets Symptomatic Dx. Crit. Past Month		
63	Other Specified Trauma- and Stressor-Related Disorder (L.23/lifetime)(L.23/past month)	?	1	2	[3] ---------> 1		3	P120 P121
64	**OTHER DSM-5 DISORDER:** Specify: _____	?	1	2	[3] ---------> 1		3	P122 P123

PRINCIPAL DIAGNOSIS (i.e., the disorder that is [or should be] the main focus of current clinical attention).

Enter SCID Code number from scoresheet for principal diagnosis: __ __ P124

Note: Code 00 if no current mental disorder. Code 99 if unknown.

INTERVIEWER'S DIAGNOSES, IF DIFFERENT FROM SCID DIAGNOSES:

_____ _____ _____ P125

PROVISIONAL DIAGNOSIS (i.e., the disorder(s) that need more information in order to be ruled out). P126

_____

SOCIAL AND OCCUPATIONAL FUNCTIONING ASSESSMENT SCALE (SOFAS)

Consider psychological, social, and occupational functioning on a continuum from excellent functioning to grossly impaired functioning. Include impairments in functioning due to physical limitations, as well as those due to mental impairments. To be counted, impairment must be a direct consequence of mental and physical health problems; the effects of lack of opportunity and other environmental limitations are not be to considered.

CODE (Note: Use intermediate codes when appropriate, e.g., 45, 68, 72). __ __ __ P127

100 Superior functioning in a wide range of activities.

91

90 Good functioning in all areas, occupationally and socially effective.

81

80 No more than a slight impairment in social, occupational, or school functioning (e.g., infrequent interpersonal conflict, temporarily falling behind in schoolwork).

71

70 Some difficulty in social, occupational, or school functioning, but generally functioning well, has some meaningful interpersonal relationships.

61

60 Moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or coworkers).

51

50 Serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job).

41

40 Major impairment in several areas, such as work or school, family relations, (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).

31

30 Inability to function in almost all areas (e.g., stays in bed all day; no job, home, or friends).

21

20 Occasionally fails to maintain minimal personal hygiene; unable to function independently.

11

10 Persistent inability to maintain minimal personal hygiene. Unable to function without harming self or others or without considerable external support (e.g., nursing care and supervision).

1

0 Inadequate information.

Nonpatient Overview

I'm going to be asking you about problems or difficulties you may have had, and I'll be making some notes as we go along. Do you have any questions before we begin?

NOTE: Any current suicidal thoughts, plans, or actions should be thoroughly assessed by the clinician and action taken if necessary.

Demographic Data

GENDER: 1 Male ONP1
2 Female
3 Other (e.g., transgendered)

What's your date of birth?

DOB: _____ _____ _____ AGE: ___ ___ ONP2 ONP3
month day year

Are you married?

IF NO: **Do you live with someone as if you are married?**

IF NO: **Were you ever married?**

MARITAL STATUS (most recent): ONP4
1 Married or living with someone as if married
2 Widowed
3 Divorced or annulled
4 Separated
5 Never married

How long have you been (MARITAL STATUS)**?**

IF EVER MARRIED: **How many times have you been married?**

_____

_____

Do you have any children?

IF YES: **How many? (What are their ages?)**

_____

_____

With whom do you live? (How many children under the age of 18 live in your household?)

_____

In what city, town, or neighborhood do you live?

_____

In what kind of place do you live? (A house, an apartment, a shelter, a halfway house, or some other living arrangement? Are you homeless?)

_____

_____

Education and Work History

How far did you go in school?

EDUCATION: ONP5
1 Grade 6 or less
2 Grades 7 to 12 (without graduating high school)
3 Graduated high school or high school equivalent
4 Part college/trade school
5 Graduated 2-year college or trade school
6 Graduated 4-year college
7 Part graduate/professional school
8 Completed graduate/professional school

IF FAILED TO COMPLETE A PROGRAM IN WHICH THEY WERE ENROLLED: **Why did you leave?**

_____

What kind of work do you do? (Do you work outside of your home?)

_____

Education and Work History (continued)

Have you always done that kind of work?

IF NO: **What other kind of work have you done in the past?**

What's the longest you've worked at one place?

Are you currently employed (getting paid)?

IF YES: **Do you work part-time or full-time?**

IF PART-TIME: **How many hours do you typically work each week? (Why do you work part-time instead of full-time?)**

IF NO: **Why is that? When was the last time you worked? How are you supporting yourself now?**

IF DISABLED: **Are you currently receiving disability payments? What are you receiving disability for?**

IF EMPLOYED: **How long have you worked at your current job?**

IF LESS THAN 6 MONTHS: **Why did you leave your last job?**

IF UNKNOWN: **Has there ever been a period of time when you were unable to work or go to school?**

IF YES: **Why was that?**

Have you ever been arrested, involved in a lawsuit, or had other legal trouble?

PRIMARY EMPLOYMENT STATUS: ONP6

1 Full-time job
2 Part-time job
3 Keeping house or care giving full-time
4 In school/training
5 Retired
6 Unemployed, looking for work
7 Unemployed, not looking for work
8 Disabled

Current and Past Periods of Psychopathology

NOTE: FOR A COMPLICATED HX, USE THE LIFE CHART ON PAGE 7.

Have you ever seen anybody for emotional or psychiatric problems?

IF YES: **What was that for? (What treatment did you get? Any medications? When was that? When was the first time you ever saw someone for emotional or psychiatric problems?)**

IF NO: **Was there ever a time when you, or someone else, thought you should see someone because of the way you were feeling or acting? (Tell me more.)**

Have you ever seen anybody for problems with alcohol or drugs?

IF YES: **What was that for? (What treatment[s] did you get? Any medications? When was that?)**

Have you ever attended a self-help group, like Alcoholics Anonymous, Gamblers Anonymous, or Overeaters Anonymous?

IF YES: **What was that for? When was that?**

Hospitalization History

Have you ever been a patient in a psychiatric hospital?

IF YES: **What was that for? (How many times?)**

IF AN INADEQUATE ANSWER IS GIVEN, CHALLENGE GENTLY: e.g., **Wasn't there something else? People don't usually go to psychiatric hospitals just because they are tired or nervous.**

Have you ever been in a hospital for treatment of a medical problem?

IF YES: **What was that for?**

Thinking back over your whole life, when were you the most upset? (Why? What was that like? How were you feeling?)

Number of previous hospitalizations (Do not include transfers): ___ ONP7

Suicidal Ideation and Behavior

CHECK FOR THOUGHTS: **Have you <u>ever</u> wished you were dead or wished you could go to sleep and not wake up? (Tell me about that.)**

IF NO: SKIP TO NEXT PAGE, ****SUICIDE ATTEMPT****

IF YES: **Did you have any of these thoughts in the past week (including today)?**

IF NO: SKIP TO NEXT PAGE, ****SUICIDE ATTEMPT****

IF YES: CHECK FOR INTENT: **Have you had a strong urge to kill yourself at any point during the past week? (Tell me about that.) In the past week, did you have any intention of attempting suicide? (Tell me about that.)**

CHECK FOR PLAN AND METHOD: **In the past week, have you thought about <u>how</u> you might actually do it? (Tell me about what you were thinking of doing.) Have you thought about what you would need to do to carry this out? (Tell me about that. Do you have the means to do this?)**

RECORD ANY HISTORY OF SUICIDAL THOUGHTS OR BEHAVIORS, INCLUDING IN THE PAST WEEK:

Check if:

___ Suicidal Ideation lifetime ONP8
___ Suicidal Ideation past week ONP9
- ___ with suicide intent ONP10
- ___ with suicide plan ONP11
- ___ with access to chosen method ONP12

Suicide Attempt

CHECK FOR ATTEMPT: **Have you <u>ever</u> tried to kill yourself?**

IF NO: **Have you ever done anything to harm yourself?**

IF NO: GO TO ***OTHER CURRENT PROBLEMS,*** BELOW.

IF YES TO EITHER OF ABOVE: **What did you do? (Tell me what happened.) Were you trying to end your life?**

IF MORE THAN ONE ATTEMPT: **Which attempt had the most severe medical consequences (going to emergency department, needing hospitalization, requiring ICU)?**

Have you made any suicide attempts in the past week (including today)?

Check if:

___ Suicide attempt lifetime ONP13

___ Suicide attempt past week ONP14

Other Current Problems

Have you had any other problems in the past month? (How are things going at work, at home, and with other people?)

What has your mood been like?

How has your physical health been? (Have you had any medical problems?)

Do you take any medication, vitamins, nutritional supplements, or natural health remedies (other than those you've already told me about?)

IF YES: **How much and how often do you take** (MEDICATION)**? (Has there been any change in the amount you have been taking?)**

In the past month, how much have you been drinking?

When you drink, who are you usually with? (Are you usually alone or out with other people?)

In the past month, have you been using any illegal or recreational drugs? How about taking more of your prescription drugs than was prescribed or running out early?

How have you been spending your free time? Who do you spend time with?

Lifetime Alcohol and Drug Use

Now I would like to ask you some more about your alcohol use over your lifetime.

How much do you usually drink?

Over your lifetime, when were you drinking the most? (During that time, how much were you drinking? What were you drinking? Beer? Wine? Hard liquor? How often were you drinking this much?)

Have you ever had a time when your drinking caused problems for you?

Have you ever had a time when anyone objected to your drinking?

Now I'd like to ask you about your use of drugs or medicines over your lifetime. IF DURING ASSESSMENT SUBJECT CATEGORICALLY DENIES LIFETIME DRUG USE, ASK THE FOLLOWING: **You mean you have <u>never even tried</u> marijuana?** IF SUBJECT STILL DENIES LIFETIME DRUG USE, SKIP TO SCREENING MODULE. OTHERWISE, CONTINUE WITH DRUG ASSESSMENT.	FOR EACH SPECIFIC DRUG IN THE CLASS, INDICATE USE PATTERN <u>BASED ON QUESTIONS AT THE BOTTOM OF THE PAGE</u>	**<u>LIFETIME</u>** Rate "3" if used more than 6 times <u>in any year</u> (other than past year) or, if prescribed/OTC, the possibility of abuse		**<u>PAST YEAR</u>** Rate "3" if used more than 6 times <u>in the past year</u> or, if prescribed/OTC, the possibility of abuse		
Have you taken any pills to calm you down, help you relax, or help you sleep? **(Drugs like Valium, Xanax, Ativan, Klonopin, Ambien, Sonata, or Lunesta?)**	Sedatives-hypnotics-anxiolytics:	1	3	1	3	ONP15
Have you ever used marijuana ("pot," "grass," "weed"), hashish ("hash"), THC, K2, or "spice"?	Cannabis:	1	3	1	3	ONP16
Have you ever used any stimulants or "uppers" to give you more energy, keep you alert, lose weight, or help you focus? (Drugs like speed, methamphetamine, crystal meth, "crank," Ritalin or methylphenidate, Dexedrine, Adderall or amphetamine or prescription diet pills?) **How about cocaine or "crack"?**	Stimulants:	1	3	1	3	ONP17
Have you ever used heroin or methadone? How about prescription pain killers? (Drugs like morphine, codeine, Percocet, Percodan, Oxycontin, Tylox, or oxycodone, Vicodin, Lortab, Lorcet or hydrocodone, suboxone or buprenorphine?)	Opioids:	1	3	1	3	ONP18

FOR EACH DRUG CLASS IN WHICH SUBJECT ACKNOWLEDGES USE OF A DRUG FROM THAT CLASS, ASK THE FOLLOWING QUESTIONS:

Over your lifetime, when were you taking (SUBSTANCE) **the most? How long did that period last? During that time, how often were you taking it? How much were you using?**

Have you ever had a time when your use of (SUBSTANCE) **caused problems for you?**

IF YES: **How about in the past 12 months?**

Have you ever had a time when anyone objected to your use of (SUBSTANCE)**?**

IF YES: **How about in the past 12 months?**

IF ILLICIT OR RECREATIONAL DRUG: **Have you ever used** (SUBSTANCE) **at least six times in a 12 month period?**

IF YES: **How about in the past 12 months?**

IF PRESCRIBED OR OTC MEDICATION AND UNKNOWN: **Did you ever get hooked or become dependent on** (PRESCRIBED/OTC DRUG)**? Did you ever take more of it than was prescribed** (or, for OTC was directed) **or run out of your prescription early? (Did you ever have to go to more than one doctor to make sure you didn't run out?)**

IF YES: **How about in the past 12 months?**

Have you ever used any drugs to "trip" or heighten your senses? (Drugs like LSD, "acid," peyote, mescaline, psilocybin, Ecstasy [MDMA, "molly"], bath salts, DMT or other hallucinogens?)	Hallucinogens:	1	3	1	3	ONP19
Have you ever used PCP ("angel dust," "peace pill") or ketamine ("Special K," "Vitamin K")?	Phencyclidine and Related Substances:	1	3	1	3	ONP20
Have you ever used glue, paint, or correction fluid, gasoline, or other inhalants to get high? *NOTE: Nitrous oxide, and amyl-, butyl-, or Isobutylnitrite are not inhalants but are classified as Other (or Unknown) Substance Use Disorder (below).*	Inhalants:	1	3	1	3	ONP21
What about other drugs, like anabolic steroids, nitrous oxide (laughing gas, "whippets"), nitrites (amyl nitrite, butyl nitrite, "poppers," "snappers"), diet pills (phentermine), or over-the-counter medicine for allergies, colds, cough, or sleep?	Other (or Unknown):	1	3	1	3	ONP22

GO TO NEXT MODULE

FOR EACH DRUG CLASS IN WHICH SUBJECT ACKNOWLEDGES USE OF A DRUG FROM THAT CLASS, ASK THE FOLLOWING QUESTIONS:

Over your lifetime, when were you taking (SUBSTANCE) **the most? How long did that period last? During that time, how often were you taking it? How much were you using?**

Have you ever had a time when your use of (SUBSTANCE) **caused problems for you?**

IF YES: **How about in the past 12 months?**

Have you ever had a time when anyone objected to your use of (SUBSTANCE)**?**

IF YES: **How about in the past 12 months?**

IF ILLICIT OR RECREATIONAL DRUG: **Have you ever used** (SUBSTANCE) **at least six times in a 12 month period?**

IF YES: **How about in the past 12 months?**

IF PRESCRIBED OR OTC MEDICATION AND UNKNOWN: **Did you ever get hooked or become dependent on** (PRESCRIBED/OTC DRUG)**? Did you ever take more of it than was prescribed** (or, for OTC was directed) **or run out of your prescription early? (Did you ever have to go to more than one doctor to make sure you didn't run out?)**

IF YES: **How about in the past 12 months?**

THE LIFE CHART (BELOW) MAY BE USED AT ANY POINT IN THE OVERVIEW TO RECORD THE DETAILS OF A COMPLICATED HISTORY.

LIFE CHART

Age (or date)	Description (symptoms, triggering events)	Treatment

*RETURN TO OVERVIEW PAGE 3, ***HOSPITALIZATION HISTORY**** *TO CONTINUE WITH OVERVIEW QUESTIONS.*

SCID Screening Module (including optional disorders)

Now I want to ask you some more specific questions about problems you may have had. We'll go into more detail about them later.

1. **Have you ever had an intense rush of anxiety, or what someone might call a "panic attack," when you <u>suddenly</u> felt very frightened, or anxious or <u>suddenly</u> developed a lot of physical symptoms?**
(screening for panic attacks)

S1
NO → CIRCLE "NO" ON F.1
YES → CIRCLE "YES" ON F.1

2. **Have you ever been very anxious about or afraid of situations like going out of the house alone, being in crowds, going to stores, standing in lines, or traveling on buses or trains?**
(screening for Agoraphobia)

S2
NO → CIRCLE "NO" ON F.8
YES → CIRCLE "YES" ON F.8

3. **Have you been especially nervous or anxious in social situations like having a conversation or meeting unfamiliar people?**
(screening for Social Anxiety Disorder)

S3
NO → CIRCLE "NO" ON 1st ITEM, F.14
YES → CIRCLE "YES" ON 1st ITEM, F.14

4. **Is there anything that you have been afraid to do or felt very uncomfortable doing in front of other people, like speaking, eating, writing, or using a public bathroom?**
(screening for Social Anxiety Disorder)

S4
NO → CIRCLE "NO" ON 2nd ITEM, F.14
YES → CIRCLE "YES" ON 2nd ITEM, F.14

5. **Are there any other things that have made you especially anxious or afraid, like flying, seeing blood, getting a shot, heights, closed places, or certain kinds of animals or insects?**
(screening for Specific Phobia)

S5
NO → CIRCLE "NO" ON F.19
YES → CIRCLE "YES" ON F.19

6. **Over the last several months have you been feeling anxious and worried for a lot of the time?**
(screening for current Generalized Anxiety Disorder)

S6
NO → CIRCLE "NO" ON F.24
YES → CIRCLE "YES" ON F.24

7. *<u>ASK ONLY IF PREVIOUS QUESTION ANSWERED NO</u>:* **Have you ever had a time lasting at least several months in which you were feeling anxious and worried for a lot of the time?**
(screening for past Generalized Anxiety Disorder)

S7
NO → CIRCLE "NO" ON F.27
YES → CIRCLE "YES" ON F.27

7a. **In the past 6 months, since** (6 MONTHS AGO)**, have you been especially anxious about being separated from people you're attached to (like your parents, children, or partner)?**
(screening for current Separation Anxiety Disorder)

S7a
NO → CIRCLE "NO" ON Opt-F.1
YES → CIRCLE "YES" ON Opt-F.1

8. **Have you ever been bothered with thoughts that kept coming back to you even when you didn't want them to, like being exposed to germs or dirt or needing everything to be lined up in a certain way?**
(screening for obsessions in Obsessive-Compulsive Disorder)

S8
NO → CIRCLE "NO" ON 1st ITEM, G.1
YES → CIRCLE "YES" ON 1st ITEM, G.1

9. **How about having images pop into your head that you didn't want like violent or horrible scenes or something of a sexual nature?**
(screening for obsessions in Obsessive-Compulsive Disorder)

S9
NO → CIRCLE "NO" ON 2nd ITEM, G.1
YES → CIRCLE "YES" ON 2nd ITEM, G.1

10. **How about having urges to do something that kept coming back to you even though you didn't want them to, like an urge to harm a loved one?**
(screening for obsessions in Obsessive-Compulsive Disorder)

S10
NO → CIRCLE "NO" ON 3rd ITEM, G.1
YES → CIRCLE "YES" ON 3rd ITEM, G.1

11. **Was there ever anything that you had to do over and over again and was hard to resist doing, like washing your hands again and again, repeating something over and over again until it "felt right," counting up to a certain number, or checking something many times to make sure that you'd done it right?**
(screening for compulsions in Obsessive-Compulsive Disorder)

S11
NO → CIRCLE "NO" ON G.2
YES → CIRCLE "YES" ON G.2

11a. **Have you found it difficult to throw out, sell, or give away things?**
(screening for Hoarding Disorder)

S11a
NO → CIRCLE "NO" ON Opt-G.1
YES → CIRCLE "YES" ON Opt-G.1

11b. **Have you been very concerned that there is something wrong with your physical appearance or the way one or more parts of your body looks?**
(screening for Body Dysmorphic Disorder)

S11b
NO → CIRCLE "NO" ON Opt-G.6
YES → CIRCLE "YES" ON Opt-G.6

11c. **Have you ever repeatedly pulled out hair from anywhere on your body other than for cosmetic reasons?**
(screening for Trichotillomania)

S11c
NO → CIRCLE "NO" ON Opt-G.10
YES → CIRCLE "YES" ON Opt-G.10

11d. **Have you ever repeatedly picked at your skin with your fingernails, tweezers, pins, or other objects?**
(screening for Excoriation Disorder)

S11d
NO → CIRCLE "NO" ON Opt-G.13
YES → CIRCLE "YES" ON Opt-G.13

11e. **Over the past 3 months, since** (3 MONTHS AGO)**, has a major concern of yours been that you are not getting enough good sleep or not feeling rested?**
(screening for current Insomnia Disorder)

S11e
NO → CIRCLE "NO" ON Opt-H.1
YES → CIRCLE "YES" ON Opt-H.1

11f. **Over the past 3 months, since** (3 MONTHS AGO)**, have you often had days when you were sleepy despite having slept for at least 7 hours?**
(screening for current Hypersomnolence Disorder)

S11f

NO	YES
CIRCLE "NO" ON Opt-H.7	CIRCLE "YES" ON Opt-H.7

12. **Have you ever had a time when you weighed much less than other people thought you ought to weigh?**
(screening for Anorexia Nervosa)

S12

NO	YES
CIRCLE "NO" ON I.1	CIRCLE "YES" ON I.1

13. **Have you often had times when your eating was out of control?**
(screening for binge eating in Bulimia Nervosa and Binge Eating Disorder)

S13

NO	YES
CIRCLE "NO" ON I.4	CIRCLE "YES" ON I.4

13a. **In the past month, since** (1 MONTH AGO)**, have you been uninterested in food in general or have you kept forgetting to eat?**
(screening for current Avoidant/Restrictive Food Intake Disorder)

S13a

NO	YES
CIRCLE "NO" ON Opt-I.1	CIRCLE "YES" ON Opt-I.1

13b. **In the past month, since** (1 MONTH AGO)**, have you avoided eating a lot of foods because of the way they look or the way they feel in your mouth?**
(screening for current Avoidant/Restrictive Food Intake Disorder)

S13b

NO	YES
CIRCLE "NO" ON Opt-I.1	CIRCLE "YES" ON Opt-I.1

13c. **In the past month, since** (1 MONTH AGO)**, have you avoided eating a lot of different foods because you are afraid you won't be able to swallow or that you will choke, gag, or throw up?**
(screening for current Avoidant/Restrictive Food Intake Disorder)

S13c

NO	YES
CIRCLE "NO" ON Opt-I.1	CIRCLE "YES" ON Opt-I.1

13d. **Over the past 6 months, since** (6 MONTHS AGO)**, have you been bothered by any physical symptoms?**
(screening for current Somatic Symptom Disorder)

S13d

NO	YES
CIRCLE "NO" ON Opt-J.1	CIRCLE "YES" ON Opt-J.1

13e. **Over the past 6 months, since** (6 MONTHS AGO)**, have you spent a lot of time thinking that you have, or will get, a serious disease?**
(screening for current Illness Anxiety Disorder)

S13e

NO	YES
CIRCLE "NO" ON Opt-J.3	CIRCLE "YES" ON Opt-J.3

14. **Over the past several years, have you often been easily distracted or disorganized?**
(screening for inattention in current Attention-Deficit/Hyperactivity Disorder)

S14

NO	YES
CIRCLE "NO" ON 1st ITEM, K.1	CIRCLE "YES" ON 1st ITEM, K.1

15. **Over the past several years, have you often had a lot of difficulty sitting still or waiting your turn?**

(screening for hyperactivity/impulsivity in current Attention-Deficit/Hyperactivity Disorder)

S15

NO	YES
CIRCLE "NO" ON 2nd ITEM, K.1	CIRCLE "YES" ON 2nd ITEM, K.1

15a. **In the past year, since** (1 YEAR AGO)**, have you frequently lost control of your temper and ended up yelling or getting into arguments with others?**

(screening for current Intermittent Explosive Disorder)

S15a

NO	YES
CIRCLE "NO" ON 1st ITEM, Opt-K.1	CIRCLE "YES" ON 1st ITEM, Opt-K.1

15b. **In the past year, since** (1 YEAR AGO)**, have you lost your temper so that you shoved, hit, kicked, or threw something at a person or an animal, or damaged someone's property?**

(screening for current Intermittent Explosive Disorder)

S15b

NO	YES
CIRCLE "NO" ON 2nd ITEM, Opt-K.1	CIRCLE "YES" ON 2nd ITEM, Opt-K.1

15c. **In the past year, since** (1 YEAR AGO)**, have you regularly gambled or regularly bought lottery tickets?**

(screening for current Gambling Disorder)

S15d

NO	YES
CIRCLE "NO" ON Opt-K.5	CIRCLE "YES" ON Opt-K.5

A. MOOD EPISODES

NOTE: This module is for evaluating Current and Past Mood Episodes, Cyclothymic Disorder, Persistent Depressive Disorder (Dysthymia), AND Premenstrual Dysphoric Disorder. Bipolar I Disorder, Bipolar II Disorder, Other Specified Bipolar Disorder, Major Depressive Disorder, and Other Specified Depressive Disorder are diagnosed in Module D.

CURRENT MAJOR DEPRESSIVE EPISODE

Now I am going to ask you some more questions about your mood.

Since (1 MONTH AGO)**, has there been a period of time when you were feeling depressed or down <u>most of the day nearly every day</u>? (Has anyone said that you look sad, down, or depressed?)**

IF NO: **What about feeling empty or hopeless most of the day nearly every day?**

IF YES TO EITHER OF ABOVE: **What has that been like? How long has it lasted? (As long as 2 weeks?)**

IF PREVIOUS ITEM CODED "3:" **During that time, did you lose interest or pleasure in things you usually enjoyed? (What has that been like? Give me some examples.)**

IF PREVIOUS ITEM NOT CODED "3:" **What about a time since** (1 MONTH AGO) **when you lost interest or pleasure in things you usually enjoyed? (What has that been like? Give me some examples.)**

IF YES: **Has it been nearly every day? How long has it lasted? (As long as 2 weeks?)**

FOR THE FOLLOWING QUESTIONS, FOCUS ON THE WORST 2 WEEKS IN THE PAST MONTH (OR ELSE THE PAST 2 WEEKS IF EQUALLY DEPRESSED FOR ENTIRE MONTH).

IF UNKNOWN: **Since** (1 MONTH AGO)**, during which 2-week period would you say you have been doing the worst?**

MAJOR DEPRESSIVE EPISODE CRITERIA

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood, or (2) loss of interest or pleasure.

1. Depressed mood most of the day, nearly every day, as indicated either by subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). NOTE: in children or adolescents, can be irritable mood.

? 1 2 3 A1

2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation).

? 1 2 3 A2

IF NEITHER ITEM A.1 NOR A.2 IS CODED "3," GO TO ***PAST MAJOR DEPRESSIVE EPISODE*** A.5

NOTE: When rating the following items, code "1" if the symptoms are clearly due to a general medical condition (e.g., insomnia due to severe back pain).

During (2-WEEK PERIOD)**...**

...how has your appetite been? (What about compared to your usual appetite? Have you had to force yourself to eat? Eat [less/more] than usual? Has that been nearly every day? Have you lost or gained any weight? How much? *IF YES*: **Have you been trying to [lose/gain] weight?)**	3. Significant weight loss when not dieting, or weight gain (e.g., a change of more than 5% of body weight in a month) or decrease or increase in appetite nearly every day. NOTE: in children, consider failure to make expected weight gains. *Check if*: ____ weight loss or decreased appetite ____ weight gain or increased appetite	?	1	2	3	A3 A4 A5
...how have you been sleeping? (Trouble falling asleep, waking frequently, trouble staying asleep, waking too early, OR sleeping too much? How many hours of sleep [including naps] have you been getting? How many hours of sleep did you typically get before you got [**depressed**/OWN WORDS]**? <u>Has it been nearly every night?)</u>**	4. Insomnia or hypersomnia nearly every day. *Check if*: ____ insomnia ____ hypersomnia	?	1	2	3	A6 A7 A8
...have you been so fidgety or restless that you were unable to sit still? What about the opposite—talking more slowly, or moving more slowly than is normal for you, as if you're moving through molasses or mud? (In either instance, has it been so bad that other people have noticed it? What have they noticed? <u>Has that been nearly every day?)</u>	5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down) NOTE: Consider behavior during the interview. *Check if*: ____ psychomotor agitation ____ psychomotor retardation	?	1	2	3	A9 A10 A11
...what has your energy level been like? **(Tired all the time? <u>Nearly every day?)</u>**	6. Fatigue or loss of energy nearly every day.	?	1	2	3	A12
...have you been feeling worthless? **What about feeling guilty about things you have done or not done?** *IF YES*: **What things? (Is this only because you can't take care of things since you have been sick?)** *IF YES TO EITHER OF ABOVE:* **<u>Nearly every day?</u>**	7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick) *Check if*: ____ worthlessness ____ inappropriate guilt	?	1	2	3	A13 A14 A15
...have you had trouble thinking or concentrating? Has it been hard to make decisions about everyday things? (What kinds of things has it been interfering with? <u>Nearly every day?)</u>	8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).	?	1	2	3	A16

…have things been so bad that you thought a lot about death or that you would be better off dead? Have you thought about taking your own life?

IF YES: **Have you done something about it? (What have you done? Have you made a specific plan? Have you taken any action to prepare for it? Have you actually made a suicide attempt?)**

9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide. ? 1 2 3 A17

NOTE: Code "1" for self-mutilation without suicidal intent.

Check if:

___ thoughts of own death A18
___ suicidal ideation A19
___ specific plan A20
___ suicide attempt A21

NOTE: Any current suicidal thoughts, plans, or actions should be thoroughly assessed by the clinician and action taken if necessary.

AT LEAST FIVE OF THE ABOVE SXS (A.1–A.9) ARE CODED "3" AND AT LEAST ONE OF THESE IS ITEM A.1 OR A.2. 3 A22

1

GO TO ***PAST MAJOR DEPRESSIVE EPISODE*** A.5

IF UNKNOWN: **What effect have** (DEPRESSIVE SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS <u>AS NEEDED</u> TO RATE CRITERION B:

How have (DEPRESSIVE SXS) **affected your relationships or your interactions with other people? (Has this caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (DEPRESSIVE SXS) **affected your work/school? (How about your attendance at work or school? Did** [DEPRESSIVE SXS] **make it more difficult to do your work/schoolwork? How have** [DEPRESSIVE SXS] **affected the quality of your work/schoolwork?)**

How have (DEPRESSIVE SXS) **affected your ability to take care of things at home? How about doing simple everyday things like getting dressed, bathing, or brushing your teeth? What about doing other things that are important to you like religious activities, physical exercise, or hobbies? Have you avoided doing anything because you felt like you weren't up to it?**

Have (DEPRESSIVE SXS) **affected any other important part of your life?**

IF DOES NOT INTERFERE WITH LIFE: **How much have you been bothered or upset by having** (DEPRESSIVE SXS)**?**

B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 2 3 A23

1

GO TO ***PAST MAJOR DEPRESSIVE EPISODE*** A.5

IF UNKNOWN: **When did** (EPISODE OF DEPRESSION) **begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

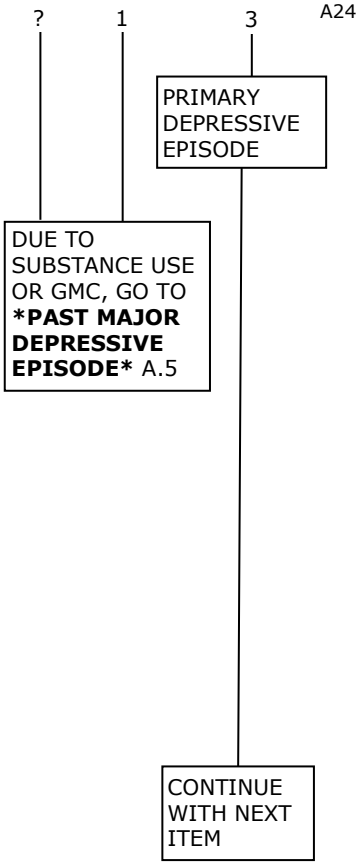
Just before this began, were you drinking or using any drugs?

C. [Primary Depressive Episode:] The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition.

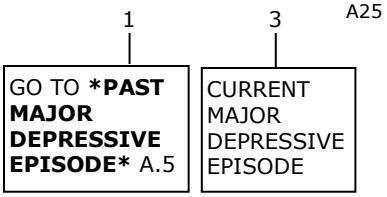
IF THERE IS ANY INDICATION THAT THE DEPRESSION MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE/MEDICATION), GO TO ***GMC/SUBSTANCE*** A.45, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

Etiological medical conditions include: stroke, Huntington's disease, Parkinson's disease, traumatic brain injury, Cushing's disease, hypothyroidism, multiple sclerosis, systemic lupus erythematosus.

Etiological substances/medications include: alcohol (I/W), phencyclidine (I), hallucinogens (I), inhalants (I), opioids (I/W), sedative, hypnotics or anxiolytics (I/W), amphetamine and other stimulants (I/W), cocaine (I/W), antiviral agents (etavirenz), cardiovascular agents (clonodine, guanethidine, methyldopa, reserpine), retinoic acid derivatives (isotretinoin), antidepressants, anticonvulsants, anti-migraine agents (triptans), antipsychotics, hormonal agents (corticosteroids, oral contraceptives, gonadotropin-releasing hormone agonists, tamoxifen), smoking cessation agents (varenicline) and immunological agents (interferon).



MAJOR DEPRESSIVE EPISODE CRITERIA A, B, AND C ARE CODED "3."



How many separate times in your life have you been (**depressed**/OWN WORDS) **nearly every day for at least 2 weeks and had several of the symptoms that you described, like** (SXS OF CURRENT MDE)**?**

Total number of Major Depressive Episodes, including current (CODE 99 IF TOO NUMEROUS OR INDISTINCT TO COUNT).

A26 ____ ____

GO TO ***CURRENT MANIC EPISODE*** A.10

PAST MAJOR DEPRESSIVE EPISODE

NOTE: IF CURRENTLY DEPRESSED MOOD OR LOSS OF INTEREST BUT FULL CRITERIA ARE NOT MET FOR A MAJOR DEPRESSIVE EPISODE, SUBSTITUTE THE PHRASE **"Has there ever been ***another*** time..."** *IN EACH OF THE SCREENING QUESTIONS BELOW.*

Have you ***ever* had a period when you were feeling depressed or down most of the day nearly every day? (Did anyone say that you looked sad, down, or depressed?)**

IF NO: **How about feeling sad, empty or hopeless, most of the day nearly every day?**

IF YES TO EITHER OF ABOVE: **What was that like? When was that? How long did it last? (As long as 2 weeks?)**

IF PREVIOUS ITEM CODED "3": **During that time, did you lose interest or pleasure in things you usually enjoyed? (What was that like?)**

IF PREVIOUS ITEM NOT CODED "3": **Have you ever had a period when you lost interest or pleasure in things you usually enjoyed? (What was that like?)**

IF YES: **When was that? Was it nearly every day? How long did it last? (As long as 2 weeks?)**

Have you had more than one time like that? (Which time was the worst?)

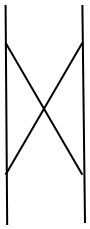
IF UNCLEAR: **Have you had any times like that in the past year, since** (1 YEAR AGO)**?**

MAJOR DEPRESSIVE EPISODE CRITERIA

A. Five or more of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms was either (1) depressed mood or (2) loss of interest or pleasure.

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). NOTE: in children and adolescents, can be irritable mood.

? 1 2 3 A27



2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation).

? 1 2 3 A28

IF NEITHER ITEM A.1 NOR A.2 IS CODED "3," GO TO ***CURRENT MANIC EPISODE*** A.10

NOTE: If there is evidence for more than one past episode, select the "worst" one for your inquiry about past Major Depressive Episode. If there was a likely Major Depressive Episode in the past year, ask about that episode even if it was not the worst.

FOR THE FOLLOWING QUESTIONS, FOCUS ON THE WORST 2 WEEKS OF THE PAST MAJOR DEPRESSIVE EPISODE THAT YOU ARE INQUIRING ABOUT.

NOTE: When rating the following items, code "1" if clearly directly due to a general medical condition (e.g., insomnia due to severe back pain).

During that (2-WEEK PERIOD)**...**

...how was your appetite? (What about compared to your usual appetite? Did you have to force yourself to eat? Eat [less/more] **than usual? Was that nearly every day? Did you lose or gain any weight? How much?**

IF YES: **Were you trying to** [lose/gain] **weight?)**

3. Significant weight loss when not dieting, or weight gain (e.g., a change of more than 5% of body weight in a month) or decrease or increase in appetite nearly every day. ? 1 2 3 A29

Check if:

____ weight loss or decreased appetite A30
____ weight gain or increased appetite A31

…**how were you sleeping? (Trouble falling asleep, waking frequently, trouble staying asleep, waking too early, OR sleeping too much? How many hours of sleep (including naps) had you been getting? How many hours of sleep did you typically get before you got** (**depressed**/OWN WORDS)**? Has it been nearly every night?**

4. Insomnia or hypersomnia nearly every day. ? 1 2 3 A32

Check if:

____ insomnia A33
____ hypersomnia A34

...were you so fidgety or restless that you were unable to sit still? What about the opposite—talking more slowly, or moving more slowly than was normal for you, as if you were moving through molasses or mud? (In either instance, was it so bad that other people have noticed it? What did they notice? Was that nearly every day?)

5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down). ? 1 2 3 A35

Check if:

____ psychomotor agitation A36
____ psychomotor retardation A37

…**what was your energy level like? (Tired all the time? Nearly every day?)**

6. Fatigue or loss of energy nearly every day ? 1 2 3 A38

...were you feeling worthless?

Did you feel guilty about things you had done or not done?

IF YES: **What things? (Was this only because you couldn't take care of things since you have been sick?)**

IF YES TO EITHER OF ABOVE: **Nearly every day?**

7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick). ? 1 2 3 A39

Check if:

____ worthlessness A40
____ inappropriate guilt A41

...did you have trouble thinking or concentrating? Was it hard to make decisions about everyday things? (What kinds of things did it interfere with?) Nearly every day?

8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others). ? 1 2 3 A42

During that (2-WEEK PERIOD)**...**

...were things so bad that you thought a lot about death or that you would be better off dead? Did you think about taking your own life?

IF YES: **Did you do something about it? (What did you do? Did you make a specific plan? Did you take any action to prepare for it? Did you actually make a suicide attempt?)**

9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide. ? 1 2 3 A43

NOTE: Code "1" for self-mutilation without suicidal intent.

Check if:

___ thoughts of own death A44
___ suicidal ideation A45
___ specific plan A46
___ suicide attempt A47

AT LEAST FIVE OF THE ABOVE SXS (A.1–A.9) ARE CODED "3" AND AT LEAST ONE OF THESE IS ITEM A.1 OR A.2. 1 3 A48

IF NOT ALREADY ASKED: **Has there been any other time when you were** (**depressed**/OWN WORDS) **and had even more of the symptoms that I just asked you about?**

→ *IF YES: RETURN TO* ***PAST MAJOR DEPRESSIVE EPISODE*** *A.5, AND CHECK WHETHER THERE HAVE BEEN ANY OTHER MAJOR DEPRESSIVE EPISODES THAT WERE MORE SEVERE AND/OR CAUSED MORE SYMPTOMS. IF SO, ASK ABOUT THAT EPISODE.*

→ *IF NO: GO TO* ***CURRENT MANIC EPISODE*** *A.10.*

CONTINUE WITH NEXT ITEM, CRITERION B, NEXT PAGE

IF UNKNOWN: **What effect did** (DEPRESSIVE SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION B:

How did (DEPRESSIVE SXS) **affect your relationships or your interactions with other people? (Did this cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (DEPRESSIVE SXS) **affect your work/school? (How about your attendance at work or school? Did** [DEPRESSIVE SXS] **make it more difficult to do your work/schoolwork? How did** [DEPRESSIVE SXS] **affect the quality of your work/schoolwork?)**

How did (DEPRESSIVE SXS) **affect your ability to take care of things at home? (How about doing simple everyday things like getting dressed, bathing, or brushing your teeth? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?)**

Did (DEPRESSIVE SXS) **affect any other important part of your life?**

IF DID NOT INTERFERE WITH LIFE: **How much were you bothered or upset by having** (DEPRESSIVE SXS)**?**

B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 A49

*IF NO*T ALREADY ASKED: **Has there been any other time when you were** (**depressed**/OWN WORDS) **and it caused even more problems than the time I just asked you about?**

- *IF YES: RETURN TO* ****PAST MAJOR DEPRESSIVE EPISODE**** *A.5, AND CHECK WHETHER THERE HAVE BEEN ANY OTHER MAJOR DEPRESSIVE EPISODES THAT WERE MORE SEVERE AND/OR CAUSED MORE SYMPTOMS. IF SO, ASK ABOUT THAT EPISODE.*
- *IF NO: GO TO* ****CURRENT MANIC EPISODE**** *A.10.*

CONTINUE ON NEXT PAGE

IF UNKNOWN: **When did this period of (depression**/OWN WORDS**) begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

Just before this began, were you drinking or using any drugs?

C. [Primary Depressive Episode:] The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition (e.g., hypothyroidism).

? 1 3 A50

IF THERE IS ANY INDICATION THAT THE DEPRESSION MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/ SUBSTANCE*** A.45, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

DUE TO SUBSTANCE USE OR GMC

PRIMARY DEPRESSIVE EPISODE

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.4.

IF UNKNOWN: **Has there been any other time when you were having** (DEPRESSIVE SXS) **like this but were not** (**using** SUBSTANCE/MEDICATION/**ill with** GMC)**?**

- *IF YES: GO TO* ***PAST MAJOR DEPRESSIVE EPISODE*** *A.5 AND CHECK WHETHER THERE HAS BEEN ANY OTHER MAJOR DEPRESSIVE EPISODE NOT DUE TO A SUBSTANCE/MEDICATION OR ANOTHER MEDICAL CONDITION. IF SO, ASK ABOUT THAT EPISODE.*
- *IF NO: GO TO* ***CURRENT MANIC EPISODE*** *A.10*

CONTINUE WITH NEXT ITEM

MAJOR DEPRESSIVE EPISODE CRITERIA A, B, AND C ARE CODED "3."

1 3 A51

GO TO ***CURRENT MANIC EPISODE*** A.10

PAST MAJOR DEPRESSIVE EPISODE

How old were you when (PAST MAJOR DEPRESSIVE EPISODE) **started?**

Age-at-onset of Past Major Depressive Episode coded above. ____ ____ A52

How many separate times in your life have you been (**depressed**/OWN WORDS) **nearly every day for at least 2 weeks and had several of the symptoms that you described like** (SXS OF WORST EPISODE)**?**

Total number of Major Depressive Episodes (CODE 99 IF TOO NUMEROUS OR INDISTINCT TO COUNT). ____ ____ A53

CURRENT MANIC EPISODE

Since (1 MONTH AGO)**, has there been a period of time when you were feeling so good, "high," excited, or "on top of the world" that other people thought you were not your normal self?**

IF YES: **What has it been like? (More than just feeling good?)**

Have you also been feeling like you were "hyper" or "wired" and had an unusual amount of energy? Have you been much more active than is typical for you? (Have other people commented on how much you have been doing?)

IF NO: **Since** (1 MONTH AGO)**, have you had a period of time when you were feeling irritable, angry, or short-tempered most of the day, nearly every day, for at least several days? What has it been like? (Is that different from the way you usually are?)**

IF YES: **Have you also been feeling like you were "hyper" and had an unusual amount of energy? Have you been much more active than is typical for you? (Have other people commented on how much you have been doing?)**

How long has this lasted? (As long as 1 week?)

IF LESS THAN 1 WEEK: **Did you need to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

Have you been feeling (high/irritable/OWN WORDS) **for most of the day, nearly every day during this time?**

FOCUS ON THE MOST SEVERE WEEK IN THE PAST MONTH OF THE CURRENT EPISODE FOR THE FOLLOWING QUESTIONS.

IF UNCLEAR: **During** (EPISODE)**, when were you the most (high/irritable**/OWN WORDS)**?**

During that time…

…how did you feel about yourself?

(More self-confident than usual? Did you feel much smarter or better than everyone else? Did you feel like you had any special powers or abilities?)

…did you need less sleep than usual? (How much sleep did you get?)

IF YES: **Did you still feel rested?**

MANIC EPISODE CRITERIA

A. A distinct period [lasting at least several days] of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased […] activity or energy. ? 1 2 3 A54

GO TO ***PAST MANIC EPISODE*** A.18

Check if:

___ elevated, expansive mood A55

___ irritable mood A56

…lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary). ? 1 2 3 A57

GO TO ***CURRENT HYPOMANIC EPISODE*** A.14

NOTE: If elevated mood lasts less than 1 week, check whether irritable mood lasts at least 1 week before skipping to A.14.

B. During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree and represent a noticeable change from usual behavior:

1. Inflated self-esteem or grandiosity. ? 1 2 3 A58

2. Decreased need for sleep (e.g., feels rested after only 3 hours of sleep). ? 1 2 3 A59

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

During that time…

…were you much more talkative than usual? (Did people have trouble stopping you or understanding you? Did people have trouble getting a word in edgewise?)	3. More talkative than usual or pressure to keep talking.	?	1	2	3	A60
…did you have thoughts racing through your head? (What was that like?)	4. Flight of ideas or subjective experience that thoughts are racing.	?	1	2	3	A61
…were you so easily distracted by things around you that you had trouble concentrating or staying on one track? (Give me an example of that.)	5. Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli) as reported or observed.	?	1	2	3	A62
…how did you spend your time? (Work, friends, hobbies? Were you especially busy during that time?) **(Did you find yourself more enthusiastic at work or working harder at your job? What about being more engaged in school activities or studying harder?)** **(Were you more sociable during that time, such as calling on friends or going out with them more than you usually do or making a lot of new friends?)** **(Were you spending more time thinking about sex or involved in doing something sexual, by yourself or with others? Was that a big change for you?)** **Were you physically restless during this time, doing things like pacing a lot, or being unable to sit still? (How bad was it?)**	6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation (i.e., purposeless non-goal-directed activity). *Check if*: ___ increase in activity ___ psychomotor agitation	?	1	2	3	A63 A64 A65
…were you doing anything that could have caused trouble for you or your family? **(Spending money on things you didn't need or couldn't afford? How about giving away money or valuable things? Gambling with money you couldn't afford to lose?)** **(Anything sexual that was likely to get you in trouble? Driving recklessly?)** **(Did you make any risky or impulsive business investments or get involved in a business scheme that you wouldn't normally have done?)**	7. Excessive involvement in activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).	?	1	2	3	A66

AT LEAST THREE "B" SXS ARE CODED "3" (FOUR IF MOOD ONLY IRRITABLE).

1 3 A67

GO TO ***PAST MANIC EPISODE*** A.18

C. The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.

? 1 2 3 A68

GO TO ***CURRENT HYPOMANIC CRITERION C*** A.16

NOTE: Code "3" if psychotic symptoms have been present. You may need to return here to recode after screening for psychotic symptoms in Module B.

DESCRIBE:

IF UNKNOWN: **What effect have these** (MANIC SXS) **had on your life?**

IF UNKNOWN: **Have you needed to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C.

How have (MANIC SXS) **affected your relationships or your interactions with other people? (Have** (MANIC SXS) **caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (MANIC SXS) **affected your work/ school? (How about your attendance at work or school? Did** [MANIC SXS] **make it more difficult to do your work/ schoolwork? How have** [MANIC SXS] **affected the quality of your work/ schoolwork?)**

How have (MANIC SXS) **affected your ability to take care of things at home?**

IF UNKNOWN: **When did this period of being** (**high/irritable**/OWN WORDS) **begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you taking any medications?

IF YES: **Any change in the amount you were taking?**

Just before this began, were you drinking or using any drugs?

D. [Primary Manic Episode:] The episode is not attributable to the physiological effects of a substance (i.e., a drug of abuse, medication) or to another medical condition.

A69

? 1 3

PRIMARY MANIC EPISODE

IF THERE IS ANY INDICATION THAT MANIA MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF A GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE*** A.41 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

DUE TO SUBSTANCE USE OR GMC, GO TO ***PAST MANIC EPISODE*** A.18

NOTE: A full Manic Episode that emerges during antidepressant treatment (e.g., medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a Manic Episode and, therefore, a Bipolar I diagnosis.

CONTINUE WITH NEXT ITEM

Etiological medical conditions include: Alzheimer's disease, vascular dementia, HIV-induced dementia, Huntington's disease, Lewy body disease, Wernicke-Korsakoff, Cushing's disease, multiple sclerosis, ALS, Parkinson's disease, Pick's disease, Creutzfelt-Jakob disease, stroke, traumatic brain injuries, hyperthyroidism

Etiological substances/medications include: alcohol (I/W), phencyclidine (I), hallucinogens (I), sedatives, hypnotics, anxiolytics (I/W), amphetamines (I/W), cocaine (I/W), corticosteroids, androgens, isoniazid, levodopa, interferon alpha, varenicline, procarbazine, clarithromycin, ciprofloxacin

.

MANIC EPISODE CRITERIA A, B, C, AND D ARE CODED "3."

A70

1 3

GO TO ***PAST MANIC EPISODE*** A.18

CURRENT MANIC EPISODE

CURRENT HYPOMANIC EPISODE

HYPOMANIC EPISODE CRITERIA

*IF CRITERIA ARE MET FOR A CURRENT MANIC EPISODE, CHECK HERE_____ AND GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36*. A71

Has the period when you were feeling (**high/irritable**/OWN WORDS)**, lasted for at least 4 days? Has it lasted for most of the day, nearly every day?**

A. A distinct period of abnormally and persistently elevated, expansive or irritable mood and abnormally and persistently increased activity or energy, lasting at least 4 consecutive days, and present most of the day, nearly every day. ? 1 2 3 A72

GO TO ***PAST MANIC EPISODE*** A.18

Check if:

___ elevated, expansive mood A73
___ irritable mood A74

Have you had more than one time like that since (1 MONTH AGO)**? (Which one was the most extreme?)**

FOCUS ON THE MOST EXTREME PERIOD IN THE PAST MONTH OF THE CURRENT EPISODE FOR THE FOLLOWING QUESTIONS.

B. During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms (four if the mood is only irritable) have persisted, represent a noticeable change from usual behavior, and have been present to a significant degree and represent a noticeable change from usual behavior:

(During that time…)

…how were you feeling about yourself? (More self-confident than usual?) (Did you feel much smarter or better than everyone else?) (Did you feel like you had any special powers or abilities?)

1. Inflated self-esteem or grandiosity. ? 1 2 3 A75

…did you need less sleep than usual? (How much sleep were you getting?)

IF YES: **Were you still feeling rested?**

2. Decreased need for sleep (e.g., feels rested after only 3 hours of sleep). ? 1 2 3 A76

…were you much more talkative than usual? (Did people have trouble stopping you, understanding you, or getting a word in edgewise?)

3. More talkative than usual or pressure to keep talking. ? 1 2 3 A77

…did you have thoughts racing through you head? (What was that like?)

4. Flight of ideas or subjective experience that thoughts are racing. ? 1 2 3 A78

…were you so easily distracted by things around you that you had trouble concentrating or staying on one track? (Give me an example of that.)

5. Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed. ? 1 2 3 A79

During that time…

…how were you spending your time? (Work, friends, hobbies? Were you been especially productive or busy?

(Were you finding yourself more enthusiastic at work or working harder at your job? What about being more engaged in school activities or studying harder?)

(Were you more sociable, such as calling on friends or going out with them more than you usually do or making a lot of new friends?)

(Were you spending more time thinking about sex or doing something sexual, by yourself or with others? Was this a big change for you?)

Were you physically restless during this time, doing things like pacing a lot, or being unable to sit still? (How bad was it?)

6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation. ? 1 2 3 A80

Check if:

___ increase in activity A81
___ psychomotor agitation A82

…were you doing anything that could have caused trouble for you or your family?

(Spending money on things you didn't need or couldn't afford? How about giving away money or valuable things? Gambling with money you couldn't afford to lose?)

(Anything sexual that was likely to get you in trouble? Driving recklessly?)

(Did you make any risky or impulsive business investments or get involved in a business scheme that you wouldn't normally have done?)

7. Excessive involvement in activities which have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments) ? 1 2 3 A83

AT LEAST THREE "B" SXS ARE CODED "3" (FOUR IF MOOD ONLY IRRITABLE). 1 3 A84

NOTE: Because of the inherent difficulty in distinguishing normal periods of good mood from hypomania, review all items coded "3" in criterion B and recode any equivocal judgments.

GO TO ***PAST MANIC EPISODE*** A.18

CURRENT HYPOMANIC CRITERION C

IF UNKNOWN: **Was this very different from the way you usually are when you're not** (**high/irritable**/OWN WORDS)**? (How were you different? At work? With friends?)**

C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.

? 1 2 3 A85

→ GO TO ***PAST MANIC EPISODE*** A.18

IF UNKNOWN: **Did other people notice the change in you? (What did they say?)**

D. The disturbance in mood and the change in functioning are observable by others.

? 1 2 3 A86

→ GO TO ***PAST MANIC EPISODE*** A.18

IF UNKNOWN: **What effect have these** (HYPOMANIC SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E.

How have (HYPOMANIC SXS) **affected your relationships or your interactions with other people? (Has this caused any problems in your relationships with your family, romantic partner or friends?)**

How have (HYPOMANIC SXS) **affected your school/work? (How about your attendance at work or school? Did** [HYPOMANIC SXS] **make it more difficult to do your work/schoolwork? How have** [HYPOMANIC SXS] **affected the quality of your work/schoolwork?)**

How has this affected your ability to take care of things at home?

IF UNKNOWN: **Have you needed to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

E. The episode is not severe enough to cause marked impairment in social or occupational functioning, or to necessitate hospitalization, and there are no psychotic features.

NOTE: Code "1" if markedly impairing symptoms, if hospitalization is necessary, or if there are psychotic symptoms.

? 1 2 3 A87

→ SXS NOT SEVERE ENOUGH FOR A DX OF MANIC EPISODE

→ CONTINUE ON NEXT PAGE

IF SEVERE ENOUGH TO REQUIRE HOSPITALIZATION OR SEVERE ENOUGH TO CAUSE MARKED IMPAIRMENT AND DURATION WAS AT LEAST 1 WEEK, CHECK HERE ___ AND GO TO A.10 AND TRANSCRIBE B CRITERION SYMPTOM RATINGS AND CONTINUE WITH RATINGS FOR CURRENT MANIC EPISODE. A88

IF SEVERE ENOUGH TO CAUSE MARKED IMPAIRMENT BUT LASTED LESS THAN 1 WEEK, CHECK HERE ____ AND GO TO ***PAST MANIC EPISODE*** A.18. IF CRITERIA ARE NOT MET FOR A PAST MANIC EPISODE, CODE "OTHER BIPOLAR DISORDER" FOR THIS SEVERE BUT BRIEF EPISODE, AND INDICATE TYPE 5 ON D.8. A89

IF UNKNOWN: **When did this period of being** (**high/irritable**/OWN WORDS) **begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you taking any medications?

IF YES: **Any change in the amount you were taking?**

Just before this began, were you drinking or using any drugs?

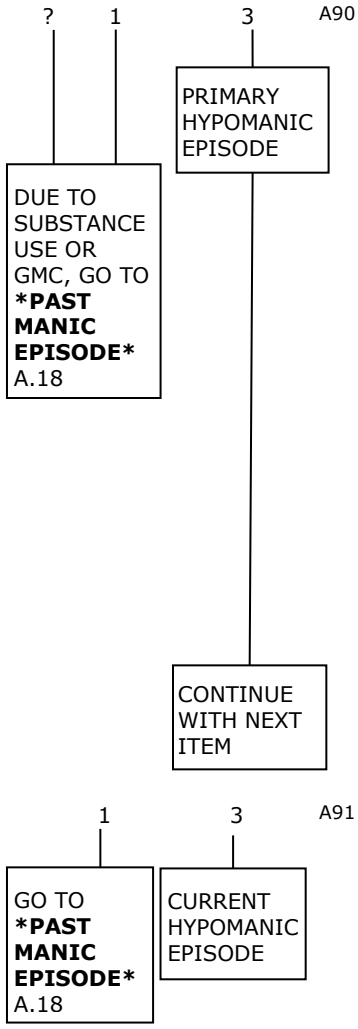
F. [Primary Hypomanic Episode:] The episode is not attributable to the physiological effects of a substance/medication or to another medical condition.

IF THERE IS ANY INDICATION THAT THE HYPOMANIA MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE*** A.41, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: A full Hypomanic Episode that emerges during antidepressant treatment (e.g., medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a Hypomanic Episode diagnosis. However, caution is indicated so that one or two symptoms (particularly increased irritability, edginess, or agitation following antidepressant use) are neither taken as sufficient for diagnosis of a hypomanic episode, nor necessarily indicative of a bipolar diathesis.

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.13.

HYPOMANIC EPISODE CRITERIA A, B, C, D, E, AND F ARE CODED "3."



PAST MANIC EPISODE

NOTE: IF CURRENTLY ELEVATED OR IRRITABLE MOOD BUT FULL CRITERIA ARE NOT MET FOR A MANIC EPISODE, SUBSTITUTE THE PHRASE **"Has there ever been ***another*** time ..."** *IN EACH OF THE SCREENING QUESTIONS BELOW*.

Have you ***ever* had a period of time when you were feeling so good, "high," excited, or "on top of the world" that other people thought you were not your normal self?**

IF YES: **What was it like? (Was that more than just feeling good?) Did you also feel like you were "hyper" or "wired" and had an unusual amount of energy? Were you much more active than is typical for you? (Did other people comment on how much you were doing?)**

IF NO: **Have you ***ever*** had a period of time when you were feeling irritable, angry, or short-tempered for most of the day, every day, for at least several days? What was that like? (Was that different from the way you usually are?)**

IF YES: **Did you also feel like you were "hyper" or "wired" and had an unusual amount of energy? Were you much more active than is typical for you? (Did other people comment on how much you were doing?)**

When was that?

How long did that last? (As long as 1 week?)

IF LESS THAN 1 WEEK: **Did you need to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?)**

Did you feel (**high/irritable**/OWN WORDS) **for most of the day, nearly every day during this time?**

Have you had more than one time like that? (Which time was the most extreme?)

IF UNCLEAR: **Have you had any times like that in the past year, since** (1 YEAR AGO)**?**

MANIC EPISODE CRITERIA

A. A distinct period [lasting at least several days] of abnormally and persistently elevated, expansive or irritable mood and abnormally and persistently increased […] activity or energy. ? 1 2 3 A92

GO TO *__CURRENT CYCLOTHYMIC DISORDER*__ A.28

Check if:

___ elevated, expansive mood A93
___ irritable mood A94

…lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary). ? 1 2 3 A95

GO TO __*PAST HYPOMANIC EPISODE*__ A.23

NOTE: If elevated mood lasts less than 1 week, check whether irritable mood lasts at least 1 week before skipping to A.23.

NOTE: If there is evidence for more than one past episode, select the worst episode that occurred in the prior year; if none of the past episodes occurred in the prior year, select the worst episode that occurred regardless of the time it occurred.

FOCUS ON THE WORST PERIOD OF THE EPISODE THAT YOU ARE INQUIRING ABOUT.

IF UNCLEAR: **During** (EPISODE), **when were you the most** (**high/irritable**/OWN WORDS)**?**

During that time…

B. During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree and represent a noticeable change from usual behavior:

…how did you feel about yourself? (More self-confident than usual? Did you feel much smarter or better than everyone else? Did you feel like you had any special powers or abilities?)	1. Inflated self-esteem or grandiosity.	?	1	2	3	A96
…did you need less sleep than usual? (How much sleep did you get?) *IF YES*: **Did you still feel rested?**	2. Decreased need for sleep (e.g., feels rested after only 3 hours of sleep).	?	1	2	3	A97
…were you much more talkative than usual? (Did people have trouble stopping you or understanding you? Did people have trouble getting a word in edgewise?)	3. More talkative than usual or pressure to keep talking.	?	1	2	3	A98
…**did you have thoughts racing through your head? (What was that like?)**	4. Flight of ideas or subjective experience that thoughts are racing.	?	1	2	3	A99
…were you so easily distracted by things around you that you had trouble concentrating or staying on one track? (Give me an example of that.)	5. Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli) as reported or observed.	?	1	2	3	A100
…how did you spend your time? (Work, friends, hobbies? Were you especially busy during that time?) **(Did you find yourself more enthusiastic at work or working harder at your job? Did you find yourself more engaged in school activities or studying harder?)** **(Were you more sociable during that time, such as calling on friends or going out with them more than you usually do or making a lot of new friends?)** **(Were you spending more time thinking about sex or involved in doing something sexual, by yourself or with others? Was that a big change for you?)** **Were you physically restless during this time, doing things like pacing a lot, or being unable to sit still?** **(How bad was it?)**	6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation (i.e., purposeless non-goal-directed activity). *Check if*: ___ increase in activity ___ psychomotor agitation	?	1	2	3	A101 A102 A103

During that time…

…did you do anything that could have caused trouble for you or your family?

(Spending money on things you didn't need or couldn't afford? How about giving away money or valuable things? Gambling with money you couldn't afford to lose?)

(Anything sexual that was likely to get you in trouble? Driving recklessly?)

(Did you make any risky or impulsive business investments or get involved in a business scheme that you wouldn't normally have done?)

7. Excessive involvement in activities which have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)	?	1	2	3	A104

AT LEAST THREE "B" SXS ARE CODED "3" (FOUR IF MOOD ONLY IRRITABLE). [1] 3 A105

IF NOT ALREADY ASKED: **Has there been any other time when you were** (**high/irritable**/OWN WORDS) **and had even more of the symptoms that I just asked you about?**

→ *IF YES*: *RETURN TO* ****PAST MANIC EPISODE**** *A.18, AND INQUIRE ABOUT WORST EPISODE.*

→ *IF NO*: *GO TO* ****CURRENT CYCLOTHYMIC DISORDER**** *A.28.*

CONTINUE ON NEXT PAGE

IF UNKNOWN: **What effect did these** (MANIC SXS) **have on your life?**

IF UNKNOWN: **Did you need to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C.

How did (MANIC SXS) **affect your relationships or your interactions with other people? (Did** (MANIC SXS) **cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (MANIC SXS) **affect your work/school? (How about your attendance at work or school? Did** [MANIC SXS] **make it more difficult to do your work/schoolwork? How did** [MANIC SXS] **affect the quality of your work/schoolwork?)**

How did (MANIC SXS) **affect your ability to take care of things at home?**

C. The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others or there are psychotic features.

? 1 2 3 A106

CONTINUE ON NEXT PAGE

IF NOT ALREADY ASKED: **Has there been any other time when you were** (**high/irritable**/OWN WORDS) **and had** (ACKNOWLEDGED MANIC SYMPTOMS) **and you got into trouble with people or were hospitalized?**

→ *IF YES: RETURN TO* ****PAST MANIC EPISODE**** *A.18, AND INQUIRE ABOUT OTHER EPISODE.*

→ *IF NO: GO TO* ****PAST HYPOMANIC CRITERION C**** *A.25*

IF UNKNOWN: **When did this period of being** (**high/irritable**/OWN WORDS) **begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you taking any medications?

IF YES: **Any change in the amount you were taking?**

Just before this began, were you drinking or using any drugs?

D. [Primary Manic Episode:] The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition.

IF THERE IS ANY INDICATION THAT THE MANIA MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE*** A.41, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: A full Manic Episode that emerges during antidepressant treatment (e.g., medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a Manic Episode and, therefore a Bipolar I diagnosis.

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.13.

? 1 3 A107

DUE TO SUBSTANCE USE OR GMC

PRIMARY MANIC EPISODE

IF UNKNOWN: **Has there been any other time when you were** (**high/irritable**/OWN WORDS) **and were not** (**using** SUBSTANCE/**ill with AMC**)**?**

- *IF YES: RETURN TO* ***PAST MANIC EPISODE*** *A.18, AND INQUIRE ABOUT OTHER EPISODE.*
- *IF NO: GO TO* ***CURRENT CYCLOTHYMIC DISORDER*** *A.28.*

CONTINUE WITH NEXT ITEM

MANIC EPISODE CRITERIA A, B, C, AND D ARE CODED "3."

1 3 A108

PAST MANIC EPISODE

GO TO ***CURRENT CYCLOTHYMIC DISORDER***A.28

How old were you when (PAST MANIC EPISODE) **started?**

Age-at-onset of Past Manic Episode coded above

____ ____ A109

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

PAST HYPOMANIC EPISODE

HYPOMANIC EPISODE CRITERIA

When you were (**high/irritable**/OWN WORDS)**, did it last for at least 4 days? (Did it last for most of the day, nearly every day?)**

What was it like?

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least 4 consecutive days and persistent most of the day, nearly every day.

? 1 2 3 A110

GO TO ***CURRENT CYCLOTHYMIC DISORDER*** A.28

Check if:

___ elevated, expansive mood A111
___ irritable mood A112

Have you had more than one time like that? (Which time was the most extreme?)

IF UNCLEAR: **Have you had any times like that in the past year, since** (1 YEAR AGO)**?**

NOTE: If there is evidence for more than one past episode, select the "worst" one for your inquiry about past Hypomanic Episode. If there was an episode in the past year, ask about that episode even if it was not the worst.

FOCUS ON THE WORST PERIOD OF THE EPISODE THAT YOU ARE INQUIRING ABOUT.

IF UNCLEAR: **During** (EPISODE)**, when were you the most** (**high/irritable**/OWN WORDS FOR HYPOMANIA)**?**

B. During the period of mood disturbance and increased energy and activity, 3 (or more) of the following symptoms (4 if the mood is only irritable) have persisted, represent a noticeable change from usual behavior, and have been present to a significant degree and represent a noticeable change from usual behavior:

During that time…

…how did you feel about yourself?

(More self-confident than usual? Did you feel much smarter or better than everyone else? Did you feel like you had any special powers or abilities?)

1. Inflated self-esteem or grandiosity. ? 1 2 3 A113

…did you need less sleep than usual? (How much sleep did you get?)

IF YES: **Did you still feel rested?**

2. Decreased need for sleep (e.g., feels rested after only 3 hours of sleep). ? 1 2 3 A114

…were you much more talkative than usual? (Did people have trouble stopping you or understanding you? Did people have trouble getting a word in edgewise?)

3. More talkative than usual or pressure to keep talking. ? 1 2 3 A115

…did you have thoughts racing through your head? (What was that like?)

4. Flight of ideas or subjective experience that thoughts are racing. ? 1 2 3 A116

…were you so easily distracted by things around you that you had trouble concentrating or staying on one track? (Give me an example of that.)

5. Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed. ? 1 2 3 A117

During that time…

…how did you spend your time? (Work, friends, hobbies? Were you especially productive or busy during that time?)

(Did you find yourself more enthusiastic at work or working harder at your job? Did you find yourself more engaged in school activities or studying harder?)

(Were you more sociable during that time, such as calling on friends or going out with them more than you usually do or making a lot of new friends?)

(Were you spending more time thinking about sex or involved in doing something sexual, by yourself or with others? Was that a big change for you?)

Were you physically restless during this time, doing things like pacing a lot, or being unable to sit still? (How bad was it?)

6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation. ? 1 2 3 A118

Check if:

_____ increase in activity A119

_____ psychomotor agitation A120

…did you do anything that could have caused trouble for you or your family?

(Spending money on things you didn't need or couldn't afford? How about giving away money or valuable things? Gambling with money you couldn't afford to lose?)

(Anything sexual that was likely to get you in trouble? Driving recklessly?)

(Did you make any risky or impulsive business investments or get involved in a business scheme that you wouldn't normally have done?)

7. Excessive involvement in activities which have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments) ? 1 2 3 A121

AT LEAST 3 "B" SXS ARE CODED "3" (4 IF MOOD ONLY IRRITABLE). 1 3 A122

NOTE: Because of the inherent difficulty in distinguishing normal periods of good mood from hypomania, review all items coded "3" in criterion B and recode any equivocal judgments.

CONTINUE WITH NEXT ITEM

*IF NO*T ALREADY ASKED: **Has there been any other time when you were** (**high/ irritable/**OWN WORDS) **and had even more of the symptoms that I just asked you about?**

- *IF YES: RETURN TO* ****PAST HYPOMANIC EPISODE**** *A.23 AND INQUIRE ABOUT THAT EPISODE.*
- *IF NO: GO TO* ****CURRENT CYCLOTHYMIC DISORDER**** *A.28.*

PAST HYPOMANIC CRITERION C

IF NOT KNOWN: **Was that very different from the way you usually are? (How were you different? At work? With friends?)**

C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic. ? 1 2 3 A123

DESCRIBE:

CONTINUE ON NEXT PAGE

IF NOT ALREADY ASKED: **Have there been any other times when you were** (**high/ irritable**/OWN WORDS) **in which you were really different from the way you usually are?**

- *IF YES: RETURN TO* ****PAST HYPOMANIC EPISODE**** *A.23 AND INQUIRE ABOUT THAT EPISODE.*
- *IF NO: GO TO* ****CURRENT CYCLOTHYMIC DISORDER**** *A.28.*

IF NOT KNOWN: **Did other people notice the change in you? (What did they say?)**

D. The disturbance in mood and the change in functioning are observable by others. ? [1] 2 3 A124

DESCRIBE:

CONTINUE WITH NEXT ITEM

IF NOT ALREADY ASKED: **Have there been any other times when you were** (**high/irritable**/OWN WORDS) **and other people did notice the change in the way you were acting?**

→ *IF YES: RETURN TO* ***PAST HYPOMANIC EPISODE*** *A.23 AND INQUIRE ABOUT THAT EPISODE.*

→ *IF NO: GO TO* ***CURRENT CYCLOTHYMIC DISORDER*** *A.28.*

IF UNKNOWN: **What effect did these** (HYPOMANIC SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION:

How did (HYPOMANIC SXS) **affect your relationships or your interactions with other people? (Did they cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (HYPOMANIC SXS) **affect your work/school? (How about your attendance at work or school? Did** [HYPOMANIC SXS] **affect the quality of your work/schoolwork?)**

How did (HYPOMANIC SXS) **affect your ability to take care of things at home?**

IF UNKNOWN: **Did you need to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

E. The episode was not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization, and there are no psychotic features. ? 1 [2] 3 A125

SXS NOT SEVERE ENOUGH FOR A DX OF MANIC EPISODE

CONTINUE ON NEXT PAGE

IF SEVERE ENOUGH TO REQUIRE HOSPITALIZATION OR SEVERE ENOUGH TO CAUSE MARKED IMPAIRMENT AND DURATION WAS AT LEAST 1 WEEK, CHECK HERE ___ AND GO TO A.19 AND TRANSCRIBE B CRITERION SYMPTOM RATINGS AND CONTINUE WITH RATINGS FOR PAST MANIC EPISODE. A126

IF SEVERE ENOUGH TO CAUSE MARKED IMPAIRMENT BUT LASTED LESS THAN 1 WEEK, CHECK HERE ___ AND GO TO **CURRENT CYCLOTHYMIC DISORDER** A.28. IF CRITERIA ARE NOT MET FOR A PAST MANIC EPISODE, CODE "OTHER BIPOLAR DISORDER" FOR THIS SEVERE BUT BRIEF EPISODE, AND INDICATE "TYPE 5" ON D.8. A127

IF UNKNOWN: **When did this period of being** (**high/irritable**/OWN WORDS) **begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you taking any medications?

IF YES: **Any change in the amount you were taking?**

Just before this began, were you drinking or using any drugs?

F. [Primary Hypomanic Episode:] The episode is not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition.

IF THERE IS ANY INDICATION THAT THE HYPOMANIA MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/ SUBSTANCE*** A.41, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: A full hypomanic episode that emerges during antidepressant treatment (e.g., medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a hypomanic episode diagnosis. However, caution is indicated so that one or two symptoms (particularly increased irritability, edginess, or agitation following antidepressant use) are neither taken as sufficient for diagnosis of a hypomanic episode, nor necessarily indicative of a bipolar diathesis.

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.13.

? 1 3 A128

PRIMARY HYPOMANIC EPISODE

DUE TO SUBSTANCE USE OR GMC

CONTINUE WITH NEXT ITEM

IF UNKNOWN: **Has there been any other time when you were** (**high/irritable**/OWN WORDS) **and were not** (**using** SUBSTANCE/ MEDICATION/ill with AMC)**?**

→ *IF YES: RETURN TO* ***PAST HYPOMANIC EPISODE*** *A.23 AND INQUIRE ABOUT ANOTHER EPISODE.*

→ *IF NO: GO TO* ***CURRENT CYCLOTHYMIC DISORDER*** *A.28.*

HYPOMANIC EPISODE CRITERIA A, B, C, D, E, AND F ARE CODED "3."

1 3 A129

GO TO ***CURRENT CYCLOTHYMIC DISORDER*** A.28

PAST HYPOMANIC EPISODE

How old were you when (PAST HYPOMANIC EPISODE) **started?**

Age at onset of Past Hypomanic Episode coded above. ____ ____ A130

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

CURRENT CYCLOTHYMIC DISORDER

CURRENT CYCLOTHYMIC DISORDER CRITERIA

*IF THERE HAS EVER BEEN A MAJOR DEPRESSIVE, MANIC, OR HYPOMANIC EPISODE, CHECK HERE ___ AND GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER**** *A.30.* A131

For the past couple of years, since (2 YEARS AGO)**, have you had lots of times in which you were feeling high, excited or irritable as well as lots of time in which you were feeling down or depressed?**

IF YES: **Tell me about that.**

A. For at least 2 years (1 year for children or adolescents), there have been numerous periods with hypomanic symptoms that do not meet criteria for hypomanic episodes and numerous periods of depressed mood or loss of interest that did not meet criteria for a Major Depressive Episode.

? 1 2 3 A132

→ GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

Were you like this for most of the time since (2 YEARS AGO)**?**

IF YES: **Since** (2 YEARS AGO)**, what is the longest period of time in which you felt OK, that is, neither high, irritable, down, nor depressed?**

B. During the above 2-year period (1 year in children or adolescents), the hypomanic and depressive periods have been present for at least half the time and the individual has not been without the symptoms for more than 2 months at a time.

? 1 2 3 A133

→ GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

C. Criteria for a Major Depressive Episode, Manic, or Hypomanic Episode have never been met.

? 1 2 3 A134

→ GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

IF NOT ALREADY CLEAR: RETURN TO THIS ITEM AFTER COMPLETING THE PSYCHOTIC DISORDERS SECTION.

D. The symptoms in Criterion A are not better explained by Schizoaffective Disorder, Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Other Specified or Unspecified Schizophrenia Spectrum and Other Psychotic Disorder.

? 1 2 3 A135

→ GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

IF UNKNOWN: **When did this begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

Just before this began, were you drinking or using any drugs?

E. [Primary Cyclothymia.] The symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition.

? 1 3 A136

→ DUE TO SUBSTANCE USE OR AMC; GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

→ PRIMARY CYCLOTHYMIA

→ CONTINUE ON NEXT PAGE

IF THERE IS ANY INDICATION THAT THE HYPOMANIC AND DEPRESSIVE SXS MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE/MEDICATION*** A.41, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.13.

IF UNKNOWN: **What effect have the mood swings had on your life? (For example, when you are feeling good, do you take things on but then not follow through when you get depressed?)**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION F:

How have mood swings affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)

How have the mood swings affected your work/school? (How about your attendance at work or school? Did they make it more difficult to do your work/schoolwork? How have the mood swings affected the quality of your work/schoolwork?)

How have the mood swings affected your ability to take care of things at home?

Have the mood swings affected any other important part of your life?

IF HAVE NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by having mood swings ?**

F. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 A137

1 → GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

CYCLOTHYMIC DISORDER CRITERIA A, B, C, D, E, AND F ARE CODED "3."

1 3 A138

1 → GO TO ***CURRENT PERSISTENT DEPRESSIVE DISORDER*** A.30

3 → CURRENT CYCLOTHYMIC DISORDER

CURRENT PERSISTENT DEPRESSIVE DISORDER

CURRENT PERSISTENT DEPRESSIVE DISORDER CRITERIA

*IF THERE HAS EVER BEEN A MANIC OR HYPOMANIC EPISODE, CHECK HERE ___ AND GO TO ***PREMENSTRUAL DYSPHORIC DISORDER**** *A.36.* A139

Since (2 YEARS AGO)**, have you been bothered by depressed mood most of the day, more days than not? (More than half of the time?)**

IF YES: **What has that been like?**

A. Depressed mood for most of the day, for more days than not, as indicated either by subjective account or observation by others, for at least 2 years. NOTE: in adolescents, mood can be irritable and duration must be at least 1 year.

? 1 2 3 A140

GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

During these periods of (OWN WORDS FOR CHRONIC DEPRESSION) **did you often…**

B. Presence, while depressed, of two (or more) of the following:

…lose your appetite? (What about overeating?)

1. Poor appetite or overeating. ? 1 2 3 A141

…have trouble sleeping or sleep too much?

2. Insomnia or hypersomnia. ? 1 2 3 A142

…have little energy to do things or feel tired a lot?

3. Low energy or fatigue. ? 1 2 3 A143

…feel down on yourself? (Feel worthless, or a failure?)

4. Low self-esteem. ? 1 2 3 A144

…have trouble concentrating or making decisions?

5. Poor concentration or difficulty making decisions. ? 1 2 3 A145

…feel hopeless?

6. Feelings of hopelessness. ? 1 2 3 A146

AT LEAST TWO "B" SYMPTOMS ARE CODED "3." ? 1 2 3 A147

GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

Since (2 YEARS AGO), **what was the longest period of time that you felt OK** (NO DYSTHYMIC SYMPTOMS)**?**

C. During the 2-year period (1 year for children or adolescents) of the disturbance, the individual has never been without the symptoms in Criteria A and B for more than 2 months at a time.

NOTE: Code "1" if normal mood for more than 2 months at a time.

1 3 A148

GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

E. There has never been a Manic Episode or a Hypomanic Episode, and criteria have never been met for Cyclothymic disorder.

1 3 A149

GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

IF NOT ALREADY CLEAR, RETURN TO THIS ITEM AFTER COMPLETING THE PSYCHOTIC DISORDERS SECTION.

F. The disturbance is not better explained by a persistent Schizoaffective Disorder, Schizophrenia, Delusional Disorder, or Other Specified or Unspecified Schizophrenia Spectrum or Other Psychotic Disorder.

NOTE: Code "3" if *NO* chronic psychotic disorder has been present or if *NOT* better explained by a chronic psychotic disorder.

1 3 A150

GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

IF UNKNOWN: **When did this begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

Just before this began, were you drinking or using any drugs?

G. [Primary Persistent Depressive Disorder:] The symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition (e.g., hypothyroidism).

IF THERE IS ANY INDICATION THAT THE DEPRESSION MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/ SUBSTANCE/MEDICATION*** A.45, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.4.

? 1 3 A151

DUE TO SUBSTANCE USE OR GMC, GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

PRIMARY DEPRESSIVE DISORDER

CONTINUE WITH NEXT ITEM

IF UNKNOWN: **What effect have these** (DEPRESSIVE SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION H:

How have (DEPRESSIVE SXS) **affected your relationships or your interactions with other people? (Has it caused you any problems in your relationships with your family, romantic partner or friends?)**

How have these (DEPRESSIVE SXS) **affected your work/school? (How about your attendance at work or school? Have** [DEPRESSIVE SXS] **made it more difficult to do your work/schoolwork? How did** [DEPRESSIVE SXS] **affect the quality of your work/schoolwork?)**

How have (DEPRESSIVE SXS) **affected your ability to take care of things at home? How about doing simple everyday things like getting dressed, bathing, or brushing your teeth? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

H. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 A152

Have these (DEPRESSIVE SXS) **affected any other important part of your life?**

IF DOES NOT INTERFERE WITH LIFE: How much you been bothered or upset by having (DEPRESSIVE SXS)**?**

PERSISTENT DEPRESSIVE DISORDER CRITERIA A, B, C, D, E, F, G, AND H ARE CODED "3."

1 → GO TO ***PAST PERSISTENT DEPRESSIVE DISORDER*** A.33

3 → CURRENT PERSISTENT DEPRESSIVE DISORDER A153

*Indicate **onset** specifier*:
1 – **Early onset**: onset before age 21
2 – **Late onset**: onset age 21 or older A154

Specify if (for most recent 2 years of Persistent Depressive Disorder): A155

NOTE: Additional information about onset and offset of Major Depressive Episodes during the past 2 years may be needed to evaluate this specifier.

___ **With pure dysthymic syndrome**: Full criteria for a Major Depressive Episode have not been met in at least the preceding 2 years.

___ **With persistent Major Depressive Episode**: Full criteria for a Major Depressive Episode have been met throughout the preceding 2-year period.

___ **With intermittent Major Depressive Episodes, with current episode:** Full criteria for a Major Depressive Episode are currently met, but there have been periods of at least 8 weeks in at least the preceding 2 years with symptoms below the threshold for a full Major Depressive Episode.

___ **With intermittent Major Depressive Episodes, without current episode:** Full criteria for a Major Depressive Episode are not currently met, but there has been one or more Major Depressive Episodes in at least the preceding 2 years.

Specify if: A156

IF UNKNOWN: **Have there been any panic attacks in the past month?**

___ **With panic attacks**: if one or more panic attacks in the past month occurred in the context of current Persistent Depressive Disorder (see page F.7) and criteria have never been met for Panic Disorder.

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

PAST PERSISTENT DEPRESSIVE DISORDER

PAST PERSISTENT DEPRESSIVE DISORDER CRITERIA

IF NO CURRENT TWO YEAR PERIOD OF DEPRESSED MOOD: **Have you ever had a period of time, lasting for at least 2 years, when you have been bothered by depressed mood most of the day, more days than not? (More than half of the time?)**

IF YES: **What was that like?**

A. Depressed mood for most of the day, for more days than not, as indicated either by subjective account or observation by others, for at least 2 years. NOTE: in adolescents, mood can be irritable and duration must be at least 1 year.

? 1 2 3 A157

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

IF CURRENT TWO YEAR PERIOD OF DEPRESSED MOOD: **Prior to the past two years, have you ever had a period of time, lasting for at least 2 years, when you have been bothered by depressed mood most of the day, more days than not? (More than half of the time?)**

IF YES: **What was that like?**

During these periods of (OWN WORDS FOR CHRONIC DEPRESSION) **did you often…**

B. Presence, while depressed, of two (or more) of the following:

…lose your appetite? (What about overeating?)

1. Poor appetite or overeating. ? 1 2 3 A158

…have trouble sleeping or slept too much?

2. Insomnia or hypersomnia. ? 1 2 3 A159

…have little energy to do things or feel tired a lot?

3. Low energy or fatigue. ? 1 2 3 A160

…feel down on yourself? (Feel worthless, or a failure?)

4. Low self-esteem. ? 1 2 3 A161

…have trouble concentrating or making decisions?

5. Poor concentration or difficulty making decisions. ? 1 2 3 A162

…feel hopeless?

6. Feelings of hopelessness. ? 1 2 3 A163

AT LEAST TWO "B" SYMPTOMS ARE CODED "3." ? 1 2 3 A164

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

What was the longest period of time during this period of long-lasting depression, that you felt OK (NO DYSTHYMIC SYMPTOMS)?

C. During the 2-year period (1 year for children or adolescents) of the disturbance, the individual has never been without the symptoms in Criteria A and B for more than 2 months at a time.

NOTE: Code "1" if normal mood for more than 2 months at a time.

1 3 A165

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

E. There has never been a Manic Episode or a Hypomanic Episode, and criteria have never been met for Cyclothymic disorder.

1 3 A166

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

IF NOT ALREADY CLEAR: RETURN TO THIS ITEM AFTER COMPLETING THE PSYCHOTIC DISORDERS SECTION.

F. The disturbance is not better explained by a Persistent Schizoaffective Disorder, Schizophrenia, Delusional Disorder, or Other Specified or Unspecified Schizophrenia Spectrum or Other Psychotic Disorder.

NOTE: Code "3" if NO chronic psychotic disorder has been present or if NOT better explained by a chronic psychotic disorder.

1 3 A167

GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

IF UNKNOWN: **When did this begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

Just before this began, were you drinking or using any drugs?

G. [Primary Persistent Depressive Disorder:] The symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, medication) or to another medical condition (e.g., hypothyroidism).

IF THERE IS ANY INDICATION THAT THE DEPRESSION MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/ SUBSTANCE/MEDICATION*** A.45 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.4.

? 1 3 A168

PRIMARY DEPRESSIVE DISORDER

DUE TO SUBSTANCE USE OR GMC; GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

CONTINUE ON NEXT PAGE

IF UNKNOWN: **What effect did these** (DEPRESSIVE SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION H:

How have (DEPRESSIVE SXS) **affected your relationships or your interactions with other people? (Have** (DEPRESSIVE SXS) **caused you any problems in your relationships with your family, romantic partner or friends?)**

How have these (DEPRESSIVE SXS) **affected your work/school? (How about your attendance at work or school? Did** [DEPRESSIVE SXS] **make it more difficult to do your work/schoolwork? How did** [DEPRESSIVE SXS] **affect the quality of your work/schoolwork?)**

How have (DEPRESSIVE SXS) **affected your ability to take care of things at home? How about doing simple everyday things like getting dressed, bathing, or brushing your teeth? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Have these (DEPRESSIVE SXS) **affected any other important part of your life?**

IF DID NOT INTERFERE WITH LIFE: **How much have you been bothered or upset by having** (DEPRESSIVE SXS)**?**

H. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 2 3 A169

→ GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

PERSISTENT DEPRESSIVE DISORDER CRITERIA A, B, C, D, E, F, G, AND H ARE CODED "3." 1 3 A170

→ GO TO ***PREMENSTRUAL DYSPHORIC DISORDER*** A.36

→ PAST PERSISTENT DEPRESSIVE DISORDER

*Indicate **onset** specifier*: (circle the appropriate number) A171
1 – **Early onset**: onset before age 21
2 – **Late onset**: onset age 21 or

PREMENSTRUAL DYSPHORIC DISORDER (PAST 12 MONTHS)

PREMENSTRUAL DYSPHORIC DISORDER CRITERIA

IF SUBJECT IS A BIOLOGICAL MALE, POST-MENOPAUSAL FEMALE, PREGNANT FEMALE, OR FEMALE WITH HYSTERECTOMY PLUS OOPHORECTOMY, CHECK HERE ___ AND SKIP TO NEXT MODULE. A172

Looking back over your menstrual cycles for the past 12 months, since (1 YEAR AGO)**, have you had mood symptoms such as anger, irritability, anxiety, or depression that developed before your period and then went away during the week after your period?**

IF YES: **After your period began, did the problems disappear for at least a week?**

For how many days during a cycle did you have symptoms?

Since (1 YEAR AGO)**, did this happen for most of your cycles?**

A. In the majority of menstrual cycles, at least five symptoms must be present in the final week before the onset of menses, start to improve within a few days after the onset of menses, and become minimal or absent in the week postmenses.

? 1 2 3 A173

GO TO NEXT MODULE

NOTE: If number of days of symptoms is 20 per month or greater, recheck symptom-free and symptom present intervals.

Think of the most severe premenstrual time you experienced since (1 YEAR AGO)**. Tell me about that time.**

Now I'm going to ask you some specific questions about that premenstrual time.

B. One (or more) of the following symptoms must be present:

...did you have mood swings in which you would feel suddenly sad or tearful?

IF NO: **How about getting unusually upset if someone criticized or rejected you?**

IF YES TO EITHER: **Did this go away when your menstrual period began or shortly after?**

1. Marked affective liability (e.g., mood swings; feeling suddenly sad or tearful, or increased sensitivity to rejection). ? 1 2 3 A174

...were you especially irritable or angry?

IF NO: **How about getting into a lot of fights or arguments with other people?**

IF YES TO EITHER: **Did this go away when your menstrual period began or shortly after?**

2. Marked irritability or anger or increased interpersonal conflicts. ? 1 2 3 A175

…did you feel very sad, down, depressed, or hopeless? *IF NO*: **How about feeling especially critical of yourself or that everything you did was wrong?** *IF YES TO EITHER:* **Did this go away when your menstrual period began or shortly after?**	3. Marked depressed mood, feelings of hopelessness, or self-deprecating thoughts.	?	1	2	3	A176
…did you feel extremely anxious or tense or like you were keyed up or on edge? *IF YES*: **Did this go away when your menstrual period began or shortly after?**	4. Marked anxiety, tension, and/or feelings of being keyed up or on edge.	?	1	2	3	A177
	AT LEAST ONE "B" SYMPTOM IS CODED "3"		1		3	A178

GO TO NEXT MODULE

Now I'm going to ask you about some other experiences that sometimes go along with these mood symptoms.	C. One (or more) of the following symptoms must additionally be present, to reach a total of five symptoms when combined with symptoms from Criterion B above.					
…did you lose interest in work or school, going out with friends, or in your hobbies? *IF YES*: **Did this go away when your menstrual period began or shortly after?**	1. Decreased interest in usual activities (e.g., work, school, friends, and hobbies).	?	1	2	3	A179
…did you find it hard to concentrate on things? *IF YES*: **Did this go away when your menstrual period began or shortly after?**	2. Subjective difficulty in concentration.	?	1	2	3	A180
…did you feel like your energy was very low or that you got tired very easily? *IF YES*: **Did this go away when your menstrual period began or shortly after?**	3. Lethargy, easy fatigability, or marked lack of energy.	?	1	2	3	A181
…was your appetite increased? Did you have specific food cravings, like for chocolate or fried foods? *IF YES*: **Did this go away when your menstrual period began or shortly after?**	4. Marked change in appetite; overeating; or specific food cravings.	?	1	2	3	A182

...were you sleeping more than is usual for you or have difficulty sleeping? (How much sleep were you getting during that time?) *IF YES*: **Did this go away when your menstrual period began or shortly after?**	5. Hypersomnia or insomnia.	?	1	2	3	A183
...were you feeling overwhelmed by everything or like your life was out of control? *IF YES*: **Did this go away when your menstrual period began or shortly after?**	6. A sense of being overwhelmed or out of control.	?	1	2	3	A184
...did you have physical symptoms like breast tenderness or swelling, joint or muscle pain, or feeling bloated? Did you gain weight? *IF YES*: **Did these symptoms go away when your menstrual period began or shortly after?**	7. Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of "bloating," or weight gain.	?	1	2	3	A185
	AT LEAN ONE "C" SYMPTOM IS CODED "3."		1		3	A186
			GO TO NEXT MODULE			
	AT LEAST FIVE "B" AND "C" SYMPTOMS ARE CODED "3."		1		3	A187
			GO TO NEXT MODULE			
IF UNCLEAR: **Has this happened for most of your cycles in the past year?**	Symptoms in criterion A-C must have been met for most menstrual cycles in the preceding year. NOTE: Code "3" only if symptoms in criteria A-C have been met for 7 or more cycles in the past year.	?	1	2	3	A188
			GO TO NEXT MODULE			

***IF UNKNOWN*: What effect have** (PMDD SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION D:

How have (PMDD SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (PMDD SXS) **affected your work/school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)**

How have (PMDD SXS) **affected your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Have (PMDD SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE:
How much have you been bothered or upset by having (PMDD SXS)**?**

D. The symptoms are associated with clinically significant distress or interference with work, school, usual social activities, or relationships with others (e.g., avoidance of social activities; decreased productivity and efficiency at work, school, or home).

? 1 2 3 A188

GO TO NEXT MODULE

IF HISTORY OF ANOTHER MENTAL DISORDER AND UNKNOWN: **Are these symptoms different from the symptoms you had from** (PAST DISORDER)**? Or is it just those same symptoms getting worse just before your period?**

E. The disturbance is not merely an exacerbation of the symptoms of another disorder, such as Major Depressive Disorder, Panic Disorder, Persistent Depressive Disorder (Dysthymia), or a personality disorder (although it may co-occur with any of these disorders).

? 1 2 3 A189

GO TO NEXT MODULE

Since (1 YEAR AGO)**, when you were having these symptoms, were you physically ill?**

IF YES: **What did the doctor say?**

Since (1 YEAR AGO), **have you been taking any medications?**

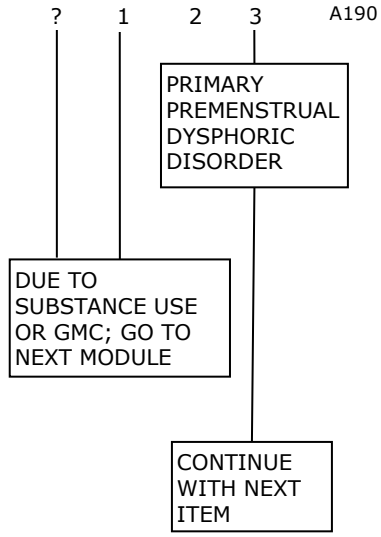
IF YES: **Any change in the amount you were taking?**

Since (1 YEAR AGO)**, have you been drinking or using any drugs?**

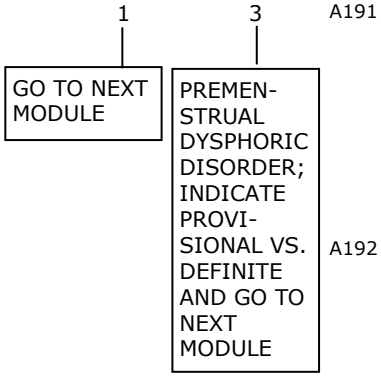
G. [Primary Premenstrual Dysphoric Disorder:] The symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication, other treatment) or another medical condition (e.g., hyperthyroidism).

IF THERE IS ANY INDICATION THAT THE SYMPTOMS MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE*** A.45, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to lists of etiological medical conditions and substances/medications on page A.4.



PMDD CRITERIA A, B, C, D, E, AND G ARE CODED "3."



IF UNKNOWN: **Have you ever kept a diary of your symptoms and how they relate to your cycles?**

*Indicate **provisional** vs. **definite** diagnosis*: (circle the appropriate number)

1 **- Provisional dx:** The symptom pattern in Criterion A has NOT been confirmed by prospective daily ratings during at least two symptomatic cycles.

2 **- Definite dx:** Criterion F is present, i.e., the symptom pattern in Criterion A (i.e., at least five symptoms must be present in the final week before the onset of menses, start to improve within a few days after the onset of menses, and become minimal or absent in the week postmenses) has been confirmed by prospective daily ratings during at least two symptomatic cycles.

GMC/SUBSTANCE CAUSING BIPOLAR AND RELATED SYMPTOMS

BIPOLAR AND RELATED DISORDER DUE TO ANOTHER MEDICAL CONDITION

BIPOLAR AND RELATED DISORDER DUE TO ANOTHER MEDICAL CONDITION CRITERIA

*IF SYMPTOMS NOT TEMPORALLY ASSOCIATED WITH A GENERAL MEDICAL CONDITION, CHECK HERE ___ AND GO TO ***SUBSTANCE-INDUCED BIPOLAR AND RELATED DISORDER*** A.43.* A193

CODE BASED ON INFORMATION ALREADY OBTAINED.

A. A prominent and persistent period of abnormally elevated, expansive, or irritable mood and abnormally increased activity or energy that predominates in the clinical picture. ? 1 2 3 A194

B/C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of another medical condition and the disturbance is not better accounted for by another mental disorder. ? 1 3 A195

GO TO ***SUBSTANCE INDUCED*** A.43

Did the (BIPOLAR SXS) **change after** (GMC) **began? Did** (BIPOLAR SXS) **start or get much worse only after** (GMC) **began? How long after** (GMC) **began did** (BIPOLAR SXS) **start or get much worse?**

IF GMC HAS RESOLVED: **Did the** (BIPOLAR SXS) **get better once the** (GMC) **got better?**

NOTE: The following factors should be considered and, if present, support the conclusion that a general medical condition is etiologic to the bipolar symptoms.

1) There is evidence from the literature of a well-established association between the general medical condition and the bipolar symptoms. (Refer to list of etiological medical conditions on page A.13.)

2) There is a close temporal relationship between the course of the bipolar symptoms and the course of the general medical condition.

3) The bipolar symptoms are characterized by unusual presenting features (e.g., late age-at-onset).

4) The absence of alternative explanations (e.g., bipolar symptoms as a psychological reaction to the stress of being diagnosed with a general medical condition).

IF UNKNOWN: **What effect have** (BIPOLAR SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How have (BIPOLAR SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have they affected your work/ school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)

How did (BIPOLAR SXS) **affect your ability to take care of things at home? Did you need to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

Have (BIPOLAR SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have** (BIPOLAR SXS) **bothered or upset you?**

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or necessitates hospitalization to prevent harm to self or others, or there are psychotic features.

? 1 2 3 A196

GO TO ***SUBSTANCE INDUCED*** A.43

NOTE: The D criterion (delirium rule-out) has been omitted.

BIPOLAR DISORDER DUE TO AMC CRITERIA A, B/C, AND E ARE CODED "3."

1 3 A197

BIPOLAR DISORDER DUE TO AMC

Check here ___ if current in the past month. A198

Specify if: A199

1 - With manic features: Full criteria are not met for a manic or hypomanic episode.

2 - With manic- or hypomanic-like episode: Full criteria are met except Criterion D for a manic episode or except Criterion F for a hypomanic episode.

3 - With mixed features: Symptoms of depression are also present but do not predominate in the clinical picture.

CONTINUE ON NEXT PAGE

SUBSTANCE-/MEDICATION-INDUCED BIPOLAR DISORDER

SUBSTANCE-/MEDICATION-INDUCED BIPOLAR DISORDER CRITERIA

IF SYMPTOMS ARE NOT TEMPORALLY ASSOCIATED WITH SUBSTANCE/MEDICATION USE, CHECK HERE ___ AND RETURN TO EPISODE BEING EVALUATED, CONTINUING WITH THE ITEM FOLLOWING "SYMPTOMS ARE NOT ATTRIBUTABLE TO THE PHYSIOLOGICAL EFFECTS OF A SUBSTANCE OR ANOTHER MEDICAL CONDITION" (SEE PAGE NUMBERS IN BOX TO THE RIGHT).

PAGE TO RETURN TO IN EPISODE BEING EVALUATED:	
Current Manic	A.13
Current Hypomanic	A.17
Past Manic	A.22
Past Hypomanic	A.27
Current Cyclothymic Disorder	A.28
Other Specified Bipolar	D.7

A200

CODE BASED ON INFORMATION ALREADY OBTAINED.

A. A prominent and persistent disturbance in mood that predominates in the clinical picture and is characterized by elevated, expansive, or irritable mood, with or without depressed mood, or markedly diminished interest or pleasure in all, or almost all activities.

? 1 2 3 A201

IF UNKNOWN: **When did the** (BIPOLAR SXS) **begin? Were you already using** (SUBSTANCE/MEDICATION) **or had you just stopped or cut down your use?**

IF UNKNOWN: **How much** (SUBSTANCE/MEDICATION) **were you using when you began to have** (BIPOLAR SXS)**?**

B. There is evidence from the history, physical examination, or laboratory findings of both (1) and (2):

1. The symptoms in criterion A developed during or soon after substance intoxication or withdrawal or exposure to a medication.

2. The involved substance/medication is capable of producing the symptoms in Criterion A. NOTE: Refer to list of etiological substances/medications on page A.13.

? 1 2 3 A202

NOT SUBSTANCE-INDUCED. RETURN TO EPISODE BEING EVALUATED

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NON-SUBSTANCE-INDUCED ETIOLOGY.

IF UNKNOWN: **Which came first, the** (SUBSTANCE/MEDICATION USE) **or the** (BIPOLAR SXS)**?**

IF UNKNOWN: **Have you had a period of time when you stopped using** (SUBSTANCE/MEDICATION)**?**

IF YES: **After you stopped using** (SUBSTANCE/MEDICATION) **did the** (BIPOLAR SXS) **go away or get better?**

IF YES: **How long did it take for them to get better? Did they go away within a month of stopping?**

IF UNKNOWN: **Have you had any other episodes of** (BIPOLAR SXS)**?**

IF YES: **How many? Were you using** (SUBSTANCE/MEDICATION) **at those times?**

C. The disturbance is NOT better accounted for by a bipolar or related disorder that is not substance-induced. Such evidence of an independent bipolar or related disorder could include the following:

NOTE: The following three statements constitute evidence that the bipolar symptoms are not substance-induced. Code "1" if any are true. Code "3" only if *none* are true.

1) The symptoms precede the onset of the substance/medication use;
2) The symptoms persist for a substantial period of time (e.g., about 1 month) after the cessation of acute withdrawal or severe intoxication; or
3) There is other evidence suggesting the existence of an independent non-substance/medication-induced bipolar and related disorder (e.g., a history of recurrent non-substance/medication-related episodes).

? 1 3 A203

RETURN TO EPISODE BEING EVALUATED

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

IF UNKNOWN: **What effect have** (BIPOLAR SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How have (BIPOLAR SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner, or friends?)**

How have (BIPOLAR SXS) **affected your work/school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)**

How did (BIPOLAR SXS) **affect your ability to take care of things at home? Have you needed to go into the hospital to protect you from hurting yourself or someone else, or from doing something that could have caused serious financial or legal problems?**

Have (BIPOLAR SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have** (BIPOLAR SX) **bothered or upset you?**

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 A204

→ RETURN TO EPISODE BEING EVALUATED

NOTE: The D criterion (delirium rule-out) has been omitted.

SUBSTANCE-INDUCED BIPOLAR DISORDER CRITERIA A, B, C, AND E ARE CODED "3."

1 3 A205

→ SUBSTANCE-/MEDICATION-INDUCED BIPOLAR DISORDER

Check here ___ if current in the past month. A206

*Indicate **context of development** of mood symptoms*: A207

1 – **With onset during intoxication**

2 – **With onset during withdrawal**

→ RETURN TO EPISODE BEING EVALUATED

GMC/SUBSTANCE CAUSING DEPRESSIVE SYMPTOMS

DEPRESSIVE DISORDER DUE TO ANOTHER MEDICAL CONDITION

DEPRESSIVE DISORDER DUE TO ANOTHER MEDICAL CONDITION CRITERIA

IF SYMPTOMS NOT TEMPORALLY ASSOCIATED WITH A GENERAL MEDICAL CONDITION, CHECK HERE ___ AND GO TO ****SUBSTANCE-INDUCED DEPRESSIVE DISORDER**** *A.48* A208

CODE BASED ON INFORMATION ALREADY OBTAINED.

A. A prominent and persistent period of depressed mood or markedly diminished interest or pleasure in all, or almost all, activities that predominates in the clinical picture. ? 1 2 3 A209

B./C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of another medical condition and the disturbance is not better accounted for by another mental disorder. ? 1 3 A210

GO TO ***SUBSTANCE INDUCED*** A.48

Did the (DEPRESSIVE SXS) **change after** (GMC) **began? Did** (DEPRESSIVE SXS) **start or get much worse only after** (GMC) **began? How long after** (GMC) **began did** (DEPRESSIVE SXS) **start or get much worse?**

IF GMC HAS RESOLVED: **Did the** (DEPRESSIVE SXS) **get better once the** (GMC) **got better?**

NOTE: The following factors should be considered and, if present, support the conclusion that a general medical condition is etiologic to the depressive symptoms.

1) There is evidence from the literature of a well-established association between the general medical condition and the depressive symptoms. (Refer to list of etiological general medical conditions on page A.4.)

2) There is a close temporal relationship between the course of the depressive symptoms and the course of the general medical condition.

3) The depressive symptoms are characterized by unusual presenting features (e.g., late age-at-onset).

4) The absence of alternative explanations (e.g., depressive symptoms as a psychological reaction to the stress of being diagnosed with a general medical condition).

IF UNKNOWN: **What effect have** (DEPRESSIVE SX) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How have (DEPRESSIVE SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner, or friends?)**

How have (DEPRESSIVE SXS) **affected your work/school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)**

How have (DEPRESSIVE SXS) **affected your ability to take care of things at home? How about doing simple everyday things like getting dressed, bathing, or brushing your teeth? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Have (DEPRESSIVE SXS) **affected any other important part of your life?**

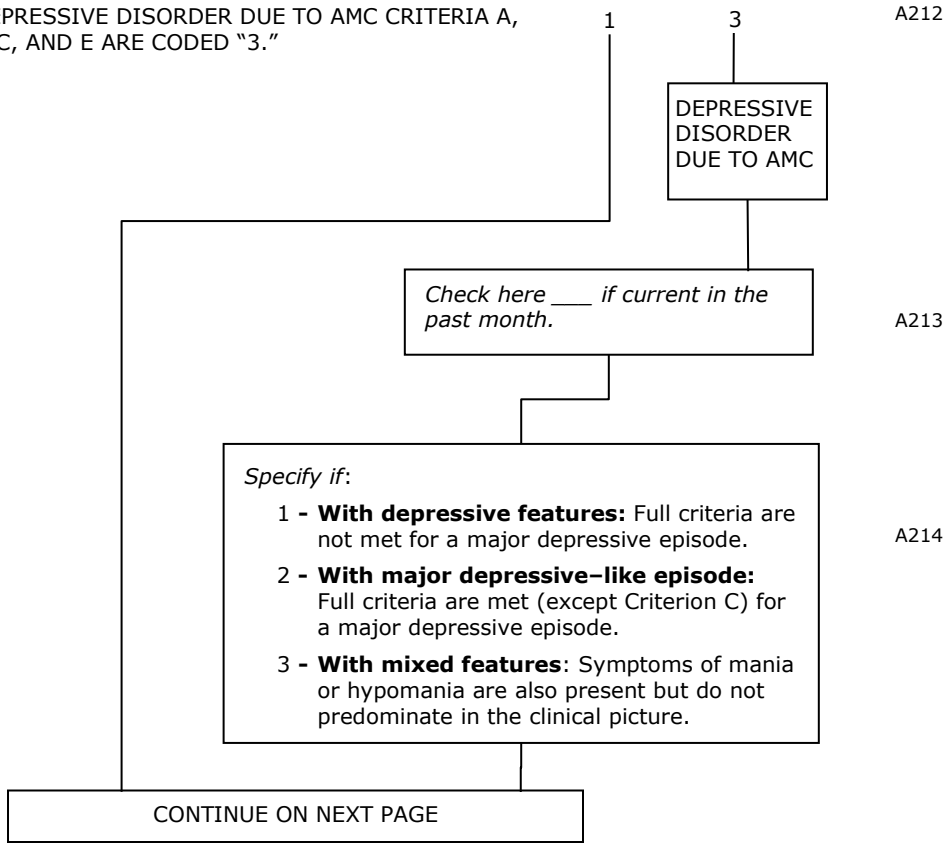
IF HAVE NOT INTERFERED WITH LIFE: **How much have** (DEPRESSIVE SXS) **bothered or upset you?**

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 A211

GO TO ***SUBSTANCE INDUCED*** A.48

NOTE: The D criterion (delirium rule-out) has been omitted.


DEPRESSIVE DISORDER DUE TO AMC CRITERIA A, B/C, AND E ARE CODED "3."
1
3
A212
DEPRESSIVE DISORDER DUE TO AMC
Check here ___ if current in the past month.
A213
Specify if:
1 - With depressive features: Full criteria are not met for a major depressive episode.
2 - With major depressive–like episode: Full criteria are met (except Criterion C) for a major depressive episode.
3 - With mixed features: Symptoms of mania or hypomania are also present but do not predominate in the clinical picture.
A214
CONTINUE ON NEXT PAGE

SUBSTANCE-/MEDICATION-INDUCED DEPRESSIVE DISORDER

SUBSTANCE-/MEDICATION-INDUCED DEPRESSIVE DISORDER CRITERIA

IF SYMPTOMS NOT TEMPORALLY ASSOCIATED WITH SUBSTANCE/MEDICATION USE, CHECK HERE ___ AND RETURN TO EPISODE BEING EVALUATED, CONTINUING WITH THE ITEM FOLLOWING "SYMPTOMS ARE NOT ATTRIBUTABLE TO THE PHYSIOLOGICAL EFFECTS OF A SUBSTANCE OR ANOTHER MEDICAL CONDITION" (SEE PAGE NUMBERS IN BOX TO THE RIGHT).

PAGE TO RETURN TO IN EPISODE BEING EVALUATED:	
Current MDE	A.4
Past MDE	A.9
Current Persistent Depressive Disorder	A.31
Past Persistent Depressive Disorder	A.34
PMDD	A.40
Other Specified Depressive Disorder	D.12

A215

CODE BASED ON INFORMATION ALREADY OBTAINED.

A. A prominent and persistent disturbance in mood that predominates in the clinical picture and is characterized by depressed mood or markedly diminished interest or pleasure in all, or almost all, activities

? 1 2 3 A216

IF UNKNOWN: **When did the** (DEPRESSIVE SXS) **begin? Were you already using** (SUBSTANCE/MEDICATION) **or had you just stopped or cut down your use?**

IF UNKNOWN: **How much** (SUBSTANCE/MEDICATION) **were you using when you began to have** (DEPRESSIVE SXS)**?**

B. There is evidence from the history, physical examination, or laboratory findings of both (1) and (2):

1. The symptoms in criterion A developed during or soon after substance intoxication or withdrawal or exposure to a medication

2. The involved substance/medication is capable of producing the symptoms in Criterion A. NOTE: refer to list of etiological substances/medications on page A.4.

? 1 2 3 A217

NOT SUBSTANCE-INDUCED.RETURN TO EPISODE BEING EVALUATED

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NON-SUBSTANCE-INDUCED ETIOLOGY.

IF UNKNOWN: **Which came first, the** (SUBSTANCE/MEDICATION USE) **or the** (DEPRESSIVE SXS)**?**

IF UNKNOWN: **Have you had a period of time when you stopped using** (SUBSTANCE/MEDICATION)**?**

IF YES: **After you stopped using** (SUBSTANCE/MEDICATION) **did the** (DEPRESSIVE SXS) **go away or get better?**

IF YES: **How long did it take for them to get better? Did they go away within a month of stopping?**

IF UNKNOWN: **Have you had any other episodes of** (DEPRESSIVE SXS)?

IF YES: **How many? Were you using** (SUBSTANCE/MEDICATION) **at those times?**

C. The disturbance is NOT better accounted for by a depressive disorder that is not substance-induced. Such evidence of an independent depressive disorder could include the following:

? 1 3 A218

RETURN TO EPISODE BEING EVALUATED

NOTE: The following three statements constitute evidence that the depressive symptoms are not substance-induced. Code "1" if any are true. Code "3" only if *none* are true.

1) The symptoms precede the onset of the substance/medication use;
2) The symptoms persist for a substantial period of time (e.g., about 1 month) after the cessation of acute withdrawal or severe intoxication; or
3) There is other evidence suggesting the existence of an independent non-substance/ medication-induced depressive disorder (e.g., a history of recurrent non-substance/ medication-related episodes).

IF UNKNOWN: **What effect have** (DEPRESSIVE SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How have (DEPRESSIVE SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (DEPRESSIVE SXS) **affected your work/school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)**

How have (DEPRESSIVE SXS) **affected your ability to take care of things at home? How about doing simple everyday things like getting dressed, bathing, or brushing your teeth? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Have (DEPRESSIVE SXS) **affected any other important part of your life?**

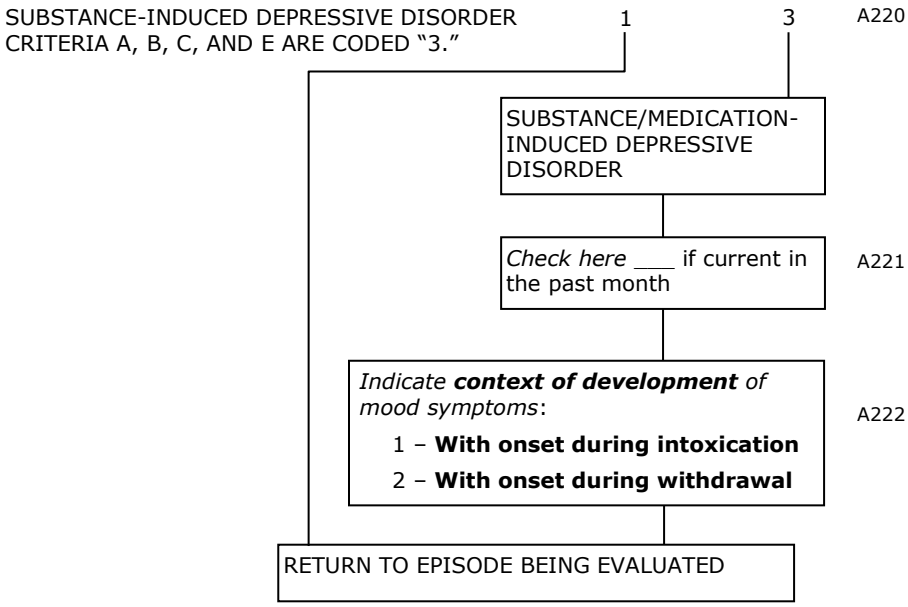
IF HAVE NOT INTERFERED WITH LIFE: **How much have** (DEPRESSIVE SXS) **bothered or upset you?**

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 A219

RETURN TO EPISODE BEING EVALUATED

NOTE: the D criterion (delirium rule-out) has been omitted.


SUBSTANCE-INDUCED DEPRESSIVE DISORDER
CRITERIA A, B, C, AND E ARE CODED "3."
1
3
A220
SUBSTANCE/MEDICATION-INDUCED DEPRESSIVE DISORDER
Check here ___ if current in the past month
A221
Indicate context of development of mood symptoms:
1 – With onset during intoxication
2 – With onset during withdrawal
A222
RETURN TO EPISODE BEING EVALUATED

B/C. PSYCHOTIC SCREENING MODULE

NOTE: This module is for coding psychotic and associated symptoms that have been present at any point in the subject's lifetime. It can be used for settings in which cases with primary psychotic symptoms are to be excluded i.e., psychotic symptoms that are not due to substance/medication use or to a general medical condition) and/or psychotic symptoms that occur outside the context of a Major Depressive or Manic Episode.

For each psychotic symptom coded "3," describe the actual content and indicate the period of time during which the symptom was present. Moreover, for any psychotic symptom coded "3." determine whether the symptom is definitely "primary" or whether there is a possible or definite etiological substance (including medication) or general medical condition. Refer to page B/C.6 for a list of possible etiological general medical conditions and substances/medications.

The following questions may be useful if the Overview has not already provided the information.

Just before (PSYCHOTIC SXS) **began, were you using drugs? ...were you taking any medications? ...did you drink much more than usual or stop drinking after you had been drinking a lot for a while? ...were you physically ill?**

IF YES TO ANY: **Has there been a time when you had** (PSYCHOTIC SXS) **and were not** (USING DRUGS/TAKING MEDICATION/CHANGING YOUR DRINKING HABITS/ILL)**?**

DELUSIONS

Now I'd like to ask you about unusual experiences that people sometimes have.

A false belief based on incorrect inference about external reality that is firmly held despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary. The belief is not one ordinarily accepted by other members of the person's culture or subculture. When a false belief involves a value judgment, it is regarded as a delusion only when the judgment is so extreme as to defy credibility. Code overvalued ideas (unreasonable and sustained beliefs that are maintained with less than delusional intensity) as "2."

Has it ever seemed like people were talking about you or taking special notice of you? (What do you think they were saying about you?)

IF YES: **Were you convinced they were talking about you or did you think it might have been your imagination?**

Did you ever have the feeling that something on the radio, TV, or in a movie was meant especially for you? (...not just that it was particularly relevant to you, but that it was specifically meant for you.)

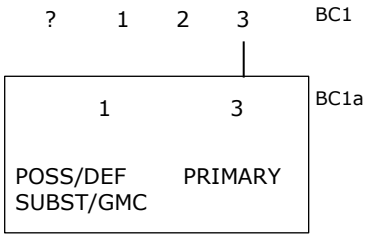
Did you ever have the feeling that the words in a popular song were meant to send you a special message? (...not just that they were particularly relevant to you, but that they were specifically meant for you.)

Did you ever have the feeling that what people were wearing was intended to send you a special message?

Did you ever have the feeling that street signs or billboards had a special meaning for you?

Delusion of reference, i.e., events, objects, or other persons in the individual's immediate environment are seen as having a particular and unusual significance.

DESCRIBE:



What about anyone going out of their way to give you a hard time, or trying to hurt you? (Tell me about that.)

Have you ever had the feeling that you were being followed, spied on, manipulated, or plotted against?

Did you ever have the feeling that you were being poisoned or that your food had been tampered with?

Persecutory delusion, i.e., the central theme is that one (or someone to whom one is close to) is being attacked, harassed, cheated, persecuted, or conspired against.

DESCRIBE:

? 1 2 3 BC2

1 3 BC2a

POSS/DEF PRIMARY
SUBST/GMC

Have you ever thought that you were especially important in some way, or that you had special powers or knowledge? (Tell me about that.)

Did you ever believe that you had a special or close relationship with a celebrity or someone else famous?

Grandiose delusion, i.e., content involves inflated worth, power, knowledge identity, or a special relationship to a deity or famous person.

DESCRIBE:

? 1 2 3 BC3

1 3 BC3a

POSS/DEF PRIMARY
SUBST/GMC

Have you ever been convinced that something was very wrong with your physical health even though your doctor said nothing was wrong…like you had cancer or some other disease? (Tell me about that.)

Have you ever felt that something strange was happening to parts of your body?

Somatic delusion, i.e., main content pertains to the appearance or functioning of one's body.

DESCRIBE:

? 1 2 3 BC4

1 3 BC4a

POSS/DEF PRIMARY
SUBST/GMC

Have you ever felt that you had committed a crime or done something terrible for which you should be punished? (Tell me about that.)

Have you ever felt that something you did, or should have done but did not do, caused serious harm to your parents, children, other family members, or friends?

What about feeling responsible for a disaster such as a fire, flood, or earthquake?

Delusion of guilt, i.e., a belief that a minor error in the past will lead to disaster, or that he or she has committed a horrible crime and should be punished severely, or that he or she is responsible for a disaster (e.g., an earthquake or fire) with which there can be no possible connection

DESCRIBE:

? 1 2 3 BC5

1 3 BC5a

POSS/DEF PRIMARY
SUBST/GMC

Have you ever been convinced that your spouse or partner was being unfaithful to you?

IF YES: **How did you know they were being unfaithful? (What clued you into this?)**

Jealous delusion, i.e., that one's sexual partner is unfaithful

DESCRIBE:

? 1 2 3 BC6

1 3 BC6a

POSS/DEF PRIMARY
SUBST/GMC

Did you ever have a "secret admirer" who, when you tried to contact them, denied that they were in love with you? (Tell me about that.)

Were you ever romantically involved with someone famous? (Tell me about that.)

Erotomanic delusion, i.e., that another person, usually of higher status, is in love with the individual.

DESCRIBE:

? 1 2 3 BC7

1 3 BC7a

POSS/DEF PRIMARY
SUBST/GMC

Are you a religious or spiritual person?

- *IF YES*: **Have you ever had any religious or spiritual experiences that the other people in your religious or spiritual community have not experienced?**
  - *IF YES*: **Tell me about your experiences. (What did they think about these experiences of yours?)**
  - *IF NO*: **Have you ever felt that God, the devil, or some other spiritual being or higher power has communicated directly with you? (Tell me about that. Do others in your religious or spiritual community also have such experiences?)**
- *IF NO*: **Have you ever felt that God, or the devil or some other spiritual being or higher power has communicated directly with you? (Tell me about that. Do others in your religious or spiritual community also have such experiences?)**

Religious delusion, i.e., a delusion with a religious or spiritual content.

DESCRIBE:

? 1 2 3 BC8

1 3 BC8a

POSS/DEF PRIMARY
SUBST/GMC

Did you ever feel that someone or something outside yourself was controlling your thoughts or actions against your will? (Tell me about that.

Delusion of being controlled, i.e., feelings, impulses, thoughts, or actions are experienced as being under the control of some external force rather than under one's own control.

DESCRIBE:

? 1 2 3 BC9

1 3 BC9A

POSS/DEF PRIMARY
SUBST/GMC

Did you ever feel that certain thoughts that were not your own were put into your head? (Tell me about that.)

Thought insertion, i.e., that certain thoughts are not one's own, but rather are inserted into one's mind.

DESCRIBE:

? 1 2 3 BC10

1 3 BC10a

POSS/DEF PRIMARY
SUBST/GMC

What about thoughts being taken out of your head? (Tell me about that.)

Thought withdrawal, i.e., that one's thoughts have been "removed" by some outside force.

DESCRIBE:

? 1 2 3 BC11

1 3 BC11a

POSS/DEF PRIMARY
SUBST/GMC

Did you ever feel as if your thoughts were being broadcast out loud so that other people could actually hear what you were thinking? (Tell me about that.)

Thought broadcasting, i.e., the delusion that one's thoughts are being broadcast out loud so that others can perceive them.

DESCRIBE:

? 1 2 3 BC12

1 3 BC12a

POSS/DEF PRIMARY
SUBST/GMC

Did you ever believe that someone could read your mind? (Tell me about that.)

Other delusions (e.g., that others can read the person's mind, a delusion that one has died several years ago).

DESCRIBE:

? 1 2 3 BC13

1 3 BC13a

POSS/DEF PRIMARY
SUBST/GMC

HALLUCINATIONS

A perception-like experience with the clarity and impact of a true perception, but without the external stimulation of the relevant sensory organ. The person may or may not have insight into the nonveridical nature of the hallucination (i.e., one hallucinating person may recognize the false sensory experience, whereas another may be convinced that the experience is grounded in reality).

NOTE: Code "2" for hallucinations that are so transient as to be without diagnostic significance. Code "1" for hypnagogic or hypnopompic hallucinations.

Did you ever hear things that other people couldn't, such as noises, or the voices of people whispering or talking? (Were you awake at the time?)

IF YES: **What did you hear? How often did you hear it?**

Auditory hallucinations, i.e., involving the perception of sound, most commonly of voice) when fully awake, heard either inside or outside of one's head.

DESCRIBE:

? 1 2 3 BC14

1 3 BC14a

POSS/DEF PRIMARY
SUBST/GMC

Did you have visions or see things that other people couldn't see? (Tell me about that. Were you awake at the time?)

NOTE: DISTINGUISH FROM AN ILLUSION, I.E., A MISPERCEPTION OF A REAL EXTERNAL STIMULUS.

Visual hallucinations, i.e., a hallucination involving sight, which may consist of formed images, such as of people or of unformed images, such as flashes of light.

DESCRIBE:

? 1 2 3 BC15

1 3 BC15a

POSS/DEF PRIMARY
SUBST/GMC

What about strange sensations on your skin, like feeling like something is creeping or crawling on or under your skin? How about the feeling of being touched or stroked? (Tell me about that.)

Tactile hallucinations, i.e., a hallucination involving the perception of being touched or of something being under one's skin.

DESCRIBE

? 1 2 3 BC16

1 3 BC16a

POSS/DEF PRIMARY
SUBST/GMC

What about having unusual sensations inside a part of your body, like a feeling of electricity? (Tell me about that.)

Somatic hallucination, i.e., a hallucination involving the perception of physical experience localized within the body (e.g., a feeling of electricity).

DESCRIBE:

? 1 2 3 BC17

1 3 BC17a

POSS/DEF SUBST/GMC | PRIMARY

How about eating or drinking something that you thought tasted bad or strange even though everyone else who tasted it thought it was fine? (Tell me about that.)

Gustatory hallucinations, i.e., a hallucination involving the perception of taste (usually unpleasant)

DESCRIBE:

? 1 2 3 BC18

1 3 BC18a

POSS/DEF SUBST/GMC | PRIMARY

What about smelling unpleasant things that other people couldn't smell, like decaying food or dead bodies? (Tell me about that.)

Olfactory hallucinations, i.e., a hallucination involving the perception of odor

DESCRIBE:

? 1 2 3 BC19

1 3 BC19a

POSS/DEF SUBST/GMC | PRIMARY

ANY ITEM CODED "3" IN "PRIMARY" SECTION

? 1 3 BC20

GO TO NEXT MODULE

A PRIMARY PSYCHO-TIC SX HAS BEEN PRESENT

IF A MAJOR DEPRESSIVE OR MANIC EPISODE HAS EVER BEEN PRESENT: **Has there ever been a time when you had** (PSYCHOTIC SXS) **and you were not** (**depressed/high/ irritable**/OWN WORDS)**?**

Psychotic symptoms occur at times other than during mood episodes.

NOTE: Code "3" if psychotic symptoms have been present and either: 1) there have never been any Major Depressive or Manic Episodes, or 2) psychotic symptoms occurred outside of Major Depressive or Manic Episodes. Code '1" if psychotic symptoms have occurred only during Major Depressive or Manic Episodes.

? 1 3 BC21

PSYCHOTIC MOOD DIS-ORDER.

GO TO NEXT MODULE

PSYCHO-TIC DIS-ORDER LIKELY

EXPLORE DETAILS AND DESCRIBE DIAGNOSTIC SIGNIFICANCE: BC22

Etiological general medical conditions *include:*

Neurological conditions (e.g., neoplasms, cerebrovascular disease, Huntington's disease, multiple sclerosis, epilepsy, auditory or visual nerve injury or impairment, deafness, migraine, central nervous system infections), endocrine conditions (e.g., hyper- and hypothyroidism, hyper- and hypoparathyroidism, hyper- and hypoadrenocorticism), metabolic conditions (e.g., hypoxia, hypercarbia, hypoglycemia), fluid or electrolyte imbalances, hepatic or renal diseases, and autoimmune disorders with central nervous system involvement (e.g., systemic lupus erythematosus).

Etiological substances/medications *include:*

Alcohol (during intoxication or withdrawal); cannabis (during intoxication); hallucinogens (during intoxication), phencyclidine (and related substances (during intoxication); inhalants (during intoxication); sedatives, hypnotics, and anxiolytics (during intoxication or withdrawal); and stimulants (including cocaine) (during intoxication);

Other substances and medications that can cause psychotic symptoms include anesthetics and analgesics, anticholinergic agents, anticonvulsants, antihistamines, antihypertensive and cardiovascular medications, antimicrobial medications, antiparkinsonian medications, chemotherapeutic agents (e.g., cyclosporine, procarbazine), corticosteroids, gastrointestinal medications, muscle relaxants, nonsteroidal anti-inflammatory medications, other over-the-counter medications (e.g., phenylephrine, pseudoephedrine), antidepressant medication, and disulfiram. Toxins include anticholinesterase, organophosphate insecticides, sarin and other nerve gases, carbon monoxide, carbon dioxide, and volatile substances such as fuel or paint.

E. SUBSTANCE USE DISORDERS

PAST-12-MONTH ALCOHOL USE DISORDER

→ IF DENIES ANY LIFETIME ALCOHOL USE ON PAGE 6 OF PATIENT OVERVIEW (OR PAGE 4 OF NON-PATIENT OVERVEW), CHECK HERE ___ AND GO TO ***NON-ALCOHOL SUBSTANCE USE DISORDERS*** E.10

→ *IF ACKNOWLEDGES LIFETIME ALCOHOL USE DURING OVERVIEW AND IF UNKNOWN:* **Have you drunk alcohol at least six times in the past 12 months, that is, since** (1 YEAR AGO)**?**

→ *IF YES:* **Now I'd like to ask you some more questions about your drinking since** (1 YEAR AGO)...

→ *IF NO:* GO TO ***PRIOR-TO-PAST-12-MONTH ALCOHOL USE DISORDER*** E.6.

ALCOHOL USE DISORDER CRITERIA

E1

A. A problematic pattern of alcohol use, leading to clinically significant impairment or distress, as manifested by at least two of the following occurring within a 12-month period:

NOTE: The DSM-IV examples that were omitted in DSM-5 have been restored here.

During the past year, have you found that once you started drinking you ended up drinking much more than you <u>intended</u> to? For example, you planned to have only one or two drinks but you ended up having many more. (Tell me about that. How often did this happen?)

IF NO: **What about drinking for a much longer period of time than you were <u>intending</u> to?**

1. Alcohol is often taken in larger amounts OR over a longer period than was intended. ? 1 2 3 E2

During the past year, have you wanted to stop, cut down, or control your drinking?

→ *IF YES:* **How long did this desire to stop, cut down, or control your drinking last?**

→ *IF NO:* **During the past year, did you ever try to cut down, stop, or control your drinking? How successful were you? (Did you make more than one attempt to stop, cut down, or control your drinking?)**

2. There is a persistent desire OR unsuccessful efforts to cut down or control alcohol use. ? 1 2 3 E3

Have you spent a lot of time drinking, being drunk, or hung over? (How much time?)

3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects. ? 1 2 3 E4

Have you had a strong desire or urge to drink in between those times when you were drinking? (Has there been a time when you had such strong urges to have a drink that you had trouble thinking about anything else?) *IF NO:* **How about having a strong desire or urge to drink when you were around bars or around people with whom you go drinking?**	4. Craving, or a strong desire or urge to use alcohol.	?	1	2	3	E5
During the past year, since (1 YEAR AGO)**, have you missed work or school or often arrived late because you were intoxicated, high, or very hung over?** *IF NO:* **How about doing a bad job at work or school, or failing courses or flunking out of school because of your drinking?** *IF NO:* **How about getting in trouble at work or school because of your use of alcohol?** *IF NO:* **How about not taking care of things at home because of your drinking, like making sure there is food and clean clothes for your family and making sure your children go to school and get medical care? How about not paying your bills?** *IF YES TO ANY:* **How often?**	5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home [(e.g., repeated absences or poor work performance related to alcohol use; alcohol-related absences, suspensions, or expulsions from school; neglect of children or household)].	?	1	2	3	E6
Has your drinking caused problems with other people, such as family members, friends, or people at work? (Have you found yourself regularly getting into arguments about what happens when you drink too much? Have you gotten into physical fights when you were drunk?) *IF YES:* **Have you kept on drinking anyway?**	6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol [(e.g., arguments with spouse about consequences of intoxication, physical fights)].	?	1	2	3	E7
Have you had to give up or reduce the time you spent at work or school, with family or friends, or on things you like to do (like sports, cooking, other hobbies) because you were drinking or hungover?	7. Important social, occupational, or recreational activities given up or reduced because of alcohol use.	?	1	2	3	E8
During the past year, since (1 YEAR AGO)**, have you ever had a few drinks right before doing something that requires coordination and concentration like driving, boating, climbing on a ladder, or operating heavy machinery?** *IF YES:* **Would you say that the amount you had to drink affected your coordination or concentration so that it was more likely that you or someone else could have been hurt?** *IF YES AND UNKNOWN:* **How many times? (When?)**	8. Recurrent alcohol use in situations in which it is physically hazardous [(e.g., driving an automobile or operating a machine when impaired by alcohol use)].	?	1	2	3	E9

Has your drinking caused you any problems like making you very depressed or anxious? How about putting you in a "mental fog," making it difficult for you to sleep, or making it so you couldn't recall what happened while you were drinking?

Has your drinking caused significant physical problems or make a physical problem worse, like stomach ulcers, liver disease, or pancreatitis?

IF YES TO EITHER OF ABOVE: **Have you kept on drinking anyway?**

9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol [(e.g., continued drinking despite recognition that an ulcer was made worse by alcohol consumption)]. ? 1 2 3 E10

Have you found that you needed to drink much more in order to get the feeling you wanted than you did when you first started drinking?

→ *IF YES*: **How much more?**

→ *IF NO*: **What about finding that when you drank the same amount, it had much less effect than before? (How much less?)**

10. Tolerance, as defined by either of the following: ? 1 2 3 E11

    a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
    b. Markedly diminished effect with continued use of the same amount of alcohol.

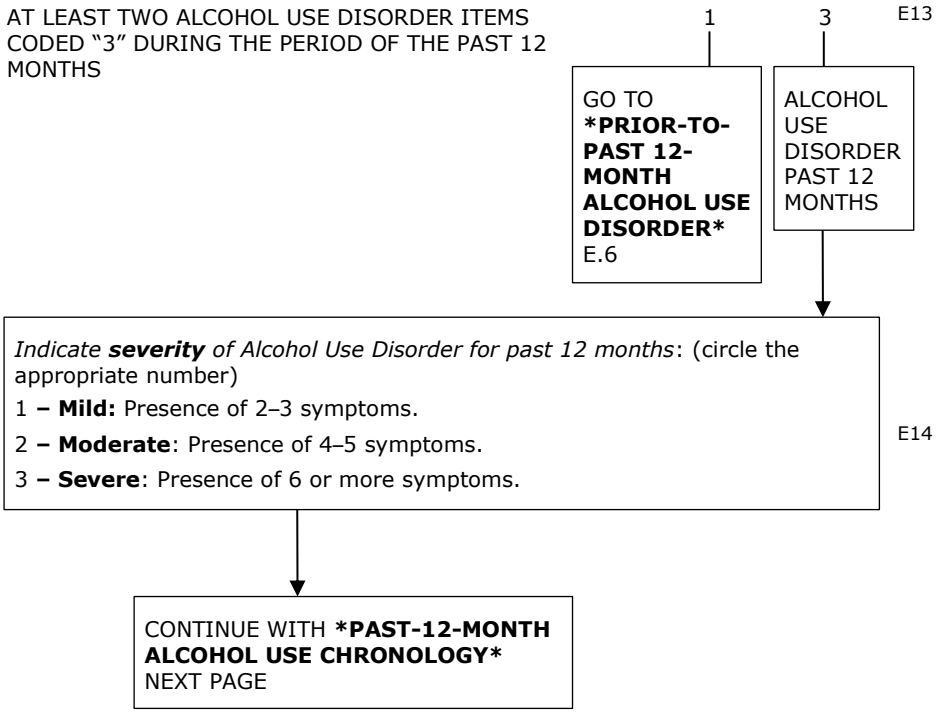
During the past year, since (1 YEAR AGO)**, have you had any withdrawal symptoms, in other words, feeling sick when you cut down or stopped drinking?**

→ *IF YES:* **What symptoms did you have? (Sweating or a racing heart? Your hand[s] shaking? Trouble sleeping? Feeling nauseated or vomiting? Feeling agitated? Feeling anxious? How about having a seizure or seeing, feeling, or hearing things that weren't really there?)**

→ *IF NO:* **During the past year, have you ever started the day with a drink, or did you often drink or take some other drug or medication to keep yourself from getting the shakes or becoming sick?**

11. Withdrawal, as manifested by either of the following: ? 1 2 3 E12

    a. At least <u>TWO</u> of the following developing within several hours to a few days after the cessation of (or reduction in) alcohol use:
        - autonomic hyperactivity (e.g., sweating or pulse rate greater than 100 bpm)
        - increased hand tremor
        - insomnia
        - nausea or vomiting
        - psychomotor agitation
        - anxiety
        - generalized tonic-clonic seizures
        - transient visual, tactile, or auditory hallucinations or illusions
    b. Alcohol (or a closely related substance such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.


AT LEAST TWO ALCOHOL USE DISORDER ITEMS CODED "3" DURING THE PERIOD OF THE PAST 12 MONTHS
1
3
E13
GO TO *PRIOR-TO-PAST 12-MONTH ALCOHOL USE DISORDER* E.6
ALCOHOL USE DISORDER PAST 12 MONTHS
Indicate severity of Alcohol Use Disorder for past 12 months: (circle the appropriate number)
1 – Mild: Presence of 2–3 symptoms.
2 – Moderate: Presence of 4–5 symptoms.
3 – Severe: Presence of 6 or more symptoms.
E14
CONTINUE WITH *PAST-12-MONTH ALCOHOL USE CHRONOLOGY* NEXT PAGE

PAST-12-MONTH ALCOHOL USE DISORDER CHRONOLOGY

During the past 3 months, how much have you been drinking?

At least one Alcohol Use Disorder symptom (except for craving) in the past 3 months

1 3 E15

IF HAD ANYTHING TO DRINK IN PAST 3 MONTHS: **Has your drinking caused any problems for you in the past 3 months?** (Problems like [ALCOHOL USE ITEMS CODED "3"]?)

CURRENT ALCOHOL USE DISORDER (PAST 3 MONTHS)

Number of months prior to interview when the subject last had any Alcohol Use Disorder symptom (except for craving). ___ ___ ___ E16

GO TO ***AGE AT ONSET*** BOTTOM OF THIS PAGE

Check ____ *if* **In a controlled environment**: The individual is [currently] in a controlled environment where access to alcohol is restricted. E17

Indicate ***remission:*** (circle the appropriate number)

1 – **In early remission:** After full criteria for Alcohol Use Disorder were previously met, none of the criteria for Alcohol Use Disorder have been met for at least 3 months but for less than 12 months (with the exception that Criterion A.4, "Craving, or a strong desire or urge to use alcohol," may be met). E18

(Sustained Remission does not apply to Past 12-month Alcohol Use Disorder)

AGE AT ONSET

How old were you when you first had (LIST OF ALCOHOL USE DISORDER SXS CODED "3")**?**

Age at onset of Alcohol Use Disorder (CODE 99 IF UNKNOWN). ____ ____ E19

GO TO ***PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER*** E.10

NOTE: If an assessment of the severity of Alcohol Use Disorder prior to the past 12 months is needed, continue on next page instead of skipping to E.10

PRIOR-TO-PAST-12-MONTH ALCOHOL USE DISORDER

IF ALCOHOL USE PRIOR-TO-PAST-12 MONTHS IS NOT EXCESSIVE AND NON-PROBLEMATIC ACCORDING TO QUESTIONS ON PAGE 6 OF PATIENT OVERVIEW (OR PAGE 4 OF NON-PATIENT OVERVIEW), SCREEN FOR LIFETIME ALCOHOL USE THRESHOLD WITH THE FOLLOWING:

Besides the past year, have you ever drunk alcohol at least six times in a 12-month period?

→ *IF YES:* **When was that?**

→ *IF NEVER DRANK SIX TIMES IN 12-MONTH PERIOD, CHECK HERE ___ AND GO TO* ***PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDERS*** *E.10.* E20

Looking back over your life, if you had to pick a 12-month period when you were drinking the most or during which your drinking caused you the most problems, when would that have been?

Indicate month and year: ___ / ___ E21

ALCOHOL USE DISORDER CRITERIA

Now I'd like to ask you some questions about your drinking during (12-MONTH PERIOD SELECTED ABOVE)**.**

A. A problematic pattern of alcohol use, leading to clinically significant impairment or distress, as manifested by at least two of the following occurring within a 12-month period:

During that time, did you find that once you started drinking you ended up drinking much more than you intended to? For example, you planned to have only one or two drinks but you ended up having many more. (Tell me about that. How often did this happen?)

IF NO: **What about drinking for a much longer period of time than you were intending to?**

1. Alcohol is often taken in larger amounts OR over a longer period than was intended. ? 1 2 3 E22

During (12-MONTH PERIOD) **did you want to stop, cut down, or control your drinking?**

→ *IF YES:* **How long did this desire to stop, cud down, or control your drinking last?**

→ *IF NO:* **Did you try to cut down, stop, or control your drinking? How successful were you? (Did you make more than one attempt to stop, cut down, or control your drinking?)**

2. There is a persistent desire OR unsuccessful efforts to cut down or control alcohol use. ? 1 2 3 E23

During (12-MONTH PERIOD)**, did you ever spend a lot of time drinking, being drunk, or hung over? (How much time?)**

3. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects. ? 1 2 3 E24

Did you have a strong desire or urge to drink in between those times when you were drinking? (Was there a time when you had such strong urges to have a drink that you had trouble thinking about anything else?)

IF NO: **How about having a strong desire or urge to drink when you were around bars or around people with whom you went drinking?**

4. Craving, or a strong desire or urge to use alcohol. ? 1 2 3 E25

?=Inadequate information 1=Absent or false 2=Subthreshold 3=Threshold or true

During (12-MONTH PERIOD), **did you ever miss work or school or often arrive late because you were intoxicated, high, or very hung over?** *IF NO:* **How about doing a bad job at work or school, or failing courses or flunking out from school because of your drinking?** *IF NO:* **How about getting in trouble at work or school because of your use of alcohol?** *IF NO:* **How about not taking care of things at home because of your drinking, like making sure there is food and clean clothes for your family and making sure your children go to school and get medical care? How about not paying your bills?** *IF YES TO ANY:* **How often?**	5. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home [(e.g., repeated absences or poor work performance related to alcohol use; alcohol-related absences, suspensions, or expulsions from school; neglect of children or household)].	?	1	2	3	E26
During (12-MONTH PERIOD)**, did your drinking cause problems with other people, such as family members, friends, or people at work? (Did you find yourself regularly getting into arguments about what happens when you drink too much? Did you get into physical fights when you were drunk?)** *IF YES:* **Did you keep on drinking anyway? (Over what period of time)?**	6. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol [(e.g., arguments with spouse about consequences of intoxication, physical fights)].	?	1	2	3	E27
During (12-MONTH PERIOD)**, did you have to give up or reduce the time you spent at work or school, with family or friends, or on things you like to do (like sports, cooking, other hobbies) because you were drinking or hungover?**	7. Important social, occupational, or recreational activities given up or reduced because of alcohol use.	?	1	2	3	E28
During (12-MONTH PERIOD)**, did you have a few drinks right before doing something that required coordination and concentration like driving, boating, climbing on a ladder, or operating heavy machinery?** *IF YES:* **Would you say that the amount you had to drink affected your coordination or concentration so that it was more likely that you or someone else could have been hurt?** *IF YES AND UNKNOWN:* **How many times?**	8. Recurrent alcohol use in situations in which it is physically hazardous [(e.g., driving an automobile or operating a machine when impaired by alcohol use)].	?	1	2	3	E29

Did your drinking cause you any problems like making you very depressed or anxious? How about putting you in a "mental fog," making it difficult for you to sleep, or making it so you couldn't recall what happened while you were drinking? **Did your drinking cause significant physical problems or make a physical problem worse, like stomach ulcers, liver disease, or pancreatitis?** *IF YES TO EITHER OF ABOVE:* **Did you keep on drinking anyway?**	9. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol [(e.g., continued drinking despite recognition that an ulcer was made worse by alcohol consumption)].	?	1	2	3	E30
During (12-MONTH PERIOD)**, did you need to drink much more in order to get the feeling you wanted than you did when you first started drinking?** → *IF YES*: **How much more?** → *IF NO:* **What about finding that when you drank the same amount, it had much less effect than before? (How much less?)**	10. Tolerance, as defined by either of the following: a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect. b. Markedly diminished effect with continued use of the same amount of alcohol.	?	1	2	3	E31
During (12-MONTH PERIOD)**, did you ever have any withdrawal symptoms, in other words feeling sick when you cut down or stopped drinking?** → *IF YES:* **What symptoms did you have? (Sweating or a racing heart? Your hand[s] shaking? Trouble sleeping? Feeling nauseated or vomiting? Feeling agitated? Feeling anxious? How about having a seizure or seeing, feeling, or hearing things that weren't really there?)** → *IF NO:* **Did you ever start the day with a drink, or did you often drink or take some other drug or medication to keep yourself from getting the shakes or becoming sick?**	11. Withdrawal, as manifested by either of the following: a. At least <u>TWO</u> of the following developing within several hours to a few days after the cessation of (or reduction in) alcohol use: ▪ autonomic hyperactivity (e.g., sweating or pulse rate greater than 100 bpm) ▪ increased hand tremor ▪ insomnia ▪ nausea or vomiting ▪ psychomotor agitation ▪ anxiety ▪ generalized tonic-clonic seizures ▪ transient visual, tactile, or auditory hallucinations or illusions b. Alcohol (or a closely related substance such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.	?	1	2	3	E32

AT LEAST TWO ALCOHOL USE DISORDER ITEMS CODED "3" DURING THE SAME 12-MONTH PERIOD

E33

1 → GO TO ***PAST-12 MONTH NON-ALCOHOL SUBSTANCE USE DISORDER*** E.10

3 → PAST ALCOHOL USE DISORDER

Indicate **severity** of lifetime Alcohol Use Disorder: (circle the appropriate number) E34

1 – Mild: Presence of 2–3 symptoms.

2 – Moderate: Presence of 4–5 symptoms.

3 – Severe: Presence of 6 or more symptoms.

CONTINUE WITH ***PRIOR-TO-PAST-12-MONTH ALCOHOL USE CHRONOLOGY*** BELOW

PRIOR-TO-PAST-12-MONTH ALCOHOL USE DISORDER CHRONOLOGY

REMISSION SPECIFIER FOR PAST ALCOHOL USE DISORDER

Check ____ if **In a controlled environment:** The individual is [currently] in an environment where access to alcohol is restricted E35

*Indicate **remission***: (circle the appropriate number)

(Early Remission does not apply to Alcohol Use Disorder Prior to Past 12 months)

0 **– Not in remission** (i.e., one Substance Use Disorder criterion has been present during the past 12 months) E36

2 **– In sustained remission:** After full criteria for Alcohol Use Disorder were previously met, none of the criteria for Alcohol Use Disorder have been met at any time during a period of 12 months or longer (with the exception that Criterion A.4, "Craving, or a strong desire or urge to use alcohol," may be met).

AGE AT ONSET

How old were you when you first had (LIST OF ALCOHOL USE DISORDER SXS CODED "3")**?** Age at onset of Alcohol Use Disorder (CODE 99 IF UNKNOWN) ____ ____ E37

PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER

REVIEW HISTORY OF DRUG USE ON PAGES 7-8 OF PATIENT OVERVIEW (OR PAGES 5-6 OF NON-PATIENT OVERVIEW). IF DENIES ANY LIFETIME DRUG USE IN OVERVIEW, CHECK HERE ___ AND GO TO NEXT MODULE. E38

FOR DRUGS USED IN PAST 12 MONTHS: CODE "3" FOR EACH DRUG CLASS BELOW BASED ON CODING IN RIGHT HAND COLUMN OF OVERVIEW DRUG ASSESSMENT (PATIENT OVERVIEW PAGES 7-8 OR NON-PATIENT OVERVIEW PAGES 5-6). OTHERWISE, CODE "1" FOR THAT DRUG CLASS.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOIDS	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
1	1	1	1	1	1	1	1
E39	E40	E41	E42	E43	E44	E45	E46

*IF ALL DRUG CLASSES CODED "1" FOR PERIOD OF PAST 12 MONTHS, CHECK HERE ___ AND GO TO ***PRIOR-TO-PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER*** E.26.* E47

FOR ALL CLASSES CODED "3" ABOVE, CIRCLE THE APPROPRIATE COLUMN HEADERS (DRUG CLASS NAMES) ON PAGES E.11 TO E.18, BASED ON ONE OF THE FOLLOWING OPTIONS: (Indicate option used with a check mark in front of option)

___ OPTION #1: DETERMINE THE PRESENCE OF SUBSTANCE USE DISORDER IN PAST 12 MONTHS (SINGLE MOST PROBLEMATIC SUBSTANCE). E48

Which drug or medication caused you the most problems over the past 12 months, since (1 YEAR AGO)**? Which one did you use the most? (Which was your "drug of choice?")**

START WITH THE DRUG CLASS THAT WAS MOST PROBLEMATIC OR USED THE MOST. RETURN HERE IF CRITERIA ARE NOT MET FOR INITIAL DRUG CLASS AND THERE IS ALSO EVIDENCE OF CLINICALLY SIGNIFICANT USE OF OTHER DRUG CLASSES. ASK ABOUT EACH DRUG CLASS IN SEQUENCE UNTIL EITHER THE CRITERIA ARE MET FOR A SUBSTANCE USE DISORDER IN THE PAST 12 MONTHS OR ELSE NONE OF THE DRUG CLASSES MEET CRTERIA.

___ OPTION #2: DETERMINE PRESENCE OF THE THREE SUBSTANCE CLASSES MOST HEAVILY USED OR MOST PROBLEMATIC IN THE PAST 12 MONTHS. E49

Which drugs or medications caused you the most problems over the past 12 months, since (1 YEAR AGO)**? Which ones did you use the most? (Which were your "drugs of choice?")**

___ OPTION #3: DETERMINE PRESENCE OF SUBSTANCE USE DISORDER IN THE PAST 12 MONTHS FOR ALL DRUG CLASSES ABOVE SCREENING THRESHOLD. E50

NON-ALCOHOL SUBSTANCE USE DISORDER CRITERIA

Now I'd like to ask you some more questions about your use of (DRUG CLASS[ES] CIRCLED IN COLUMN HEADERS) **in the past 12 months, since** (1 YEAR AGO)**.**

A. A problematic pattern of substance use leading to clinically significant impairment or distress, as manifested by at least two of the following occurring within a 12-month period:

FOR EACH CRITERION, ASK QUESTIONS FOR CIRCLED DRUG CLASS(ES) ONLY:

During the past year, have you found that once you started using (DRUG) **you ended up using much more than you intended to? For example, you planned to have** (SMALL AMOUNT OF DRUG) **but you ended up having much more. (Tell me about that. How often did that happen?)**

IF NO: **What about using** (DRUG) **for a much longer period of time than you were intending to?**

1. The substance is often taken in larger amounts OR over a longer period than was intended.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E51	E52	E53	E54	E55	E56	E57	E58

During the past year, have you wanted to stop or cut down using (DRUG), **or control your use of** (DRUG)**?**

→ *IF YES*: **How long did this desire to stop, cut down, or control your use of** (DRUG) **last?**

→ *IF NO*: **During the past year, did you ever try to cut down, stop, or control your use of** (DRUG)**? How successful were you? (Did you make more than one attempt to stop, cut down, or control your use of** [DRUG]**?)**

2. There is a persistent desire OR unsuccessful efforts to cut down or control substance use.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E59	E60	E61	E6	E63	E64	E65	E66

During the past year, have you spent a lot of time getting (DRUG) **or using** (DRUG) **or has it taken a lot of time for you to get over the effects of** (DRUG)**? (How much time?)**

3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E67	E68	E69	E70	E71	E72	E73	E74

Have you had a strong desire or urge to use (DRUG) **in between those times when you were using** (DRUG)**? (Has there been a time when you had such strong urges to use** (DRUG) **that you had trouble thinking about anything else?)**

IF NO: **How about having a strong desire or urge to use** (DRUG) **when you were around people with whom you used** (DRUG)**?**

4. Craving, or a strong desire or urge to use the substance.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E75	E76	E77	E78	E79	E80	E81	E82

During the past year, have you missed work or school or often arrived late because you were intoxicated, high, or recovering from the night before?

IF NO: **How about doing a bad job at work or school, or failing courses or flunking out of school because of your use of** (DRUG)**?**

IF NO: **How about getting into trouble at work or school because of your use of** (DRUG)**?**

IF NO: **How about not taking care of things at home because of your use of** (DRUG)**, like making sure there is food and clean clothes for your family and making sure your children go to school and get medical care? How about not paying your bills?**

IF YES TO ANY: **How often?**

5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home [(e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E83	E84	E85	E86	E87	E88	E89	E90

IF NOT ALREADY KNOWN: **During the past year, has your use of** (DRUG) **caused problems with other people, such as with family members, friends, or people at work? (Have you found yourself regularly getting into arguments about your** [DRUG] **use? Have you gotten into physical fights when you were taking** [DRUG]**?)**

IF YES: **Have you kept on using** (DRUG) **anyway?**

6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance [(e.g., arguments with spouse about consequences of intoxication, physical fights)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E91	E92	E93	E94	E95	E96	E97	E98

Have you had to give up or reduce the time you spent at work or school, with family or friends, or on your hobbies because you were using (DRUG) **instead?**

7. Important social, occupational, or recreational activities given up or reduced because of substance use.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E99	E100	E101	E102	E103	E104	E105	E106

During the past year, have you ever gotten high before doing something that requires coordination and concentration like driving, boating, climbing on a ladder, or operating heavy machinery?

→ *IF YES: (FOR SUBSTANCES OTHER THAN STIMULANTS):* **Would you say that your use of** (DRUG) **affected your coordination or concentration so that it was more likely that you or someone else could have been hurt?**

→ *IF YES: (FOR STIMULANTS ONLY):* **Would you say that your being high on** (STIMULANT) **made you drive recklessly like driving very fast or taking unnecessary risks?**

IF YES TO EITHER AND UNKNOWN: **How many times?**

8. Recurrent substance use in situations in which it is physically hazardous [(e.g., driving an automobile or operating a machine when impaired by substance use)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E107	E108	E109	E110	E111	E112	E113	E114

Has your use of (DRUG) **during the past year caused you any problems like making you very depressed, irritable, anxious, paranoid, or extremely agitated? What about triggering panic attacks, making it difficult for you to fall or stay asleep, putting you into a "mental fog," or making it so you couldn't recall what happened while you were using** (DRUG)**?**

Has your use of (DRUG) **caused physical problems, like heart palpitations, coughing or trouble breathing, constipation, or skin infections?**

IF YES TO EITHER OF ABOVE: **Have you kept on using** (DRUG) **anyway?**

9. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance [(e.g., recurrent cocaine use despite recognition of cocaine-related depression)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E115	E116	E117	E118	E119	E120	E121	E122

Have you found that you needed to use much more (DRUG) **in order to get the feeling you wanted than when you first started using it?**

→ *IF YES:* **How much more?**

→ *IF NO:* **What about finding that when you used the same amount, it had much less effect than before?**

IF PRESCRIBED MEDICATION: **Were you taking** (DRUG) **exactly as your doctor told you to? (Did you ever take more of it than was prescribed or run out of your prescription early? Did you ever go to more than one doctor in order to get the amount of medication you wanted?)**

10. Tolerance, as defined by either of the following:

    a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect.

    b. Markedly diminished effect with continued use of the same amount of the substance.

    Note: If opioids, sedative/hypnotic/anxiolytic medications, or stimulant medications are taken solely under appropriate medical supervision, this criterion is not considered to be met.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E123	E124	E125	E126	E127	E128	E129	E130

THE FOLLOWING ITEM DOES NOT APPLY TO INHALANTS, PCP, OR HALLUCINOGENS.

During the past year, have you had any withdrawal symptoms, in other words felt sick when you cut down or stopped using (DRUG)**?**

→ IF YES: **What symptoms did you have?** *REFER TO LIST OF WITHDRAWAL SYMPTOMS ON E.28.*

→ *IF NO:* **After not using** (DRUG) **for a few hours or more, did you sometimes use it or something like it to keep yourself from getting sick with** (WITHDRAWAL SXS)?

11. Withdrawal, as manifested by either of the following:

a. The characteristic withdrawal syndrome for the substance (see page E.28).

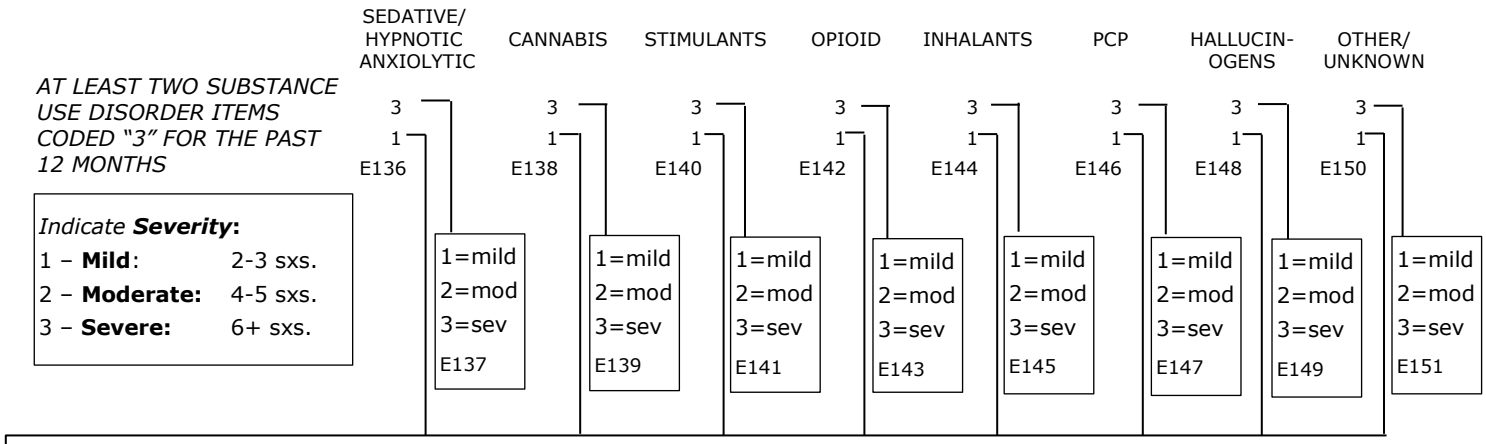
b. The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

Note: This criterion does not apply to inhalants, PCP, or hallucinogens.

Note: If opioids, sedatives/hypnotics/anxiolytics medications, or stimulant medications are taken solely under appropriate medical supervision, this criterion is not considered to be met.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	OTHER/ UNKNOWN
3	3	3	3	3
2	2	2	2	2
1	1	1	1	1
?	?	?	?	?
E131	E132	E133	E134	E135

PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER CODING



IF SELECTED OPTION #1 (MOST PROBLEMATIC SUBSTANCE):

IF THERE IS EVIDENCE OF CLINICALLY SIGNIFICANT USE OF ANOTHER DRUG CLASS IN PAST 12 MONTHS (OTHER THAN THOSE ALREADY ASSESSED), GO BACK TO E.11 AND RE-ASSESS CRITERIA FOR THAT DRUG CLASS. OTHERWISE, GO TO ****PRIOR-TO-PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER**** *E.26.*

IF SELECTED OPTION #2 (THREE MOST HEAVILY USED) OR OPTION #3 (ALL DRUG CLASSES AT USE THRESHOLD):

IF NO DRUG CLASSES CODED "3" (I.E., NO CURRENT [PAST YEAR] SUBSTANCE USE DISORDER), GO TO ****PRIOR-TO-PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER**** *E.26.*

INDICATE SPECIFIC NAME(S) OF SUBSTANCE(S) FOR WHICH CRITERIA WERE MET (I.E., CODED "3" ABOVE):

Sedatives, Hypnotics, or Anxiolytics _____ E152

Cannabis _____ E153

Stimulants (including cocaine) _____ E154

Opioids _____ E155

Inhalants _____ E156

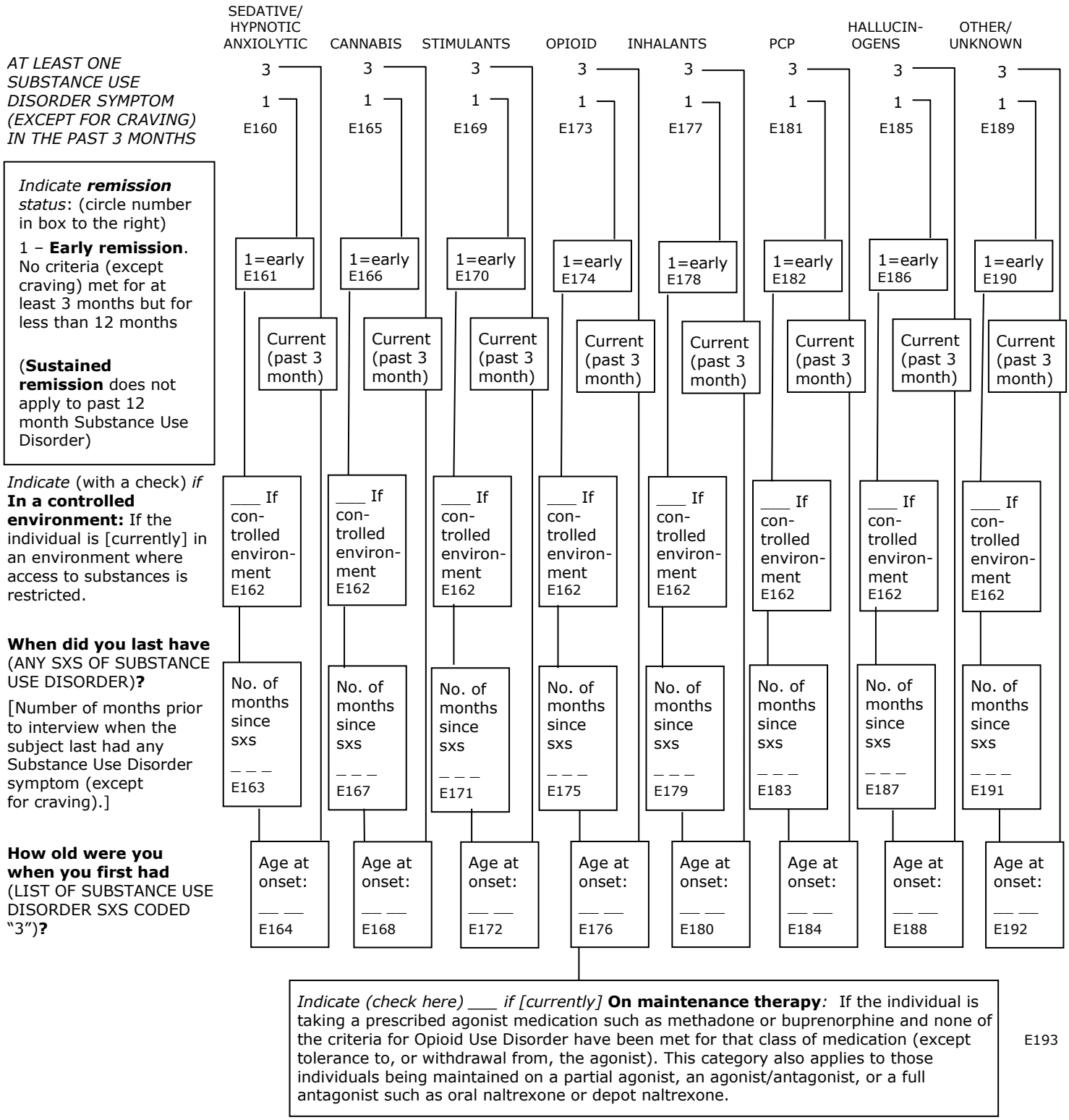
Phencyclidine and Related Substances _____ E157

Hallucinogens _____ E158

Other or Unknown _____ E159

?=Inadequate information 1=Absent or false 2=Subthreshold 3=Threshold or true

PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE CHRONOLOGY



PRIOR-TO-PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER

FOR DRUG CLASSES USED PRIOR TO THE PAST 12 MONTHS DURING THE SUBJECT'S LIFETIME AND FOR WHICH CRITERIA ARE NOT ALREADY MET IN THE PAST 12 MONTHS FOR SUBSTANCE USE DISORDER (I.E., NOT CODED "3" ON PAGE E.17), CODE "3" FOR EACH DRUG CLASS BELOW BASED ON CODING IN THE MIDDLE COLUMN OF OVERVIEW DRUG ASSESSMENT (PATIENT OVERVIEW PAGES 7–8 OR NON-PATIENT OVERVIEW PAGES 5-6). OTHERWISE CODE "1."

NOTE: IF AN ASSESSMENT OF THE SEVERITY OF ALL NON-ALCOHOL SUBSTANCE USE DISORDERS PRIOR TO THE PAST 12 MONTHS IS NEEDED, IGNORE ABOVE INSTRUCTION TO CODE "3" ONLY FOR DRUG CLASSES FOR WHICH CRITERIA ARE NOT ALREADY CURRENT MET, I.E., CODE "3" FOR EACH DRUG CLASS BASED ON CODING IN MIDDLE COLUMN FOR ALL DRUG CLASSES.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
1	1	1	1	1	1	1	1
E194	E195	E196	E197	E198	E199	E200	E201

IF ALL OF THE ABOVE DRUG CLASSES ARE CODED "1," CHECK HERE ___ AND GO TO NEXT MODULE. E202

FOR ALL CLASSES CODED "3" ABOVE, CIRCLE THE APPROPRIATE COLUMN HEADERS (DRUG CLASS NAMES) ON PAGES E.20 TO E.25, BASED ON ONE OF THE FOLLOWING OPTIONS: (*Indicate option used with a check mark in front of option.)*

___ OPTION #1: DETERMINE THE LIFETIME PRESENCE OF SUBSTANCE USE DISORDER (SINGLE MOST PROBLEMATIC SUBSTANCE): E203

Which drug or medication caused you the most problems? Which one did you use the most? (Which was your "drug of choice?")

START WITH THE DRUG CLASS THAT WAS MOST PROBLEMATIC OR USED THE MOST. RETURN HERE IF CRITERIA ARE NOT MET FOR INITIAL DRUG CLASS AND THERE IS ALSO EVIDENCE OF CLINICALLY SIGNIFICANT USE OF OTHER DRUG CLASSES. ASK ABOUT EACH DRUG CLASS IN SEQUENCE UNTIL EITHER THE CRITERIA ARE MET FOR A SUBSTANCE USE DISORDER OR ELSE NONE OF THE DRUG CLASSES MEET CRTERIA.

***___ OPTION #2: DETERMINE LIFETIME PRESENCE OF THE THREE SUBSTANCE CLASSES MOST HEAVILY USED OR MOST PROBLEMATIC**:* E204

Which drugs or medications caused you the most problems? Which ones did you use the most? (Which were your "drugs of choice?")

___ OPTION #3: DETERMINE LIFETIME PRESENCE OF SUBSTANCE USE DISORDER FOR ALL DRUG CLASSES ABOVE SCREENING THRESHOLD. E205

FOR EACH DRUG CLASS CIRCLED IN COLUMN HEADERS: **Looking back over your life, if you had to pick a 12-month period when you used** (CIRCLED DRUG CLASS) **the most or during which your use of** (CIRCLED DRUG CLASS) **caused you the most problems, when would that be?**

NOTE: For the ratings below, "Month/Year" refers to the beginning of the selected 12-month period.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
Month/Year	Month/Year	Month/Year	Month/Year	Month/Year	Month/Year	Month/Year	Month/Year
___/___	___/___	___/___	___/___	___/___	___/___	___/___	___/___
E206	E207	E208	E209	E210	E211	E212	E213

NON-ALCOHOL SUBSTANCE USE DISORDER CRITERIA

Now I'd like to ask you some more questions about your use of (CIRCLED DRUG CLASSES) **during** (12-MONTH PERIODS SELECTED ABOVE)**.**

A. A problematic pattern of substance use leading to clinically significant impairment or distress, as manifested by at least two of the following occurring within a 12-month period:

FOR EACH CRITERION, ASK QUESTIONS FOR CIRCLED DRUG CLASS(ES) ONLY:

Have you ever found that once you started using (DRUG) **you ended up using much more than you intended to? For example, you planned to have** (SMALL AMOUNT OF DRUG) **but you ended up having much more. (Tell me about that. How often did that happen?)**

IF NO: **What about using** (DRUG) **for a much longer period of time than you were intending to?**

1. The substance is often taken in larger amounts OR over a longer period than was intended.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E214	E215	E216	E217	E218	E219	E220	E221

During (12-MONTH PERIOD) **did you want to stop or cut down using** (DRUG)**, or control your use of** (DRUG)**?**

→ *IF YES:* **How long did this desire to stop, cut down, or control your use of** (DRUG) **last?**

→ *IF NO:* **Did you try to cut down, stop, or control your use of** (DRUG)**? How successful were you? (Did you make more than one attempt to stop, cut down, or control your use of** [DRUG]**?)**

2. There is a persistent desire OR unsuccessful efforts to cut down or control substance use.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E222	E223	E224	E225	E226	E227	E228	E229

During (12-MONTH PERIOD)**, did you spend a lot of time getting** (DRUG) **or using** (DRUG) **or has it taken a lot of time for you to get over the effects of** (DRUG)**? (How much time?)**

3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E230	E231	E232	E233	E234	E235	E236	E237

During (12-MONTH PERIOD)**, did you have a strong desire or urge to use** (DRUG) **in between those times when you were using** (DRUG)**? (Was there a time when you had such strong urges to use** [DRUG] **that you had trouble thinking about anything else?)**

IF NO: **How about having a strong desire or urge to use** (DRUG) **when you were around people with whom you used** (DRUG)**?**

4. Craving, or a strong desire or urge to use the substance.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E238	E239	E240	E241	E242	E243	E244	E245

During (12-MONTH PERIOD)**, did you ever miss work or school or often arrived late because you were intoxicated, high, or recovering from the night before?**

IF NO: **How about doing a bad job at work or school, or failing courses or flunking out of school because of your use of** (DRUG)**?**

IF NO: **How about getting into trouble at work or school because of your use of** (DRUG)**?**

IF NO: **How about not taking care of things at home because of your use of** (DRUG)**, like making sure there is food and clean clothes for your family and making sure your children go to school and get medical care? How about not paying your bills?**

IF YES TO ANY: **How often?**

5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home [(e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E246	E247	E248	E249	E250	E251	E252	E253

During (12-MONTH PERIOD)**, did your use of** (DRUG) **cause problems with other people, such as with family members, friends, or people at work? (Did you find yourself regularly getting into arguments about your** [DRUG] **use? Did you get into physical fights when you were taking** [DRUG]**?)**

IF YES: **Did you keep on using** (DRUG) **anyway?**

6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance [(e.g., arguments with spouse about consequences of intoxication, physical fights)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E254	E255	E256	E257	E258	E259	E260	E261

During (12-MONTH PERIOD)**, did you give up or reduce the time you spent at work or school, with family or friends, or on your hobbies because you were using** (DRUG) **instead?**

7. Important social, occupational, or recreational activities given up or reduced because of substance use.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E262	E263	E264	E265	E266	E267	E268	E269

During (12-MONTH PERIOD)**, did you ever use** (DRUG) **before doing something that required coordination and concentration like driving, boating, climbing on a ladder, or operating heavy machinery?**

IF YES: (FOR SUBSTANCES OTHER THAN STIMULANTS): **Would you say that your use of** (DRUG) **affected your coordination or concentration so that it was more likely that you or someone else could have been hurt?**

IF YES: (FOR STIMULANTS ONLY): **Would you say that your being high on** (STIMULANTS) **made you drive recklessly like driving very fast or taking unnecessary risks?**

IF YES TO EITHER AND UNKNOWN: **How many times? (When did this happen?)**

8. Recurrent substance use in situations in which it is physically hazardous [(e.g., driving an automobile or operating a machine when impaired by substance use)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E270	E271	E272	E273	E274	E275	E276	E277

During (12-MONTH PERIOD)**, did your use of** (DRUG) **cause you any problems like making you very depressed, irritable, anxious, paranoid, or extremely agitated? What about triggering panic attacks, making it difficult for you to fall or stay asleep, putting you into a "mental fog," or making it so you couldn't recall what happened while you were using** (DRUG)**?**

Did your use of (DRUG) **cause physical problems, like heart palpitations, coughing or trouble breathing, constipation, or skin infections?**

IF YES TO EITHER OF ABOVE: **Did you keep on using** (DRUG) **anyway?**

9. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance [(e.g., recurrent cocaine use despite recognition of cocaine-related depression)].

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E278	E279	E280	E281	E282	E283	E284	E285

During (12-MONTH PERIOD)**, did you need to use much more** (DRUG) **in order to get the feeling you wanted than when you first started using it?**

→ *IF YES:* **How much more?**

→ *IF NO:* **What about finding that when you used the same amount, it had much less effect than before?**

IF PRESCRIBED MEDICATION: **Were you taking** (DRUG) **exactly as your doctor told you to? (Did you ever take more of it than was prescribed or run out of your prescription early? Did you ever go to more than one doctor in order to get the amount of medication you wanted?)**

10. Tolerance, as defined by either of the following:

a. A need for markedly increased amounts of the substance to achieve intoxication or desired effect.

b. Markedly diminished effect with continued use of the same amount of the substance.

Note: If opioids, sedative/hypnotics/anxiolytics medications, or stimulant medications are taken solely under appropriate medical supervision, this criterion is not considered to be met.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
3	3	3	3	3	3	3	3
2	2	2	2	2	2	2	2
1	1	1	1	1	1	1	1
?	?	?	?	?	?	?	?
E286	E287	E288	E289	E290	E291	E292	E293

THE FOLLOWING ITEM DOES NOT APPLY TO INHALANTS, PCP,OR HALLUCINOGENS.

During (12-MONTH PERIOD)**, did you ever have any withdrawal symptoms, in other words felt sick when you cut down or stopped using** (DRUG)**?**

→ *IF YES:* **What symptoms did you have?** *REFER TO LIST OF WITHDRAWAL SYMPTOMS ON E.*28*.*

→ *IF NO:* **After not using** (DRUG) **for a few hours or more, did you sometimes use it or something like it to keep yourself from getting sick with** (WITHDRAWAL SYMPTOMS)**?**

11. Withdrawal, as manifested by either of the following:

a. The characteristic withdrawal syndrome for the substance (see page E.28).

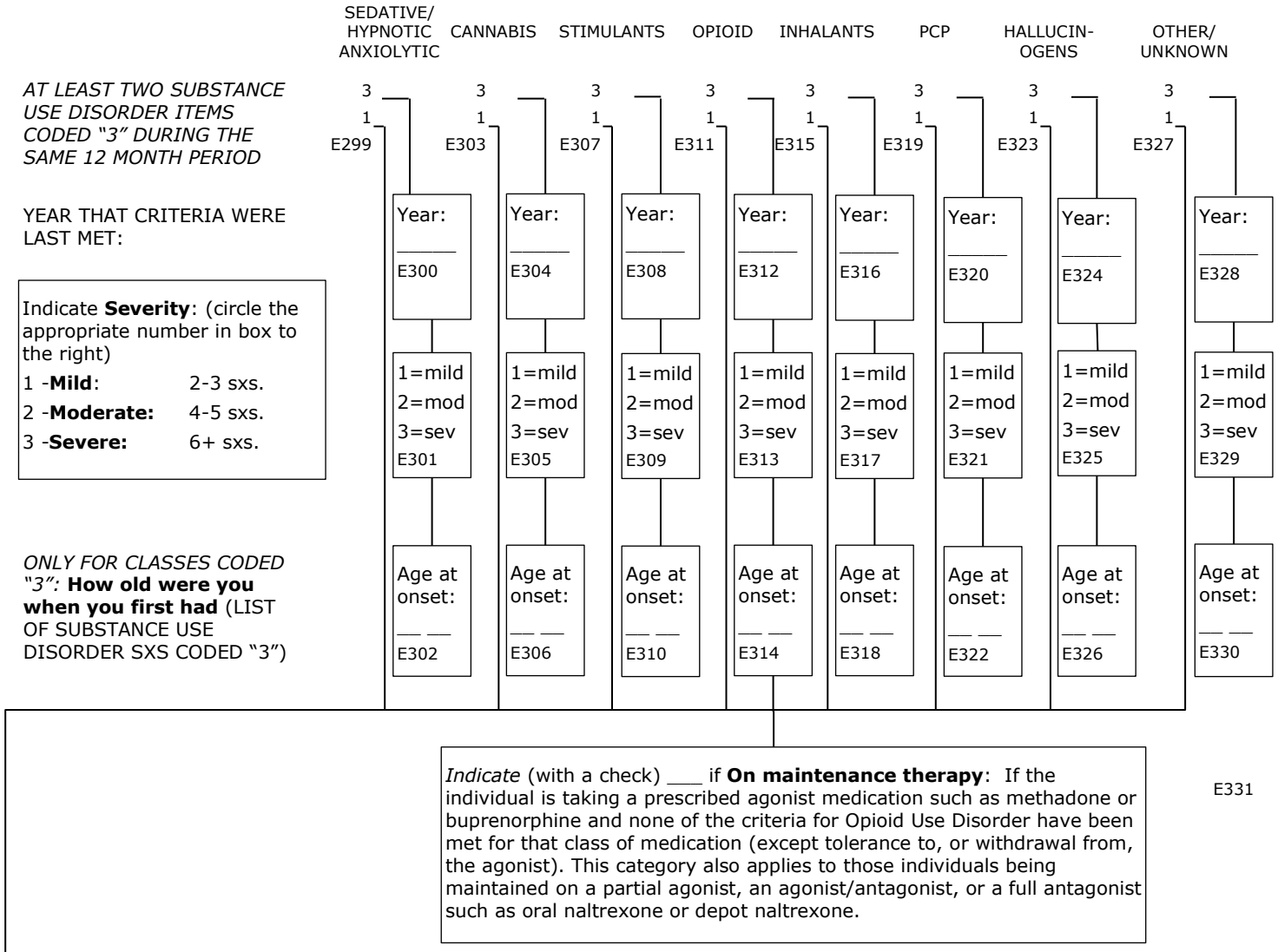
b. The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

Note: This criterion does not apply to inhalants, PCP, or hallucinogens.

Note: If opioids, sedative/hypnotics/anxiolytic medications, or stimulant medications are taken solely under appropriate medical supervision, this criterion is not considered to be met.

SEDATIVE/ HYPNOTIC/ANX	CANNABIS	STIMULANTS	OPIOID	OTHER/ UNKNOWN
3	3	3	3	3
2	2	2	2	2
1	1	1	1	1
?	?	?	?	?
E294	E295	E296	E297	E298

PRIOR-TO-PAST-12-MONTH NON-ALCOHOL SUBSTANCE USE DISORDER CODING



IF SELECTED OPTION #1 (MOST PROBLEMATIC SUBSTANCE):

IF THERE IS EVIDENCE OF CLINICALLY SIGNIFICANT USE OF ANOTHER DRUG CLASS PRIOR TO THE PAST 12 MONTHS (OTHER THAN THOSE ALREADY ASSESSED), GO BACK TO E.20 AND RE-ASSESS CRITERIA FOR THAT DRUG CLASS. OTHERWISE, GO TO NEXT PAGE TO RECORD SPECIFIC NAMES OF SUBSTANCES AND REMISSION STATUS.

IF SELECTED OPTION #2 (THREE MOST HEAVILY USED) OR OPTION #3 (ALL DRUG CLASSES AT USE THRESHOLD):

IF NO DRUG CLASSES CODED "3" (I.E., NO SUBSTANCE USE DISORDER PRIOR TO PAST 12 MONTHS), GO TO THE NEXT PAGE TO RECORD SPECIFIC NAMES OF SUBSTANCES AND REMISSION STATUS.

INDICATE SPECIFIC NAME(S) OF SUBSTANCE(S) FOR WHICH CRITERIA WERE MET PRIOR TO PAST 12 MONTHS (I.E., CODED "3" ABOVE):

Sedatives, Hypnotics, or Anxiolytics _____ E332

Cannabis _____ E333

Stimulants (including cocaine) _____ E334

Opioids _____ E335

Inhalants _____ E336

Phencyclidineand Related Substances _____ E337

Hallucinogens _____ E338

Other and Unknown _____ E339

Indicate ___ if **In a controlled environment***: If the individual is [currently] in an environment where access to substances is restricted.* E340

Indicate current remission status: (circle the appropriate number)	SEDATIVE/ HYPNOTIC ANXIOLYTIC	CANNABIS	STIMULANTS	OPIOID	INHALANTS	PCP	HALLUCINOGENS	OTHER/ UNKNOWN
0 – **Not in remission** (i.e., one Substance Use criterion has been present in the past 12 months)	0	0	0	0	0	0	0	0
2 – **In sustained remission:** After full criteria for Substance Use Disorder were previously met, none of the criteria for Substance Use Disorder have been met at any time during the past 12 months or longer (with the exception that Criterion A.4, "Craving, or a strong desire or urge to use substance," may be met).	2	2	2	2	2	2	2	2
	E341	E342	E343	E344	E345	E346	E347	E348

LIST OF WITHDRAWAL SYMPTOMS (FROM DSM-5 CRITERIA)

Listed below are the characteristic withdrawal syndromes for those classes of psychoactive substances for which a withdrawal syndrome has been identified. (NOTE: A specific withdrawal syndrome has not been identified for PCP, HALLUCINOGENS, OR INHALANTS). Withdrawal symptoms may occur following the cessation of prolonged moderate or heavy use of a psychoactive substance or a reduction in the amount used.

SEDATIVES, HYPNOTICS, AND ANXIOLYTICS:

Two (or more) of the following, developing within several hours to a few days after cessation of (or reduction in) sedative, hypnotic, or anxiolytic use, that has been prolonged:

1. Autonomic hyperactivity (e.g., sweating or pulse rate greater than 100 bpm).
2. Hand tremor.
3. Insomnia.
4. Nausea or vomiting.
5. Transient visual, tactile, or auditory hallucinations or illusions.
6. Psychomotor agitation.
7. Anxiety.
8. Grand mal seizures.

CANNABIS:

Three (or more) of the following signs and symptoms developing within approximately one week after cessation of cannabis use that has been heavy and prolonged (i.e., usually daily or almost daily use over a period of at least a few months):

1. Irritability, anger, or aggression.
2. Nervousness or anxiety.
3. Sleep difficulty (e.g., insomnia, disturbing dreams).
4. Decreased appetite or weight loss.
5. Restlessness.
6. Depressed mood.
7. At least one of the following physical symptoms causing significant discomfort: abdominal pain, shakiness/tremors, sweating, fever, chills, or headache.

STIMULANTS/COCAINE:

Dysphoric mood AND two (or more) of the following physiological changes, developing within a few hours to several days after cessation of (or reduction in) prolonged amphetamine-type substance, cocaine, or other stimulant use:

1. Fatigue.
2. Vivid, unpleasant dreams.
3. Insomnia or hypersomnia.
4. Increased appetite.
5. Psychomotor retardation or agitation.

OPIOIDS:

Three (or more) of the following, developing within minutes to several days after cessation of (or reduction in) opioid use that has been heavy and prolonged (i.e., several weeks or longer) or after administration of an opioid antagonist after a period of opioid use:

1. Dysphoric mood.
2. Nausea or vomiting.
3. Muscle aches.
4. Lacrimation or rhinorrhea (runny nose)
5. Pupillary dilation, piloerection ("goose bumps"), or sweating.
6. Diarrhea.
7. Yawning.
8. Fever.
9. Insomnia.

F. ANXIETY DISORDERS

PANIC DISORDER

PANIC DISORDER CRITERIA

*IF SCREENING QUESTION #1 ANSWERED "NO," SKIP TO ***AGORAPHOBIA*** F.8.*

IF QUESTION #1 ANSWERED "YES": **You've said that you have had an intense rush of anxiety, or what someone might call a "panic attack," when you <u>suddenly</u> felt very frightened, or anxious or <u>suddenly</u> developed a lot of physical symptoms.**

IF SCREENER NOT USED: **Have you ever had an intense rush of anxiety, or what someone might call a "panic attack," when you <u>suddenly</u> felt very frightened, or anxious or <u>suddenly</u> developed a lot of physical symptoms?**

Tell me about that.

When was the last bad one?

What was it like? How did it begin?

SCREEN Q#1 **YES** | **NO** F1

GO TO ***AGORA-PHOBIA*** F.8

IF UNKNOWN: **Did the symptoms come on suddenly?**

IF YES: **How long did it take from when it began to when it got really bad? (Did it happen within a few minutes?)**

A panic attack is an abrupt surge of intense fear or intense discomfort that reaches a peak within minutes.

Note: The abrupt surge can occur from a calm state or an anxious state.

? 1 2 3 F2

During that attack...

...did your heart race, pound or skip?	1. Palpitations, pounding heart, or accelerated heart rate.	?	1	2	3	F3
...did you sweat?	2. Sweating.	?	1	2	3	F4
...did you tremble or shake?	3. Trembling or shaking.	?	1	2	3	F5
...were you short of breath? (Have trouble catching your breath? Feel like you were being smothered?)	4. Sensations of shortness of breath or smothering.	?	1	2	3	F6
...did you feel as if you were choking?	5. Feelings of choking.	?	1	2	3	F7
...did you have chest pain or pressure?	6. Chest pain or discomfort.	?	1	2	3	F8
...did you have nausea or upset stomach or the feeling that you were going to have diarrhea?	7. Nausea or abdominal distress.	?	1	2	3	F9
...did you feel dizzy, unsteady, or like you might faint?	8. Feeling dizzy, unsteady, lightheaded or faint.	?	1	2	3	F10
...did you have flushes, hot flashes, or chills?	9. Chills or heat sensations.	?	1	2	3	F11

?=Inadequate information 1=Absent or false 2=Subthreshold 3=Threshold or true

During that attack…

…did you have tingling or numbness in parts of your body?	10. Paresthesias (numbness or tingling sensations)	?	1	2	3	F12
…did you have the feeling that you were detached from your body or mind, that time was moving slowly, or that you were an outside observer of your own thoughts or movements? *IF NO:* **How about feeling that everything around you was unreal or that you were in a dream?**	11. Derealization (feelings of unreality) or depersonalization (being detached from oneself).	?	1	2	3	F13
…were you afraid you were going crazy or might lose control?	12. Fear of losing control or "going crazy."	?	1	2	3	F14
…were you afraid that you were dying?	13. Fear of dying.	?	1	2	3	F15
	AT LEAST FOUR ITEMS CODED "3" AND REACHED THEIR PEAK WITHIN MINUTES		1		3	F16

PANIC ATTACK;
CONTINUE WITH NEXT ITEM

Besides the one you just described, have you had any other attacks which had even more of the symptoms that I just asked you about?

→ IF YES, GO BACK TO PAGE F.1 AND ASSESS THE SYMPTOMS OF THAT ATTACK.

→ IF NO: GO TO ***AGORAPHOBIA*** F.8

Have any of these attacks ever come on out of the blue—in situations where you didn't expect to be nervous or uncomfortable?

→ *IF YES:* **What was going on when the attack(s) happened? (What were you doing at the time? Were you already nervous or anxious at the time or rather were you relatively calm or relaxed?)**

→ *IF NO:* **How about the very first one you had. What were you doing at the time? (Were you already nervous or anxious at the time or rather were you relatively calm or relaxed?)**

IF ATTACK IS UNEXPECTED: **How many of these kinds of attacks have you had? (At least two?)**

A. Recurrent unexpected panic attacks. ? 1 2 3 F17

GO TO ***EXPECTED PANIC ATTACKS*** F.7

CONTINUE ON NEXT PAGE

?=Inadequate information 1=Absent or false 2=Subthreshold 3=Threshold or true

After any of these attacks...

B. At least one of the attacks has been followed by 1 month (or more) of one or both of the following:

...were you concerned or worried that you might have another attack or worried that you would feel like you were having a heart attack again, or worried that you would lose control or go crazy?

IF YES: **How long did that concern or worry last? (Did it last at least a month? Nearly every day?)**

1. Persistent concern or worry about additional attacks or their consequences (e.g., losing control, having a heart attack, "going crazy"). ? 1 2 3 F18

...did you do anything differently because of the attacks (like avoiding certain places or not going out alone)? (What about avoiding certain activities like exercise? What about things like always making sure you're near a bathroom or exit?)

IF YES: **How long did that last? (As long as a month?)**

2. A significant maladaptive change in behavior related to the attacks (e.g., behaviors designed to avoid having panic attacks, such as avoidance of exercise or unfamiliar situations). ? 1 2 3 F19

CRITERION B.1 OR B.2 CODED "3" 1 3 F20

GO TO ***AGORA-PHOBIA*** F.8

IF UNKNOWN: **When did your panic attacks start?**

Just before you began having panic attacks, were you taking any drugs, caffeine, diet pills, or other medicines?

(How much coffee, tea, or caffeinated beverages do you drink a day?)

Just before the attacks, were you physically ill?

IF YES: **What did the doctor say?**

C. [Primary Anxiety Disorder:] The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition (e.g. hyperthyroidism, cardiopulmonary disorders).

? 1 3 F21

IF THERE IS ANY INDICATION THAT PANIC ATTACKS MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF A GMC OR SUBSTANCE/MEDICATION), GO TO ***GMC/SUBSTANCE*** F.33, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

ALL DUE TO SUBSTANCE USE OR GMC GO TO ***AGORA-PHOBIA*** F.8

PRIMARY ANXIETY DISORDER

Etiological medical conditions include: endocrine disease (e.g., hyperthyroidism, pheochromocytoma, hypoglycemia, hyperadrenocortisolism), cardiovascular disorders (e.g., congestive heart failure, pulmonary embolism, arrhythmia such as atrial fibrillation), respiratory illness (e.g., chronic obstructive pulmonary disease, asthma, pneumonia), metabolic disturbances (e.g., vitamin B_{12} deficiency, porphyria), and neurological illness (e.g., neoplasms, vestibular dysfunction, encephalitis, seizure disorders).

Etiological substances/medications include: alcohol (I/W), caffeine (I), cannabis (I), opioids (W), phencyclidine (I), other hallucinogens (I), inhalants, and stimulants (including cocaine) (I/W), sedatives, hypnotics, and anxiolytics (W); anesthetics and analgesics, sympathomimetics or other bronchodilators, anticholinergics, insulin, thyroid preparations, oral contraceptives, antihistamines, antiparkinsonian medications, corticosteroids, antihypertensive and cardiovascular medications, anticonvulsants, lithium carbonate, antipsychotic medications, antidepressant medications, and exposure to heavy metals and toxins such as organophosphate insecticide, nerve gases, carbon monoxide, carbon dioxide, volatile substances such as gasoline and paint.

CONTINUE WITH NEXT ITEM

IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULES FOR OC AND RELATED DISORDERS AND TRAUMA- AND STRESS-RELATED DISORDERS.

D. The disturbance is not better explained by another mental disorder (e.g., the panic attacks do not occur only in response to feared social situations, as in Social Anxiety Disorder; in response to circumscribed phobic objects or situations, as in Specific Phobia; in response to obsessions, as in Obsessive-Compulsive Disorder; in response to reminders of traumatic events, as in Posttraumatic Stress Disorder; or in response to separation from attachment figures, as in Separation Anxiety Disorder).

? 1 3 F22

GO TO ***AGORA-PHOBIA*** F.8

A, B, C, AND D ARE CODED "3." ? 1 3 F23

GO TO ***AGORA-PHOBIA*** F.8

LIFETIME PANIC DIS ORDER

PANIC DISORDER CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENCE OF PANIC ATTACKS DURING THE CURRENT MONTH, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

A. Recurrent panic attacks (unexpected or expected) [in past month]. ? 1 3 F24

GO TO ***PAST PANIC DISORDER*** F.6

Since (1 MONTH AGO) **how many panic attacks have you had?**

In the past month…

B. [During the past month,] at least one of the attacks has been followed by 1 month (or more) of one or both of the following:

…have you been concerned or worried that you might have another attack or worried that you would feel like you were having a heart attack again, or worried that you would lose control or go crazy?

IF YES: **Did you feel that way for most of the time since** (1 MONTH AGO)**?**

1. Persistent concern or worry about additional attacks or their consequences (e.g., losing control, having a heart attack, "going crazy"). ? 1 2 3 F25

…have you done anything differently because of the attacks (like avoiding certain places or not going out alone)? (What about avoiding certain activities like exercise? What about things like always making sure you're near a bathroom or exit?)

IF YES: **Did you feel that way for most of the time since** (1 MONTH AGO)**?**

2. A significant maladaptive change in behavior related to the attacks; (e.g., behaviors designed to avoid having panic attacks, such as avoidance of exercise or unfamiliar situations). ? 1 2 3 F26

CURRENT PANIC DISORDER

CRITERIA A AND B.1 OR B.2 CODED "3" FOR PAST MONTH. ? 1 3 F27

GO TO ***PAST PANIC DISOR-DER*** F.6

CURRENT PANIC DISORDER

IF UNKNOWN: **How old were you when you first started having panic attacks?**

Age at onset of Panic Disorder (CODE 99 IF UNKNOWN). ___ ___ F28

GO TO ***AGORA-PHOBIA*** F.8

PAST PANIC DISORDER

When did you last have (ANY SXS OF PANIC DISORDER)**?**	Number of months prior to interview when last had a symptom of Panic Disorder	____ ____ ____	F29
IF UNKNOWN: **How old were you when you first started having panic attacks?**	Age at onset of Panic Disorder (CODE 99 IF UNKNOWN).	____ ____	F30

GO TO ***AGORA-PHOBIA*** F.8

EXPECTED PANIC ATTACKS

*IF THERE HAS BEEN ONLY A SINGLE UNEXPECTED PANIC ATTACK, GO TO ***AGORAPHOBIA,*** F.8 (CONTINUE ON THE NEXT PAGE).*

In what kinds of situations did you have the attack(s)?

…. for example, did they occur when you were already anxious about something, like a social situation, or when you had to face something that you were afraid of?

Were you (depressed/OWN WORDS**) at the time?**

Were you (high/irritable/OWN WORDS**) at the time?**

Were you drinking or taking any drugs or medications?

Were you physically ill?

RECORDING OF DIAGNOSTIC CONTEXT FOR PANIC ATTACK SPECIFIER

Indicate **types of situations** during which attack(s) occurred: (Check all that apply; page numbers indicate where "With panic attacks" specifier is coded):

___ Depressive thoughts (in MDD, page D.18, in Bipolar Disorder, in context of Major Depressive Episode, page D.16, and Persistent Depressive Disorder, page A.32) F31

___ Manic or hypomanic symptoms (in context of Manic Episode, pages D.15, in context of hypomanic episode, page D.16) F32

___ Social situations (in Social Anxiety Disorder, page F.17) F33

___ Phobic situations (in Specific Phobia, page F.22) F34

___ Chronic generalized anxiety and worry (in current GAD page F.26) F35

___ Separation from attachment figures (in Separation Anxiety Disorder, page Opt-F.4) F36

___ Due to a substance/medication (in Substance-induced Anxiety Disorder, F.36) F37

___ Due to another medical condition (in Anxiety Disorder due to AMC), F.34) F38

___ Obsession/compulsion-related (in OCD, page G.6) F39

___ Hoarding-related (in Hoarding, page Opt-G.5) F40

___ Body Dysmorphic-Disorder-related (in BDD, page Opt-G.9) F41

___ Exposure to reminder of trauma (in Acute Stress Disorder, page L.10; in PTSD, page L.19) F42

Refer to back the above list of situations when coding the "With panic attacks" specifier included in the assessment of the respective disorders (page numbers indicate the page on which the panic attacks specifier is coded).

GO TO ***AGORA-PHOBIA*** F.8 (CONTINUE ON THE NEXT PAGE)

AGORAPHOBIA

→ *IF SCREENING QUESTION #2 ANSWERED "NO," SKIP TO ***SOCIAL ANXIETY DISORDER*** F.14*

→ *IF QUESTION #2 ANSWERED "YES":* **You've said that you have been very anxious or afraid of situations like going out of the house alone, being in crowds, going to stores, standing in lines, or traveling on buses or trains.**

→ *IF SCREENER NOT USED:* **Have you ever been very anxious about or afraid of situations like going out of the house alone, being in crowds, going to stores, standing in lines, or traveling on buses or trains?**

Tell me about the situations that you've been afraid of.

IF UNKNOWN: **Have you been afraid of, or anxious about, travelling in taxi cabs, buses, trains, ships or planes?**

IF UNKNOWN: **How about being in open spaces, like parking lots, outdoor marketplaces, or bridges?**

IF UNKNOWN: **How about being in enclosed places like stores, movie theaters, or shopping malls?**

IF UNKNOWN: **How about standing in a line or being in a crowd?**

IF UNKNOWN: **How about being outside of the house alone?**

AGORAPHOBIA CRITERIA

SCREEN Q#2 **YES** | | **NO** F43

IF NO: GO TO ***SOCIAL ANXIETY DISORDER*** F.14

A. Marked fear or anxiety about two (or more) of the following five situations:

1. Using public transportation (e.g., [taxi cabs], buses, trains, ships, planes).	?	1	2	3	F44
2. Being in open spaces (e.g., parking lots, marketplaces, bridges).	?	1	2	3	F45
3. Being in enclosed places (e.g., shops, theaters, cinemas).	?	1	2	3	F46
4. Standing in line or being in a crowd.	?	1	2	3	F47
5. Being outside of the home alone.	?	1	2	3	F48
AT LEAST TWO ITEMS ARE CODED "3"		1		3	F49

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

Why did you avoid (SITUATIONS CODED "3") **(What were you afraid would happen?)**

(Were you afraid that it might be hard for you to get out of the situation if you absolutely needed to...like if you suddenly developed a panic attack?)

(Or developing something else that would be embarrassing like losing control of your bladder or bowels or vomiting?)

(Or becoming impaired in some way like by falling or passing out?)

(How about being worried that there would be nobody there to help you in case these kinds of things happened?)

B. The individual fears or avoids these situations because of thoughts that escape might be difficult or help might not be available in the event of developing panic-like symptoms or other incapacitating or embarrassing symptoms (e.g., fear of falling in the elderly, fear of incontinence).

? 1 2 3 F50

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

Have you almost always felt frightened or anxious when you were in (SITUATIONS CODED "3" ABOVE)**?**

C. The agoraphobic situations almost always provoke fear or anxiety.

? 1 2 3 F51

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

Have you gone out of your way to avoid these situations?

IF NO: **Have you been only able to go into one of these situations if you were with someone you knew?**

IF NO: **When you have had to be in one of these situations, have you felt intensely afraid or anxious?**

D. The agoraphobic situations are actively avoided, require the presence of a companion, or are endured with intense fear or anxiety.

? 1 2 3 F52

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

IF UNKNOWN: **Have you felt any danger or threat to your safety when you were in** (SITUATIONS CODED "3" ABOVE)? **(Tell me about that.)**

E. The fear or anxiety is out of proportion to the actual danger posed by the agoraphobic situations and the sociocultural context.

NOTE: Code "3" if situations do not pose danger or if fear or anxiety is out of proportion to actual danger or sociocultural context.

? 1 2 3 F53

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

How long have you been afraid of or avoided (SITUATIONS CODED "3")**? (At least 6 months?)**

F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

? 1 2 3 F54

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

IF UNKNOWN: **What effect have** (AGORAPHOBIC SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION G:

How have (AGORAPHOBIC SXS) **affected your relationships or your interactions with other people? (Have they caused any problems in your relationships with your family, romantic partner or friends?)**

How have (AGORAPHOBIC SXS) **affected your ability to work, take care of your family or household needs, or be involved in things that are important to you like religious activities, physical exercise, or hobbies?**

Have (AGORAPHOBIC SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH FUNCTIONING: **How much have you been bothered or upset by having** (AGORAPHOBIC SXS)**?**

G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 F55

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

IF A GENERAL MEDICAL CONDITION CHARACTERIZED BY INCAPACITATING SYMPTOMS IS PRESENT: **Is your avoidance of** (SITUATION) **related to your** (MEDICAL CONDITION)? **(Tell me about it. How often has** [INCAPACITATING SYMPTOM] **actually happened in** [AVOIDED SITUATION]**?)**

H. If another medical condition (e.g., inflammatory bowel disease, Parkinson's disease) is present, the fear, anxiety, or avoidance is clearly excessive.

? 1 2 3 F56

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULES FOR OC AND RELATED DISORDERS AND TRAUMA- AND STRESS-RELATED DISORDERS.

I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder—for example, the symptoms are not confined to Specific Phobia, situational type; do not involve only social situations (as in Social Anxiety Disorder); and are not related exclusively to obsessions (as in Obsessive-Compulsive Disorder), perceived defects or flaws in physical appearance (as in Body Dysmorphic Disorder), reminders of traumatic events (as in Posttraumatic Stress Disorder), or fear of separation (as in Separation Anxiety Disorder).

? 1 3 F57

GO TO ***SOCIAL ANXIETY DISORDER*** F.14

NOTE: Consider a diagnosis of Specific Phobia if fear is limited to one or only a few specific situations, or a diagnosis of Social Anxiety Disorder if fear is limited to social situations.

AGORAPHOBIA CRITERIA A, B, C, D, E, F, G, H, AND I ARE CODED "3."

1 3 F58

GO TO ***SOCIAL ANXIETY DIS-ORDER*** F.14

AGORA-PHOBIA

AGORAPHOBIA CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREDY SUGGESTS THE PRESENCE OF AGORAPHOBIA DURING THE PAST 6 MONTHS, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

Since (6 MONTHS AGO)**, have you ever been very anxious about or afraid of situations like going out of the house alone, being in crowds, going to stores, standing in lines, or traveling on buses or trains?**

A. [During the past 6 months,] marked fear or anxiety about two (or more) situations.

? 1 3 F59

→ GO TO ***PAST AGORAPHOBIA*** F.13

Since (6 MONTHS AGO)**, have you gone out of your way to avoid these situations?**

IF NO: **Have you been only able to go into one of these situations if you are with someone you know?**

IF NO: **When you have had to be in one of these situations, have you felt intensely afraid or anxious?**

D. [During the past 6 months,] the agoraphobic situations are actively avoided, require the presence of a companion, or are endured with intense fear or anxiety.

? 1 3 F60

→ GO TO ***PAST AGORAPHOBIA*** F.13

During the past six months, since (6 MONTHS AGO)**, what effect have** (AGORAPHOBIC SXS) **had on your life?**

IF HAVE NOT INTERFERED WITH FUNCTIONING: **During the past 6 months, since** (6 MONTHS AGO)**, how much have you been bothered or upset by having** (AGORAPHOBIC SXS)**?**

G. [During the past 6 months,] the fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 3 F61

→ GO TO ***PAST AGORAPHOBIA*** F.13

CURRENT AGORAPHOBIA

CRITERIA A, D, AND G CODED "3" FOR PAST 6 MONTHS

1 3 F62

→ GO TO ***PAST AGORAPHOBIA*** F.13

→ CURRENT AGORA-PHOBIA

IF UNKNOWN: **How old were you when you first started having** (SXS OF AGORAPHOBIA)**?**

Age at onset of Agoraphobia (CODE 99 IF UNKNOWN) ____ ____ F63

→ GO TO ***SOCIAL ANXIETY DISORDER*** F.14

PAST AGORAPHOBIA

When did you last have (ANY SXS OF AGORAPHOBIA)**?**	Number of months prior to interview when last had a symptom of Agoraphobia	____ ____ ____	F64
IF UNKNOWN: **How old were you when you first started having** (SXS OF AGORAPHOBIA)?	Age at onset of Agoraphobia (CODE 99 IF UNKNOWN)	____ ____	F65

GO TO ***SOCIAL ANXIETY DISORDER*** F.14 (NEXT PAGE)

SOCIAL ANXIETY DISORDER

SOCIAL ANXIETY DISORDER CRITERIA

IF SCREENING QUESTIONS #3 AND #4 ARE BOTH ANSWERED "NO," SKIP TO ****SPECIFIC PHOBIA**** *F.19.*

IF QUESTION #3 ANSWERED "YES": **You've said that you have been especially anxious or afraid in social situations, like having a conversation or meeting unfamiliar people.**

IF QUESTION #4 ANSWERED "YES": **You've [also] said that there are things that you have been afraid or felt very uncomfortable doing in front of other people, like speaking, eating, writing, or using a public bathroom.**

IF SCREENER NOT USED: **Have you been especially nervous or anxious in social situations like having a conversation or meeting unfamiliar people?**

IF NO: **Is there anything that you have been afraid to do or felt very uncomfortable doing in front of other people, like speaking, eating, writing, or using a public bathroom?**

SCREEN Q#3 **YES** | | **NO** F66

SCREEN Q#4 **YES** | | **NO** F67

IF NO TO BOTH: GO TO ***SPECIFIC PHOBIA*** F.19

IF YES TO ANY OF ABOVE: **Tell me about that. Give me some examples of when this has happened. (Situations like having a conversation, meeting people you don't know, being observed eating, drinking or going to the bathroom or performing in front of others?)**

A. Marked fear or anxiety about one or more social situations in which the person is exposed to possible scrutiny by others. Examples include social interactions (e.g., having a conversation, meeting unfamiliar people), being observed (e.g., eating or drinking), and performing in front of others (e.g., giving a speech).

NOTE: Code "1" if fear or anxiety is limited to public speaking and is within normal limits.

? 1 2 3 F68

GO TO ***SPECIFIC PHOBIA*** F.19

What were you afraid would happen when you were in (SOCIAL OR PERFORMANCE SITUATION)**? (Were you afraid of being embarrassed because of what you might say or how you might act? Were you afraid that this would lead to your being rejected by other people? How about making others uncomfortable or offending them because of what you said or how you acted?)**

B. The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e., will be humiliating or embarrassing; will lead to rejection or offend others).

? 1 2 3 F69

GO TO ***SPECIFIC PHOBIA*** F.19

Have you almost always felt frightened when you would be in (FEARED SOCIAL OR PERFORMANCE SITUATIONS)**?**

C. The social situations almost always provoke fear or anxiety.

? 1 2 3 F70

GO TO ***SPECIFIC PHOBIA*** F.19

?=Inadequate information 1=Absent or false 2=Subthreshold 3=Threshold or true

IF UNKNOWN: **Did you go out of your way to avoid** (FEARED SOCIAL OR PERFORMANCE SITUATIONS)**?**

IF NO: **How hard was it for you to be in** (FEARED SOCIAL SITUATION)**?**

D. The social situations are avoided or endured with intense fear or anxiety.

? 1 2 3 F71

GO TO ***SPECIFIC PHOBIA*** F.19

IF UNKNOWN: **What would you say would be the likely outcome of** (PERFORMING POORLY IN SOCIAL SITUATIONS)**? (Were these situations actually dangerous in some way, like avoiding being bullied or tormented by someone?)**

E. The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context.

NOTE: Code "3" if no threat posed by social situation or if out of proportion to actual threat or sociocultural context.

? 1 2 3 F72

GO TO ***SPECIFIC PHOBIA*** F.19

IF UNCLEAR: **How long have** (SXS OF SOCIAL ANXIETY DISORDER) **lasted? (Have they lasted for at least 6 months or more?)**

F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

? 1 2 3 F73

GO TO ***SPECIFIC PHOBIA*** F.19

IF UNKNOWN: **What effect have** (SOCIAL ANXIETY SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION G:

How have (SOCIAL ANXIETY SXS) **affected your ability to have friends or meet new people? (How about dating?) How have** (SOCIAL ANXIETY SXS) **affected your interactions with other people, especially unfamiliar people?**

How have (SOCIAL ANXIETY SXS) **affected your ability to do things at school or at work that require interacting with other people? (How about making presentations or giving talks?)**

Have you avoided going to school or to work if you think you will be put in a situation which makes your uncomfortable?

How have (SOCIAL ANXIETY SXS) **affected your ability to work, take care of your family or household needs, or be involved in things that are important to you like religious activities, physical exercise, or hobbies?**

Have (SOCIAL ANXIETY SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH FUNCTIONING: **How much you been bothered or upset by having** (SOCIAL ANXIETY SXS)**?**

G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 F74

GO TO ***SPECIFIC PHOBIA*** F.19

IF UNKNOWN: **When did you begin having** (SOCIAL ANXIETY SXS)**?**

Just before you began having (SOCIAL ANXIETY SXS), **were you taking any drugs, caffeine, diet pills, or other medicines?**

(How much coffee, tea, or caffeinated beverages did you drink a day?)

Just before (SOCIAL ANXIETY SXS) **began, were you physically ill?**

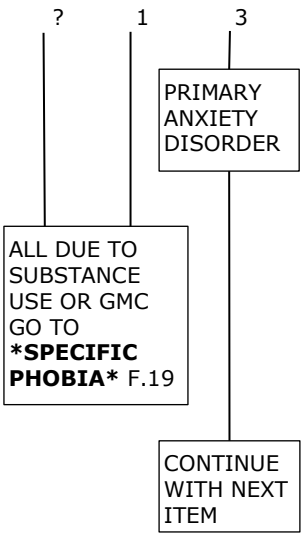
IF YES: **What did the doctor say?**

H. [Primary Anxiety Disorder:] The fear, anxiety, or avoidance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.

IF THERE IS ANY INDICATION THAT THE ANXIETY MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE*** F.33, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to list of etiological medical conditions or substances/medications on page F.4.

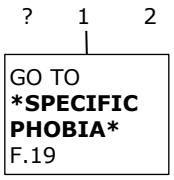
F75



IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULES FOR OC AND RELATED DISORDERS.

I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder such as Panic Disorder, Separation Anxiety Disorder, Body Dysmorphic Disorder, or Autism Spectrum Disorder.

F76

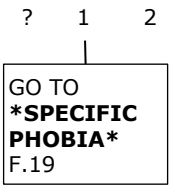


IF A GENERAL MEDICAL CONDITION OR MENTAL DISORDER CHARACTERIZED BY POTENTIALLY EMBARRASSING SYMPTOMS IS PRESENT: **Has your avoidance of** (SOCIAL SITUATIONS) **been related to your** (MEDICAL CONDITION OR MENTAL DISORDER)**?**

IF YES: **How have you dealt with your condition?**

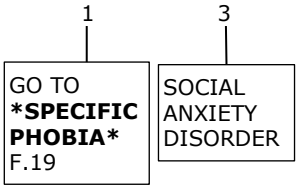
J. If another medical condition (e.g., Parkinson's disease, obesity, disfigurement from burns or injury) [or potentially embarrassing mental disorder] is present, the fear, anxiety, or avoidance is clearly unrelated or is excessive.

F77



SOCIAL ANXIETY DISORDER CRITERIA A, B, C, D, E, F, G, H, I AND J ARE CODED "3."

F78



SOCIAL ANXIETY DISORDER CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENCE OF SOCIAL ANXIETY DISORDER DURING THE PAST 6 MONTHS, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

A. [During the past 6 months,] marked fear or anxiety about one or more social situations. ? 1 3 F79

→ GO TO ***PAST SOCIAL ANXIETY DISORDER*** F.18

During the past 6 months, since (6 MONTHS AGO), **have you continued to fear or avoid** (SOCIAL SITUATIONS MENTIONED ABOVE)**?**

During the past 6 months, since (6 MONTHS AGO), **have you gone out of your way to avoid** (FEARED SOCIAL SITUATIONS)**?**

IF NO: **During the past 6 months, since** (6 MONTHS AGO), **how hard has it been for you to be in** (FEARED SOCIAL SITUATIONS)**?**

D. [During the past 6 months,] the social situations are avoided or endured with intense fear or anxiety. ? 1 3 F80

→ GO TO ***PAST SOCIAL ANXIETY DISORDER*** F.18

During the past 6 months, what effect have (SOCIAL ANXIETY SXS) **had on your life?**

IF HAVE NOT INTERFERED WITH FUNCTIONING: **During the past 6 months, since** (6 MONTHS AGO), **how much have you been bothered or upset by having** (SOCIAL ANXIETY SXS)**?**

G. [During the past 6 months,] the fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 3 F81

→ GO TO ***PAST SOCIAL ANXIETY DISORDER*** F.18

CURRENT SOCIAL ANXIETY DISORDER

CRITERIA A, D, AND G CODED "3" FOR PAST 6 MONTHS 1 3 F82

1 → GO TO ***PAST SOCIAL ANXIETY DISORDER*** F.18

3 → CURRENT SOCIAL ANXIETY DISORDER

IF UNKNOWN: **How old were you when you first started having** (SXS OF SOCIAL ANXIETY DISORDER)**?**

Age at onset of Social Anxiety Disorder (CODE 99 IF UNKNOWN) ____ ____ F83

Specify if:

____ **Performance only:** if the fear is restricted to speaking or performing in public F84

Specify if:

IF UNNOWN: **Have you had any panic attacks in the past month?**

____ **With panic attacks**: if one or more panic attacks in the past month occurring in the context of current Social Anxiety Disorder (see page F.7) and criteria have never been met for Panic Disorder F85

→ GO TO ***SPECIFIC PHOBIA*** F.19

PAST SOCIAL ANXIETY DISORDER

When did you last have (ANY SXS OF SOCIAL ANXIEY DISORDER)**?**	Number of months prior to interview when last had a symptom of Social Anxiety Disorder	____ ____ ____ F86
IF UNKNOWN: **How old were you when you first started having** (SXS OF SOCIAL ANXIETY DISORDER)**?**	Age at onset of Social Anxiety Disorder (CODE 99 IF UNKNOWN)	____ ____ F87

GO TO ***SPECIFIC PHOBIA*** F.19 (NEXT PAGE)

SPECIFIC PHOBIA

SPECIFIC PHOBIA CRITERIA

*IF SCREENING QUESTION #5 ANSWERED "NO," SKIP TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24.*

F88

SCREEN Q#5
YES | NO

IF NO: GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

IF QUESTION #5 ANSWERED "YES":
You've said that there are other things that have made you especially anxious or afraid, like flying, seeing blood, getting a shot, heights, closed places, or certain kinds of animals or insects…

IF SCREENER NOT USED: **Are there any other things that have made you especially anxious or afraid, like flying, seeing blood, getting a shot, heights, closed places, or certain kinds of animals or insects?**

Tell me about that.

A. Marked fear or anxiety about a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood).

F89

? 1 2 3

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

Have you almost always immediately felt frightened or anxious when you were (CONFRONTED WITH PHOBIC STIMULUS)**?**

B. The phobic object or situation almost always provokes immediate fear or anxiety.

F90

? 1 2 3

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

Did you go out of your way to avoid (PHOBIC STIMULUS)**? (Are there things you didn't do because of this fear that you would otherwise have done?)**

IF NO: **How hard was it for you when** (CONFRONTED WITH PHOBIC STIMULUS)**?**

C. The phobic situation(s) is actively avoided, or endured with intense fear or anxiety.

F91

? 1 2 3

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

IF PHOBIC STIMULUS IS POSSIBLY DANGEROUS: **How dangerous would you say it actually is to** (BE EXPOSED TO PHOBIC STIMULUS)**?**

Do you think that you have been more afraid of (PHOBIC STIMULUS) **than you should have been given the actual danger?**

D. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context.

NOTE: Code "3" if objects or situations do not pose danger or if fear or anxiety is out of proportion to actual danger or sociocultural context.

F92

? 1 2 3

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

IF UNKNOWN: **How long have you had these fears? (For 6 months or more?)**

E. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.

? 1 2 3 F93

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

IF UNKNOWN: **What effect have** (PHOBIC SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION F:

How have (PHOBIC SXS) **affected your relationships with your family, romantic partner or friends?**

How have (PHOBIC SXS) **affected your work/school? (How about your attendance at work or school?)**

How about doing other things that are important to you like religious activities, physical exercise, or hobbies?

IF BLOOD-INJECTION-INJURY TYPE: **Have you avoided going to the dentist or doctor because of** (PHOBIC SXS)**? (How has this affected your health?)**

Have (PHOBIC SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by having** (PHOBIC SXS)**?**

F. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 F94

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULES FOR OC AND RELATED DISORDERS AND TRAUMA- AND STRESS-RELATED DISORDERS.

G. The disturbance is not better explained by the symptoms of another mental disorder, including fear, anxiety, and avoidance of situations associated with panic like symptoms or other incapacitating symptoms (as in Agoraphobia), objects or situations related to obsessions (as in Obsessive-Compulsive Disorder) reminders of traumatic events (as in Posttraumatic Stress Disorder), separation from home or attachment figures (as in Separation Anxiety Disorder) or social situations (as in Social Anxiety Disorder).

? 1 3 F95

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

SPECIFIC PHOBIA CRITERIA A, B, C, D, E, F, AND G ARE CODED "3."

1 → GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

3 → SPECIFIC PHOBIA F96

SPECIFIC PHOBIA CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENCE OF SPECIFIC PHOBIA DURING THE PAST 6 MONTHS, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

During the past 6 months, since (6 MONTHS AGO), **have you continued to fear or avoid** (PHOBIC SITUATIONS MENTIONED ABOVE)**?**

A. [During the past 6 months,] marked fear or anxiety about a specific object or situation.

? 1 → GO TO ***PAST SPECIFIC PHOBIA*** F.23 3 F97

In the past 6 months, have you gone out of your way to avoid (PHOBIC STIMULUS)**? (Have there been things you didn't do because of this fear that you would otherwise have done?)**

IF NO: **In the past 6 months, how hard has it been for you when** (CONFRONTED WITH PHOBIC STIMULUS)**?**

C. [During the past 6 months,] the phobic situation(s) is actively avoided, or endured with intense fear or anxiety.

? 1 → GO TO ***PAST SPECIFIC PHOBIA*** F.23 3 F98

In the past 6 months, since (6 MONTHS AGO) **what effect have** (PHOBIC SXS) **had on your life?**

IF DOES NOT INTERFERE WITH LIFE: **In the past 6 months, since** (6 MONTHS AGO) **how much have you been bothered or upset by having** (PHOBIC SXS)**?**

F. [During the past 6 months,] the fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 → GO TO ***PAST SPECIFIC PHOBIA*** F.23 3 F99

CURRENT SPECIFIC PHOBIA

CRITERIA A, C, AND F CODED "3" FOR PAST 6 MONTHS

1 → GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

3 → CURRENT SPECIFIC PHOBIA

F100

IF UNKNOWN: **How old were you when you first started having** (SXS OF SPECIFIC PHOBIA)**?**

Age at onset of Specific Phobia (CODE 99 IF UNKNOWN) ____ ____ F101

Specify if: (Check all that apply)

___ **Animal** (e.g., spiders, insects, dogs) F102

___ **Natural environment** (includes heights, storms, water) F103

___ **Blood-injection-injury** (e.g., needles, invasive medical procedures) F104

___ **Situational** (includes airplanes, elevators, enclosed places) F105

___ **Other type** (e.g., situations that might lead to choking or vomiting) Specify:_____ F106

F107

*Specify if***:**

If UNKNOWN: **Have you had any panic attacks in the past month?**

___ **With panic attacks**: if one or more panic attacks in the past month occurring in the context of current Specific Phobia (see page F.7) and criteria have never been met for Panic Disorder. F108

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

PAST SPECIFIC PHOBIA

When did you last have (ANY SXS OF SPECIFIC PHOBIA)**?**	Number of months prior to interview when last had a symptom of Specific Phobia	____ ____ ____	F109
IF UNKNOWN: **How old were you when you first started having** (SXS OF SPECIFIC PHOBIA)**?**	Age at onset of Specific Phobia (CODE 99 IF UNKNOWN)	____ ____	F110

GO TO ***CURRENT GENERALIZED ANXIETY DISORDER*** F.24

CURRENT GENERALIZED ANXIETY DISORDER

GENERALIZED ANXIETY DISORDER CRITERIA

*IF SCREENING QUESTION #6 ANSWERED "NO," SKIP TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27*

IF QUESTION #6 ANSWERED "YES": **You've said that over the last several months you've been feeling anxious and worried for a lot of the time. (Tell me about that.)**

IF SCREENER NOT USED: **Over the last several months, have you been feeling anxious and worried for a lot of the time? (Tell me about that.)**

SCREEN Q#6 **YES** | **NO** F111

GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27

What kinds of things have you worried about? (What about your job, your health, your family members, your finances, or other smaller things like being late for appointments?) How much did you worry about (EVENTS OR ACTIVITIES)**? What else have you worried about?**

Have you worried about (EVENTS OR ACTIVITIES) **even when there was no reason? (Have you worried more than most people would in your circumstances? Has anyone else thought you worried too much? Have you worried more than you should have given your actual circumstances?)**

During the last 6 months, since (6 MONTHS AGO)**, would you say that you have been worrying more days than not?**

A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).

? 1 2 3 F112

GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27

When you're worrying this way, have you found that it's hard to stop yourself or to think about anything else?

B. The person finds it difficult to control the worry.

? 1 2 3 F113

GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27

Now I am going to ask you some questions about symptoms that often go along with being nervous or worried.

Thinking about those periods since (6 MONTHS AGO) **when you have been feeling nervous, anxious, or worried...**

C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months):

...have you often felt physically restless, like you couldn't sit still?

...have you often felt keyed up or on edge?

1. Restlessness or feeling keyed up or on edge.

? 1 2 3 F114

...have you often tired easily?

2. Being easily fatigued.

? 1 2 3 F115

?=Inadequate information 1=Absent or false 2=Subthreshold 3=Threshold or true

...have you often had trouble concentrating or has your mind often gone blank?	3. Difficulty concentrating or mind going blank.	? 1 2 3	F116
...have you often been irritable?	4. Irritability.	? 1 2 3	F117
...have your muscles often been tense?	5. Muscle tension.	? 1 2 3	F118
...have you often had trouble falling or staying asleep? How about often feeling tired when you woke up because you didn't get a good night's sleep?	6. Sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep).	? 1 2 3	F119
IF UNCLEAR: **Did at least some of these symptoms like** (SXS CODED "3") **happen for more days than not over the past 6 months?**	AT LEAST THREE "C" SXS ARE CODED "3" AND AT LEAST SOME OCCURRED MORE DAYS THAN NOT FOR PAST 6 MONTHS	? 1 2 3 GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27	F120
IF UNKNOWN: **What effect have** (GAD SXS) **had on your life?** *ASK THE FOLLOWING QUESTIONS <u>AS NEEDED</u> TO RATE CRITERION D:* **How have** (GAD SXS) **affected your relationships or your interactions with other people? (Have** [GAD SXS] **caused you any problems in your relationships with your family, romantic partner or friends?)** **How have** (GAD SXS) **affected your work/schoolwork? (How about your attendance at work or school? Have** [GAD SXS] **made it more difficult to do your work/schoolwork? How have** [GAD SXS] **affected the quality of your work/schoolwork?)** **How have** (GAD SXS) **affected your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Have you avoided doing anything because you felt like you weren't up to it?** **Has your anxiety or worry affected any other important part of your life?** *IF HAS NOT INTERFERED WITH LIFE:* **How much have you been bothered or upset by having** (GAD SXS)**?**	D. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.	? 1 2 3 GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27	F121

IF UNKNOWN: **When did** (GAD SXS) **begin?**

Just before you began having (GAD SXS), **were you taking any drugs, caffeine, diet pills, or other medicines?**

(How much coffee, tea, or caffeinated soda do you drink a day?)

Just before (GAD SXS) **began, were you physically ill?**

IF YES: **What did the doctor say?**

E. [Primary Anxiety Disorder:] The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or to another medical condition. F122

IF THERE IS ANY INDICATION THAT THE ANXIETY MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE/MEDICATION), GO TO ***GMC/SUBSTANCE*** F.33 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to list of etiological medical conditions and substances/medications on page F.4.

? 1 3

ALL DUE TO GMC OR SUBSTANCE/MEDICATION USE
GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27

PRIMARY ANXIETY DISORDER

CONTINUE WITH NEXT ITEM

IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULE FOR OC AND RELATED DISORDERS, EATING DISORDERS, AND SOMATIC SYMPTOM DISORDERS.

F. The disturbance is not better explained by another mental disorder (e.g., anxiety or worry about having a panic attacks in Panic Disorder, negative evaluation in Social Anxiety Disorder, contamination or other obsessions in Obsessive Compulsive Disorder, separation from attachment figures in Separation Anxiety Disorder, gaining weight in Anorexia Nervosa, physical complaints in Somatic Symptom disorder, perceived appearance flaws in Body Dysmorphic Disorder or having a serious illness in Illness Anxiety Disorder, or the content of delusional beliefs in Schizophrenia or Delusional Disorder). F123

? 1 3

GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27

GENERALIZED ANXIETY CRITERIA A, B, C, D, E, AND F ARE CODED "3." F124

1 3

GO TO ***PAST GENERALIZED ANXIETY DISORDER*** F.27

CURRENT GENERALIZED ANXIETY DISORDER

AGE AT ONSET

IF UNKNOWN: **How old were you when you first started having** (GAD SXS)**?**

Age at onset of Generalized Anxiety Disorder (CODE 99 IF UNKNOWN) ____ ____ F125

Specify if:

IF UNKNOWN: **Have you had any panic attacks in the past month?**

___ **With panic attacks:** if one or more panic attacks in the past month occurring in the context of current Generalized Anxiety Disorder (see page F.7) and criteria have never been met for Panic Disorder F126

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 ***OR*** ***SEPARATION ANXIETY DISORDER*** Opt-F.1

PAST GENERALIZED ANXIETY DISORDER

GENERALIZED ANXIETY DISORDER CRITERIA

IF SCREENING QUESTION #7 ANSWERED "NO," SKIP TO ***OTHER SPECIFIED ANXIETY DISORDER*** *F.31 OR* ***SEPARATION ANXIETY DISORDER*** *Opt-F.1*

SCREEN Q#7 YES | NO F127

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* ***SEPARATION ANXIETY DISORDER*** Opt-F.1

IF QUESTION #7 ANSWERED "YES": **You've said that you have had a time lasting at least several months in which you were feeling anxious and worried for a lot of the time? (Tell me about that.)**

IF SCREENER NOT USED: **Have you ever had a time lasting at least several months in which you were feeling anxious and worried for a lot of the time? (Tell me about that time.)**

What kinds of things did you worry about? (What about your job, your health, your family members, your finances, or other smaller things like being late for appointments?) How much did you worry about (EVENTS OR ACTIVITIES)**? What else did you worry about?**

Did you worry about (EVENTS OR ACTIVITIES) **even when there was no reason? (Did you worry more than most people would in your circumstances? Did anyone else think you worried too much? Did you worry more than you should have given your actual circumstances?)**

When was that? How long did it last? (At least 6 months?) During that time, were you worrying more days than not?

A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).

? 1 2 3 F128

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* ***SEPARATION ANXIETY DISORDER*** Opt-F.1

When you were worrying, did you find that it was hard to stop yourself?

B. The person finds it difficult to control the worry.

? 1 2 3 F129

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* ***SEPARATION ANXIETY DISORDER*** Opt-F.1

Now I am going to ask you some questions about symptoms that often go along with being nervous or worried.

Thinking about those times during (6-MONTH PERIOD OF ANXIETY AND WORRY NOTED ABOVE) **when you were feeling nervous, anxious, or worried…**

C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months):

…did you often feel physically restless, like you can't sit still?	1. Restlessness or feeling keyed up or on edge.	?	1	2	3	F130
…did you often feel keyed up or on edge?						
…did you often tire easily?	2. Being easily fatigued.	?	1	2	3	F131
…did you often have trouble concentrating or did your mind often go blank?	3. Difficulty concentrating or mind going blank.	?	1	2	3	F132
…were you often irritable?	4. Irritability.	?	1	2	3	F133
…were your muscles often tense?	5. Muscle tension.	?	1	2	3	F134
…did you often have trouble falling or staying asleep? How about often feeling tired when you woke up because you didn't get a good night's sleep?	6. Sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep).	?	1	2	3	F135
IF UNCLEAR: **Did at least some of these symptoms like** (SXS CODED "3") **happen for more days than not over the** (6 MONTH PERIOD OF ANXIETY AND WORRY)**?**	AT LEAST THREE "C" SXS ARE CODED "3."	?	1	2	3	F136

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* ***SEPARATION ANXIETY DISORDER*** Opt-F.1

IF UNKNOWN: **What effect did** (GAD SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION D:

How did (GAD SXS) **affect your relationships or your interactions with other people? (Did** [GAD SXS] **cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (GAD SXS) **affect your school/ work? (How about your attendance at work or school? Did** [GAD SXS] **make it more difficult to do your work/ schoolwork)? How did** [GAD SXS] **affect the quality of your work/schoolwork?)**

How did (GAD SXS) **affect your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Did your anxiety or worry affect any other important part of your life?

IF HAS NOT INTERFERED WITH LIFE: **How much were you bothered or upset by having** (GAD SXS)**?**

D. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 F137

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31
OR
SEPARATION ANXIETY DISORDER Opt-F.1

IF UNKNOWN: **When did** (GAD SXS) **begin?**

Just before you began having (GAD SXS)**, were you taking any drugs, caffeine, diet pills, or other medicines?**

(How much coffee, tea, or caffeinated soda did you drink a day?)

Just before (GAD SXS) **began, were you physically ill?**

IF YES: **What did the doctor say?**

E. [Primary Anxiety Disorder:] The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or to another medical condition.

IF THERE IS ANY INDICATION THAT THE ANXIETY MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE/MEDICATION), GO TO ***GMC/SUBSTANCE*** F.33 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to list of etiological medical conditions and substances/medications on page F.4.

? 1 3 F138

ALL DUE TO GMC OR SUBSTANCE/ MEDICATION USE
GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* ***SEPARATION ANXIETY DISORDER*** Opt-F.1

PRIMARY ANXIETY DISORDER

CONTINUE WITH NEXT ITEM

IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULE FOR OC AND RELATED DISORDERS, EATING DISORDERS, AND SOMATIC SYMPTOM DISORDERS.

F. The disturbance is not better explained by another mental disorder (e.g., anxiety or worry about having a panic attacks in Panic Disorder, negative evaluation in Social Anxiety Disorder, contamination or other obsessions in Obsessive Compulsive Disorder, separation from attachment figures in Separation Anxiety Disorder, gaining weight in Anorexia Nervosa, physical complaints in Somatic Symptom Disorder, perceived appearance flaws in Body Dysmorphic Disorder or having a serious illness in Illness Anxiety Disorder, or the content of delusional beliefs in Schizophrenia or Delusional Disorder).

? 1 3 F139

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* **SEPARATION ANXIETY DISORDER*** Opt-F.1

GENERALIZED ANXIETY CRITERIA A, B, C, D, E, AND F ARE CODED "3."

1 3 F140

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31 *OR* ***SEPARATION ANXIETY DISORDER*** Opt-F.1

PAST GENERAL-IZED ANXIETY DISORDER

AGE AT ONSET

IF UNKNOWN: **How old were you when you first started having** (GAD SXS)**?**

Age at onset of Generalized Anxiety Disorder (CODE 99 IF UNKNOWN) ____ ____ F141

OTHER SPECIFIED ANXIETY DISORDER

NOTE: IF ANXIETY SYMPTOMS ARE CURRENT AND ARE TEMPORALLY ASSOCIATED WITH A PSYCHOSOCIAL STRESSOR, CONSIDER ADJUaSTMENT DISORDER, PAGE L.20

IF UNKNOWN: **What effect did** (ANXIETY SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION:

How have (ANXIETY SXS) **affected your relationships or your interactions with other people? (Have** [ANXIETY SXS] **caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (ANXIETY SXS) **affected your school/work? (How about your attendance at work or school? Have** [ANXIETY SXS] **made it more difficult to do your work/ schoolwork? How have** [ANXIETY SXS] **affected the quality of your work/schoolwork?)**

How have (ANXIETY SXS) **affected your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Have you avoided doing anything because you felt like you weren't up to it?**

Have your anxiety or worry affected any other important part of your life?

IF HAS NOT INTERFERED WITH LIFE: **How much were you bothered or upset by having** (ANXIETY SXS)**?**

OTHER SPECIFIED ANXIETY DISORDER CRITERIA

Symptoms characteristic of an anxiety disorder…predominate…but do not meet full criteria for any of the disorders in the Anxiety Disorders diagnostic class [or for Adjustment Disorder with Anxiety or Adjustment Disorder with Mixed Anxiety and Depression].	1 3	F142
[Symptoms] cause clinically significant distress or impairment in social, occupational, or other important areas of functioning	? 1 2 3	F143

GO TO NEXT MODULE

GO TO NEXT MODULE

Just before you began having (ANXIETY SXS) **were you taking any drugs, stimulants or medicines?**

(How much coffee, tea, or caffeinated beverages do you drink a day?)

Just before (ANXIETY SXS) **began, were you physically ill? (What did the doctor say?)**

[Primary Other Specified Anxiety Disorder:] Not due to the direct physiological effects of a substance (e.g., a drug of abuse), medication or to another medical condition.

IF THERE IS ANY INDICATION THAT THE ANXIETY MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE/MEDICATION), GO TO ***GMC/SUBSTANCE*** F.33 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to list of etiological medical conditions and substances/medications on page F.4.

? 1 3 F144

- ? / 1 → DUE TO SUBSTANCE USE OR GMC — GO TO NEXT MODULE
- 3 → PRIMARY OTHER SPECIFIED ANXIETY DISORDER
- 3 → OTHER SPECIFIED ANXIETY DISORDER

IF UNCLEAR: **During the past month, have you had** (ANXIETY SXS)**?**

Check here____ if current in the past month. F145

*Indicate **type** of Other Specified Anxiety Disorder:* (circle the appropriate number) F146

1 – **Limited-symptom panic attacks**

2 – **Generalized anxiety not occurring more days than not**

3 – Situations in which the clinician has concluded that an Anxiety Disorder is present but is **unable to determine whether it is primary or secondary** (i.e., due to another medical condition or is substance/medication-induced).

4 – **Other**: _____

5 – **Unspecified**: There is insufficient information to make a more specific diagnosis.

GO TO

GO TO NEXT MODULE

GMC/SUBSTANCE AS ETIOLOGY FOR ANXIETY SYMPTOMS

ANXIETY DISORDER DUE TO ANOTHER MEDICAL CONDITION

ANXIETY DISORDER DUE TO ANOTHER MEDICAL CONDITION CRITERIA

IF SYMPTOMS NOT TEMPORALLY ASSOCIATED WITH A GENERAL CONDITION CHECK HERE ___ AND GO TO ***SUBSTANCE/MEDICATION-INDUCED ANXIETY DISORDER*** F.35 F147

CODE BASED ON INFORMATION ALREADY OBTAINED

A. Panic attacks or anxiety is predominant in the clinical picture. ? 1 3 F148

B/C. There is evidence from this history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of another medical condition AND the disturbance is not better accounted for by another mental disorder. ? 1 2 3 F149

GO TO ***SUBSTANCE INDUCED*** F.35

Did the (ANXIETY SXS) **start or get much worse only after** (GMC) **began? How long after** (GMC) **began did** (ANXIETY SXS) **start or get much worse?**

NOTE: The following factors should be considered and, if present, support the conclusion that a general medical condition is etiologic to the anxiety symptoms.

IF GMC HAS RESOLVED: **Did the** (ANXIETY SXS) **get better once the** (GMC) **got better?**

1) There is evidence from the literature of a well-established association between the general medical condition and the anxiety symptoms. (Refer to list of etiological general medical conditions on page F.4.)

2) There is a close temporal relationship between the course of the anxiety symptoms and the course of the general medical condition.

3) The anxiety symptoms are characterized by unusual presenting features (e.g., late age-at-onset).

4) The absence of alternative explanations (e.g., anxiety symptoms as a psychological reaction to the stress of being diagnosed with a general medical condition).

IF UNKNOWN: **What effect did** (ANXIETY SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How did (ANXIETY SXS) **affect your relationships or your interactions with other people? (Did** [ANXIETY SXS] **cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (ANXIETY SXS) **affect your school/work? (How about your attendance at work or school? Did** [ANXIETY SXS] **make it more difficult to do your work/schoolwork? How did** [ANXIETY SXS] **affect the quality of your work/schoolwork?)**

How did (ANXIETY SXS) **affect your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Did your anxiety or worry affect any other important part of your life?

IF HAS NOT INTERFERED WITH LIFE: **How much were you bothered or upset by having** (ANXIETY SXS)**?**

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

NOTE: The D criterion (delirium rule-out) has been omitted.

? 1 2 3 F150

GO TO ***SUBSTANCE INDUCED*** F.35

ANXIETY DISORDER DUE TO AMC CRITERIA A, B/C, AND E CODED "3."

1 3 F151

ANXIETY DISORDER DUE TO AMC

F152

Check here____ if current in the past month.

F153

Specify if:

___ **With panic attacks** (Refer to page F.7)

CONTINUE ON NEXT PAGE

SUBSTANCE/MEDICATION-INDUCED ANXIETY DISORDER

SUBSTANCE/MEDICATION-INDUCED ANXIETY DISORDER CRITERIA

IF SYMPTOMS NOT TEMPORALLY ASSOCIATED WITH SUBSTANCE/MEDICATION USE, CHECK HERE ___ AND RETURN TO DISORDER BEING EVALUATED, CONTINUING WITH THE ITEM FOLLOWING "SYMPTOMS ARE NOT ATTRIBUTABLE TO THE PHYSIOLOGICAL EFFECTS OF A SUBSTANCE OR ANOTHER MEDICAL CONDITION" (SEE PAGE NUMBERS IN BOX TO THE RIGHT).

EPISODE BEING EVALUATED:	
Panic	F.4
Social Anxiety Disorder	F.16
Current GAD	F.26
Past GAD	F.30
Other Specified Anxiety	F.32

F154

CODE BASED ON INFORMATION ALREADY OBTAINED

A. Panic attacks or anxiety is predominant in the clinical picture. ? 1 2 3 F155

IF NOT KNOWN: **When did the** (ANXIETY SXS) **begin? Were you already using** (SUBSTANCE/MEDICATION) **or had you just stopped or cut down your use?**

IF UNKNOWN: **How much** (SUBSTANCE/ MEDICATION) **were you using when you began to have** (ANXIETY SXS)**?**

B. There is evidence from the history, physical examination, or laboratory findings of both (1) and (2): ? 1 2 3 F156

1. The symptoms in criterion A developed during or soon after substance intoxication or withdrawal or exposure to a medication.
2. The involved substance/ medication is capable of producing the symptoms in Criterion A.

NOT SUBSTANCE INDUCED
RETURN TO DISORDER BEING EVALUATED

NOTE: Refer to list of substances/medications on page F.4.

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NON-SUBSTANCE-INDUCED ETIOLOGY:

C. The disturbance is NOT better accounted for by an anxiety disorder that is not substance-induced. Such evidence of an independent anxiety disorder could include the following: ? 1 3 F157

IF UNKNOWN: **Which came first, the** (SUBSTANCE/MEDICATION USE) **or the** (ANXIETY SXS)**?**

IF UNKNOWN: **Have you had a period of time when you stopped using** (SUBSTANCE/MEDICATION)?

IF YES: **After you stopped using** (SUBSTANCE/MEDICATION) **did the** (ANXIETY SXS) **go away or get better?**

IF YES: **How long did it take for them to get better? Did they go away within a month of stopping?**

NOT SUBSTANCE INDUCED
RETURN TO DISORDER BEING EVALUATED

NOTE: The following three statements constitute evidence that the anxiety symptoms are not substance-induced. Code "1" if any are true. Code "3" only if none are true.

1) The symptoms precede the onset of the substance/medication use;

2) The symptoms persist for a substantial period of time (e.g., about 1 month) after the cessation of acute withdrawal or severe intoxication; or

IF UNKNOWN: **Have you had any other episodes of** (ANXIETY SXS)**?**

IF YES: **How many? Were you using** (SUBSTANCE/MEDICATION) **at those times?**

3) There is other evidence suggesting the existence of an independent non-substance/ medication-induced anxiety disorder (e.g., a history of recurrent non-substance/ medication-related episodes).

IF UNKNOWN: **What effect did** (ANXIETY SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How did (ANXIETY SXS) **affect your relationships or your interactions with other people? (Did** [ANXIETY SXS] **cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (ANXIETY SXS) **affect your work/schoolwork? (How about your attendance at work or school? Did** [ANXIETY SXS] **make it more difficult to do your work/schoolwork? How did** [ANXIETY SXS] **affect the quality of your work/schoolwork?)**

How did (ANXIETY SXS) **affect your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Did your anxiety or worry affect any other important part of your life?

IF HAS NOT INTERFERED WITH LIFE: **How much were you bothered or upset by having** (ANXIETY SXS)**?**

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 F158

→ RETURN TO DISORDER BEING EVALUATED

NOTE: The D criterion (delirium rule-out) has been omitted.

SUBSTANCE-INDUCED ANXIETY DISORDER CRITERIA A, B, C, AND E ARE CODED "3." 1 3 F159

→ SUBSTANCE-INDUCED ANXIETY DISORDER

Check here____ if current in the past month. F160

*Indicate **context of development** of anxiety symptoms*: F161

1 – **With onset during intoxicati**on

2 – **With onset during withdrawal**

3 – **With onset after medication use**

Specify if: F162

___ **With panic attacks** (Refer to page F.7)

→ RETURN TO EPISODE BEING EVALUATED

0G. OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

OBSESSIVE-COMPULSIVE DISORDER

*IF SCREENING QUESTIONS #8, #9, AND #10 ARE ALL ANSWERED "NO" SKIP TO ***COMPULSIONS*** G.2, (NOTE: BECAUSE SOME SUBJECTS WITH OCD MAY BE RELUCTANT TO CONFIDE THEIR OBSESSIONS DURING THE SCREENING, CONSIDER RE-ASKING SCREENING QUESTIONS BELOW AT THIS POINT IN THE SCID.)*

IF QUESTION #8 ANSWERED "YES": **You've said that you've been bothered by thoughts that kept coming back to you even when you didn't want them to, like being exposed to germs or dirt or needing everything to be lined up in a certain way. What were they?**

IF QUESTION #9 ANSWERED "YES": **You've [also] said that you've had images pop into your head that you didn't want like violent or horrible scenes or something of a sexual nature. What were they?**

IF QUESTION #10 ANSWERED "YES": **You've [also] said that you've had urges to do something that kept coming back to you even though you didn't want them to, like an urge to harm a loved one. What were they?**

IF SCREENER NOT USED: **Have you ever been bothered by thoughts that kept coming back to you even when you didn't want them to, like being exposed to germs or dirt or needing everything to be lined up in a certain way? (What were they?)**

How about having images pop into your head that you didn't want like violent or horrible scenes or something of a sexual nature? (What were they?)

How about having urges to do something that kept coming back to you even though you didn't want them to, like an urge to harm a loved one? (What were they?)

IF YES TO ANY OF ABOVE: **Have these** (THOUGHTS/IMAGES/URGES) **made you very anxious or upset?**

When you had these (THOUGHTS/IMAGES/URGES) **did you try hard to get them out of your head? (What would you try to do?)**

OBSESSIVE-COMPULSIVE DISORDER CRITERIA

SCREEN Q#8 YES | | NO — G1

SCREEN Q#9 YES | | NO — G2

SCREEN Q#10 YES | | NO — G3

IF ALL ARE ANSWERED "NO" SKIP TO ***COMPULSIONS*** G.2

A. Presence of obsessions, compulsions, or both:

Obsessions are defined by (1) and (2):

1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress.

? 1 2 3 — G4

NO OBSESSIONS GO TO ***COMPULSIONS*** G.2

2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion).

? 1 2 3 — G5

NO OBSESSIONS CONTINUE ON NEXT PAGE

OBSESSIONS

DESCRIBE CONTENT OF OBSESSION(S):

COMPULSIONS

*IF SCREENING QUESTION #11 ANSWERED "NO," GO TO ***SKIP OUT IF NEITHER OBSESSIONS NOR COMPULSIONS*** G.3 (NOTE: BECAUSE SOME SUBJECTS WITH OCD MAY BE RELUCTANT TO CONFIDE THEIR COMPULSIONS DURING THE SCREENING, CONSIDER RE-ASKING SCREENING QUESTION BELOW AT THIS POINT IN THE SCID.)*

SCREEN Q#11 G6
YES | | NO

IF NO: GO TO ***SKIP OUT IF NEITHER OBSESSIONS NOR COMPULSIONS*** G.3

IF QUESTION #11 ANSWERED "YES": **You've said that there were things you had to do over and over again and were hard to resist doing, like washing your hands again and again, repeating something over and over again until it "felt right," counting up to a certain number, or checking something many times to make sure that you'd done it right. Tell me about that.**

IF SCREENER NOT USED: **Was there ever anything that you had to do over and over again and was hard to resist doing, like washing your hands again and again, repeating something over and over again until it "felt right," counting up to a certain number, or checking something many times to make sure that you'd done it right?**

Tell me about that. (What did you have to do?)

IF UNCLEAR: **Why did you have to do** (COMPULSIVE ACT)**? What would happen if you didn't do it?**

IF UNCLEAR: **How many times would you do** (COMPULSIVE ACT)**? Have you been doing** (COMPULSIVE ACT) **more than really made sense?**

Compulsions are defined by (1) and (2):

1. Repetitive behaviors (e. g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession, or according to rules that must be applied rigidly.

? 1 2 3 G7

2. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.

? 1 2 3 G8

COMPULSIONS

*GO TO ***SKIP OUT IF NEITHER OBSESSIONS NOR COMPULSIONS*** G.3 (TOP OF NEXT PAGE)*

DESCRIBE CONTENT OF COMPULSION(S):

SKIP OUT IF NEITHER OBSESSIONS NOR COMPULSIONS

→ *IF EITHER OBSESSIONS OR COMPULSIONS, OR BOTH, CONTINUE BELOW.*

→ *IF NEITHER OBSESSIONS NOR COMPULSIONS, CHECK HERE ___ AND GO TO* ****OTHER SPECIFIED OC AND RELATED DISORDER**** *G.8 OR* ****HOARDING DISORDER (OPTIONAL)**** *Opt-G.1.* G9

IF UNKNOWN: **How much time do you spend on** (OBSESSION OR COMPULSION)**?**

IF UNKNOWN: **What effect did these** (OBSESSIONS OR COMPULSIONS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION B:

How have (OBSESSIONS OR COMPULSIONS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner, roommates or friends?)**

How have (OBSESSIONS OR COMPULSIONS) **affected your work/school? (How about your attendance at work or school? Have** [OBSESSIONS OR COMPULSIONS] **made it more difficult to do your work/ schoolwork)? How have** (OBSESSIONS OR COMPULSIONS) **affected the quality of your work/schoolwork?)**

How have (OBSESSIONS OR COMPUSIONS) **affected your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies?**

Have (OBSESSIONS OR COMPULSIONS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have you been bothered by having** (OBSESSIONS OR COMPULSIONS)?

B. The obsessions or compulsions are time consuming (e.g., take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 G10

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8, ***OR*** GO TO ***HOARDING DISORDER (OPTIONAL)*** Opt-G.1

IF UNKNOWN: **When did** (OBSESSIONS OR COMPULSIONS) **begin?**

Just before this began, were you physically ill?

IF YES: **What did the doctor say?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

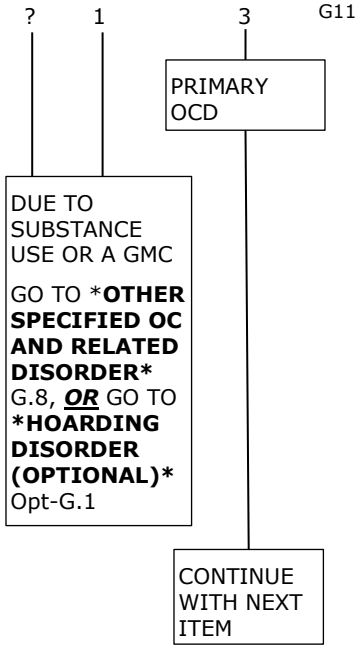
Just before this began, were you drinking or using any drugs?

C. [Primary Obsessive-Compulsive Disorder.] The obsessive-compulsive symptoms are not attributable to the physiological effects of a substance/medication or to another medical condition.

IF THERE IS ANY INDICATION THAT THE OBSESSIONS OR COMPULSIONS MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/SUBSTANCE*** G.11 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

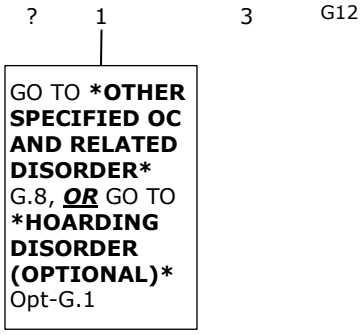
Etiological medical conditions include: Sydenham's chorea, medical conditions leading to striatal damage, such as cerebral infarction.

Etiological substances/medications include: intoxication with cocaine, amphetamines or other stimulants and exposure to heavy metals.



IF NECESSARY, RETURN TO THIS ITEM AFTER COMPLETING MODULES FOR OPTIONAL OC AND RELATED DISORDERS, SOMATIC SYMPTOM DISORDERS, AND TRAUMA- AND STRESS-RELATED DISORDERS.

D. The disturbance is not better explained by the symptoms of another mental disorder (e.g., excessive worries, as in Generalized Anxiety Disorder; preoccupation with appearance, as in Body Dysmorphic Disorder; difficulty discarding or parting with possessions, as in Hoarding Disorder; hair pulling, as in Trichotillomania; skin picking, as in Excoriation Disorder; stereotypies, as in Stereotypic Movement Disorder; ritualized eating behavior, as in Eating Disorders; preoccupation with substances or gambling, as in Substance-Related and Addictive Disorders; preoccupation with having an illness, as in Illness Anxiety Disorder; sexual urges or fantasies, as in Paraphilic Disorders; impulses, as in Disruptive, Impulse-Control, and Conduct Disorders; guilty ruminations, as in Major Depressive Disorder; thought insertion or delusional preoccupations, as in Schizophrenia Spectrum and Other Psychotic Disorders; or repetitive patterns of behavior, as in Autism Spectrum Disorder).



OBSESSIVE COMPULSIVE DISORDER
CRITERIA A, B, C, D, AND E ARE CODED "3."

1 → GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8, ***OR*** GO TO ***HOARDING DISORDER (OPTIONAL)*** Opt-G.1

3 → OBSESSIVE-COMPULSIVE DISORDER; CONTINUE BELOW. G13

OCD CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT HAS ALREADY DETERMINED THE PRESENCE OF OBSESSIONS AND/OR COMPULSIONS DURING THE PAST MONTH, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

Since (1 MONTH AGO), **have you had any** (OBSESSIONS OR COMPULSIONS MENTIONED ABOVE)**?**

A. [During the past month,] presence of obsessions, compulsions, or both.

? 1 → GO TO ***PAST OCD*** G.7

3 G14

Since (1 MONTH AGO), **how much time have you spent on** (OBSESSIONS OR COMPULSIONS)**?**

IF UNKNOWN: **During the past month, since** (1 MONTH AGO), **what effect have** (OBSESSIONS OR COMPULSIONS) **had on your life?**

IF DID NOT INTERFERE WITH LIFE: **During the past month, since** (1 MONTH AGO), **how much have you been bothered by having** (OBSESSIONS OR COMPULSIONS)**?**

B. [During the past month,] the obsession or compulsions are time consuming (e.g. take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 → GO TO ***PAST OCD*** G.7

3 G15

CURRENT OCD

CRITERIA A AND B CODED "3" FOR PAST MONTH

? 1 3 G16

GO TO ***PAST OCD*** G.7

CURRENT OCD

IF UNKNOWN: **How old were you when you first started having** (OCD SXS)**?**

Age at onset of Obsessive Compulsive Disorder (CODE 99 IF UNKNOWN)

_____ _____ G17

IF MORE THAN ONE OCD BELIEF INVOLVING A FEARED CONSEQUENCE: **Which belief about something terrible that could happen to you or someone else is the most upsetting to you? (Like if you don't check the stove over and over the house will burn down, or if you touch an ashtray you'll get cancer, or if you felt a bump in the road while you were driving you believed you really did run over someone.)**

On average, over the past week, how strongly did you believe this terrible thing was going to happen? (Were you completely convinced?)

*Specify current **level of insight*** (i.e., during the past week): (circle the appropriate number) G18

1 - **With good or fair insight**: The individual recognizes that Obsessive-Compulsive Disorder beliefs are definitely or probably not true or that they may or may not be true.

2 - **With poor insight**: The individual thinks Obsessive-Compulsive Disorder beliefs are probably true.

3 - **With absent insight/delusional beliefs**: The individual is completely convinced that Obsessive-Compulsive Disorder beliefs are true.

4 - **Not applicable**. OCD symptoms are not associated with a feared consequence that involves a belief.

Specify if:

IF UNKNOWN: **Has there ever been a time when you had tics, where you were repeatedly making sounds or movements that were difficult to control?**

___ **Tic-related**: The individual has a current or past history of a Tic Disorder (i.e., a disturbance characterized by sudden, rapid, recurrent, nonrhythmic motor movements or vocalizations) [typically based on clinician judgment of a current or past diagnosis of Tic Disorder] G19

Specify if:

IF UNKNOWN: **Have you had any panic attacks in the past month?**

___ **With panic attacks:** If one or more panic attacks in the past month occurring in the context of current Obsessive Compulsive Disorder (see page F.7) and criteria have never been met for Panic Disorder. G20

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8, ***OR*** GO TO ***HOARDING DISORDER (OPTIONAL)*** Opt-G.1

PAST OCD

When did you last have (ANY OCD SXS)**?**	Number of months prior to interview when last had a symptom of Obsessive Compulsive Disorder	____ ____ ____	G21
IF UNKNOWN: **How old were you when you first started having** (OCD SXS)**?**	Age at onset of Obsessive Compulsive Disorder (CODE 99 IF UNKNOWN)	____ ____	G22

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8, ***OR*** GO TO ***HOARDING DISORDER (OPTIONAL)*** Opt-G.1

OTHER SPECIFIED OBSESSIVE-COMPULSIVE AND RELATED DISORDER

OTHER SPECIFIED OBSESSIVE-COMPULSIVE AND RELATED DISORDER CRITERIA

A presentation in which symptoms characteristic of an Obsessive-Compulsive and Related Disorder predominate but do not meet the full criteria for any of the disorders in the obsessive-compulsive and related disorders diagnostic class.

1 3 G23

GO TO NEXT MODULE

IF UNKNOWN: **What effect did have** (OC-RELATED SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION:

How have (OC-RELATED SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (OC-RELATED SXS) **affected your work/school? (How about your attendance at work or school? Have** [OC-RELATED SXS] **made it more difficult to do your work/schoolwork? How did** [OC-RELATED SXS] **affect the quality of your work/schoolwork?)**

How have (OC-RELATED SXS) **affected your ability to take care of things at home? What about being involved in things that are important to you, like religious activities, physical exercise, or hobbies? Have you avoided situations or people because you didn't want other people to see you doing** (OC-RELATED BEHAVIORS)**?**

Have (OC-RELATED SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much has your** (OC-RELATED SXS) **bothered or upset you?**

[Symptoms] cause clinically significant distress or impairment in social, occupational, or other important areas of functioning predominate.

? 1 2 3 G24

GO TO NEXT MODULE

IF UNKNOWN: **When did** (OC-RELATED SXS) **begin?**

Just before (OC-RELATED SXS) **began, were you physically ill?**

IF YES: **What did the doctor say?**

Just before (OC-RELATED SXS) **began, were you using any medications?**

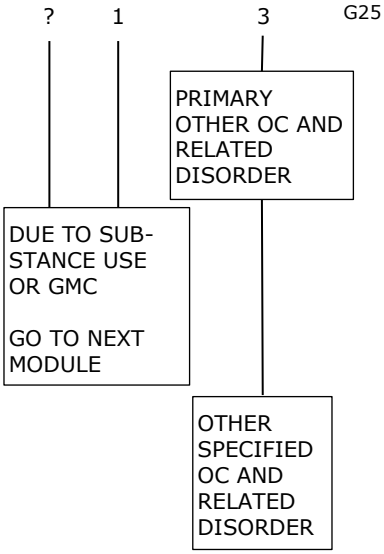
IF YES: **Any change in the amount you were using?**

Just before (OC-RELATED SXS) **began, were you drinking or using any drugs?**

[Primary Other OC and Related Disorder: Not due to the direct physiological effects of a substance/medication or to another medical condition.]

IF THERE IS ANY INDICATION THAT THE OC-RELATED SYMPTOMS MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/ SUBSTANCE*** G.11 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to list of etiological medical conditions and substances/medications on page G.4.



IF UNCLEAR: **During the past month, since** (1 MONTH AGO), **have you had** (OC-RELATED SXS)**?**

Check here ___ if present in past month.

G26

CONTINUE WITH TYPE ON NEXT PAGE

*Indicate **type** of other specified OC and Related Disorder*: (circle the appropriate number)

G27

1 - **Body dysmorphic–like disorder with actual flaws:** This is similar to Body Dysmorphic Disorder except that the defects or flaws in physical appearance are clearly observable by others (i.e., they are more noticeable than "slight"). In such cases, the preoccupation with these flaws is clearly excessive and causes significant impairment or distress.

2 - **Body dysmorphic–like disorder without repetitive behaviors:** Presentations that meet Body Dysmorphic Disorder except that the individual has not performed repetitive behaviors or mental acts in response to the appearance concerns.

3 - **Body-focused repetitive behavior disorder:** This is characterized by recurrent body-focused repetitive behaviors (e.g., nail biting, lip biting, cheek chewing) and repeated attempts to decrease or stop the behaviors. These symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning and are not better explained by Trichotillomania (hair-pulling disorder), Excoriation (skin-picking) Disorder, or Stereotypic Movement Disorder.

4 - **Obsessional jealousy:** This is characterized by nondelusional preoccupation with a partner's perceived infidelity. The preoccupations may lead to repetitive behaviors or mental acts in response to the infidelity concerns; they cause clinically significant distress or impairment in social, occupational, or other important areas of functioning; and they are not better explained by another mental disorder such as Delusional Disorder, Jealous Type, or Paranoid Personality Disorder.

5 - Situations in which the clinician has concluded that an Obsessive-Compulsive and Related Disorder is present but is **unable to determine whether it is primary or secondary** (i.e., due to another medical condition or is substance/medication-induced).

6 - Other:_____ _____

7 - **Unspecified**: There is insufficient information to make a more specific diagnosis

GO TO NEXT MODULE

GMC/SUBSTANCE CAUSING OBSESSIVE-COMPULSIVE AND RELATED SYMPTOMS

OBSESSIVE-COMPULSIVE AND RELATED DISORDER DUE TO ANOTHER MEDICAL CONDITION

OBSESSIVE-COMPULSIVE AND RELATED DISORDER DUE TO ANOTHER MEDICAL CONDITION CRITERIA

IF SYMPTOMS NOT TEMPORALLY ASSOCIATED WITH A GENERAL MEDICAL CONDITION, CHECK HERE ___ AND GO TO ****SUBSTANCE-INDUCED OC AND RELATED DISORDER**** *G.14.* G28

CODE BASED ON INFORMATION ALREADY OBTAINED

A. Obsessions, compulsions, preoccupations with appearance, hoarding, skin picking, hair pulling, other body-focused repetitive behaviors, or other symptoms characteristic of obsessive-compulsive and related disorder predominate in the clinical picture.

? 1 2 3 G29

GO TO ***SUBSTANCE INDUCED*** G.14

B/C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of another medical condition AND the disturbance is not better accounted for by another mental disorder.

? 1 3 G30

GO TO ***SUBSTANCE INDUCED*** G.14

Did (OC AND RELATED SXS) **start or get much worse only after** (GMC) **began? How long after** (GMC) **began did** (OC AND RELATED SXS) **start or get much worse?**

IF GMC HAS RESOLVED: **Did the** (OC AND RELATED SYMPTOMS) **get better once the** (GMC) **got better?**

NOTE: The following factors should be considered and, if present, support the conclusion that a general medical condition is etiologic to the obsessive-compulsive and related symptoms.

1) There is evidence from the literature of a well-established association between the general medical condition and the obsessive-compulsive and related symptoms. (Refer to list of etiological general medical conditions on page G.4.)

2) There is a close temporal relationship between the course of the obsessive-compulsive and related symptoms and the course of the general medical condition.

3) The obsessive-compulsive and related symptoms are characterized by unusual presenting features (e.g., late age-at-onset).

4) The absence of alternative explanations (e.g., obsessive-compulsive and related symptoms as a psychological reaction to the stress of being diagnosed with a general medical condition).

IF UNKNOWN: **What effect have** (OC-RELATED SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E.:

How have (OC-RELATED SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (OC-RELATED SXS) **affected your work/school? (How about your attendance at work or school? Have** [OC-RELATED SXS] **made it more difficult to do your work/schoolwork)? How have** [OC-RELATED SXS] **affected the quality of your work/schoolwork?)**

How have (OC-RELATED SXS) **affected your ability to take care of things at home? What about being involved in things that are important to you, like religious activities, physical exercise, or hobbies? Have you avoided situations or people because you didn't want other people to see you doing** (OC-RELATED BEHAVIORS)**?**

Have (OC-RELATED SXS) **affected any other important part of your life?**

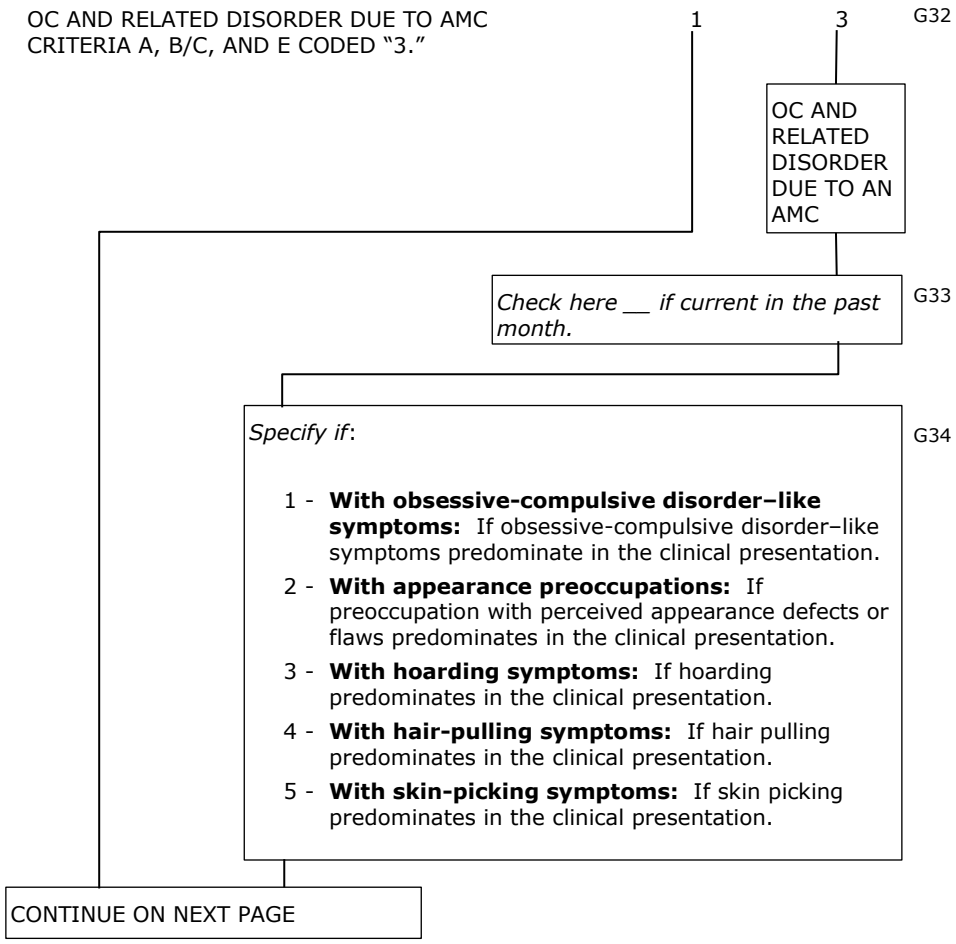
IF HAVE NOT INTERFERED WITH LIFE: **How much have your** (OC-RELATED SXS) **bothered or upset you?**

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning

? 1 2 3 G31

GO TO ***SUB-STANCE INDUCED*** G.14

NOTE: The D criterion (delirium rule-out) has been omitted.


OC AND RELATED DISORDER DUE TO AMC
CRITERIA A, B/C, AND E CODED "3."
1
3
G32
OC AND RELATED DISORDER DUE TO AN AMC
Check here __ if current in the past month.
G33
Specify if:
1 - With obsessive-compulsive disorder–like symptoms: If obsessive-compulsive disorder–like symptoms predominate in the clinical presentation.
2 - With appearance preoccupations: If preoccupation with perceived appearance defects or flaws predominates in the clinical presentation.
3 - With hoarding symptoms: If hoarding predominates in the clinical presentation.
4 - With hair-pulling symptoms: If hair pulling predominates in the clinical presentation.
5 - With skin-picking symptoms: If skin picking predominates in the clinical presentation.
G34
CONTINUE ON NEXT PAGE

SUBSTANCE-/MEDICATION-INDUCED OC AND RELATED DISORDER

SUBSTANCE-/MEDICATION-INDUCED OC AND RELATED DISORDER CRITERIA

EPISODE BEING EVALUATED:
OCD G.4
Hoarding Opt G.3
Other Specified OCD G.9

IF SYMPTOMS <u>NOT</u> TEMPORALLY ASSOCIATED WITH SUBSTANCE/MEDICATION USE (OR IF SYMPTOMS CONFINED TO HOARDING), CHECK HERE ___ AND RETURN TO EPISODE BEING EVALUATED, CONTINUING WITH THE ITEM FOLLOWING "SYMPTOMS ARE NOT ATTRIBUTABLE TO THE PHYSIOLOGICAL EFFECTS OF A SUBSTANCE OR ANOTHER MEDICAL CONDITION" (SEE PAGE NUMBERS IN BOX TO THE RIGHT). G35

CODE BASED ON INFORMATION ALREADY OBTAINED.

A. Obsessions, compulsions, skin picking, hair pulling, other body-focused repetitive behaviors, or other symptoms characteristic of the obsessive-compulsive and related disorders predominate in the clinical picture. ? 1 2 3 G36

IF NOT KNOWN: **When did the** (OC AND RELATED SXS) **begin? Were you already using** (SUBSTANCE/MEDICATION) **or had you just stopped or cut down your use?**

IF UNKNOWN: **How much** (SUBSTANCE/ MEDICATION) **were you using when you began to have** (OC AND RELATED SXS)**?**

B. There is evidence from the history, physical examination, or laboratory findings of both (1) and (2): ? 1 2 3 G37

1. The symptoms in criterion A developed during or soon after substance intoxication or withdrawal or exposure to a medication
2. The involved substance/ medication is capable of producing the symptoms in Criterion A

NOT SUBSTANCE INDUCED
RETURN TO EPISODE BEING EVALUATED

NOTE: Refer to list of etiological substances/medications on page G.4.

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NON-SUBSTANCE-INDUCED ETIOLOGY.

C. The disturbance is NOT better accounted for by an obsessive-compulsive and related disorder that is not substance-induced. Such evidence of an independent obsessive-compulsive disorder and related disorder could include the following: ? 1 3 G38

RETURN TO EPISODE BEING EVALUATED

IF UNKNOWN: **Which came first, the** (SUBSTANCE/MEDICATION USE) **or the** (OC AND RELATED SXS)**?**

IF UNKNOWN: **Have you had a period of time when you stopped using** (SUBSTANCE/MEDICATION)**?**

IF YES: **After you stopped using** (SUBSTANCE/MEDICATION) **did the** (OC AND RELATED SXS) **go away or get better?**

IF YES: **How long did it take for them to get better? Did they go away within a month of stopping?**

IF UNKNOWN: **Have you had any other episodes of** (OC AND RELATED SXS)**?**

IF YES: **How many? Were you using** (SUBSTANCE/ MEDICATION) **at those times?**

NOTE: The following three statements constitute evidence that the anxiety symptoms are not substance-induced. Code "1" if any are true. Code "3" only if none are true.

The symptoms precede the onset of the substance/medication use;

The symptoms persist for a substantial period of time (e.g., about 1 month) after the cessation of acute withdrawal or severe intoxication;

There is other evidence suggesting the existence of an independent non-substance/medication-induced obsessive-compulsive and related disorder (e.g., a history of recurrent non-substance/ medication-related episodes).

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

IF UNKNOWN: **What effect have** (OC-RELATED SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How have (OC-RELATED SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (OC-RELATED SXS) **affected your work/school? (How about your attendance at work or school? Have** [OC-RELATED SXS] **made it more difficult to do your work/schoolwork)? How have** [OC-RELATED SXS] **affected the quality of your work/schoolwork?)**

How have (OC-RELATED SXS) **affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise, or hobbies? Have you avoided situations or people because you didn't want other people to see you doing** (OC-RELATED BEHAVIOR)?

Have (OC-RELATED SXS) **affected any other important part of your life?**

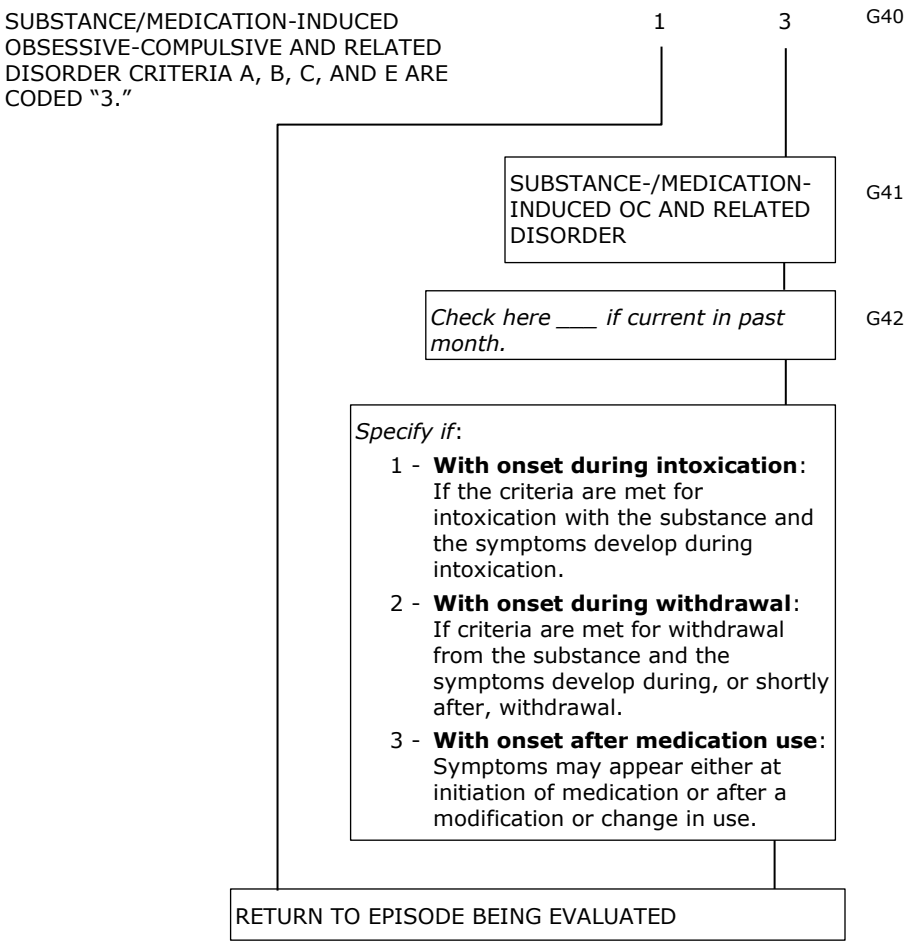
IF HAVE NOT INTERFERED WITH LIFE: **How much have your** (OC-RELATED SXS) **bothered or upset you?**

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

NOTE: The D criterion (delirium rule-out) has been omitted.

? 1 2 3 G39

RETURN TO EPISODE BEING EVALUATED


SUBSTANCE/MEDICATION-INDUCED OBSESSIVE-COMPULSIVE AND RELATED DISORDER CRITERIA A, B, C, AND E ARE CODED "3."
1
3
G40
SUBSTANCE-/MEDICATION-INDUCED OC AND RELATED DISORDER
G41
Check here ___ if current in past month.
G42
Specify if:
1 - With onset during intoxication: If the criteria are met for intoxication with the substance and the symptoms develop during intoxication.
2 - With onset during withdrawal: If criteria are met for withdrawal from the substance and the symptoms develop during, or shortly after, withdrawal.
3 - With onset after medication use: Symptoms may appear either at initiation of medication or after a modification or change in use.
RETURN TO EPISODE BEING EVALUATED

I. FEEDING AND EATING DISORDERS

ANOREXIA NERVOSA

ANOREXIA NERVOSA CRITERIA

SCREEN Q#12 **YES** | | **NO** I1

IF NO: GO TO ***BULIMIA NERVOSA*** I.4

IF SCREENING QUESTION #12 ANSWERED "NO," CHECK HERE ___ AND SKIP TO ***BULIMIA NERVOSA*** *I.4*

IF QUESTION #12 ANSWERED "YES": **You've said that there was a time when you weighed much less than other people thought you ought to weigh…**

IF SCREENER NOT USED: **Now I would like to ask you some questions about your eating habits and your weight. Have you ever had a time when you weighed much less than other people thought you ought to weigh?**

IF YES: **Why was that? How much did you weigh? How old were you then? How tall were you?**

A. Restriction of energy intake relative to requirements, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. Significantly low weight is defined as a weight that is less than minimally normal or, for children and adolescents, less than minimally expected.

? 1 2 3 I2

GO TO ***BULIMIA NERVOSA*** I.4

IF LIFETIME RATING OF "3": **During the past 3 months, since** (3 MONTHS AGO), **what is the lowest your weight has been?**

Past 3 months ? 1 2 3 I3

At that time, were you very afraid that you could become fat?

IF NO: **Tell me about your eating habits. (Have you avoided high calorie foods or high fat foods? How strict are you about it? Have you ever thrown up after you eaten? How often? Do you exercise a lot after you eat?)**

B. Intense fear of gaining weight or of becoming fat, or persistent behavior that interferes with weight gain, even though underweight.

? 1 2 3 I4

GO TO ***BULIMIA NERVOSA*** I.4

IF LIFETIME RATING OF "3": **Has this also been the case during the past 3 months, since** (3 MONTHS AGO)**?**

Past 3 months ? 1 2 3 I5

At your lowest weight, did you still feel too fat or that part of your body was too fat?

IF NO: **Did you need to be very thin in order to feel better about yourself?**

IF NO AND LOW WEIGHT IS MEDICALLY SERIOUS: **When you were that thin, did anybody tell you it could be dangerous to your health to be that thin? (What did you think?)**

C. Disturbance in the way in which one's body weight or shape is experienced; undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

? 1 2 3 I6

GO TO ***BULIMIA NERVOSA*** I.4

IF LIFETIME RATING OF "3": **Has this also been the case in the past 3 months, since** (3 MONTHS AGO)**?**

Past 3 months ? 1 2 3 I7

ANOREXIA NERVOSA CRITERIA A, B, AND C ARE CODED "3"

1 3 I8

IF NO: GO TO ***BULIMIA NERVOSA*** I.4

ANOREXIA NERVOSA

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

ANOREXIA NERVOSA CHRONOLOGY

ANOREXIA NERVOSA CRITERIA A, B, AND C ARE CODED "3" FOR THE PAST 3 MONTHS

? 1 3 I9

PAST ANOREXIA NERVOSA	CURRENT ANOREXIA NERVOSA

Indicate **current severity** by circling the appropriate number. (The level of severity may be increased to reflect clinical symptoms, the degree of functional disability, and the need for supervision.)

1 - **Mild:** BMI ≥ 17 kg/m^2 I10
2 - **Moderate:** BMI 16-16.99 kg/m^2
3 - **Severe:** BMI 15-15.99 kg/m^2
4 - **Extreme:** BMI < 15 kg/m^2

(Refer to Page I.12 for chart to help in determining Body Mass Index)

CONTINUE WITH ***AGE AT ONSET*** NEXT PAGE.

Indicate **type** of remission by circling the appropriate number:

1 - **In partial remission:** After full criteria for Anorexia Nervosa were previously met, Criterion A (low body weight) has not been met for a sustained period, but either Criterion B (intense fear of gaining weight or becoming fat or behavior that interferes with weight gain) or Criterion C (disturbances in self-perception of weight and shape) is still met. I11
2 - **In full remission:** After full criteria for Anorexia Nervosa were previously met, none of the criteria have been met for a sustained period of time.

When did you last have (ANY SXS OF ANOREXIA NERVOSA)? Number of months prior to interview when last had a symptom of Anorexia Nervosa ___ ___ ___ I12

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

AGE AT ONSET

IF UNKNOWN: **How old were you when you first started having** (SXS OF ANOREXIA NERVOSA)**?**

Age-at-onset of Anorexia Nervosa (CODE 99 IF UNKNOWN). ____ ____ I13

*IF ANOREXIA NERVOSA IS NOT CURRENT**, GO TO ***BULIMIA NERVOSA*** I.4.*

Do you have eating binges in which you eat a lot of food in a short period of time and feel that your eating is out of control? (How often?)

IF NO: **What kinds of things have you done to keep weight off? (Do you ever make yourself vomit or take laxatives, enemas, or water pills? How often?)**

*Specify **subtype** for current episode:* (circle the appropriate number)

I14

1 – **Restricting type:**

During the last 3 months, the individual has NOT engaged in recurrent episodes of binge eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas). This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting and/or excessive exercise.

2 – **Binge-eating/purging type:**

During last 3 months, the individual has engaged in recurrent episodes or binge-eating or purging behavior (i.e., self-induced vomiting or misuse of laxatives, diuretics, or enemas).

BULIMIA NERVOSA

BULIMIA NERVOSA CRITERIA

SCREEN Q#13 **YES** | **NO** I15

→ IF SCREENING QUESTION #13 IS ANSWERED "NO," GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** *I.10 OR GO TO* ***ARFID*** *Opt-I.1.*

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

→ *IF QUESTION #13 ANSWERED "YES":* **You've said that you've had eating binges, that is, times when you couldn't resist eating a lot of food or stop eating once you've started. Tell me about those times.**

→ *IF SCREENER NOT USED:* **Have you had eating binges, that is, times when you couldn't resist eating a lot of food or stop eating once you started? Tell me about those times.**

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by BOTH of the following:

During these times, were you unable to control what or how much you were eating?

2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

? 1 2 3 I16

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

NOTE: Criterion A.2 (lack of control) precedes criterion A.1 to tie in with screening question.

During those times, how much did you eat? Over what period of time? What's the most you might eat at such times? (Does this only happen during celebrations or holidays?)

1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances

? 1 2 3 I17

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

CRITERIA A.2 AND A.1 ARE CODED "3" 1 3 I18

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

IF LIFETIME RATING OF "3" FOR BOTH CRITERIA A.2 AND A.1: **During the past 3 months, since** (3 MONTHS AGO)**, have you had such episodes?**

Past 3 months ? 1 2 3 I19

Have you ever done anything to keep yourself from gaining weight because of the binge eating (like making yourself vomit, taking laxatives, enemas, water pills, or thyroid hormone, strict dieting or fasting, or exercising a lot)? Tell me about that. How often did this occur?

B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as: self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.

? 1 2 3 I20

GO TO ***BINGE-EATING DISORDER*** I.7

IF LIFETIME RATING OF "3": **Have you done** (COMPENSATORY BEHAVIOR[S]) **during the past 3 months, since** (3 MONTHS AGO)**?**

Past 3 months
1 3 I21

How often were you binge eating and (COMPENSATORY BEHAVIOR[S])**? (At least once a week for at least 3 months?)**

C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least once a week for 3 months.

? 1 2 3 I22

GO TO ***BINGE-EATING DISORDER*** I.7

IF LIFETIME RATING OF "3": **Since** (3 MONTHS AGO), **how often were you binge eating and** (COMPENSATORY BEHAVIOR[S])**? At least once a week?**

Past 3 months
1 3 I23

Has your body shape and weight ever been an important factor in how you felt about yourself?

IF YES: **How important?**

D. Self-evaluation is unduly influenced by body shape and weight.

? 1 2 3 I24

IF LIFETIME RATING OF "3": **Has this also been the case during the past 3 months?**

Past 3 months
1 3 I25

IF UNKNOWN: **Do you binge eat and then** (ENGAGE IN COMPENSATORY BEHAVIOR) **only when your weight is very low?**

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

? 1 3 I26

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

BULIMIA NERVOSA CRITERIA
A, B, C, D, AND E ARE CODED "3."

1 3 I27

BULIMIA NERVOSA

GO TO ***OTHER SPECIFIED FEEDING OR EATING ODISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

BULIMIA NERVOSA CHRONOLOGY

BULIMIA NERVOSA CRITERIA A, B, C, AND D ARE MET FOR THE PAST 3 MONTHS

? 1 3 I28

PAST BULIMIA NERVOSA

CURRENT BULIMIA NERVOSA

Indicate **current severity** by circling appropriate number: (The level of severity may be increased to reflect other symptoms and the degree of functional disability.)

1 - **Mild:** An average of 1–3 episodes of inappropriate compensatory behaviors per week. I29

2 - **Moderate:** An average of 4–7 episodes of inappropriate compensatory behaviors per week.

3 **-** **Severe:** An average of 8–13 episodes of inappropriate compensatory behaviors per week.

4 – **Extreme:** An average of 14 or more episodes of inappropriate compensatory behaviors per week.

CONTINUE WITH ***AGE AT ONSET*** BELOW.

Indicate **type** of remission by circling the appropriate number:

I30

1 - **In partial remission:** After full criteria for bulimia nervosa were previously met, some, but not all, of the criteria have been met for a sustained period of time

2 - **In full remission:** After full criteria for bulimia nervosa were previously met, none of the criteria have been met for a sustained period of time.

When did you last have (ANY SXS OF BULIMIA NERVOSA)? Number of months prior to interview when last had a symptom of Bulimia Nervosa ____ ____ ____ I31

AGE AT ONSET

IF UNKNOWN: **How old were you when you first started having** (SXS OF BULIMIA NERVOSA)**?** Age at onset of Bulimia Nervosa (CODE 99 IF UNKNOWN) ____ ____ I32

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

BINGE-EATING DISORDER

During these binges did you...

BINGE-EATING DISORDER CRITERIA

NOTE: Criterion A has already been rated "3" in the context of the Bulimia Nervosa evaluation, page I.4.

B. The binge-eating episodes are associated with three (or more) of the following:

...eat much more rapidly than normal?

1. Eating much more rapidly than normal. ? 1 2 3 I33

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **Has this also been the case during the past 3 months?**

Past 3 months 1 3 I34

...ever eat until you felt uncomfortably full?

2. Eating until feeling uncomfortably full. ? 1 2 3 I35

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **Has this also been the case during the past 3 months?**

Past 3 months 1 3 I36

...ever eat large amounts of food when you didn't feel physically hungry?

3. Eating large amounts of food when not feeling physically hungry. ? 1 2 3 I37

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **Has this also been the case during the past 3 months?**

Past 3 months 1 3 I38

...ever eat alone because you were embarrassed by how much you were eating?

4. Eating alone because of being embarrassed by how much one is eating. ? 1 2 3 I39

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **Has this also been the case during the past 3 months?**

Past 3 months 1 3 I40

...ever feel disgusted with yourself, depressed, or feel very guilty after overeating?

5. Feeling disgusted with oneself, depressed or very guilty afterward. ? 1 2 3 I41

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **Has this also been the case during the past 3 months?**

Past 3 months 1 3 I42

AT LEAST 3 "B" SXS CODED "3." 1 3 I43

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

AT LEAST 3 "B" SXS CODED 3 FOR PAST 3 MONTHS 1 3 I44

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

Was it very upsetting to you that you couldn't stop eating or control what or how much you were eating?

C. Marked distress regarding binge eating is present.

? 1 2 3 I45

GO TO ***OTHER SPECIFIED FEEDIN OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **For the past 3 months, since** (3 MONTHS AGO), **has this still been the case?**

Past 3 months 1 3 I46

IF UNKNOWN: **How often did you binge eat? (For how long a period of time? At least once a week for at least 3 months?)**

D. The binge eating occurs, on average, at least once a week for 3 months.

? 1 2 3 I47

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

IF LIFETIME RATING OF "3" AND CURRENTLY BINGE EATING: **How often have you been binge eating since** (3 MONTHS AGO)**? (At least once a week?)**

Past 3 months 1 3 I48

IF UNKNOWN OR UNCLEAR: **Did you ever do anything to keep yourself from gaining weight because of the binge eating (like making yourself vomit, taking laxatives, enemas, water pills, or thyroid hormone, strict dieting or fasting, or exercising a lot)?**

IF UNKNOWN: **Do you binge eat only when your weight is very low?**

E. The binge eating is not associated with the recurrent use of inappropriate compensatory behaviors as in Bulimia Nervosa and does not occur exclusively during the course of Bulimia Nervosa or Anorexia Nervosa.

NOTE: Code "3" if no recurrent inappropriate compensatory behaviors.

? 1 3 I49

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

IF LIFETIME RATING OF "3," CURRENTLY BINGE EATING AND UNCLEAR: **During the past 3 months, since** (3 MONTHS AGO)**, have you done anything to keep yourself from gaining weight because of the binge eating (like making yourself vomit, taking laxatives, enemas, water pills, or thyroid hormone, strict dieting or fasting, or exercising a lot)?**

Past 3 months 1 3 I50

BINGE-EATING DISORDER CRITERIA A, B, C, D, AND E ARE CODED "3."

NOTE: Criterion A for Binge-Eating Disorder has already been coded "3" as part of the assessment for Bulimia Nervosa, I.4.

1 3 I51

BINGE-EATING DISORDER

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10 ***OR*** GO TO ***ARFID*** Opt-I.1

BINGE-EATING DISORDER CHRONOLOGY

BINGE-EATING DISORDER CRITERIA A, B, C, D, AND E ARE CODED "3" FOR THE PAST 3 MONTHS. ? 1 3 I52

PAST BINGE-EATING DISORDER

CURRENT BINGE-EATING DISORDER

*Indicate **current severity:** (*circle the appropriate number)
(The level of severity may be increased to reflect other symptoms and the degree of functional disability.) I53

1 - **Mild:** 1–3 binge-eating episodes per week
2 - **Moderate:** 4–7 binge-eating episodes per week
3 - **Severe**: 8–13 binge-eating episodes per week
4 – **Extreme:** 14 or more binge-eating episodes per week

CONTINUE WITH ***AGE AT ONSET*** BELOW.

*Indicate **type** of remission*: (circle the appropriate number)

1 - **In partial remission:** After full criteria for Binge-Eating Disorder were previously met, binge eating occurs at an average frequency of less than one episode per week for a sustained period of time. I54
2 - **In full remission:** After full criteria for Binge-Eating Disorder were previously met, none of the criteria have been met for a sustained period of time.

When did you last have (ANY SXS OF BINGE-EATING DISORDER)**?** Number of months prior to interview when last had a symptom of Binge-Eating Disorder ____ ____ ____ I55

AGE AT ONSET

IF UNKNOWN: **How old were you when you first started having** (SXS OF BINGE-EATING DISORDER)**?** Age at onset of Binge-Eating Disorder (CODE 99 IF UNKNOWN) ____ ____ I56

OTHER SPECIFIED FEEDING OR EATING DISORDER

OTHER SPECIFIED FEEDING OR EATING DISORDER

Symptoms characteristic of a Feeding and Eating Disorder predominate but do not meet the full criteria for any of the disorders in the Feeding and Eating Disorders diagnostic class.

1 3 I57

GO TO NEXT MODULE

IF UNKNOWN: **What effect have** (EATING SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION:

How have (EATING SXS) **affected your relationships or your interactions with other people? (Have** [EATING SXS] **caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (EATING SXS) **affected your school/work? (How about your attendance at work or school? Have** [EATING SXS] **made it more difficult to do your work/schoolwork? How have** [EATING SXS] **affected the quality of your work/schoolwork?)**

How have (EATING SXS) **affected your ability to take care of things at home? How about doing other things that were important to you like religious activities, physical exercise, or hobbies? Have you avoided doing anything because you felt like you weren't up to it?**

Have (EATING SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much were you bothered or upset by having** (EATING SXS)**?**

[Symptoms] cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

? 1 2 3 I58

GO TO NEXT MODULE

OTHER SPECIFIED EATING DISORDER

IF UNCLEAR: **During the past month, since** (1 MONTH AGO)**, have you had** (SXS OF EATING DISORDER)**?**

Check here ___ if present in the past month. I59

CONTINUE WITH TYPE ON NEXT PAGE

*Indicate **type** of Other Specified Eating Disorder*: (circle the appropriate number)

1 - **Atypical anorexia nervosa:** All of the criteria for Anorexia Nervosa are met, except that despite significant weight loss, the individual's weight is within or above the normal range. I60

2 - **Bulimia nervosa (of low frequency and/or limited duration):** All of the criteria for Bulimia Nervosa are met, except that the binge eating and inappropriate compensatory behaviors occur, on average, less than once a week and/or for less than 3 months.

3 - **Binge-eating disorder (of low frequency and/or limited duration):** All of the criteria for Binge-Eating Disorder are met, except that the binge eating occurs, on average, less than once a week and/or for less than 3 months.

4 - **Purging disorder**: Recurrent purging behavior to influence weight or shape (e.g., self-induced vomiting; misuse of laxatives, diuretics, or other medications) in the absence of binge eating.

5 - **Night eating syndrome**: Recurrent episodes of night eating, as manifested by eating after awakening from sleep or by excessive food consumption after the evening meal. There is awareness and recall of the eating. The night eating is not better explained by external influences such as changes in the individual's sleep-wake cycle or by local social norms. The night eating causes significant distress and/or impairment in functioning. The disordered pattern of eating is not better explained by Binge-Eating Disorder or another mental disorder, including substance use, and is not attributable to another medical disorder or to an effect of medication.

6 - **Other**: _____

7 - **Unspecified**: There is insufficient information to make a more specific diagnosis.

TABLE FOR DETERMINING SEVERITY OF ANOREXIA NERVOSA BASED ON BODY MASS INDEX

Anorexia Nervosa Severity	**Mild (BMI≥17)**	**Moderate (BMI=16-16.99)**	**Severe (BMI=15-15.99)**	**Extreme (BMI=<15)**
Height cms (inches/feet)	Body Weight kg (pounds)	Body Weight kg (pounds)	Body Weight kg (pounds)	Body Weight kg (pounds)
148 (58" / 4′10")	≥38 (≥84)	35-37 (77-82)	33-34 (72-76)	<33 (<72)
150 (59" / 4′11")	≥39 (≥86)	37-38 (79-81)	35-36 (74-78)	<35 (<74)
153 (60" / 5′)	≥40 (≥90)	38-39 (84-87)	36-37 (77-81)	<36 (<77)
155 (61" / 5′1")	≥41 (≥95)	39-40 (86-90)	37-38 (80-85)	<37 (<80)
158 (62" / 5′2")	≥43 (≥95)	41-42 (89-93)	38-39 (82-88)	<38 (<82)
160 (63" / 5′3")	≥44 (≥97)	42-43 (92-96)	39-40 (85-91)	<39 (<85)
163 (64" / 5′4")	≥46 (≥101)	44-45 (97-99)	40-41 (88-92)	<40 (<88)
165 (65" / 5′5")	≥47 (≥104)	45-46 (100-102)	41-43 (91-95)	<41 (<91)
168 (66" / 5′6")	≥48 (≥106)	46-47 (100-105)	43-44 (93-99)	<43 (<93)
170 (67" / 5′7")	≥49 (≥108)	47-48 (103-107)	44-46 (95-102)	<44 (<95)
173 (68" / 5′8")	≥51 (≥112)	49-50 (104-109)	46-47 (97-103)	<46 (<97)
175 (69" / 5′9")	≥52 (≥115)	50-51 (106-113)	47-48 (99-105)	<47 (<99)
178 (70" / 5′10")	≥54 (≥119)	52-53 (109-116)	48-50 (102-108)	<48 (<102)
180 (71" / 5′11")	≥55 (≥121)	53-54 (115-123)	51-52 (108-114)	<51 (<108)
183 (72" / 6′0″)	≥57 (≥126)	54-55 (119-125)	52-53 (111-118)	<52 (<111)
185 (73" / 6′1")	≥58 (≥128)	55-57 (124-129)	53-54 (114-121)	<53 (<114)
188 (74" / 6′2")	≥60 (≥132)	57-59 (125-132)	54-55 (117-124)	<54 (<117)
191 (75" / 6′3")	≥61 (≥134)	59-60(128-136)	55-58 (122-127)	<55 (<122)
193 (76" / 6′4")	≥63 (≥140)	60-62 (132-140)	58-59 (123-131)	<58 (<123)
Severity	**Mild**	**Moderate**	**Severe**	**Extreme**

Source: Adapted from *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.*

L. TRAUMA- AND STRESSOR-RELATED DISORDERS

TRAUMA HISTORY

I'd now like to ask about some things that may have happened to you that may have been extremely upsetting. People often find that talking about these experiences can be helpful. I'll start by asking if these experiences apply to you, and if so, I'll ask you to briefly describe what happened and how you felt at the time.

SCREEN FOR EACH TYPE OF TRAUMA USING QUESTIONS BELOW; THEN, ON PAGES L.2–L.5 REVIEW AND INQUIRE IN DETAIL FIRST FOR ANY EVENTS OCCURRING IN THE PAST MONTH AND THEN FOR UP TO THREE PAST EVENTS (E.G., THREE WORST EVENTS, THREE MOST RECENT EVENTS, ETC.)

Have you ever been in a life threatening situation like a major disaster or fire, combat, or a serious car or work-related accident? L1

What about being physically or sexually assaulted or abused, or threatened with physical or sexual assault? L2

How about seeing another person being physically or sexually assaulted or abused, or threatened with physical or sexual assault? L3

Have you ever seen another person killed or dead, or badly hurt? L4

How about learning that one of these things happened to someone you are close to? L5

IF UNKNOWN: **Have you ever been the victim of a serious crime?** L6

IF NO EVENTS ENDORSED: **What would you say has been the most stressful or traumatic experience you have had over your life?** L7

IF NO EVENTS ACKNOWLEDGED, CHECK HERE ___ AND GO TO ****ADJUSTMENT DISORDER**** *L.20. OTHERWISE CONTINUE ON NEXT PAGE.* L8

Did any of these happen in the past month, since (1 MONTH AGO)**?**

IF YES: *ASSESS THE TRAUMATIC EVENT IN PAST MONTH USING THE QUESTIONS BELOW.*

IF NO: CONTINUE ON TOP OF PAGE L.3.

DETAILS FOR EVENT IN PAST MONTH

IF DIRECT EXPOSURE TO TRAUMA:

What happened? Were you afraid of dying or being seriously hurt? Were you seriously hurt?

IF WITNESSED TRAUMATIC EVENT HAPPENING TO OTHERS:

What happened? What did you see? How close were you to (TRAUMATIC EVENT)**? Were you concerned about your own safety?**

IF LEARNED ABOUT TRAUMATIC EVENT:

What happened? Who did it involve? (How close [emotionally] were you to them? Did it involve violence, suicide or a bad accident?)

IF UNKNOWN: **How old were you at the time?**

IF UNKNOWN: **Did this happen more than once?**

Description of traumatic event: L9

_____

_____

*Indicate **type of traumatic event**:* (check all that apply)

___ Death, actual L10

___ Death, threatened L11

___ Serious Injury, actual L12

___ Serious injury, threatened L13

___ Sexual violence, actual L14

___ Sexual violence, threatened L15

*Indicate **mode of exposure** to traumatic event:* (check all that apply)

___ Directly experienced L16

___ Witnessed happening to others in person L17

___ Learning about actual or threatened violence or accidental death of a close family member or friend L18

___ Repeated or extreme exposure to aversive details of traumatic events (e.g., police officers repeatedly exposed to details of child abuse) L19

Age at time of event: ____ L20

*Indicate **type of exposure**:* (circle the appropriate number) L21

1 – Single event

2 – Prolonged or repeated exposure to same trauma (e.g., witnessing repeated episodes of parental domestic violence over years

→ *IF NO EVENTS PRIOR TO PAST MONTH, GO TO* ***ACUTE STRESS DISORDER*** *L.6.*

→ *IF EVENTS PRIOR TO PAST MONTH, REVIEW THE TYPES OF TRAUMA INDICATED ON SCREENING (PAGE L.1 IN THE STANDARD VERSION OF MODULE L OR PAGES ALT-L.1 THROUGH ALT-L3 IN THE ALTERNATE VERSION) AND CHOOSE THE THREE MOST SEVERE EVENTS TO ASSESS, USING THE FOLLOWING QUESTIONS:*

DETAILS FOR PAST EVENT #1

Description of traumatic event**:** L22

→ IF DIRECT EXPOSURE TO TRAUMA:

What happened? Were you afraid of dying or being seriously hurt? Were you seriously hurt?

_____

_____

→ IF WITNESSED TRAUMATIC EVENT HAPPENING TO OTHERS:

What happened? What did you see? How close were you to (TRAUMATIC EVENT)**? Were you concerned about your own safety?**

→ IF LEARNED ABOUT TRAUMATIC EVENT:

What happened? Who did it involve? (How close [emotionally] were you to them? Did it involve violence, suicide or a bad accident?)

Indicate ***type of traumatic event****:* (check all that apply)

___ Death, actual L23

___ Death, threatened L24

___ Serious Injury, actual L25

___ Serious injury, threatened L26

___ Sexual violence, actual L27

___ Sexual violence, threatened L28

Indicate ***mode of exposure*** *to traumatic event:* (check all that apply)

___ Directly experienced L29

___ Witnessed happening to others in person L30

___ Learning about actual or threatened violence or accidental death of a close family member or friend L31

___ Repeated or extreme exposure to aversive details of traumatic events (e.g., police officers repeatedly exposed to details of child abuse) L32

IF UNKNOWN: **How old were you at the time?**

Age at time of event: _____ L33

IF UNKNOWN: **Did this happen more than once?**

Indicate ***type of exposure****:* (circle the appropriate number) L34

1 – Single event

2 – Prolonged or repeated exposure to same trauma (e.g., witnessing repeated episodes of parental domestic violence over years)

DETAILS FOR PAST EVENT #2

IF DIRECT EXPOSURE TO TRAUMA:

What happened? Were you afraid of dying or being seriously hurt? Were you seriously hurt?

IF WITNESSED TRAUMATIC EVENT HAPPENING TO OTHERS:

What happened? What did you see? How close were you to (TRAUMATIC EVENT**)? Were you concerned about your own safety?**

IF LEARNED ABOUT TRAUMATIC EVENT:

What happened? Who did it involve? (How close [emotionally] were you to them? Did it involve violence, suicide or a bad accident?)

Description of traumatic event**:**

L35

_____

_____

*Indicate **type of traumatic event**:* (check all that apply):

___ Death, actual L36

___ Death, threatened L37

___ Serious Injury, actual L38

___ Serious injury, threatened L39

___ Sexual violence, actual L40

___ Sexual violence, threatened L41

*Indicate **mode of exposure** to traumatic event*: (check all that apply)

___ Directly experienced L42

___ Witnessed happening to others in person L43

___ Learning about actual or threatened violence or accidental death of a close family member or friend L44

___ Repeated or extreme exposure to aversive details of traumatic events (e.g., police officers repeatedly exposed to details of child abuse) L45

IF UNKNOWN: **How old were you at the time?**

Age at time of event: _____ L46

IF UNKNOWN: **Did this happen more than once?**

*Indicate **type of exposure**:* (circle the appropriate number)

L47

1 – Single event

2 – Prolonged or repeated exposure to same trauma (e.g., witnessing repeated episodes of parental domestic violence over years

DETAILS FOR PAST EVENT #3

IF DIRECT EXPOSURE TO TRAUMA:

What happened? Were you afraid of dying or being seriously hurt? Were you seriously hurt?

IF WITNESSED TRAUMATIC EVENT HAPPENING TO OTHERS:

What happened? What did you see? How close were you to (TRAUMATIC EVENT)**? Were you concerned about your own safety?**

IF LEARNED ABOUT TRAUMATIC EVENT:

What happened? Who did it involve? (How close [emotionally] were you to them? Did it involve violence, suicide or a bad accident?)

IF UNKNOWN: **How old were you at the time?**

IF UNKNOWN: **Did this happen more than once?**

Description of traumatic event: L48

_____

_____

*Indicate **type of traumatic event**:* (check all that apply)

___ Death, actual L49

___ Death, threatened L50

___ Serious Injury, actual L51

___ Serious injury, threatened L52

___ Sexual violence, actual L53

___ Sexual violence, threatened L54

*Indicate **mode of exposure** to traumatic event:* (check all that apply)

___ Directly experienced L55

___ Witnessed happening to others in person L56

___ Learning about actual or threatened violence or accidental death of a close family member or friend L57

___ Repeated or extreme exposure to aversive details of traumatic events (e.g., police officers repeatedly exposed to details of child abuse) L58

Age at time of event: _____ L59

*Indicate **type of exposure**:* (circle the appropriate number) L60

1 – Single event

2 – Prolonged or repeated exposure to same trauma (e.g., witnessing repeated episodes of parental domestic violence over years

ACUTE STRESS DISORDER (CURRENT ONLY)

ACUTE STRESS DISORDER CRITERIA (PAST MONTH)

*IF NO EVENTS IN PAST MONTH, CHECK HERE ___ AND GO TO ***POSTTRAUMATIC STRESS DISORDER**** *L.11* L61

REVIEW TRAUMATIC EVENTS OCCURRING IN THE PAST MONTH DESCRIBED IN DETAIL ON PAGE L.2.

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

IF MORE THAN ONE TRAUMATIC EVENT IS REPORTED IN THE PAST MONTH: **Which of these do you think has affected you the most in the past month, since** (1 MONTH AGO)**?**

1. Directly experiencing the traumatic event(s). ? 1 2 3 L62
2. Witnessing, in person, the event(s) as it occurred to others. ? 1 2 3 L63
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental. ? 1 2 3 L64
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse) ? 1 2 3 L65

Note: Criterion A.4 does not apply to exposure through electronic media, television, movies, or pictures, unless the exposure is work-related.

AT LEAST ONE A ITEM CODED "3" 1 3 L66

GO TO ***PTSD*** L.11

Now I'd like to ask a few questions about specific ways that (TRAUMATIC EVENT) **may have affected you.**

B. Presence of NINE (or more) of the following symptoms FROM ANY OF THE FIVE CATEGORIES (intrusion, negative mood, dissociation, avoidance, and arousal), beginning or worsening after the traumatic event(s) occurred:

Since (1 MONTH AGO)**...**

...have you had memories of (TRAUMATIC EVENT)**, including feelings, physical sensations, sounds, smells, or images, when you didn't expect to or want to? (How often has this happened?)**

1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). ? 1 2 3 L67

...what about having upsetting dreams that remind you of (TRAUMATIC EVENT)**? Tell me about that.**

2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event. ? 1 2 3 L68

Since (1 MONTH AGO)**...** **...what about finding yourself acting or feeling as if you were back in the situation? (Have you had "flashbacks" of** [TRAUMATIC EVENT]**?)**	3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)	?	1	2	3	L69
...have you had a strong emotional or physical reaction when something reminded you of (TRAUMATIC EVENT)**? Give me some examples of the kinds of things that would trigger this reaction. (Things like...seeing a person who resembles the person who attacked you, hearing the screech of brakes if you were in a car accident, hearing the sound of helicopters if you were in combat, any kind of physically intimacy in someone who was raped?)** *IF YES:* **What kind of reaction did you have? Did you get very upset or stay upset for a while, even after the reminder had gone away? (What about having physical symptoms--like breaking out in a sweat, breathing heavily or irregularly, or feeling your heart pound or race when something reminded you of** [TRAUMATIC EVENT]**? How about feeling tense or shaky?)**	4. Intense or prolonged psychological distress or marked physiological reactions in response to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).	?	1	2	3	L70
...have you been unable to experience good feelings, like feeling happy, joyful, satisfied, loving, or tender towards other people? *IF YES:* **Is this different from the way you were before** (TRAUMATIC EVENT)**?**	5. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).	?	1	2	3	L71
...have you had the feeling that you were in a daze, that everything was unreal or that you were in a dream, that you were detached from your own body or mind, that time was moving more slowly, or that you were an outside observer of your own thoughts or movements?	6. An altered sense of reality of one's surroundings or one's self (e.g., seeing oneself from another's perspective, being in a daze, time slowing).	?	1	2	3	L72
...have you been unable to remember some important part of what happened? *IF YES:* **Did you get a head injury during** (TRAUMATIC EVENT)**? Were you drinking a lot or were you taking any drugs at the time of** (TRAUMATIC EVENT)**?**	7. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).	?	1	2	3	L73
...have you done things to avoid remembering or thinking about (TRAUMATIC EVENT) **like keeping yourself busy, distracting yourself like by playing computer or video games or watching TV, or using drugs or alcohol to "numb" yourself or to try to forget what happened?** *IF NO:* **How about doing things to avoid having feelings similar to those you had during** (TRAUMATIC EVENT)**?**	8. Efforts to avoid distressing memories, thoughts, or feelings about or closely related with traumatic event(s).	?	1	2	3	L74

Since (1 MONTH AGO)**...** **...have there been things, places, or people that you have tried to avoid because it brought up upsetting memories, thoughts, or feelings about** (TRAUMATIC EVENT)**?** *IF NO:* **How about avoiding certain activities, situations, or topics of conversation?**	9. Efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).	?	1	2	3	L75
...how have you been sleeping since (TRAUMATIC EVENT)**? (Is this a change from before** [TRAUMATIC EVENT]**?)**	10. Sleep disturbances (e.g., difficulty falling or staying asleep or restless sleep).	?	1	2	3	L76
...have you lost control of your anger, so that you threatened or hurt someone or damaged something? Tell me what happened. (Was it over something little or even nothing at all?) *IF NO:* **Since** (TRAUMATIC EVENT)**, have you been more quick-tempered or had a shorter "fuse" than before?** *IF YES TO EITHER:* **How different is this from the way you were before** (TRAUMATIC EVENT)**?**	11. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.	?	1	2	3	L77
...have you noticed that you have been more watchful or on guard since (TRAUMATIC EVENT)**? (What are some examples?)** *IF NO:* **Have you been extra aware of your surroundings and your environment?**	12. Hypervigilance.	?	1	2	3	L78
...have you had trouble concentrating? (What are some examples? Is this a change from before [TRAUMATIC EVENT]**?)**	13. Problems with concentration.	?	1	2	3	L79
...have you been jumpy or easily startled, like by sudden noises? (Is this a change from before [TRAUMATIC EVENT]**?)**	14. Exaggerated startle response.	?	1	2	3	L80
	AT LEAST NINE "B" SXS ARE CODED "3."		1		3	L81
		GO TO ***PTSD*** L.11				
About how long did ("B" SXS CODED "3") **last altogether?**	C. Duration of the disturbance (symptoms in Criterion B) is 3 days to 1 month after trauma exposure.	?	1	2	3	L82
		GO TO ***PTSD*** L.11				

IF UNKNOWN: **What effect have** (ASD SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION D:

How have (ASD SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (ASD SXS) **affected your work/school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)**

How have they affected your ability to take care of things at home? What about being involved in things that are important to you, like religious activities, physical exercise, or hobbies?

Have (ASD SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by** (ASD SXS)**?**

D. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 L83

GO TO ***PTSD*** L.11

Did (TRAUMATIC EVENT) **cause any injury to your head or brain?**

Have you been drinking a lot or using a lot of drugs since (TRAUMATIC EVENT)**? Tell me about that. (How much have you been [drinking/using (**DRUG[S]**)? (Do you think your problems since** [TRAUMATIC EVENT] **are more due to your [drinking/**(DRUG) **use] rather than to your reaction to** [TRAUMATIC EVENT] **itself?)**

IF PSYCHOTIC: **Have you had** (ASD SXS) **only when you were** (PSYCHOTIC SXS)**?**

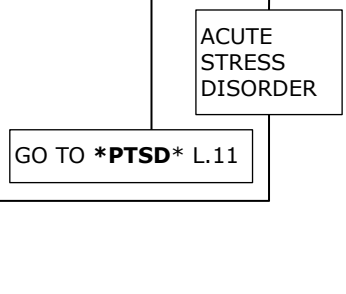
E. The disturbance is not attributable to the physiological effects of a substance (e.g., medication or alcohol) or another medical condition (e.g., mild traumatic brain injury) and is not better explained by Brief Psychotic Disorder.

1 3 L84

GO TO ***PTSD*** L.11

ACUTE STRESS DISORDER CRITERIA A, B, C, D, AND E ARE CODED "3."

1 3 L85



Specify if:

L86

IF UNKNOWN: H**ave you had any panic attacks in the past month?**

___ **With panic attacks**: if one or more panic attacks in the past month occurring in the context of current Acute Stress Disorder (see page F.7) and criteria have never been met for Panic Disorder.

POSTTRAUMATIC STRESS DISORDER

POSTTRAUMATIC STRESS DISORDER CRITERIA

FOR FOLLOWING QUESTIONS, FOCUS ON THE THREE MOST SEVERE TRAUMATIC EVENT(S) DESCRIBED ON PAGES L.3–L.5.

*IF ALL TRAUMAS ARE CONFINED TO THE PAST MONTH, CHECK HERE __ AND SKIP TO ***ADJUSTMENT DISORDER*** PAGE L.20.* L87

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A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

IF MORE THAN ONE TRAUMATIC EVENT IS REPORTED: **Which of these do you think affected you the most?**

IF SELECTED EVENT IS ULTIMATELY NOT ASSOCIATED WITH THE FULL PTSD SYNDROME, CONSIDER RE-ASSESSING THE ENTIRE PTSD CRITERIA SET (PAGES L.11–L.17) FOR OTHER REPORTED TRAUMAS.

1. Directly experiencing the traumatic event(s). ? 1 2 3 L88
2. Witnessing, in person, the event(s) as it occurred to others. ? 1 2 3 L89
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental. ? 1 2 3 L90
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). ? 1 2 3 L91

Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless the exposure is work-related.

AT LEAST ONE A ITEM CODED "3" 1 3 L92

→ GO TO *__ADJUSTMENT DISORDER*__ L.20

Now I'd like to ask a few questions about specific ways that (TRAUMATIC EVENT) **may have affected you at any time since** (TRAUMATIC EVENT).

B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic events), beginning after the traumatic event(s) occurred:

For example, since (TRAUMATIC EVENT)**....**

1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). ? 1 2 3 L93

...have you had memories of (TRAUMATIC EVENT)**, including feelings, physical sensations, sounds, smells, or images, when you didn't expect to or want to? (How often has this happened?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)**? How many times?**

→ Past month ? 1 2 3 L94

...what about having upsetting dreams that reminded you of (TRAUMATIC EVENT)**? Tell me about that.**

2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event. ? 1 2 3 L95

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How many times?**

→ Past month ? 1 2 3 L96

Since (TRAUMATIC EVENT)**...**

...what about having found yourself acting or feeling as if you were back in the situation? (Have you had "flashbacks' of [TRAUMATIC EVENT]**?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How many times?**

3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)

? 1 2 3 L97

Past month
? 1 2 3 L98

...have you had a strong emotional or physical reaction when something reminded you of (TRAUMATIC EVENT)**? Give me some examples of the kinds of things that would have triggered this reaction. (Things like...seeing a person who resembles the person who attacked you, hearing the screech of brakes if you were in a car accident, hearing the sound of helicopters if you were in combat, any kind of physically intimacy in someone who was raped?)**

NOTE: IF DENIES EMOTIONAL OR PHYSICAL REACTION TO REMINDERS, CODE "1" FOR BOTH B.4 (EMOTIONAL REACTION) AND B.5 (PHYSICAL REACTION).

IF YES: **What kind of reaction did you have? Did you get very upset or stay upset for a while, even after the reminder had gone away?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)**? How many times?**

4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

? 1 2 3 L99

Past month
? 1 2 3 L100

IF ACKNOWLEDGES STRONG EMOTIONAL OR PHYSICAL REACTION: **What about having physical symptoms—like breaking out in a sweat, breathing heavily or irregularly, or feeling your heart pound or race when something reminded you of** (TRAUMATIC EVENT)**? How about feeling tense or shaky?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How many times?**

5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

? 1 2 3 L101

Past month
? 1 2 3 L102

AT LEAST ONE "B" SX IS CODED "3." 1 3 L103

GO TO ***ADJUSTMENT DISORDER*** L.20

CRITERION B MET PAST MONTH: 1 3 L104

Since (TRAUMATIC EVENT)**...**

C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

...have you done things to avoid remembering or thinking about (TRAUMATIC EVENT) **like keeping yourself busy, distracting yourself like by playing computer or video games or watching TV, or using drugs or alcohol to "numb" yourself or try to forget what happened? (Since** [TRAUMATIC EVENT]**, how long has this gone on?)**

IF NO: **How about doing things to avoid having feelings similar to those you had during** (TRAUMATIC EVENT)**? (Since** [TRAUMATIC EVENT]**, how long has this gone on?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)**? How many times?**

1. Avoidance of, or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

? 1 2 3 L105

Past month
? 1 2 3 L106

...have there been things, places, or people that you have tried to avoid because it brought up upsetting memories, thoughts, or feelings about (TRAUMATIC EVENT)**? (Since** [TRAUMATIC EVENT]**, how long has this gone on?)**

IF NO: **How about avoiding certain activities, situations, or topics of conversation? (Since** [TRAUMATIC EVENT]**, how long has this gone on?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How many times?**

2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations), that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

? 1 2 3 L107

Past month
? 1 2 3 L108

AT LEAST ONE "C" SX IS CODED "3."

1 3 L109

GO TO ***ADJUSTMENT DISORDER*** L.20

CRITERION C MET PAST MONTH: L110
1 3

Since (TRAUMATIC EVENT)**...**

D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following**:**

...have you been unable to remember some important part of what happened? (Tell me about that.)

IF YES: **Did you get a head injury during** (TRAUMATIC EVENT)**? Were you drinking a lot or were taking any drugs at the time of** (TRAUMATIC EVENT)**?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)**? How many times?**

1. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

? 1 2 3 L111

Past month ? 1 2 3 L112

...has there been a change in how you think about yourself? (Like feeling you are "bad," or permanently damaged or "broken?" Tell me about that. Since this started, have you felt this way most of the time?)

IF NO: **Has there been a change in how you see other people or the way the world works? (Like you can't trust anyone anymore? Like the world is a completely dangerous place? Tell me about that. Since this started, have you felt this way most of the time?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How much of the time?**

2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," "The world is completely dangerous," "My whole nervous system is permanently ruined").

? 1 2 3 L113

Past month ? 1 2 3 L114

...have you blamed yourself for the (TRAUMATIC EVENT) **or how it affected your life? (Like feeling that** (TRAUMATIC EVENT) **was your fault or that you should have done something to prevent it? Like feeling that you should have gotten over it by now?)**

→ *IF YES:* **Tell me about that. (Since this started, have you felt this way most of the time?)**

→ IF NO: **Have you blamed someone else for** (TRAUMATIC EVENT)**? Tell me about that. (What did they have to do with** [TRAUMATIC EVENT]**?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How much of the time?**

3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.

? 1 2 3 L115

Past month ? 1 2 3 L116

...have you had bad feelings much of the time, like feeing sad, angry, afraid, guilty, ashamed, "in shock"? (Tell me about that.)

IF YES: **Is this different from the way you were before** (TRAUMATIC EVENT)**?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How many times?**

4. Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).

? 1 2 3 L117

Past month ? 1 2 3 L118

Since (TRAUMATIC EVENT**)...**

L119

...have you been less interested in things that you were interested in before (TRAUMATIC EVENT)**, like spending time with family or friends, reading books, watching TV, cooking, or sports? (Tell me about that.)**

IF NO LOSS OF INTEREST: **Are you still doing as many activities as you used to?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How many times?**

5. Markedly diminished interest or participation in significant activities.

? 1 2 3

Past month
? 1 2 3 L120

...have you felt distant or disconnected from others or have you closed yourself off from other people? (Tell me about that.)

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)? **How often?**

6. Feelings of detachment or estrangement from others.

? 1 2 3 L121

Past month
? 1 2 3 L122

...have you been unable to experience good feelings, like feeling happy, joyful, satisfied, loving, or tender towards other people? (Tell me about that.)

IF YES: **Is this different from the way you were before** (TRAUMATIC EVENT)**?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How often?**

7. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

? 1 2 3 L123

Past month
? 1 2 3 L124

AT LEAST THREE "D" SXS ARE CODED "3."

1 3 L125

GO TO ***ADJUSTMENT DISORDER*** L.20

CRITERION D MET PAST MONTH:
1 3 L126

Since (TRAUMATIC EVENT)**...**

E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

...have you lost control of your anger, so that you threatened or hurt someone or damaged something? Tell me what happened. (Was it over something little or even nothing at all?)

IF NO: **Since** (TRAUMATIC EVENT)**, have you been more quick-tempered or had a shorter "fuse" than before?**

IF YES TO EITHER: **How different is this from the way you were before** (TRAUMATIC EVENT)**?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)**? How often?**

1. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.

? 1 2 3 L127

Past month
? 1 2 3 L128

Since (TRAUMATIC EVENT**)...**

...have you done reckless things, like driving dangerously, or drinking or using drugs without caring about the consequences?

IF NO: **How about hurting yourself on purpose or trying to kill yourself? (What did you do?)**

IF YES TO EITHER: **How different is this from the way you were before** (TRAUMATIC EVENT)**?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How often?**

2. Reckless or self-destructive behavior. ? 1 2 3 L129

NOTE: Any current suicidal thoughts, plans, or actions should be thoroughly assessed by the clinician and action taken if necessary.

Past month ? 1 2 3 L130

...have you noticed that you have been more watchful or on guard? (What are some examples?)

IF NO: **Have you been extra aware of your surroundings and your environment?**

IF LIFETIME RATING OF "3": **Has this also happened in the past month, since** (1 MONTH AGO)**? How often?**

3. Hypervigilance. ? 1 2 3 L131

Past month ? 1 2 3 L132

...have you been jumpy or easily startled, like by sudden noises? (Is this a change from before [TRAUMATIC EVENT]**?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How often?**

4. Exaggerated startle response. ? 1 2 3 L133

Past month ? 1 2 3 L134

...have you had trouble concentrating? (What are some examples? (Is this a change from before [TRAUMATIC EVENT]**?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How often?**

5. Problems with concentration. ? 1 2 3 L135

Past month ? 1 2 3 L136

...how have you been sleeping since (TRAUMATIC EVENT)**? (Is this a change from before** [TRAUMATIC EVENT]**?)**

IF LIFETIME RATING OF "3": **Has this also happened in the past month? How often?**

6. Sleep disturbances (e.g., difficulty falling or staying asleep or restless sleep). ? 1 2 3 L137

Past month ? 1 2 3 L138

AT LEAST TWO "E" SXS ARE CODED "3." 1 3 L139

GO TO ***ADJUSTMENT DISORDER*** L.20

CRITERION E MET PAST MONTH 1 3 L140

About how long did these (PTSD SYMPTOMS CODED "3") **last altogether?**

F. Duration of the disturbance (symptoms in criteria B, C, D, and E) is more than 1 month. ? 1 2 3 L141

GO TO ***ADJUSTMENT DISORDER*** L.20

IF UNKNOWN: **What effect did** (PTSD SXS) **have on your life?**

G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 2 3 L142

GO TO ***ADJUSTMENT DISORDER*** L.20

ASK THE FOLLOWING QUESTIONS <u>AS NEEDED</u> TO RATE CRITERION G:

How have (PTSD SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

CRITERION H HAS BEEN OMITTED.

How have (PTSD SXS) **affected your work/school? (How about your attendance at work or school? Have they affected the quality of your work/schoolwork?)**

How have they affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise, or hobbies?

Have (PTSD SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by** (PTSD SXS)**?**

IF LIFETIME RATING OF "3": **How have** (PTSD SXS) **affected your life in the past month, since** (1 MONTH AGO)**?**

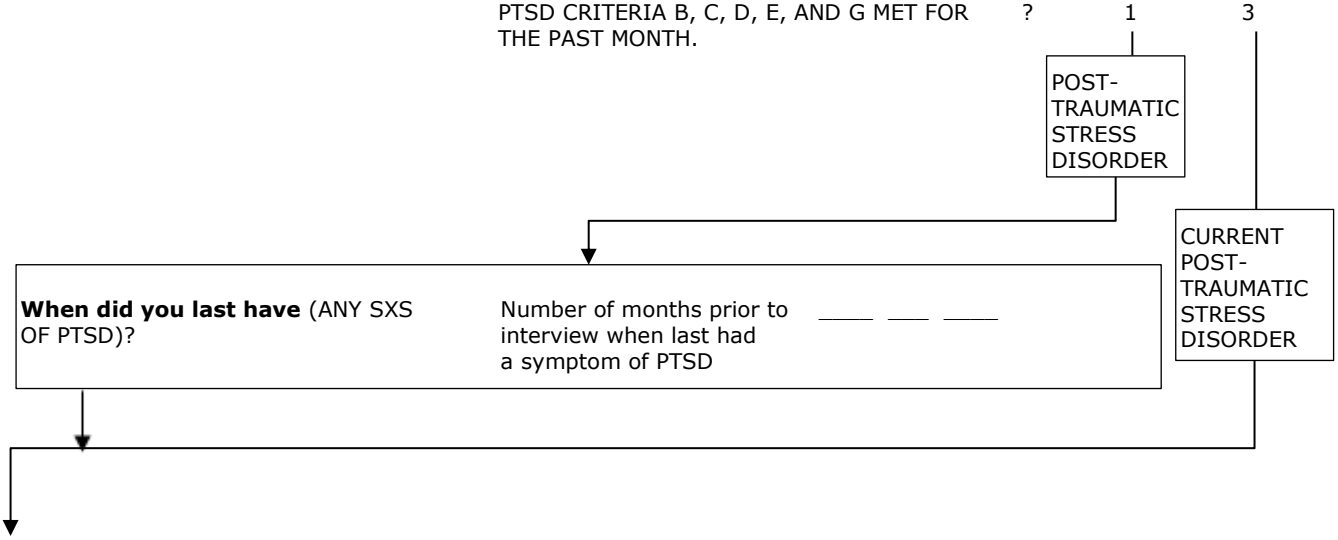
CRITERION G MET PAST MONTH ? 1 2 3 L143

POSTTRAUMATIC STRESS DISORDER CRITERIA A, B, C, D, E, F, AND G ARE CODED "3." 1 3 L144

GO TO ***ADJUSTMENT DISORDER*** L.20

POST-TRAUMATIC STRESS DISORDER

PTSD CRITERIA B, C, D, E, AND G MET FOR THE PAST MONTH. ? 1 3 L145



IF UNKNOWN: **How old were you when you first started having** (SXS OF PTSD)**?**

Age at onset of Posttraumatic Stress Disorder ____ ____ (CODE 99 IF UNKNOWN). L147

IF POSTTRAUMATIC STRESS DISORDER IS NOT CURRENT, GO TO ****ADJUSTMENT DISORDER**** *L.20.*

IF UNKNOWN: **Did most of these problems begin soon after** (TRAUMA)**?**

Specify if:

IF NO: **How much time was it from the** (TRAUMA) **and when you had most of these problems? (Was it less than 6 months?)**

____ **With delayed expression:** If the full diagnostic criteria are not met until at least 6 months after the event (although the onset and expression of some symptoms may be immediate). L148

While you had these problems, did you also often have the feeling that everything was unreal or that you were in a dream, you were detached from your body or mind, that time was moving slowly, or that you were an outside observer of your own thoughts or movements?

IF YES: **Does this occur at times other than when you are using drugs or alcohol? Does this occur at times other than during a seizure?**

*Indicate **type***: (circle the appropriate number)

L149

1 – **With dissociative symptoms**:

The individual's symptoms meet the criteria for Posttraumatic Stress Disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

Note: To use this subtype, the dissociative symptoms must not be attributable to the physiological effects of a substance (e.g., blackouts, behavior during alcohol intoxication) or another medical condition (e.g., complex partial seizures).

2 – **Without dissociative symptoms**: If neither 1 nor 2 above.

Specify if:

IF UNKNOWN: **Have you had any panic attacks in the past month?**

L150

___ **With panic attacks:** if one or more panic attacks in the past month occurring in the context of current Posttraumatic Stress Disorder (see page F.7) and criteria have never been met for Panic Disorder.

ADJUSTMENT DISORDER (CURRENT ONLY)

*CONSIDER THIS SECTION ONLY IF THERE ARE SYMPTOMS OCCURRING IN THE PAST 6 MONTHS THAT DO NOT MEET THE CRITERIA FOR ANOTHER DSM-5 DISORDER. OTHERWISE, CHECK HERE ___ AND GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-RELATED DISORDER*** L.23. INFORMATION OBTAINED FROM OVERVIEW OF PRESENT ILLNESS WILL USUALLY BE SUFFICIENT TO RATE THE CRITERIA FOR ADJUSTMENT DISORDER.* L151

ADJUSTMENT DISORDER CRITERIA

IF UNKNOWN: **Did anything happen to you before** (SYMPTOMS) **began?**

IF YES: **Tell me about what happened. Do you think that** (STRESSOR) **had anything to do with your developing** (SXS)?

→ *IF SINGLE EVENT*: **How long after** (STRESSOR) **did you first develop** (SXS)**? (Was it within 3 months?)**

→ *IF CHRONIC STRESSOR:* **How long after** (STRESSOR) **began did you first develop** (SXS)? **(Was it within 3 months?)**

A. The development of emotional or behavioral symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s). ? 1 2 3 L152

DESCRIBE SYMPTOMS:

DESCRIBE STRESSOR:

→ GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** L.23

IF UNKNOWN: **What effect did** (SXS) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION B:

How have (SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)**

How have (SXS) **affected your work/school? (How about your attendance at work or school? Did** [SXS] **make it more difficult to do your work/schoolwork? How did** [SXS] **affect the quality of your work/schoolwork?)**

How have they affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise, or hobbies?

Have (SXS) **affected any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by having** (SXS)**? How upset are you about** (STRESSOR)**? (Are you more upset than most other people would be? Have others said that you're more upset than you should be? Have** [SXS] **lasted longer than you or other people think they should have?)**

B. These symptoms or behaviors are clinically significant as evidenced by one or both of the following: ? 1 2 3 L153

1. Marked distress that is out of proportion to the severity and intensity of the stressor, taking into account the external context and the cultural factors that might influence symptom severity and presentation.

2. Significant impairment in social, occupational, or other important areas of functioning.

→ GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** L.23

Have you had this kind of reaction many times before?

IF UNKNOWN: **Were you having these** (SXS) **even before** (STRESSOR) **happened?**

C. The stress-related disturbance does not meet the criteria for another mental disorder and is not merely an exacerbation of a preexisting mental [including personality] disorder.

? 1 3 L154

GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** L.23

IF UNKNOWN: **Did someone close to you die just before** (SXS)**?**

D. The symptoms do not represent normal bereavement.

? 1 3 L155

GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** L.23

IF UNKNOWN: **How long has it been since** (STRESSOR AND ITS CONSEQUENCES) **was over?**

E. Once the stressor (or its consequences) has terminated, the symptoms do not persist for more than an additional 6 months.

? 1 2 3 L156

GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** L.23

ADJUSTMENT DISORDER CRITERIA A, B, C, D, AND E ARE CODED "3" DURING THE PAST 6 MONTHS.

L157

1 → GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** L.23

3 → CURRENT ADJUST-MENT DISORDER

*Indicate **type** based on predominant symptoms:* (circle the appropriate number) L158

1 – **With depressed mood:** Low mood, tearfulness, or feelings of hopelessness are predominant.

2 – **With anxiety:** Nervousness, worry, jitteriness, or separation anxiety is predominant.

3 – **With mixed anxiety and depressed mood:** A combination of depression and anxiety is predominant.

4 – **With disturbance of conduct:** Disturbance in conduct is predominant.

5 – **With mixed disturbance of emotions and conduct:** Both emotional symptoms (e.g., depression, anxiety) and a disturbance of conduct are predominant.

6 – **Unspecified:** For maladaptive reactions that are not classifiable as one of the specific subtypes of adjustment disorder (e.g., physical complaints, social withdrawal, or work or academic inhibition).

IF UNKNOWN: **When did** (SXS) **begin?**

Specify if: (circle the appropriate number) L159

1 - **Acute:** if the disturbance lasts less than 6 months.

2 - **Persistent (chronic):** if the disturbance lasts for 6 months or longer.

GO TO ***OTHER SPECIFIED TRAUMA- AND STRESSOR-INDUCED DISORDER*** NEXT PAGE

OTHER SPECIFIED TRAUMA- AND STRESSOR-RELATED DISORDER

OTHER SPECIFIED TRAUMA- AND STRESSOR-RELATED DISORDER

Symptoms characteristic of a Trauma- and Stressor-Related Disorder predominate but do not meet the full criteria for any of the disorders in the Trauma- and Stressor-Related Disorders diagnostic class

1 → END OF SCID

3 L160

IF UNKNOWN: **What effect did** (SXS OF TRAUMA- AND STRESSOR-RELATED TO STRESSOR) **have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION:

How did (SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER) **affect your relationships or your interactions with other people? (Did** [SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER] **cause you any problems in your relationships with your family, romantic partner or friends?)**

How did (SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER) **affect your school/work? (How about your attendance at work or school? Did** [SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER] **make it more difficult to do your work/schoolwork? How did** [SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER] **affect the quality of your work/schoolwork?)**

How did (SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER) **affect your ability to take care of things at home? How about doing other things that are important to you like religious activities, physical exercise, or hobbies? Did you avoid doing anything because you felt like you weren't up to it?**

Did your (SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER) **affect any other important part of your life?**

IF HAVE NOT INTERFERED WITH LIFE: **How much were you bothered or upset by having** (SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER)**?**

[Symptoms] that cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

1 → END OF SCID

3 → OTHER SPECIFIED TRAUMA- AND STRESSOR-RELATED DISORDER

L161

IF UNCLEAR: **During the past month, have you had** (SXS OF TRAUMA- AND STRESSOR-RELATED DISORDER)**?**

Check here ___ if present in last month. L162

*Indicate **type** of Other Specified Trauma- and Stressor-related Disorder*: L163
(circle the appropriate number)

1 – Adjustment-like disorders with delayed onset of symptoms that **occur more than 3 months after the stressor**.

2 – Adjustment-like disorders **with prolonged duration of more than 6 months** without prolonged duration of stressor

3 – **Persistent complex bereavement disorder:** This disorder is characterized by severe and persistent grief and mourning reactions

4 – **Other**: _____

END OF SCID

SEPARATION ANXIETY DISORDER (OPTIONAL) (CURRENT ONLY)

SEPARATION ANXIETY DISORDER CRITERIA

OF1

IF SCREENING QUESTION #7a IS ANSWERED "NO," SKIP TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31.

IF QUESTION #7a ANSWERED "YES": **You've said that in the past 6 months, since** (6 MONTHS AGO)**, you have been especially anxious about being separated from people you're attached to, like your parents, children, or partner.**

IF SCREENER NOT USED: **In the past 6 months, since** (6 MONTHS AGO), **have you been especially anxious about being separated from people you're attached to (like your parents, children, or partner)?**

Tell me about that.

IF NO: SKIP TO ****OTHER SPECIFIED ANXIETY DISORDER**** *F.31.*

SCREEN Q#7a
YES | | NO

IF NO, GO TO ***OTHER SPECIFIED ANXIETY DISORDER,*** F.31

Who are you most afraid of being separated from?

NOTE: REFER TO THESE MAJOR ATTACHMENT FIGURE(S)WHEN ASKING QUESTIONS BELOW.

A. Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by at least 3 of the following:

In the past 6 months, since (6 MONTHS AGO), **have you gotten upset when you've thought about being separated from** (MAJOR ATTACHMENT FIGURE[S]) **or being away from home? (How often?)**

IF NO: **How about when you actually were separated from** (MAJOR ATTACHMENT FIGURE[S])**? (How upset have you been? How often does this happen?)**

1. Recurrent excessive distress when anticipating or experiencing separation from home or from major attachment figures. ? 1 2 3 OF2

...have you often worried a lot about something bad happening to (MAJOR ATTACHMENT FIGURE[S])**?**

IF YES: **What sorts of things have you worried will happen to** (MAJOR ATTACHMENT FIGURE[S])? **(Why was that? Has anyone else worried about this?)**

2. Persistent and excessive worry about losing major attachment figures or about possible harm to them, such as illness, injury, disasters, or death. ? 1 2 3 OF3

...have you often worried a lot about something bad happening to you that would separate you from (MAJOR ATTACHMENT FIGURE[S])**?**

IF YES: **What sorts of things have you worried will happen to you? (Why was that? How worried have you been? Has anyone else worried about this?)**

3. Persistent and excessive worry about experiencing an untoward event (e.g., getting lost, being kidnapped, having an accident, becoming ill) that causes separation from a major attachment figure. ? 1 2 3 OF4

In the past 6 months, since (6 MONTHS AGO), **have you often found it difficult or even refused to go out of your home or be away from home?** *IF YES:* **Why is that? (Is this due to your fear of being away from** [MAJOR ATTACHMENT FIGURE(S)], **or away from your home because it feels like a safe place?)** *IF NO:* **Have you often found it difficult or even refused to go to school, work, or other places away from home?** *IF YES:* **Why is that? (Is this due to your fear of being away from** [MAJOR ATTACHMENT FIGURE(S)], **or away from your home because it feels like a safe place?)**	4. Persistent reluctance or refusal to go out, away from home, to school, to work, or elsewhere because of fear of separation.	?	1	2	3	OF5
...have you often felt anxious or afraid to be alone or without (MAJOR ATTACHMENT FIGURE[S]) **even when you were at home?** *IF NO:* **When you go with** (MAJOR ATTACHMENT FIGURE[S]) **to another place, have you usually felt anxious or afraid to be separated from them?**	5. Persistent and excessive fear or reluctance about being alone or without major attachment figures at home or in other settings.	?	1	2	3	OF6
...have you often found it difficult or impossible to sleep away from home? (Have you refused to sleep over at friends' or relatives' houses? Has it been difficult for you to travel without (MAJOR ATTACHMENT FIGURE[S]) **coming along?)** *IF NO:* **Have you often found it difficult to actually go to sleep without being near** (MAJOR ATTACHMENT FIGURE[S])**? (Have you often insisted that** (MAJOR ATTACHMENT FIGURE[S]) **stay with you until you fell asleep?)**	6. Persistent reluctance or refusals to sleep away from home or to go to sleep without being near a major attachment figure.	?	1	2	3	OF7
...have you had nightmares about being separated from (MAJOR ATTACHMENT FIGURE[S])**? Tell me about them. (Have you had nightmares about things like you or** [MAJOR ATTACHMENT FIGURE(S)] **getting lost, injured, or kidnapped, or not being able to make it back home?)** *IF YES:* **How often?**	7. Repeated nightmares involving the theme of separation.	?	1	2	3	OF8
...**have you felt physically sick, like having headaches stomachaches, dizziness, heart racing, or fainting when you were separated from** (MAJOR ATTACHMENT FIGURE[S])**?** *IF YES:* **How often does this happen?** *IF NO:* **How about feeling sick when you thought about being separated from** (MAJOR ATTACHMENT FIGURE[S])? **(How often does this happen?)**	8. Repeated complaints of physical symptoms (e.g., headaches, stomachaches, nausea, vomiting) when separation from major attachment figures occurs or is anticipated.	?	1	2	3	OF9

AT LEAST 3 "A" ITEMS ARE CODED "3." 1 3 OF10

GO TO ***OTHER SPECIFIED ANXIETY DISORDER,*** F.31

How long has your anxiety or fear of being separated gone on?

IF UNKNOWN: **Has it lasted for at least 6 months or more?**

B. The fear, anxiety, or avoidance is persistent, lasting at least 4 weeks in children and adolescents and typically 6 months or more in adults. ? 1 2 3 OF11

GO TO ***OTHER SPECIFIED ANXIETY DISORDER,*** F.31

IF UNKNOWN: **What effect have** (SEPARATION ANXIETY SXS) **had on your life during the past 6 months, since** (6 MONTHS AGO)?

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C:

How have (SEPARATION ANXIETY SXS) **affected your relationships or your interactions with other people? (Have** [SEPARATION ANXIETY SXS] **caused any problems in your relationships with your family, romantic partner or friends?)**

How have (SEPARATION ANXIETY SXS) **affected your work/schoolwork? (How about your attendance at work or school? Did** [SEPARATION ANXIETY SXS] **make it more difficult to do your work/ schoolwork? How have** [SEPARATION ANXIETY SXS] **affected the quality of your work/schoolwork?)**

How have (SEPARATION ANXIETY SXS) **affected your ability to take care of your family or household needs, or be involved in things that are important to you like religious activities, physical exercise, or hobbies?**

Have (SEPARATION ANXIETY SXS) **affected any other important part of your life?**

IF SXS HAVE NOT INTERFERED WITH FUNCTIONING: **How much have you been bothered or upset by having** (SEPARATION ANXIETY SXS)**?**

C. The disturbance causes clinically significant distress or impairment in social, academic, occupational, or other important areas of functioning. ? 1 2 3 OF12

GO TO ***OTHER SPECIFIED ANXIETY DISORDER,*** F.31

D. The disturbance is not better explained by another mental disorder, such as refusing to leave home because of excessive resistance to change in Autism Spectrum Disorder, delusions or hallucinations concerning separation in Psychotic Disorders, refusal to go outside without a trusted companion in Agoraphobia, worries about ill health or other harm befalling significant others in Generalized Anxiety Disorder; or concerns about having an illness in Illness Anxiety Disorder.

? 1 2 3 OF13

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31

SEPARATION ANXIETY DISORDER CRITERIA A, B, C, AND D ARE CODED "3."

1 3 OF14

GO TO ***OTHER SPECIFIED ANXIETY DISORDER*** F.31

CURRENT SEPARATION ANXIETY DISORDER

IF UNKNOWN: **How old were you when you first started having** (SXS OF SEPARATION ANXIETY DISORDER)**?**

Age at onset of Separation Anxiety Disorder (CODE 99 IF UNKNOWN). ____ ____ OF15

Specify if:

IF UNNOWN: **Have you had any panic attacks in the past month?**

___ **With panic attacks:** if one or more panic attacks in the past month occurring in the context of current Separation Anxiety Disorder (see page F.7) and criteria have never been met for Panic Disorder. OF16

HOARDING DISORDER (OPTIONAL)

HOARDING DISORDER CRITERIA

→ *IF SCREENING QUESTION #11a IS ANSWERED "NO," GO TO ***BODY DYSMORPHIC DISORDER**** *Opt-G.6.*

→ *IF QUESTION #11a ANSWERED "YES":*
You've said that you have found it difficult to throw out, sell, or give away things.

→ IF SCREENER NOT USED:
Have you found it difficult to throw out, sell, or give away things?

OG1

SCREEN Q#11a
YES | | **NO**

IF NO: GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

Tell me about that. (What kinds of things do you find it most difficult to get rid of? Do you find it hard to get rid of things that most other people would have no problem getting rid of? Things like newspapers, magazines, old clothing, bags, books, mail, and paperwork?)

How long has this been going on?

A. Persistent difficulty discarding or parting with possessions, regardless of their actual value.

? 1 2 3 OG2

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

What makes it so difficult to get rid of these things? (Is it because you feel like you need to save them for some purpose?)

Have you gotten upset when you or other people have tried to get rid of your stuff?

IF NEVER TRIED: **Do you think that you would get very upset if you or other people tried to get rid of your stuff?**

B. This difficulty is due to a perceived need to save the items and to distress associated with discarding them.

? 1 2 3 OG3

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

Are your rooms so crowded with your stuff that you can't get to parts of them or use them the way they are meant to be used? (For example, not being able to prepare food in your kitchen because the counters are covered with your stuff?)

IF NO: **Is that only because family members or other people got rid of your stuff?**

C. The difficulty discarding possessions results in the accumulation of possessions that congest and clutter active living areas and substantially compromises their intended use. If living areas are uncluttered, it is only because of the interventions of third parties (e.g., family members, cleaners, authorities).

? 1 2 3 OG4

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

IF UNKNOWN: **What effect have** (HOARDING SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION D:

How have (HOARDING SXS) **affected your relationships or your interactions with other people? (Have** [HOARDING SXS] **led to problems with other people? With family members? Roommates? Your landlord? Neighbors? Co-workers?)**

How have (HOARDING SXS) **affected your work/school? (Have** [HOARDING SXS] **made it hard for you to do a good job at work or at school? For example, by making it very difficult or time-consuming to find things you need?)**

How have (HOARDING SXS) **affected your ability to take care of things at home?**

Has your living area been so filled with stuff that it was unsafe for yourself or others living with you? (Like being a fire hazard, or having a serious problem with mold, rats, or insects?)

Has anyone ever told you that your living area is a health or fire hazard because you have too much stuff?

IF NO: **Do you think if someone saw your living area, they would think that it is a fire or health hazard?**

Have (HOARDING SXS) **affected any other important part of your life?**

IF HAS NOT INTERFERED WITH LIFE: **How much has it bothered or upset you that you have difficulty getting rid of stuff or that your place is cluttered?**

D. The hoarding causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (including maintaining a safe environment for self and others).

? 1 2 3 OG5

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

IF UNKNOWN: **When did** (HOARDING SXS) **begin?**

Just before it began, were you physically ill? (What did the doctor say?)

E. [Primary Hoarding Disorder:] The hoarding is not attributable to another medical condition (e.g., brain injury, cerebrovascular disease, Prader-Willi syndrome).

IF THERE IS ANY INDICATION THAT THE SYMPTOMS OF HOARDING MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC), GO TO ***GMC/ SUBSTANCE*** G.11, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

Etiological medical conditions include: traumatic brain injury, surgical resection for treatment of a tumor or seizure control, cerebrovascular disease, infections of the central nervous system (e.g., herpes simplex encephalitis), or Prader-Willi syndrome.

? 1 3 OG6

DUE TO GMC
GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

PRIMARY HOARDING DISORDER

CONTINUE WITH NEXT ITEM

F. The hoarding is not better explained by the symptoms of another mental disorder (e.g., obsessions in Obsessive-Compulsive Disorder, decreased energy in Major Depressive Disorder, delusions in Schizophrenia or another psychotic disorder, cognitive deficits in Major Neurocognitive Disorder, restricted interests in Autism Spectrum Disorder).

? 1 3 OG7

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

HOARDING DISORDER CRITERIA A, B, C, D, E, AND F ARE CODED "3."

1 3 OG8

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

HOARDING DISORDER; CONTINUE WITH NEXT ITEM

HOARDING DISORDER CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENSE OF HOARDING DISODER DURING THE PAST MONTH, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

In the past month, since (1 MONTH AGO)**, have you continued to find it difficult to throw out, sell or give away things?**

A. [During the past month,] persistent difficulty discarding or parting with possessions, regardless of their actual value.

? 1 3 OG9

GO TO ***PAST HOARDING DISORDER*** Opt-G.5

In the past month, have your rooms been so crowded with your stuff that you couldn't get to parts of them or use them the way they were meant to be used? (For example, not being able to prepare food in your kitchen because the counters were covered with your stuff?)

IF NO: **Is that only because family members or other people got rid of your stuff?**

C. [During the past month,] the difficulty discarding possessions results in the accumulation of possessions that congest and clutter active living areas and substantially compromises their intended use. If living areas are uncluttered, it is only because of the interventions of third parties (e.g., family members, cleaners, authorities).

? 1 3 OG10

GO TO ***PAST HOARDING DISORDER*** Opt-G.5

In the past month, since (1 MONTH AGO)**, what effect have** (HOARDING SXS) **had on your life?**

IF DOES NOT INTERFERE WITH LIFE: **In the past month, how much has it bothered or upset you that you have difficulty getting rid of stuff or that your place is cluttered?**

D. [During the past month,] the hoarding causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (including maintaining a safe environment for self and others).

? 1 3 OG11

→ GO TO ***PAST HOARDING DISORDER*** Opt-G.5

CRITERIA A, C, AND D CODED "3" FOR PAST MONTH

1 3 OG12

→ GO TO ***PAST HOARDING DISORDER*** Opt-G.5

→ CURRENT HOARDING DISORDER

IF UNKNOWN: **How old were you when you first started having** (SXS OF HOARDING DISORDER)**?**

Age at onset of Hoarding Disorder (CODE 99 IF UNKNOWN). ____ ____ OG13

Tell me about how you get most of your stuff.

(Do you buy a lot of things even though you don't need them or have space for them?)

(Do you often pick up free things, for example, discarded items or get things from friends or other people even though you don't need them or have space for them?)

(How about taking samples from hotel rooms or restaurants or extra supplies from your workplace or school?)

(Do you sometimes take things without paying for them, even though you don't need them or have space for them?)

Specify if:

___ **With excessive acquisition:** If difficulty discarding possessions is accompanied by excessive acquisition of items that are not needed or for which there is no available space. OG14

On average, over the past week, how much has your difficulty throwing things out, or your acquiring a lot of things, caused problems for you or other people? Tell me about that.

IF DENIES PROBLEMS: **What about** (CLUTTERED LIVING AREAS)**? (Does it make it difficult to get around?)**

*Specify current level of **insight*** (i.e., during the past week): (circle the appropriate number)

1 – **With good or fair insight:** The individual recognizes that hoarding-related beliefs and behaviors (pertaining to difficulty discarding items, clutter, or excessive acquisition) are problematic. OG15

2 – **With poor insight:** The individual is mostly convinced that hoarding-related beliefs and behaviors (pertaining to difficulty discarding items, clutter, or excessive acquisition) are not problematic despite evidence to the contrary.

3 – **With absent insight/delusional beliefs:** The individual is completely convinced that hoarding-related beliefs and behaviors (pertaining to difficulty discarding items, clutter, or excessive acquisition) are not problematic despite evidence to the contrary.

Specify if:

IF UNNOWN: **Have you had any panic attacks in the past month?**	___	**With panic attacks:** If one or more panic attacks in the past month occurring in the context of current Hoarding Disorder (see page F.7) and criteria have never been met for Panic Disorder.	OG16

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

PAST HOARDING DISORDER

When did you last have (ANY SXS OF HOARDING DISORDER)**?**	Number of months prior to interview when last had a symptom of Hoarding Disorder	____ ____ ____	OG17
IF UNKNOWN: **How old were you when you first started having** (SXS OF HOARDING DISORDER)**?**	Age at onset of Hoarding Disorder (CODE 99 IF UNKNOWN)	____ ____	OG18

GO TO ***BODY DYSMORPHIC DISORDER*** Opt-G.6

BODY DYSMORPHIC DISORDER (OPTIONAL)

*IF SCREENING QUESTION #11b ANSWERED "NO," SKIP TO ***TRICHOTILLOMANIA*** Opt-G.10*

IF QUESTION #11b ANSWERED "YES": **You've said that you have been very concerned that there was something wrong with your physical appearance or the way 1 or more parts of your body looks. What have you thought was wrong with** (**your appearance**/BODY PART)**? (Can you show it to me or describe it to me? Have other people noticed it? What have they said?)**

IF SCREENER NOT USED: **Have you been very concerned that there was something wrong with your physical appearance or the way 1 or more parts of your body looks?**

IF YES: **Tell me about your concern. (What have you thought was wrong with** [**your appearance**/ BODY PART]**? Can you show it to me or describe it to me? Have other people noticed it? What have they said?)**

How much of the time have you thought about (DEFECT OR FLAW)**? (Have you thought about it more than you should?)**

Have you ever spent a lot of time comparing the way your (BODY PART) **looked to the way other people's** (BODY PART) **looked?**

How about spending a lot of time doing things like repeatedly checking in mirrors to see how (BODY PART) **looks or spending a lot of time trying to fix it or cover it up? (Things like...covering it up with make-up, clothing or the way your wear your hair? How about pulling out your hair or picking your skin? Seeking cosmetic procedures? Vigorous exercise or weight lifting?)**

How about asking others whether they think your (BODY PART) **looks ugly or defective?**

IF YES TO ANY: **How often?**

BODY DYSMORPHIC DISORDER CRITERIA

OG19

SCREEN Q#11b
YES | | **NO**

IF NO: GO TO ***TRICHOTILLOMANIA*** Opt-G.10

A. Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others. OG20

NOTE: Code "3" only if not clearly visible at conversational distance or not noticeable unless subject points it out.

? 1 2 3

GO TO ***TRICHOTILLOMANIA*** Opt-G.10

B. At some point during the course of the disorder, the individual has performed repetitive behaviors (e.g., mirror checking, excessive grooming, skin picking, reassurance seeking) or mental acts (e.g., comparing his or her appearance with that of others) in response to the appearance concerns. OG21

? 1 2 3

GO TO ***TRICHOTILLOMANIA*** Opt-G.10

IF UNKNOWN: **What effect have** (BDD SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C:

How have (BDD SXS) **affected your relationships or your interactions with other people? (Have** [BDD SXS] **caused you any problems in your relationships with your family, romantic partner or friends? Have you avoided intimate relationships because of** [BDD SXS]**?)**

How have your concerns with the way you look affected your work/school? (How about your attendance at work or school? Has the amount of time you spent thinking about it or dealing with it made it hard for you to do your job/schoolwork?)

How have your concerns with the way you look affected your ability to take care of things at home? How about doing other things that are important to you, like religious activities, physical exercise, or hobbies? Have you avoided places or situations because of your concerns about the way your body looks?

Have your concerns with the way you look affected any other important part of your life?

IF DOES NOT INTERFERE WITH LIFE: **How much have you been bothered or upset about your concerns about the way you look?**

C. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 2 3 OG22

1 → GO TO ***TRICHO-TILLOMANIA*** Opt-G.10

IF AN EATING DISORDER SEEMS LIKELY AND IF ANSWER IS NOT KNOWN: **Have your concerns about** (BODY PART) **beyond just thinking that it looked fat or flabby?**

D. The preoccupation is not better explained by concerns with body fat or weight in an individual whose symptoms meet diagnostic criteria for an Eating Disorder.

? 1 3 OG23

1 → GO TO ***TRICHO-TILLOMANIA*** Opt-G.10

CRITERIA A, B, C, AND D ARE CODED "3." OC24

1 → GO TO ***TRICHO-TILLOMANIA*** Opt-G.10

3 → BODY DYSMORPHIC DISORDER

BODY DYSMORPHIC DISORDER CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENSE OF BODY DYSMORPHIC DISODER DURING THE PAST MONTH, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

In the past month, since (1 MONTH AGO)**, have you been very concerned with the way** (BODY PART[S] MENTIONED ABOVE) **look?**

A. [During the past month,] preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others.

? 1 3 OG25

GO TO ***PAST BODY DYSMORPHIC DISORDER*** Opt-G.9

In the past month, since (1 MONTH AGO)**, what effect have** (BDD SXS) **had on your life?**

IF DOES NOT INTERFERE WITH LIFE: **In the past month, how much have your been bothered or upset about your concerns about the way you look?**

C. [During the past month,] the preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 3 OG26

GO TO ***PAST BODY DYSMORPHIC DISORDER*** Opt-G.9

CURRENT BODY DYSMORPHIC DISORDER

CRITERIA A AND C CODED "3" FOR PAST MONTH

1 3 OG27

GO TO ***PAST BODY DYSMORPHIC DISORDER*** Opt-G.9

CURRENT BODY DYSMOR-PHIC DISORDER

IF UNKNOWN: **How old were you when you first started having serious concerns about that way you look?**

Age at onset of Body Dysmorphic Disorder (CODE 99 IF UNKNOWN). ____ ____ OG28

What word would you use to describe all of the parts of your body that you do not like? (Deformed? Ugly?)

Over the past week (on average), to what extent did you think that this is true? (Are you completely convinced?)

*Specify degree of **insight** regarding Body Dysmorphic Disorder beliefs* (e.g., "I look ugly" or "I look deformed") in the past week: (circle the appropriate number)

1 – **With good or fair insight:** The individual recognizes that the Body Dysmorphic Disorder beliefs are definitely or probably not true or that they may or may not be true. OG29

2 – **With poor insight:** The individual thinks that the Body Dysmorphic Disorder beliefs are probably true.

3 – **With absent insight/delusional beliefs:** The individual is completely convinced that Body Dysmorphic Disorder beliefs are true.

IF UNKNOWN: **Are you very concerned about your body build or how muscular you are?**

IF YES: **How much time do you spend thinking about it? How much time do you spend going to the gym to work out? Have these concerns about your body build or muscularity upset you a lot or caused problems for you?**

Specify if:

___ **With muscle dysmorphia:** The individual is preoccupied with the idea that his or her body build is too small or insufficiently muscular. This specifier is used even if the individual is preoccupied with other body areas, which is often the case. OC30

Specify if:

IF UNKNOWN: **Have you had any panic attacks in the past month?**

___ **With panic attacks:** if one or more panic attacks in the past month occurring in the context of current Body Dysmorphic Disorder (see page F.7) and criteria have never been met for Panic Disorder. OG31

GO TO ***TRICHO-TILLOMANIA*** Opt-G.10

PAST BODY DYSMORPHIC DISORDER

When did you last have (ANY SXS OF BDD)**?** Number of months prior to interview when last had a symptom of Body Dysmorphic Disorder ____ ____ ____ OG32

IF UNKNOWN: **How old were you when you first started having** (SXS OF BDD)? Age at onset of Body Dysmorphic Disorder (CODE 99 IF UNKNOWN) ____ ____ OG33

GO TO ***TRICHO-TILLOMANIA*** Opt-G.10

TRICHOTILLOMANIA (HAIR-PULLING DISORDER) (OPTIONAL)

TRICHOTILLOMANIA (HAIR-PULLING DISORDER) CRITERIA

OG34

*IF SCREENING QUESTION #11c ANSWERED "NO", SKIP TO ***EXCORIATION DISORDER*** Opt-G.13.*

IF QUESTION #11c ANSWERED "YES": **You've said that you've repeatedly pulled out hair from somewhere on your body other than for cosmetic reasons. Tell me about that. (How often?)**

SCREEN Q#11c
YES || NO

IF NO: GO TO ***EXCORIATION DISORDER*** Opt-G.13

IF SCREENER NOT USED: **Have you ever repeatedly pulled out hair from anywhere on your body other than for cosmetic reasons?**

Tell me about that. (How often?)

A. Recurrent pulling out of one's hair resulting in hair loss. OG35

? 1 2 3

GO TO ***EXCORIATION DISORDER*** Opt-G.13

Have you tried to cut down or stop pulling out your hair?

IF YES: **How many times?**

B. Repeated attempts to decrease or stop hair pulling. OG36

? 1 2 3

GO TO ***EXCORIATION DISORDER*** Opt-G.13

What effect has your hair-pulling had on your life?

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C:

How has your hair-pulling affected your relationships or your interactions with other people? (Has it caused you any problems in your relationships with your family, romantic partner or friends?)

How has your hair-pulling affected your work/school? (Have you had trouble concentrating on things like work or school because of it?)

How has your hair-pulling affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise, or hobbies?

Have you avoided situations or people because you didn't want to be seen pulling out your hair or because you were embarrassed by its effects?
Has your hair-pulling affected any other important part of your life?

IF HAS NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by your hair-pulling?**

C. The hair-pulling causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. OG37

? 1 2 3

GO TO ***EXCORIATION DISORDER*** Opt-G.13

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

IF UNKNOWN: **Did you have a medical condition or skin problem that caused your hair loss? (Tell me about that.)**

D. The hair-pulling or hair loss is not attributable to another medical condition (e.g., a dermatological condition).

? 1 2 3 OG38

1 → GO TO ***EXCORIATION DISORDER*** Opt-G.13

IF CURRENT OR PAST HX OF BODY DYSMORPHIC DISORDER: **Would you say that most of your hair pulling is done to fix a specific flaw or defect in your appearance?**

E. The hair-pulling is not better explained by the symptoms of another mental disorder (e.g., attempts to improve a perceived defect or flaw in appearance in Body Dysmorphic Disorder).

? 1 2 3 OG39

1 → GO TO ***EXCORIATION DISORDER*** Opt-G.13

CRITERIA A, B, C, D, AND E ARE CODED "3" 1 3 OG40

1 → GO TO ***EXCORIATION DISORDER*** Opt-G.13

3 → TRICHOTILLOMANIA

TRICHOTILLOMANIA CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENSE OF TRICHOTILLOMANIA DURING THE PAST MONTH, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

In the past month, since (1 MONTH AGO)**, have you repeatedly pulled out hair from anywhere on your body?**

A. [During the past month,] recurrent pulling out of one's hair resulting in hair loss.

? 1 3 OG41

1 → GO TO ***PAST TRICHOTILLOMANIA*** Opt-G.12

In the past month, have you tried to cut down or stop pulling out your hair?

IF YES: **How many times?**

B. [During the past month,] repeated attempts to decrease or stop hair pulling.

? 1 3 OG42

1 → GO TO ***PAST TRICHOTILLOMANIA*** Opt-G.12

In the past month, since (1 MONTH AGO)**, what effect has your hair-pulling had on your life?**

IF DOES NOT INTERFERE WITH LIFE: **In the past month, how much have you been bothered or upset by your hair-pulling?**

C. [During the past month,] the hair-pulling causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 3 OG43

1 → GO TO ***PAST TRICHOTILLOMANIA*** Opt-G.12

CURRENT TRICHOTILLOMANIA

CRITERIA A, B, AND C CODED "3" IN PAST MONTH

1 → GO TO ***PAST TRICHO-TILLO-MANIA*** Opt-G.12

3 → CURRENT TRICHO-TILLO-MANIA

OG44

IF UNKNOWN: **How old were you when you first started pulling out your hair to the point where it was a problem for you?**

Age at onset of Trichotillomania (CODE 99 IF UNKNOWN). ____ ____ OG45

GO TO ***EXCORIATION DISORDER*** Opt-G.13

PAST TRICHOTILLOMANIA

When did you last have (ANY SXS OF TRICHOTILLOMANIA)**?**

Number of months prior to interview when last had a symptom of Trichotillomania. ____ ____ ____ OG46

IF UNKNOWN: **How old were you when you first started pulling your hair to the point where it was a problem for you?**

Age at onset of Trichotillomania (CODE 99 IF UNKNOWN). ____ ____ OG47

GO TO ***EXCORIATION DISORDER*** Opt-G.13

EXCORIATION (SKIN-PICKING) DISORDER (OPTIONAL)

→ IF SCREENING QUESTION #11d ANSWERED "NO," SKIP TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

→ IF QUESTION #11d ANSWERED "YES": **You've said that you've repeatedly picked at your skin with your fingernails, tweezers, pins, or other objects. Which area or areas of your skin do you pick?**

→ *IF SCREENER NOT USED:* **Have you ever repeatedly picked at your skin with your fingernails, tweezers, pins, or other objects?**

IF YES: **Which area or areas of your skin do you pick?**

Did the picking create noticeable damage to your skin or lead to scratches, sores, scabs, or infection?

Have you tried to cut down or stop picking at your skin?

IF YES: **How many times?**

IF UNKNOWN: **What effect did your skin-picking have on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C:

How has your skin-picking affected your relationships or your interactions with other people? (Has it caused you any problems in your relationships with your family, romantic partner or friends?)

How has your skin-picking affected your work/school? (Have you had trouble concentrating on things like work or school because of it?)

How has your skin-picking affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise, or hobbies? Have you avoided situations or people because you didn't want to be seen picking your skin or because you were embarrassed by its effects?

Has your skin-picking affected any other important part of your life?

IF HAS NOT INTERFERED WITH LIFE: **How much have you been bothered or upset by your skin picking?**

EXCORIATION (SKIN-PICKING) DISORDER CRITERIA

OG48

SCREEN Q#11d
YES || NO

IF NO, GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

A. Recurrent skin picking resulting in skin lesions. ? 1 2 3 OG49

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

B. Repeated attempts to decrease or stop skin picking. ? 1 2 3 OG50

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

C. The skin picking causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 2 3 OG51

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

IF UNKNOWN: **Did you have a medical condition or skin problem that caused you to pick your skin? (What is that? Do you still have that medical condition?)**

IF THE MEDICAL CONDITION HAS RESOLVED: **Do you still pick your skin?**

Do you pick your skin only when you are taking drugs or medicines? (Tell me about that.)

D. [Primary Excoriation Disorder:] The skin picking is not attributable to the physiological effects of a substance (e.g., cocaine) or another medical condition (e.g., scabies).

IF THERE IS ANY INDICATION THAT THE SKIN PICKING MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF GMC OR SUBSTANCE), GO TO ***GMC/ SUBSTANCE*** G.11 AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

Etiological medical conditions include: dermatological conditions such as scabies or acne

Etiological substances include: stimulants

? 1 3 OG52

- 1 → DUE TO SUBSTANCE OR GMC: GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8
- 3 → PRIMARY EXCORIATION DISORDER → CONTINUE WITH NEXT ITEM

E. The skin picking is not better explained by the symptoms of another mental disorder (e.g., delusions or tactile hallucinations in a psychotic disorder, attempts to improve a perceived defect or flaw in appearance in Body Dysmorphic Disorder, or stereotypies in Stereotypic Movement Disorder.

? 1 2 3 OG53

- 1 → GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

CRITERIA A, B, C, D, AND E ARE CODED "3."

1 3 OG54

- 1 → GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8
- 3 → EXCORI-ATION DISORDER; CONTINUE WITH ***CHRO-NOLOGY*** NEXT ITEM

EXCORIATION DISORDER CHRONOLOGY

NOTE: IF LIFETIME ASSESSMENT ALREADY SUGGESTS THE PRESENSE OF EXCORIATION DISORDER DURING THE PAST MONTH, ASK THE FOLLOWING QUESTIONS ONLY IF NEEDED.

In the past month, since (1 MONTH AGO)**, have you repeatedly picked at your skin with your fingernails, tweezers, pins, or other objects?**

IF YES: **Did the picking create noticeable damage to your skin or lead to scratches, sores, scabs or infection?**

A. [During the past month,] recurrent skin picking resulting in skin lesions.

? 1 3 OG55

- 1 → GO TO ***PAST EXCORIATION DISORDER*** Opt-G.15

In the past month, have you tried to cut down or stop picking at your skin?

IF YES: **How many times?**

B. [During the past month,] repeated attempts to decrease or stop skin picking.

? 1 3 OG56

- 1 → GO TO ***PAST EXCORIATION DISORDER*** Opt-G.15

In the past month, since (1 MONTH AGO)**, what effect did your skin-picking have on your life?**

IF DOES NOT INTERFERE WITH LIFE: **In the past month, how much have you been bothered or upset by your skin picking?**

C. [During the past month,] The skin picking causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

? 1 3 OG57

GO TO ***PAST EXCORIATION DISORDER*** Opt-G.15

CURRENT EXCORIATION DISORDER

CRITERIA A, B, AND C CODED "3" IN THE PAST MONTH

1 3 OG58

GO TO ***PAST EXCORI-ATION DISORDER*** Opt-G.15

CURRENT EXCORI-ATION DISORDER

IF UNKNOWN: **How old were you when you first started picking your skin to the point there it was a problem for you?**

Age at onset of Excoriation Disorder (CODE 99 IF UNKNOWN).

____ ____ OG59

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

PAST EXCORIATION DISORDER

When did you last have (ANY SXS OF EXCORIATION DISORDER)**?**

Number of months prior to interview when last had a symptom of Excoriation Disorder.

____ ____ ____ OG60

IF UNKNOWN: **How old were you when you first started picking your skin to the point where it was a problem for you?**

Age at onset of Excoriation Disorder (CODE 99 IF UNKNOWN).

____ ____ OG61

GO TO ***OTHER SPECIFIED OC AND RELATED DISORDER*** G.8

H. SLEEP-WAKE DISORDERS (OPTIONAL)

INSOMNIA DISORDER (OPTIONAL) (CURRENT ONLY)

INSOMNIA DISORDER CRITERIA

*IF SCREENING QUESTION #11e ANSWERED "NO," SKIP TO ***HYPERSOMNOLENCE DISORDER*** Opt-H.5.*

IF SCREENING QUESTION #11e ANSWERED "YES":
You've said that over the past 3 months, since (3 MONTHS AGO)**, a major concern of yours has been that you are not getting enough good sleep or not feeling rested. Tell me about that. (How often?)**

IF SCREENER NOT USED: **Over the past 3 months, since** (3 MONTHS AGO)**, has a major concern of yours been that you are not getting enough good sleep or not feeling rested? Tell me about that. (How often?)**

SCREEN Q#11e
YES || NO

IF NO, GO TO ***HYPER-SOMNOLENCE DISORDER*** Opt-H.5 OH1

A. A predominant complaint of dissatisfaction with sleep quantity or quality… ? 1 2 3 OH2

GO TO ***HYPER-SOMNOLENCE DISORDER*** Opt-H.5

Let me ask you some more about your trouble sleeping. During the past 3 months, since (3 MONTHS AGO)**, what time have you usually gone to sleep? What time have you usually woken up for the last time each morning?**

…associated with one (or more) of the following symptoms:

Have you had trouble falling asleep? (How long has it been taking you to fall asleep? At least 30 minutes?)

1. Difficulty initiating sleep. ? 1 2 3 OH3

Once you've gotten to sleep, have you woken up frequently in the middle of the night? (Is it only because you had to get up often to use the bathroom? When you woke up, how long did you stay awake for…at least 30 minutes?)

IF NO: **How about having a lot of trouble falling back to sleep again after waking up during the night?**

2. Difficulty maintaining sleep, characterized by frequent awakenings or problems returning to sleep after awakenings. ? 1 2 3 OH4

NOTE: Do not code "3" if awakenings are due to reasons other than insomnia (e.g., frequent toilet use).

Is the time you are regularly waking up earlier than you have to wake up? (Why do you think you are waking up so early? How much earlier? Is it at least 30 minutes earlier?)

IF YES: **Are you not able to go back to sleep?**

3. Early-morning awakening with inability to return to sleep ? 1 2 3 OH5

NOTE: Consider average total sleep time. Code "3" only if less than 6 ½ hours.

AT LEAST ONE "A" SYMPTOM CODED "3." 1 3 OH6

GO TO ***HYPER-SOMNOLENCE DISORDER*** Opt-H.5

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

IF UNKNOWN: **What effect have your sleeping problems had on your life during the past 3 months, since** (3 MONTHS AGO)**?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION B:

How have they affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)

How have your sleeping problems affected your work/school? (Have they affected the quality of your work/schoolwork? Have you missed work or school or had problems at work or school because of your not getting enough sleep?)

How have they affected your ability to take care of things at home? What about being involved in things that are important to you, like religious activities, physical exercise, or hobbies? (Have you been irritable during the day because you've been unable to get enough sleep?)

Have you felt unsafe to drive or "fallen asleep at the wheel" because of your not getting enough sleep? How about it being unsafe for you to do other things that might be dangerous, like operating heavy machinery?

Have your sleeping problems affected any other important part of your life?

IF DOES NOT INTERFERE WITH LIFE: **How much have you been bothered or upset by your sleeping problems?**

B. The sleep disturbance causes clinically significant distress or impairment in social, occupational, educational, academic, behavioral, or other important areas of functioning.

? 1 2 3 OH7

GO TO ***HYPER-SOMNOLENCE, DISORDER*** Opt-H.5

How many nights a week, on average, have you had difficulty sleeping? (At least 3 nights a week for the past 3 months?)

C/D. The sleep difficulty occurs at least 3 nights per week and has been present for at least 3 months.

NOTE: Criterion C and criterion D have been combined.

? 1 2 3 OH8

GO TO ***HYPER-SOMNOLENCE, DISORDER*** Opt-H.5

IF UNCLEAR: **Is there anything stopping you from getting enough sleep? (Things like too much noise or light, too hot or too cold, uncomfortable bedding, or not enough time in your schedule?)**

E. The sleep difficulty occurs despite adequate opportunity for sleep.

NOTE: Criterion F has intentionally been placed at the end of the Insomnia Disorder criteria.

? 1 2 3 OH9

GO TO ***HYPER-SOMNOLENCE, DISORDER*** Opt-H.5

IF UNKNOWN: **When did your sleep problems begin?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

Just before this began, were you drinking or using any drugs?

How much coffee, tea, energy drinks, or other caffeine-containing drinks, sodas, or pills do you consume?

G. [Primary insomnia:] The insomnia is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication).

IF THERE IS ANY INDICATION THAT INSOMNIA MAY BE A DIRECT PHYSIOLOGICAL CONSEQUENCE OF A SUBSTANCE/ MEDICATION, GO TO ***SUBSTANCE-INDUCED*** Opt-H.9, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

Etiological substances/medications include: alcohol (I/W); caffeine (I/W); cannabis (I/W); opioids (I/W); sedatives, hypnotics, or anxiolytics (I/W); stimulants (including cocaine) (I/W), tobacco (W), adrenergic agonists and antagonists, dopamine agonists and antagonists, cholinergic agonists and antagonists, serotonergic agonists and antagonists, antihistamines, and corticosteroids.

? 1 3 OH10

1 → DUE TO SUBSTANCE USE GO TO ***HYPERSOMNOLENCE DISORDER*** Opt-H.5

3 → PRIMARY INSOMNIA → CONTINUE WITH NEXT ITEM

IF CO-OCCURRING MENTAL DISORDER OR GENERAL MEDICAL CONDITION: **Did your problems sleeping begin before** (MENTAL DISORDER OR MEDICAL CONDITION)**?**

H. Coexisting mental disorders and medical conditions do not adequately explain the predominant complaint of insomnia.

NOTE: Code "3" if no co-existing mental disorders or medical conditions or, if co-existing disorders, they do not adequately explain the insomnia.

? 1 3 OH11

1 → GO TO ***HYPERSOMNOLENCE, DISORDER*** Opt-H.5

IF UNKNOWN: **Have you seen a doctor for this problem? (Have you stayed overnight at a sleep laboratory?)**

IF YES: **What did the doctor say was the diagnosis?**

F. The insomnia is not better explained by and does not occur exclusively during the course of another Sleep-Wake Disorder (e.g., Narcolepsy, a Breathing-Related Sleep Disorder, a Circadian Rhythm Sleep-Wake Disorder, a Parasomnia).

NOTE: Code "?" if co-existing sleep disorder has not yet been ruled out. Code "3" only if no co-existing sleep disorder or, if there is a co-existing sleep disorder, it does not adequately explain the insomnia.

? 1 3 OH12

1 → GO TO ***HYPERSOMNOLENCE, DISORDER*** Opt-H.5

CRITERIA A, B, C, D, E, G, AND H ARE CODED "3" 1 3 OH13

3 → INSOMNIA DISORDER

NOTE: Whether there is a "?" rated for Criterion F determines whether the diagnosis of Insomnia Disorder is Definite vs. Provisional. See below.

*Indicate whether **provisional vs. definite diagnosis**:* (circle the appropriate number)

1 – **Provisional dx:** criterion F is rated "?," i.e., a co-existing Sleep-wake Disorder has not been ruled out). OH14

2 – **Definite dx:** criterion F is rated "1" or "3," i.e., a co-existing Sleep-Wake Disorder has been either ruled in (criterion F rated "3") or ruled out (criterion F rated "1").

*Specify **associated conditions***: (check all that apply)

___ **With non-sleep disorder mental comorbidity** OH15

List comorbid mental disorder(s): _____ OH16

___ **With other medical comorbidity** OH17

List comorbid medical condition(s): _____ OH18

___ **With other sleep disorders** OH19

List comorbid sleep disorder(s): _____ OH20

IF UNKNOWN: **Have you had more than one episode of difficulty sleeping in the past year?**

*Specify **course***:

___**Recurrent:** Two (or more) episodes within the space of one year OH21

HYPERSOMNOLENCE DISORDER (OPTIONAL)(CURRENT ONLY)

HYPERSOMNOLENCE DISORDER CRITERIA

IF SCREENING QUESTION #11f ANSWERED "NO," SKIP TO NEXT MODULE.

IF SCREENING QUESTION #11f ANSWERED "YES":
You've said that over the past 3 months, since (3 MONTHS AGO)**, you have often had days when you were sleepy despite having slept for at least 7 hours. Tell me about that. (How often?)**

SCREEN Q#11f
YES || NO
→ GO TO NEXT MODULE

OH22

IF SCREENER NOT USED: **Over the past 3 months, since** (3 MONTHS AGO)**, have you often had days when you were sleepy despite having slept for at least 7 hours? Tell me about that. (How often?)**

A. Self-reported excessive sleepiness (hypersomnolence) despite a main sleep period lasting at least 7 hours, with at least one of the following symptoms: ? 1 2 3 OH23

→ GO TO NEXT MODULE

IF UNKNOWN: **What time do you usually go to sleep? What time do you usually wake up for the last time each morning?**

During those days when you were sleepy…

1. Recurrent periods of sleep or lapses into sleep within the same day. ? 1 2 3 OH24

…were you so sleepy that you repeatedly fell asleep or "nodded off" when you didn't want to?

…did you get at least nine hours of sleep, and still wake up feeling tired?

2. A prolonged main sleep episode of more than 9 hours per day that is nonrestorative (i.e., unrefreshing). ? 1 2 3 OH25

…have you or a family member or bed partner noticed that when you are suddenly awakened, you have trouble fully waking up? For example, right when waking up from a nap, have you been confused, not known where you are, groggy or clumsy? What about striking out at the person who is trying to wake you?

3. Difficulty being fully awake after abrupt awakening. ? 1 2 3 OH26

CRITERION A.1, A.2, OR A.3 IS CODED "3" 1 3 OH27

→ GO TO NEXT MODULE

How many times per week, on average, has this been happening over the past 3 months, since (3 MONTHS AGO)**? (At least 3 times a week?)**

B. The hypersomnolence occurs at least 3 times per week, for at least 3 months. ? 1 2 3 OH28

→ GO TO NEXT MODULE

IF UNKNOWN: **What effect has your sleepiness had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION C:

How has it affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends? Have you been irritable during the day because you've been so sleepy?)

How has your sleepiness affected your work/school? (Has it affected the quality of your work/schoolwork? Have you missed work or school or had problems at work or school because of your sleepiness? Have you had trouble thinking clearly because of your sleepiness?)

How has your sleepiness affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise, or hobbies?

Have you felt unsafe to drive or "fallen asleep at the wheel" because of your being sleepy? How about it being unsafe for you to do other things that might be dangerous, like operating heavy machinery?

Has your sleepiness affected any other important part of your life?

IF DOES NOT INTERFERE WITH LIFE: **How much have you been bothered or upset by your problems with sleepiness?**

C. The hypersomnolence is accompanied by significant distress or impairment in cognitive, social, occupational, or other important areas of functioning.

NOTE: Criterion D has intentionally been placed at the end of the Hypersomnolence Disorder criteria.

? 1 2 3 OH29

GO TO NEXT MODULE

IF UNKNOWN: **When did your problems with sleepiness begin?**

Just before this began, were you using any medications?

IF YES: **Any change in the amount you were using?**

Just before this began, were you drinking or using any drugs?

E. [Primary hypersomnolence:] The hypersomnolence is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication).

IF THERE IS ANY INDICATION THAT HYPERSOMNOLENCE MAY BE A DIRECT PHYSIOLOGICAL CONSEQUENCE OF A SUBSTANCE/MEDICATION, GO TO ***SUBSTANCE-INDUCED*** Opt-H.9, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

NOTE: Refer to list of etiological substances/ medications on page Opt-H.3.

? 1 3 OH30

DUE TO SUBSTANCE USE

GO TO NEXT MODULE

PRIMARY HYPERSOM-NOLENCE

CONTINUE ON NEXT PAGE

IF CO-OCCURRING MENTAL DISORDER OR GENERAL MEDICAL CONDITION: **Did your problems with sleepiness begin before** (MENTAL DISORDER OR MEDICAL CONDITION)**?**

F. Coexisting mental disorders and medical conditions do not adequately explain the predominant complaint of hypersomnolence.

NOTE: Code "3" if no co-existing mental disorders or medical conditions or, if co-existing disorders, they do not adequately explain the hypersomnolence.

? 1 2 3 OH31

1 → GO TO NEXT MODULE

IF UNKNOWN: **Have you seen a doctor for this problem? (Have you stayed overnight at a sleep laboratory?)**

IF YES: **What did the doctor say was wrong?**

D. The hypersomnolence is not better explained by and does not occur exclusively during the course of another sleep-wake disorder (e.g., Narcolepsy, a Breathing-Related Sleep Disorder, a Circadian Rhythm Sleep-Wake Disorder, or a Parasomnia).

? 1 3 OH32

1 → GO TO NEXT MODULE

NOTE: Code "?" if co-existing sleep disorder has not yet been ruled out. Code "3" only if no co-existing sleep disorder or, if there is a co-existing sleep disorder, it does not adequately explain the hypersomnolence.

CRITERIA A, B, C, E, AND F ARE CODED "3" 1 3 OH33

3 → HYPERSOM-NOLENCE DISORDER

NOTE: Whether there is a "?" rated for Criterion D determines whether the diagnosis of Hypersomnolence Disorder is Definite vs. Provisional. See below.

Indicate whether ***provisional vs. definitive***: (circle the appropriate number)

1 – **Provisional dx:** criterion D is rated "?," i.e., a co-existing Sleep-wake Disorder has not been ruled out) OH14

2 – **Definite dx:** criterion D is rated "1" or "3," i.e., a co-existing Sleep-Wake Disorder has been either ruled in (criterion D rated "3") or ruled out (criterion D rated "1")

Specify ***associated conditions****:* (check all that apply)

___ **With non-sleep disorder mental comorbidity** OH35

List comorbid mental disorder(s): _____ OH36

___ **With other medical comorbidity** OH37

List comorbid medical condition(s): _____ OH38

___ **With other sleep disorders** OH39

List comorbid sleep disorder(s) : _____ OH40

Over the past 3 months, since (3 MONTHS AGO)**, on average how many days a week have you had trouble staying alert?**

*Specify **current severity***: (circle the appropriate number)

Severity rating is based on degree of difficulty maintaining daytime alertness as manifested by the occurrence of multiple attacks of irresistible sleepiness within any given day occurring, for example, while sedentary, driving, visiting with friends, or working.

1 – **Mild:** Difficulty maintaining daytime alertness 1–2 days/week. OH41

2 – **Moderate:** Difficulty maintaining daytime alertness 3–4 days/week.

3 – **Severe:** Difficulty maintaining daytime alertness 5–7 days/week.

SUBSTANCE-INDUCED SLEEP DISORDER (OPTIONAL) (CURRENT ONLY)

SUBSTANCE-INDUCED SLEEP DISORDER CRITERIA

IF CRITERIA NOT MET FOR SUBSTANCE-INDUCED SLEEP DISORDER, RETURN TO EPISODE BEING EVALUATED, CONTINUING WITH THE ITEM FOLLOWING "SYMPTOMS ARE NOT ATTRIBUTABLE TO THE PHYSIOLOGICAL EFFECTS OF A SUBSTANCE" (SEE PAGE NUMBERS IN BOX TO THE RIGHT).

EPISODE BEING EVALUATED:
Insomnia Opt-H.3
Hypersomnolence Opt-H.6

CODE BASED ON INFORMATION ALREADY OBTAINED.

A. A prominent and severe disturbance in sleep. ? 1 2 3 OH42

IF NOT KNOWN: **When did the** (SLEEP SXS) begin? **Were you already using** (SUBSTANCE/MEDICATION) **or had you just stopped or cut down your use?**

IF UNKNOWN: **How much** (SUBSTANCE/ MEDICATION) **were you using when you began to have** (SLEEP SXS)**?**

B. There is evidence from the history, physical examination, or laboratory findings of both (1) and (2): ? 1 2 3 OH43

1. The symptoms in criterion A developed during or soon after substance intoxication or withdrawal or exposure to a medication
2. The involved substance/ medication is capable of producing the symptoms in Criterion A.

NOT SUBSTANCE INDUCED
RETURN TO DISORDER BEING EVALUATED

NOTE: Refer to list of etiological substances/ medications on page Opt-H.3.

C. The disturbance is NOT better accounted for by a sleep disorder that is not substance-induced. Such evidence of an independent sleep-wake disorder could include the following: ? 1 3 OH44

NOT SUBSTANCE INDUCED
RETURN TO DISORDER BEING EVALUATED

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NON-SUBSTANCE-INDUCED ETIOLOGY:

NOTE: The following three statements constitute evidence that the sleep symptoms are not substance-induced. Code "1" if any are true. Code "3" only if *none* are true.

IF UNKNOWN: **Which came first, the** (SUBSTANCE/MEDICATION USE) **or the** (SLEEP SXS)**?**

1) The symptoms precede the onset of the substance/medication use;
2) The symptoms persist for a substantial period of time (e.g., about 1 month) after the cessation of acute withdrawal or severe intoxication; or
3) There is other evidence suggesting the existence of an independent non-substance/ medication-induced sleep-wake disorder (e.g., a history of recurrent non-substance/ medication-related episodes).

IF UNKNOWN: **Have you had a period of time when you stopped using** (SUBSTANCE/MEDICATION)?

IF YES: **After you stopped using** (SUBSTANCE/MEDICATION) **did the** (SLEEP SXS) **go away or get better?**
IF YES: **How long did it take for them to get better? Did they go away within a month of stopping?**

IF UNKNOWN: **Have you had any other episodes of** (SLEEP SXS)?

IF YES: **How many? Were you using** (SUBSTANCE/MEDICATION) **at those times?**

IF UNKNOWN: **What effect have** (SLEEP SXS) **had on your life?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION E:

How have (SLEEP SXS) **affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends? Have you been irritable during the day because of** [SLEEP SXS]**)?**

How have (SLEEP SXS) **affected your work/school? Have** (SLEEP SXS) **made it more difficult to do your work/ schoolwork? (Have they affected the quality of your work/schoolwork)?**

Have you missed work or school or had problems at work or school because of (SLEEP SXS)**? Have you had trouble thinking clearly because of** (SLEEP SXS)**?**

How have (SLEEP SXS) **affected your ability to take care of things at home? What about being involved in things that are important to you like religious activities, physical exercise or hobbies?**

Have you felt unsafe to drive or "fallen asleep at the wheel" because of your (SLEEP SXS)**? How about it being unsafe for you to do other things that might be dangerous, like operating heavy machinery?**

Have (SLEEP SXS) **affected any other important part of your life?**

IF DO NOT INTERFERE WITH LIFE: **How much have your** (SLEEP SXS) **bothered or upset you?**

NOTE: The D criterion (delirium rule-out) has been omitted.

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 2 3 OH45

RETURN TO DISORDER BEING EVALUATED

SUBSTANCE-INDUCED SLEEP DISORDER
CRITERIA A, B, C, AND E ARE CODED "3."

1 3 OH46

SUBSTANCE-INDUCED SLEEP DISORDER

Specify if: (circle the appropriate number)

1 – **Insomnia type:** Characterized by difficulty falling asleep or maintaining sleep, frequent nocturnal awakenings, or nonrestorative sleep.

2 – **Daytime sleepiness type:** Characterized by predominant complaint of excessive sleepiness/ fatigue during waking hours or, less commonly, a long sleep period.

3 – **Mixed type:** Characterized by a substance/medication-induced sleep problem characterized by multiple types of sleep symptoms, but no symptom clearly predominates.

OH47

*Indicate **context of development** of sleep symptoms*: (circle the appropriate number)

1 – **With onset during intoxication:** This specifier should be used if criteria are met for intoxication with the substance/medication and symptoms developed during the intoxication period.

2 – **With onset during discontinuation/withdrawal:** This specifier should be used if criteria are met for discontinuation/withdrawal from the substance/ medication and symptoms developed during, or shortly after, discontinuation of the substance/medication.

OH48

RETURN TO EPISODE BEING EVALUATED

AVOIDANT RESTRICTIVE FOOD INTAKE DISORDER (OPTIONAL) (CURRENT ONLY)

AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER CRITERIA

IF QUESTION #13a ANSWERED "YES": **You've said that in the past month, since** (1 MONTH AGO) **you have been uninterested in food in general or that you kept forgetting to eat. Tell me about that.**

IF QUESTION #13b ANSWERED "YES": **You've [also] said that in the past month, since** (1 MONTH AGO) **you've avoided eating a lot of foods because of the way they look or the way they feel in your mouth. Tell me about that. (How about avoiding foods because they are too chewy or slimy? How about avoiding foods that are too hot or too cold? How about avoiding foods because of their smell?)**

IF QUESTION #13c ANSWERED "YES": **You've [also] said that in the past month, since** (1 MONTH AGO)**, you avoided eating a lot of different foods because you were afraid you won't be able to swallow or that you will choke, gag, or throw up. Tell me about that.**

IF SCREENER NOT USED: **In the past month, since** (1 MONTH AGO)**, have you been uninterested in food in general or have you kept forgetting to eat?**

IF NO: **In the past month, since** (1 MONTH AGO)**, have you avoided eating a lot of foods because of the way they look or the way they feel in your mouth? (How about avoiding foods because they are too chewy or slimy? How about avoiding foods that are too hot or too cold? How about avoiding foods because of their smell?)**

IF NO: **In the past month, since** (1 MONTH AGO), **have you avoided eating a lot of different foods because you are afraid you won't be able to swallow or that you will choke, gag, or throw up?**

SCREEN Q#13a OI1
YES | | **NO**

SCREEN Q#13b OI2
YES | | **NO**

SCREEN Q#13c OI3
YES | | **NO**

IF ALL ARE ANSWERED "NO" GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10

A. An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating)... ? 1 2 3 OI4

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10

Because of your (ABNORMAL EATING BEHAVIOR NOTED ABOVE), **in the past month…**	...as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:					
…have you lost a lot of weight?	1. Significant weight loss (or failure to achieve expected weight gain or faltering growth in children).	?	1	2	3	OI5
…even if your weight was normal, in the past month have you had a serious vitamin deficiency that required medical attention?	2. Significant nutritional deficiency	?	1	2	3	OI6
…did you require nutritional supplements or to be fed through a tube? Were they necessary in order for you to regain or maintain your health?	3. Dependence on enteral feeding or oral nutritional supplements.	?	1	2	3	OI7
…in the past month, since (1 MONTH AGO), did your (ABNORMAL EATING BEHAVIOR) interfere with your life in a significant way? (Like by not being able to go out to eat, not go to parties, not go out on dates or away on trips?)	4. Marked interference with psychosocial functioning.	?	1	2	3	OI8
	CRITERION A.1, A.2, A.3, OR A.4 IS CODED "3"		1		3	OI9
			GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10			
IF UNCLEAR: **Is this because you haven't been able to get enough food in the past month?** **Have you been dieting in the past month? (What kind of diet have you been on?)** **Was this part of a religious or spiritual practice, like a fast?**	B. The disturbance is not better explained by lack of available food or by an associated culturally sanctioned practice.	?	1	2	3	OI10
			GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10			
IF SUBJECT IS LOW WEIGHT: **Do you feel fat or that part of your body is too fat?**	C. The eating disturbance does not occur exclusively during the course of Anorexia Nervosa or Bulimia Nervosa, and there is no evidence of a disturbance in the way in which one's body weight or shape is experienced. NOTE: Code "3" if no evidence of a disturbance in body image.	?	1	2	3	OI11
			GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10			

In the past month, have you been medically ill?

Have you been particularly depressed or anxious?

D. The eating disturbance is not attributable to a concurrent medical condition or not better explained by another mental disorder. When the eating disturbance occurs in the context of another condition or disorder, the severity of the eating disturbance exceeds that routinely associated with the condition or disorder and warrants additional clinical attention.

? 1 2 3 OI12

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10

AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER CRITERIA A, B, C, AND D ARE CODED "3."

1 3 OI13

GO TO ***OTHER SPECIFIED FEEDING OR EATING DISORDER*** I.10

AVOIDANT/ RESTRIC- TIVE FOOD INTAKE DISORDER

IF UNKNOWN: **How old were you when you first started having** (SXS OF AVOIDANT/RESTRICTIVE FOOD INTAKE DISORDER)**?**

Age at onset of Avoidant/Restrictive Food Intake Disorder (CODE 99 IF UNKNOWN) ____ ____ OI14

J. SOMATIC SYMPTOM AND RELATED DISORDERS (OPTIONAL)

SOMATIC SYMPTOM DISORDER (OPTIONAL) (CURRENT ONLY)

*IF SCREENING QUESTION #13d ANSWERED "NO," SKIP TO ***ILLNESS ANXIETY DISORDER* Opt-**J.3.*

IF SCREENING QUESTION #13d ANSWERED "YES": **You've said that over the past 6 months, since** (6 MONTHS AGO), **you have been bothered by physical symptoms.**

IF SCREENER NOT USED: **Over the past 6 months, since** (6 MONTHS AGO)**, have you had any physical symptoms that were distressing to you or that affected your day-to-day life?**

Tell me about that. (How much have (SYMPTOM[S]) **bothered you? How much have** (SYMPTOM[S]) **interfered with your daily life? Have you changed your day-to-day activities in any way?)**

SOMATIC SYMPTOM DISORDER CRITERIA

SCREEN Q#11d
YES || NO

IF NO, GO TO ***ILLNESS ANXIETY DISORDER*** Opt-J.3 OJ1

A. One or more somatic symptoms that are distressing or result in significant disruption of daily life. ? 1 2 3 OJ2

GO TO ***ILLNESS ANXIETY DISORDER*** Opt-J.3

B. Excessive thoughts, feelings, or behaviors related to the somatic symptoms or associated health concerns as manifested by at least one of the following:

How concerned are you about your symptoms? What are you concerned about? (Have you gone to the doctor about this? What did he or she say? What did you think? Are you more concerned than the doctor suggests you need to be?)

Do other people (like family or friends) think you worry too much about (SYMPTOM[S])**?**

How much do you think about this?

Do you have trouble thinking about other things in your life because of these concerns?

1. Disproportionate and persistent thoughts about the seriousness of one's symptoms. ? 1 2 3 OJ3

How anxious are you about your overall health? Do friends, family, or your doctors think you worry too much about your health?

IF NO: **Do you get very anxious whenever you notice a physical symptom? (Tell me about that.)**

How long does this anxiety last?

2. Persistently high level of anxiety about health or symptoms. ? 1 2 3 OJ4

Over the past 6 months, since (6 MONTHS AGO)**, how much time and energy have you spent…**

…thinking about (SXS) **or your health?**

…going to doctors or getting tests done?

…looking up your symptoms on the internet or in books?

….shopping for supplements or treatments in stores or on the internet?

…talking to friends, family members, or co-workers about your symptoms or your health?

(How often do you check your body for signs of illness, like looking at your throat in the mirror or checking your body for lumps?)

3. Excessive time and energy devoted to these symptoms or health concerns. ? 1 2 3 OJ5

AT LEAST ONE "B" SYMPTOM IS CODED "3" ? 1 3 OJ6

→ GO TO ***ILLNESS ANXIETY DISORDER*** Opt-J.3

IF UNCLEAR: **For most of the time during the past 6 months, have you had physical symptoms of one kind or another?**

C. Although any one somatic symptom may not be continuously present, the state of being symptomatic is persistent (typically more than 6 months). ? 1 2 3 OJ7

→ GO TO ***ILLNESS ANXIETY DISORDER*** Opt-J.3

CRITERIA A, B, AND C ARE CODED "3" 1 3 OJ8

→ GO TO ***ILLNESS ANXIETY DISORDER*** Opt-J.3

→ SOMATIC SYMPTOM DISORDER

IF UNKNOWN: **How old were you when you first started being very concerned about your health or physical symptoms?**

Age-at-onset of Somatic Symptom Disorder (CODE 99 IF UNKNOWN) ____ ____ OJ9

IF UNKNOWN: **Of all of these symptoms, which bothers you the most?**

Specify if: (check all that apply)

___ **With predominant pain**: if somatic symptoms predominantly involve pain OJ10

___ **Persistent:** if course is characterized by severe symptoms, marked impairment, and long duration (more than 6 months) OJ11

*Specify **severity**:* (circle the appropriate number) OJ12

1 - **Mild:** Only one of the symptoms specified in Criterion B are fulfilled

2 - **Moderate:** Two or more of the symptoms specified in Criterion B are fulfilled.

3 - **Severe:** Two or more of the symptoms specified in Criterion B are fulfilled, plus there are multiple somatic complaints (or one very severe somatic symptom).

ILLNESS ANXIETY DISORDER (OPTIONAL) (CURRENT ONLY)

ILLNESS ANXIETY DISORDER CRITERIA

IF SCREENING QUESTION #13e IS ANSWERED "NO," GO TO NEXT MODULE.

IF SCREENING QUESTION #13e IS ANSWERED "YES": **You've said that over the past 6 months, since** (6 MONTHS AGO)**, you've spent a lot of time thinking that you have, or will get, a serious disease. What do you think you have or will get? What makes you think so? How much time have you spent thinking about it?**

SCREEN Q#13e
YES || NO

IF NO, GO TO NEXT MODULE

OJ13

IF SCREENER NOT USED: **Over the past 6 months, since** (6 MONTHS AGO), **have you spent a lot of time thinking that you have, or will get, a serious disease?**

IF YES: **What do you think you have or will get? What makes you think so? How much time have you spent thinking about it?**

A. Preoccupation with having, or acquiring a serious illness.

DESCRIBE:

? 1 2 3 OJ14

GO TO NEXT MODULE

Do you have any physical symptoms that make you think you have (FEARED SERIOUS DISEASE)?

B. Somatic symptoms are not present or, if present, are only mild in intensity….

NOTE: Code "3" only if no symptoms or if mild in intensity.

? 1 2 3 OJ15

GO TO NEXT MODULE

Do you actually have (FEARED SERIOUS ILLNESS)**? Do you have a family history of** (FEARED SERIOUS ILLNESS)?

IF YES: **Are you more concerned or worried than your doctor or your family thinks you should be? (How much time do you spend thinking about this? More time than you should?)**

…If another medical condition is present or there is a high risk for developing a medical condition (e.g., strong family history is present), the preoccupation is clearly excessive or disproportionate.

NOTE: Code "3" if either (1) there are no other medical conditions and the person is not at risk for a medical condition; or (2) preoccupation with another medical condition is clearly excessive.

? 1 2 3 OJ16

GO TO NEXT MODULE

How anxious are you about your health and about getting sick?

When you hear about someone else who is sick, does it make you very anxious about your own health and the possibility of getting that illness?

How about getting very anxious about your own health when watching programs on TV or reading stories in the newspaper or magazines about medical conditions?

C. There is a high level of anxiety about health and the individual is easily alarmed about personal health status.

? 1 2 3 OJ17

GO TO NEXT MODULE

Do you do things related to your concerns about being sick, such as repeatedly checking your body for signs of illness, repeatedly looking up information on the internet, or repeatedly seeking reassurance from family, friends, doctors, or pharmacists?

IF NO: **How about avoiding things or situations because of concerns that it might jeopardize your health or increase your anxiety, such as not visiting sick friends in the hospital or avoiding going to funerals? (How about avoiding exercise because you are worried that it might harm your health? How about avoiding going to doctors for regular check-ups or routine tests because you are anxious that they might find something wrong with you?)**

D. The individual performs excessive health-related behaviors (e.g., repeatedly checks his or her body for signs of illness)…

…or exhibits maladaptive avoidance (e.g., avoids doctor appointments and hospitals).

? 1 2 3 OJ18

1 → GO TO NEXT MODULE

IF UNKNOWN: **How long has this been going on? (At least 6 months)?**

E. Illness preoccupation has been present for at least 6 months but the specific illness that is feared may change over that period of time.

? 1 2 3 OJ19

How old were you when you first had concerns about having or getting a serious illness that lasted for at least 6 months?

Age-at-onset (CODE 99 IF UNKNOWN) ____ ____ OJ20

F. The illness-related preoccupation is not better explained by another mental disorder, such as Somatic Symptom Disorder, Panic Disorder, Generalized Anxiety Disorder, Body Dysmorphic Disorder, Obsessive-Compulsive Disorder.

? 1 3 OJ21

1 → GO TO NEXT MODULE

When you get the thought that you have a serious disease, how convinced are you that this is true? (Has there been a time when you were 100% certain that you had the disease, despite your doctor telling you that you did not have that disease?)

…or Delusional Disorder, Somatic Type.

? 1 3 OJ22

1 → GO TO NEXT MODULE

ILLNESS ANXIETY DISORDER CRITERIA A, B, C, D, E, AND F ARE CODED "3" OJ23

1 → GO TO NEXT MODULE

3 → ILLNESS ANXIETY DISORDER

IF UNKNOWN: **How often do you go to doctors about this?**

*Specify **type*** (circle the appropriate number) OJ24

1 – **Care-seeking type:** Medical care, including physician visits or undergoing tests and procedures, is frequently used.

2 – **Care-avoidant type**: Medical care is rarely used.

INTERMITTENT EXPLOSIVE DISORDER (OPTIONAL) (CURRENT ONLY)

INTERMITTENT EXPLOSIVE DISORDER CRITERIA

*IF SCREENING QUESTIONS #15a AND #15b ARE BOTH ANSWERED "NO," GO TO ***GAMBLING DISORDER*** Opt-K.5.*

IF SCREENING QUESTION #15a IS ANSWERED "YES": **You've said that in the past year have frequently lost control of your temper and ended up yelling or getting into arguments with others. Tell me about that.**

IF SCREENING QUESTION #15b IS ANSWERED "YES": **You've (also) said that in the past year, you have lost your temper so that you shoved, hit, kicked or threw something at a person or an animal or damaged someone's property. Tell me about that.**

IF SCREENER NOT USED: **In the past year, since** (1 YEAR AGO)**, have you frequently lost control of your temper and ended up yelling or getting into arguments with others? (Tell me about that.)**

IF NO: **In the past year, have you lost your temper so that you shoved, hit, kicked or threw something at a person or an animal or damaged someone's property? (Tell me about that.)**

SCREEN Q#15a **YES** | | **NO** OK1

SCREEN Q#15b **YES** | | **NO** OK2

IF BOTH HAVE BEEN ANSWERED "NO," GO TO ***GAMBLING DISORDER*** Opt-K.5

*IF THERE IS NO EVIDENCE THAT THE SUBJECT HAS HAD VERBAL OR PHYSICAL AGGRESSION, CHECK HERE ___ AND GO TO ****GAMBLING DISORDER**** *Opt-K.5.* OK3

IF UNKNOWN: **In the past year, have your angry outbursts resulted in someone getting physically hurt? (Tell me about that.)**

IF UNKNOWN: **In the past year, have you physically injured an animal in anger?**

IF UNKNOWN: **In the past year, have your outbursts resulted in damaging things, breaking things, smashing windows, punching a hole in a wall, or other damage to property?**

IF YES TO ANY OF THESE: **During the past year have you had at least 3 such outbursts?**

A. Recurrent behavioral outbursts representing a failure to control aggressive impulses as manifested by either of the following:

2. Three behavioral outbursts involving damage or destruction of property and/or physical assault involving physical injury against animals or other individuals occurring within a 12-month period. ? 1 2 3 OK4

NOTE: Physical injury includes, at a minimum, a scratch or bruise, whether or not medical attention is sought.

DESCRIBE:

IF UNKNOWN: **In the past year, have you had angry outbursts in which you shoved, kicked, hit, or threw something *without* anything or anyone being damaged or injured*?***

IF UNKNOWN: **In the past year have you also had angry outbursts that involved heated arguments, yelling at people, having temper tantrums, or going on "rants," but *without* physically hurting anyone or damaging anything?**

IF YES TO EITHER: **If you were to include all the kinds of angry outbursts that we just talked about in the past year (both verbal and physical), did they altogether ever happen as often as twice a week, on average, for at least 3 months?**

1. Verbal aggression (e.g., temper tantrums, tirades, verbal arguments or fights) or physical aggression toward property, animals, or other individuals, occurring twice weekly, on average, for a period of 3 months. The physical aggression *does not result* in damage or destruction of property and *does not result* in physical injury to animals or other individuals.

? 1 2 3 OK5

Check if:

___ Verbal aggression (e.g., tantrums, tirades, verbal arguments or fights) twice weekly for 3 months OK6

___ Physical aggression without damage or destruction of property (e.g., throwing clothes or books around that do not get damaged) twice weekly for 3 months OK7

EITHER CRITERION A.2 OR A.1 IS CODED "3" 1 3 OK8

→ GO TO ***GAMBLING DISORDER*** Opt-K.5

What kinds of things have set you off? (Do you think your reactions have been much stronger than they should have been given the circumstances? Has anyone told you that your reactions were way off-base given the situation in question?)

B. The magnitude of aggressiveness expressed during the recurrent outbursts is grossly out of proportion to the provocation or to any precipitating psychosocial stressors.

? 1 2 3 OK9

→ GO TO ***GAMBLING DISORDER*** Opt-K.5

IF UNCLEAR: **Have all of these outbursts been "on purpose," that is, in order to intimidate someone or force someone to give you what you want?**

C. The recurrent aggressive outbursts are not premeditated (i.e., they are impulsive and/or anger-based) and are not committed to achieve some tangible objective (e.g., money, power, intimidation).

NOTE: Code "1" if all outbursts are premeditated or intended to achieve a tangible objective.

? 1 2 3 OK10

→ GO TO ***GAMBLING DISORDER*** Opt-K.5

IF UNKNOWN: **What effect have your outbursts had on your life in the past year?**

ASK THE FOLLOWING QUESTIONS AS NEEDED TO RATE CRITERION D:

Have you gotten into trouble because of them? (For example, has anyone called the police or a supervisor because of these outbursts? Have you ever been arrested as a result of your outbursts? Have you ever had to pay a lot of money to compensate someone for the damage you caused?)

How have your outbursts affected your relationships or your interactions with other people? (Have they caused you any problems in your relationships with your family, romantic partner or friends?)

How have they affected your work/school? (How about getting fired from a job or expelled from school or getting "written up" for disciplinary action because of your outbursts?)

Have your outbursts affected any other important part of your life?

IF DOES NOT INTERFERE WITH LIFE: **How much have you been bothered or upset by your outbursts?**

D. The recurrent aggressive outbursts cause either marked distress in the individual or impairment in occupational or interpersonal functioning, or are associated with financial or legal consequences.

? 1 2 3 OK11

GO TO ***GAMBLING DISORDER*** Opt-K.5

NOTE: Criterion E regarding minimum chronological age has been omitted.

IF HX OF MANIA, DEPRESSION, OR PSYCHOSIS: **Did these outbursts happen only when you were feeling excited, irritable, or depressed, or only when you were having** (PSYCHOTIC SXS)?

IF HX OF PTSD: **Did you have any outbursts like this prior to exposure to** (TRAUMATIC EVENT)**?**

IF HX OF ADHD: **Have you gotten any treatment specifically for the aggressive outbursts?**

F. The recurrent aggressive outbursts are not better explained by another mental disorder (e.g., Major Depressive Disorder, Bipolar Disorder, [Posttraumatic Stress Disorder], Disruptive Mood Dysregulation Disorder, a Psychotic Disorder, Antisocial Personality Disorder, Borderline Personality Disorder)…

? 1 2 3 OK12

GO TO ***GAMBLING DISORDER*** Opt-K.5

Note: This diagnosis can be made in addition to the diagnosis of Attention-Deficit/ Hyperactivity Disorder when recurrent impulsive aggressive outbursts are in excess of those usually seen in this disorder and warrant independent clinical attention.

Do you have these outbursts only when you've been drinking, using drugs, or taking medications?

IF UNKNOWN: **Have you ever had a head injury, seizure, stroke, or some other kind of neurological illness?**

IF YES: **Have these outbursts occurred only during** (ILLNESS MENTIONED ABOVE)**?**

…and are not attributable to another medical condition (e.g., head trauma, Alzheimer's disease) or to the physiological effects of a substance (e.g., alcohol, phencyclidine, cocaine and other stimulants, barbiturates, inhalants, or a medication).

? 1 2 3 OK13

GO TO ***GAMBLING DISORDER*** Opt-K.5

PRIMARY IED

CONTINUE WITH NEXT ITEM

CRITERIA A, B, C, D, AND F ARE CODED "3"

1 3 OK14

GO TO ***GAMBLING DISORDER*** Opt-K.5

CURRENT IED

IF UNKNOWN: **How old were you when you first started having** (IED SXS)?

Age at onset of Intermittent Explosive Disorder (CODE 99 IF UNKNOWN).

Age at onset of Intermittent Explosive Disorder (CODE 99 IF UNKNOWN) ____ ____ OK21 OK15

GO TO ***GAMBLING DISORDER*** Opt-K.5

GAMBLING DISORDER (OPTIONAL) (CURRENT ONLY)

GAMBLING DISORDER CRITERIA

IF SCREENING QUESTION #15c IS ANSWERED "NO," ***GO TO NEXT MODULE.***

SCREEN Q#15c
YES || NO → GO TO NEXT MODULE

OK16

IF SCREENING QUESTION #15c is ANSWERED "YES": **You've said that in the past year, you have regularly gambled or regularly bought lottery tickets. What kinds of gambling have you done?**

IF SCREENER NOT USED: **In the past year, since** (1 YEAR AGO)**, have you regularly gambled or regularly bought lottery tickets?**

IF YES: **What kinds of gambling have you done?**

*Indicate **types** of gambling activity in the past year that may have been problematic:* (check all that apply)

___ card playing OK17

___ lottery OK18

___ horse racing OK19

___ sports betting OK20

___ casino games (blackjack, roulette, craps) OK21

___ slot machines or video poker OK22

___ other: _____ OK23

In the past year, what is the most often you have gambled? What is the largest amount of money that you have won? How about the most you have lost?

In the past year…

…has your gambling caused you any problems?

…has anyone objected to your gambling?

…have you hidden from others the amount of time or money that you gambled?

…has your gambling gotten out of control?

IF NO INCIDENTS OF EXCESSIVE GAMBLING IN PAST YEAR AND THERE IS NO EVIDENCE OF ANY GAMBLING-RELATED PROBLEMS IN THE PAST YEAR, CHECK HERE ___ AND GO TO NEXT MODULE. OK24

Now I'd like to ask you some more questions about your gambling during the past year, since (1 YEAR AGO).

A. Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period:

When you have gambled, how have you felt when you were winning? (Excited? On a "high"?) Have you, over time, had to increase the amount of money that you gambled with in order to keep getting that same feeling?

1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement. ? 1 2 3 OK25

During the past year, since (1 YEAR AGO)**...**

...have you tried to control your gambling, cut back or stop? Tell me about that. (How many times?) (How successful were you in trying to control it, cut down, or stop?)	2. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.	?	1	2	3	OK26
IF ADMITS TO TRYING TO CUT BACK OR STOP: ...**how have you felt when you tried to cut back or stop gambling? (Have you gotten restless or irritable?)**	3. Is restless or irritable when attempting to cut down or stop gambling. NOTE: Code "1" if subject has not tried to cut back or stop.	?	1	2	3	OK27
...how often have you thought about gambling? Have you regularly spent a lot of time planning for the next time you were going to gamble or thinking about how you were going to get the money to gamble with? Have you spent a lot of time thinking about past wins?	4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).	?	1	2	3	OK28
...besides wanting to win, have there been other reasons that you have gambled? (Have you often gambled to relieve uncomfortable feelings such as feeling helpless, guilty, anxious, or depressed?)	5. Often gambles when feeling distressed (e.g., helpless, guilt, anxious, depressed).	?	1	2	3	OK29
...after having a losing day, do you often go back to try to recover what you've lost?	6. After losing money gambling, often returns another day to get even ("chasing" one's losses).	?	1	2	3	OK30
...have you often lied to others to cover up your gambling, such as about how much time you spent gambling or the amount of money you lost?	7. Lies to conceal the extent of involvement with gambling.	?	1	2	3	OK31
...how has your gambling affected your life? (Have you lost a job or promotion, or done poorly at school because of it? Have you jeopardized or lost a serious relationship over it?)	8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.	?	1	2	3	OK32
...have you had to rely on family members or friends for money because of your gambling problems?	9. Relies on others to provide money to relieve desperate financial situations caused by gambling.	?	1	2	3	OK33
	AT LEAST FOUR "A" ITEMS CODED "3" DURING THE PAST 12 MONTHS		1 GO TO NEXT MODULE		3	OK34
IF HX OF MANIA: **Has your gambling only gotten out of control when you have been (high/irritable/**OWN WORDS**)?**	B. The gambling behavior is not better accounted for by a Manic Episode. NOTE: Code "3" if no history of mania or if gambling occurred when not manic.		1 GO TO NEXT MODULE		3	OK35

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

CRITERIA A AND B CODED "3" FOR THE PERIOD OF THE LAST 12 MONTHS

1 → GO TO NEXT MODULE

3 → CURRENT GAMBLING DISORDER

OK36

*Indicate **severity** of Gambling Disorder for past 12 months:* (circle the appropriate number)

OK37

1 – **Mild**: 4-5 criteria met

2 – **Moderate**: 6-7 criteria met.

3 – **Severe**: 8-9 criteria met.

Specify if: (circle the appropriate number)

IF UNKNOWN: **Have your gambling problems gone on continuously or have they come and gone?**

OK38

1 – **Episodic:** Meeting diagnostic criteria at more than one time point, with symptoms subsiding between periods of gambling disorder for at least several months.

2 – **Persistent:** Experiencing continuous symptoms, to meet diagnostic criteria for multiple years.

How old were you when you first started having (SXS OF GAMBLING DISORDER)?

Age at onset of Gambling Disorder (CODE 99 IF UNKNOWN). ____ ____

OK39

GO TO NEXT MODULE

Edinburgh Handedness Inventory (EHI)

Participant ID

_____

Edinburgh Handedness Inventory (EHI)

Please mark the box that best describes which hand you use for the activity in question

	Always left (1)	Usually left (2)	No preference (3)	Usually right (4)	Always right (5)
1. Writing	◯	◯	◯	◯	◯
2. Throwing	◯	◯	◯	◯	◯
3. Scissors	◯	◯	◯	◯	◯
4. Toothbrush	◯	◯	◯	◯	◯
5. Knife (without fork)	◯	◯	◯	◯	◯
6. Spoon	◯	◯	◯	◯	◯
7. Match (when striking)	◯	◯	◯	◯	◯
8. Computer mouse	◯	◯	◯	◯	◯

Combat Exposure Scale (CES)

Participant ID

_____

Combat Exposure Scale (CES)

Please circle the number above the answer that best describes your experience

1. Did you ever go on combat patrols or have other dangerous duty?

◯ No (1) ◯ 1-3 times (2) ◯ 4-12 times (3) ◯ 13-50 times (4) ◯ 51+ times (5)

2. Were you ever under enemy fire?

◯ Never (1) ◯ Less than 1 month (2) ◯ 1-3 months (3) ◯ 4-6 months (4) ◯ 7 months or more (5)

3. Were you ever under enemy fire?

◯ No (1) ◯ 1-2 times (2) ◯ 3-12 times (3) ◯ 13-25 times (4) ◯ 26+ times (5)

4. What percentage of soldiers in your unit were killed (KIA), wounded or missing in action (MIA)?

◯ None (1) ◯ 1-25% (2) ◯ 26-50% (3) ◯ 51-75% (4) ◯ 76% or more (5)

5. How often did you fire rounds at the enemy?

◯ Never (1) ◯ 1-2 times (2) ◯ 3-12 times (3) ◯ 13-50 times (4) ◯ 51+ times (5)

6. How often did you see someone hit by incoming or outgoing rounds?

◯ Never (1) ◯ 1-2 times (2) ◯ 3-12 times (3) ◯ 13-50 times (4) ◯ 51+ times (5)

7. How often were you in danger of being injured or killed (i.e., being pinned down, overrun, ambushed, near miss, etc.)?

◯ Never (1) ◯ 1-2 times (2) ◯ 3-12 times (3) ◯ 13-50 times (4) ◯ 51+ times (5)

Morningness-Eveningness Questionnaire (MEQ)

Participant ID

_____

Morningness-Eveningness Questionnaire (MEQ)

1. Considering only your own "feeling best" rhythm, at what time would you get up if you were entirely free to plan your day?

◯ 5:00 - 6:30 AM (1)
◯ 6:30 - 7:45 AM (2)
◯ 7:45 - 9:45 AM (3)
◯ 9:45 - 11:00 AM (4)
◯ 11:00 AM - 12:00 PM (5)

2. Considering only your own "feeling best" rhythm, at what time would you go to bed if you were entirely free to plan your evening?

◯ 8:00 - 9:00 PM (1)
◯ 9:00 - 10:15 PM (2)
◯ 10:15 PM - 12:30 AM (3)
◯ 12:30 - 1:45 AM (4)
◯ 1:45 - 3:00 AM (5)

3. If there is a specific time at which you would have to get up in the morning, to what extent are you dependent on being woken up by an alarm clock?

◯ Not at all dependent (1)
◯ Slightly dependent (2)
◯ Fairly dependent (3)
◯ Very dependent (4)

4. Assuming adequate environmental conditions, how easy do you find getting up in the mornings?

◯ Not at all easy (1)
◯ Not very easy (2)
◯ Fairly easy (3)
◯ Very easy (4)

5. How alert do you feel during the first half hour after having woken in the mornings?

◯ Not at all alert (1)
◯ Slightly alert (2)
◯ Fairly alert (3)
◯ Very alert (4)

6. How is your appetite during the first half-hour after having woken in the mornings?

◯ Very poor (1)
◯ Fairly poor (2)
◯ Fairly good (3)
◯ Very good (4)

7. During the first half-hour after having woken in the morning, how tired do you feel?

◯ Very tired (1)
◯ Fairly tired (2)
◯ Fairly refreshed (3)
◯ Very refreshed (4)

8. When you have no commitments the next day, at what time do you go to bed compared to your usual bedtime?

◯ Seldom or never later (1)
◯ Less than one hour later (2)
◯ 1-2 hours later (3)
◯ More than two hours later (4)

9. You have decided to engage in some physical exercise. A friend suggests that you do this one hour twice a week and the best time for him is between 7:00-8:00 AM. Bearing in mind nothing else but your own "feeling best" rhythm, how do you think you would perform?

◯ Would be in good form (1)
◯ Would be in reasonable form (2)
◯ Would find it difficult (3)
◯ Would find it very difficult (4)

10. At what time in the evening do you feel tired and as a result in need of sleep?

◯ 8:00 - 9:00 PM (1)
◯ 9:00 - 10:15 PM (2)
◯ 10:15 PM - 12:45 AM (3)
◯ 12:45 - 2:00 AM (4)
◯ 2:00 - 3:00 AM (5)

11. You wish to be at your peak performance for a test which you know if going to be mentally exhausting and lasting for two hours. You are entirely free to plan your day and considering only your own "feeling best" rhythm, which ONE of the four testing times would you choose?

◯ 8:00 - 10:00 AM (1)
◯ 11:00 AM - 1:00 PM (2)
◯ 3:00 - 5:00 PM (3)
◯ 7:00 - 9:00 PM (4)

12. If you went to bed at 11:00 PM, at what level of tiredness would you be?

◯ Not at all tired (1)
◯ A little tired (2)
◯ Fairly tired (3)
◯ Very tired (4)

13. For some reason, you have gone to bed several hours later than usual, but there is no need to get up at any particular time the next morning. Which ONE of the following events are you most likely to experience?

◯ Will wake up at usual time and will NOT fall asleep (1)
◯ Will wake up at usual time and will doze thereafter (2)
◯ Will wake up at usual time, but will fall asleep again (3)
◯ Will NOT wake up until later than usual (4)

14. One night, you have to remain awake between 4:00-6:00 AM in order to carry out a night watch. You have no commitments the next day. Which ONE of the following alternatives will suit you best?

◯ Would NOT go to bed until the watch was over (1)
◯ Would take a nap before and sleep after (2)
◯ Would take a good sleep before and nap after (3)
◯ Would take ALL sleep before watch (4)

15. You have to do two hours of hard physical work. You are entirely free to plan your day and considering only your own "feeling best" rhythm, which ONE of the following times would you choose?

◯ 8:00 - 10:00 AM (1)
◯ 11:00 AM - 1:00 PM (2)
◯ 3:00 - 5:00 PM (3)
◯ 7:00 - 9:00 PM (4)

16. You have decided to engage in hard physical exercise. A friend suggests that you do this for one hour twice a week and the best time for him is between 10:00-11:00 PM. Bearing in mind nothing else, but your own "feeling best" rhythm, how well do you think you would perform?

◯ Would be in good form (1)
◯ Would be in reasonable form (2)
◯ Would find it difficult (3)
◯ Would find it very difficult (4)

17. Suppose that you can choose your own work hours. Assume that you worked a FIVE-hour day (including breaks) and that your job was interesting and paid by results. During which time period would you want that five consecutive hours to END?

◯ 12:00 - 4:00 AM (1)
◯ 4:00 - 8:00 AM (2)
◯ 8:00 - 9:00 AM (3)
◯ 9:00 AM - 2:00 PM (4)
◯ 2:00 - 5:00 PM (5)
◯ 5:00 PM - 12:00 AM (6)

18. At what time of the day do you think that you reach your "feeling best" peak?

◯ 12:00 - 5:00 AM (1)
◯ 5:00 - 8:00 AM (2)
◯ 8:00 - 10:00 AM (3)
◯ 10:00 AM - 5:00 PM (4)
◯ 5:00 - 10:00 PM (5)
◯ 10:00 PM - 12:00 AM (6)

19. One hears about "morning" and "evening" types of people. Which ONE of these types do you consider yourself to be?

◯ Definitely a "morning" person (1)
◯ Rather more a "morning" person than an "evening type (2)
◯ Rather more an "evening" than a "morning" type (3)
◯ Definitely an "evening" type (4)

Subject ID: _____ Date: _____

The following questions concern your alcohol consumption. Place an X in one box that best describes your answer to each question.

Questions	0	1	2	3	4	
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week	
2. How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more	
3. How often do you have six or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year	
					Total	

Rivermead Post Concussion Symptoms Questionnaire

Modified (Rpq-3 And Rpq-13)[42] Printed With Permission: Modified Scoring System From Eyres 2005 [28]

Subject ID: Date:

After a head injury or accident some people experience symptoms that can cause worry or nuisance. We would like to know if you now suffer any of the symptoms given below. Because many of these symptoms occur normally, we would like you to compare yourself now with before the accident. For each symptom listed below please circle the number that most closely represents your answer.

0 = not experienced at all
1 = no more of a problem
2 = a mild problem
3 = a moderate problem
4 = a severe problem

Compared with **before** the accident, do you **now** (i.e., over the last 24 hours) suffer from:

	not experienced	no more of a problem	mild problem	moderate problem	severe problem
Headaches	0	1	2	3	4
Feelings of dizziness	0	1	2	3	4
Nausea and/or vomiting	0	1	2	3	4
Noise sensitivity (easily upset by loud noise)	0	1	2	3	4
Sleep disturbance	0	1	2	3	4
Fatigue, tiring more easily	0	1	2	3	4
Being irritable, easily angered	0	1	2	3	4
Feeling depressed or tearful	0	1	2	3	4
Feeling frustrated or impatient	0	1	2	3	4
Forgetfulness, poor memory	0	1	2	3	4
Poor concentration	0	1	2	3	4
Taking longer to think	0	1	2	3	4
Blurred vision	0	1	2	3	4
Light sensitivity (easily upset by bright light)	0	1	2	3	4
Double vision	0	1	2	3	4
Restlessness	0	1	2	3	4
Are you experiencing any other difficulties? Please specify, and rate as above.					
1.	0	1	2	3	4
2.	0	1	2	3	4

Administration only:

RPQ-3 *(total for first three items)*	
RPQ-13 *(total for next 13 items)*	

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Administration only

Individual item scores reflect the presence and severity of post concussive symptoms. Post concussive symptoms, as measured by the RPQ, may arise for different reasons subsequent to (although not necessarily directly because of) a traumatic brain injury. The symptoms overlap with broader conditions, such as pain, fatigue and mental health conditions such as depression[72].

The questionnaire can be repeated to monitor a patient's progress over time. There may be changes in the severity of symptoms, or the range of symptoms. Typical recovery is reflected in a reduction of symptoms and their severity within three months.

Scoring

The scoring system has been modified from Eyres, 2005[24].

The items are scored in two groups. The first group (RPQ-3) consists of the first three items (headaches, feelings of dizziness and nausea) and the second group (RPQ-13) comprises the next 13 items. The total score for RPQ-3 items is potentially 0–12 and is associated with early symptom clusters of post concussive symptoms. If there is a higher score on the RPQ-3, earlier reassessment and closer monitoring is recommended.

The RPQ-13 score is potentially 0–52, where higher scores reflect greater severity of post concussive symptoms. The RPQ-13 items are associated with a later cluster of symptoms, although the RPQ-3 symptoms of headaches, dizziness and nausea may also be present. The later cluster of symptoms is associated with having a greater impact on participation, psychosocial functioning and lifestyle. Symptoms are likely to resolve within three months. A gradual resumption of usual activities is recommended during this period, appropriate to symptoms. If the symptoms do not resolve within three months, consideration of referral for specialist assessment or treatment services is recommended.

References:

Eyres, S., Carey, A., Gilworth, G., Neumann, V., Tennant, A. (2005). Construct validity and reliability of the Rivermead Post Concussion Symptoms Questionnaire. *Clinical Rehabilitation*, 19, 878-887.

King, N. S., Crawford, S., Wenden, F.J., Moss, N.E.G. Wade, D.T. (1995). The Rivermead Post Concussion Symptoms Questionnaire: a measure of symptoms commonly experienced after head injury and its reliability *Journal of Neurology*, 242, 587-592.

Potter, S., Leigh, E., Wade, D., Fleminger, S. (2006). The Rivermead Post Concussion Symptoms Questionnaire *Journal of Neurology*, October 1-12.

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M/USE QUESTIONNAIRE

SUBJECT #:_____ DATE: ____/____/_____

Have you ever used marijuana?

For our purposes, marijuana usage is considered any instance in which you intentionally consumed (smoked, ingested, etc.) any quantity of marijuana.

☐ **NO** ☐ **YES**

At what age did you start? _____

At what specific age (in years) was your marijuana usage the heaviest? _____

During your lifetime, approximately how many occasions have you used marijuana?

☐ 0-50 ☐ 51-100 ☐ 101-500 ☐ 501s-1000 ☐ 1001-5000 ☐ over 5000

Consider the extent of marijuana use throughout your lifetime. Please approximate the number of times per month on average which you used marijuana at the following ages:

16-18 years of age	19-21 years of age	22-24 years of age	25-27 years of age	28-30 years of age	30+ years of age

During your lifetime, on average, how many times per month have you used marijuana?

_____

In the past <u>four weeks</u>, did you use marijuana?

☐ **NO** ☐ **YES**

How often? _____ daily / weekly (*circle one*)

On average, how much do you consume per occasion? _____

If YES, please review the printed calendar reflecting all the days in the past month. Indicate the number of times you used marijuana on each of these days. If you abstained from marijuana use during a given day, please write a “0” on that day. Please fill out every day in the calendar with your best guess of marijuana use.

WRAT4 BLUE TEST FORM

Name _____ Gender _____

Grade _____ Examiner _____

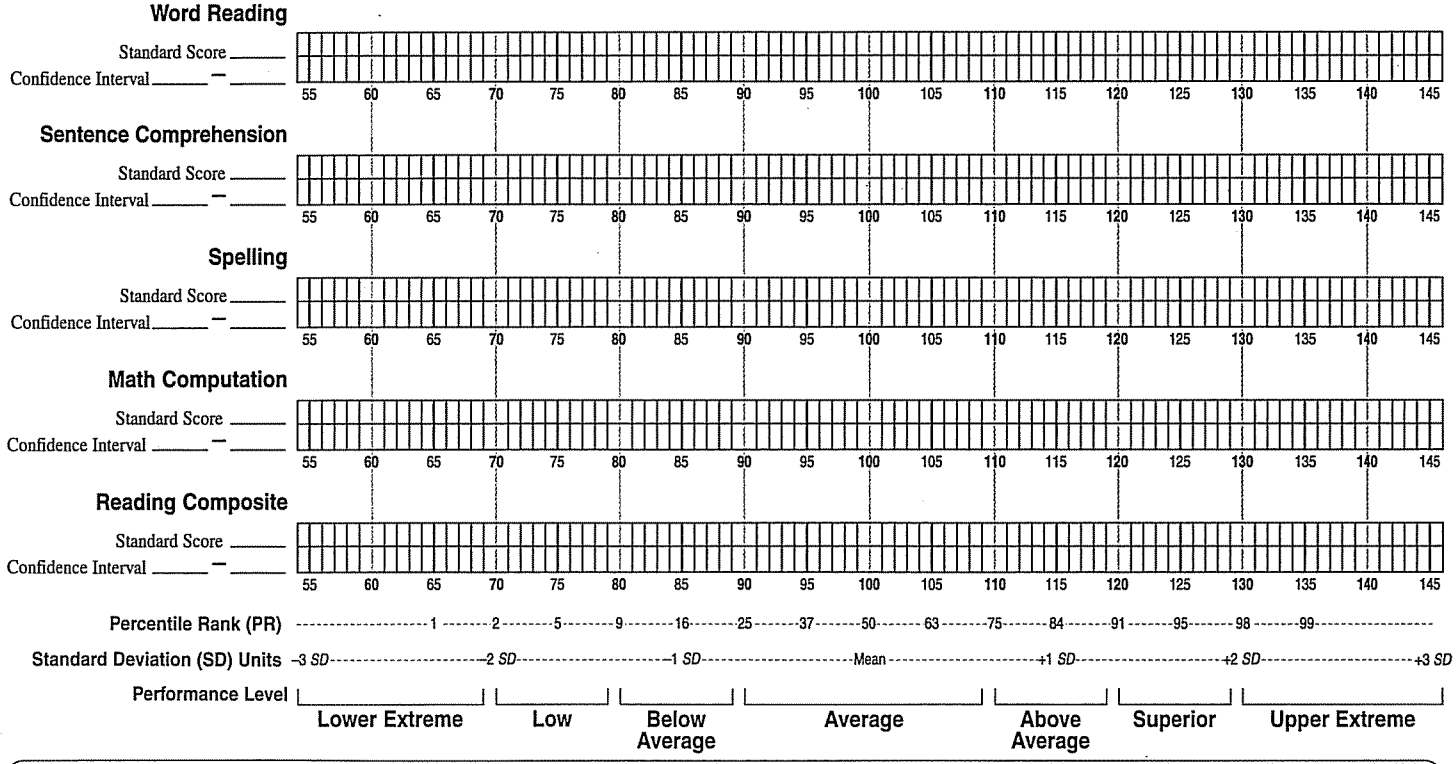
	Year	Month	Day
Date of Test			
Date of Birth			
Age			

Score Summary Table

Subtest/Composite	Raw Score	Standard Score Norms: ☐ Age ☐ Grade (☐ Fall, ☐ Spring)	Confidence Interval ☐ 85% ☐ 90% ☐ 95%	%ile Rank	Optional Scores ☐ Grade Equivalent ☐ NCE ☐ Stanine
Word Reading			_____ – _____		
Sentence Comprehension			_____ – _____		
Spelling			_____ – _____		
Math Computation			_____ – _____		
Reading Composite*			_____ – _____		

*Reading Composite Raw Score = Word Reading Standard Score + Sentence Comprehension Standard Score.

Standard Score Profile



Standard Score Comparison Table

Score Comparisons > = < (circle one)	Score Difference	Significance Level	Prevalence in Standardization Sample
Word Reading ☐ > = < ☐ Sentence Comprehension		ns .15 .10 .05 .01	>25% 25% 20% 15% 10% 5% 1%
Word Reading ☐ > = < ☐ Spelling		ns .15 .10 .05 .01	>25% 25% 20% 15% 10% 5% 1%
Word Reading ☐ > = < ☐ Math Computation		ns .15 .10 .05 .01	>25% 25% 20% 15% 10% 5% 1%
Sentence Comprehension ☐ > = < ☐ Spelling		ns .15 .10 .05 .01	>25% 25% 20% 15% 10% 5% 1%
Sentence Comprehension ☐ > = < ☐ Math Computation		ns .15 .10 .05 .01	>25% 25% 20% 15% 10% 5% 1%
Spelling ☐ > = < ☐ Math Computation		ns .15 .10 .05 .01	>25% 25% 20% 15% 10% 5% 1%

WORD READING SUBTEST

AGES 7 OR YOUNGER: Administer Part 1: Letter Reading first, followed by Part 2: Word Reading. Discontinue testing if a Participant has responded incorrectly to 10 consecutive items (*10 RULE*).

AGES 8 OR OLDER: Administer Part 2: Word Reading first. Discontinue the Word Reading section if the Participant has answered 10 consecutive items incorrectly (*10 RULE*). If the Participant has correctly answered 5 or more items on the Word Reading section before meeting the discontinue criterion, do not administer the preliminary Letter Reading section. If the Participant did not answer at least 5 items correctly on the Word Reading section, then administer Part 1: Letter Reading (*5 RULE*).

Part 1: Letter Reading Administration Instructions

After handing the Participant the Blue Word Reading List, say, **I want you to look at the letters on this line.** (Point to the row of letters at the top of the card) **Read to me the letters one-by-one across the line.** After the Participant has finished, say, **That's all. Now let's do something different.**

A	B	O	S	E	R	T	H	U	P	I	V	Z	J	Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

Part 2: Word Reading Administration Instructions

After handing the Participant the Blue Word Reading List, say, **Look at each of these words carefully.** (Point to the words) **Read the words across the page so I can hear you. When you finish the first line, go right on to the second line, and so on down the page until you finish or I tell you to stop. Read slowly and say the words clearly.** Allow 10 seconds for the Participant to respond to each word. If there is no response after 10 seconds, say, **OK, try the next one.** If you did not hear a word clearly, say, **I could not hear you clearly. Please say the word again just as you did the first time.** When the Participant has finished the Word Reading section, say, **That's all. Good job. Thanks. Now we are going to do something else.**

1. **cat**
   kat
2. **in**
   in
3. **book**
   buuk
4. **tree**
   tree
5. **how**
   how
6. **animal**
   an-i-mal
7. **hair**
   hair
8. **spell**
   spel
9. **even**
   ee-**ven**
10. **size**
    siz
11. **finger**
    fing-ger
12. **felt**
    felt
13. **laugh**
    laf
14. **straight**
    strayt
15. **stretch**
    strech
16. **split**
    split
17. **lame**
    laym
18. **bulk**
    bulk
19. **knowledge**
    nol-ij
20. **abuse**
    a-**byoos**, -**byooz**
21. **ceiling**
    see-ling
22. **diagram**
    di-a-gram
23. **doubt**
    dowt
24. **collapse**
    ko-**laps**
25. **gigantic**
    ji-**gan**-tic
26. **contemporary**
    kon-**tem**-po-rer-ee
27. **contagious**
    kon-**tay**-jus
28. **exterior**
    ik-**steer**-i-or
29. **horizon**
    ho-**ri**-zon
30. **triumph**
    tri-umf
31. **alcove**
    al-kohv
32. **tranquility**
    trang-**kwil**-i-tee
33. **efficiency**
    i-**fish**-ent-see
34. **inquisitive**
    in-**kwiz**-i-tiv
35. **bibliography**
    bib-li-**og**-ra-fee
36. **municipal**
    myoo-**nis**-i-pal
37. **unanimous**
    you-**nan**-i-mus
38. **discretionary**
    di-**skresh**-o-ner-ee
39. **seismograph**
    siz-mo-graf
40. **benign**
    bi-**nin**
41. **itinerary**
    i-**tin**-e-rer-ee
42. **heresy**
    her-e-see
43. **usurp**
    yoo-**surp**, -**zurp**
44. **stratagem**
    strat-a-jem
45. **pseudonym**
    soo-do-nim
46. **irascible**
    i-**ras**-i-bel
47. **heinous**
    hay-nus
48. **poignant**
    poin-yant
49. **disingenuous**
    dis-in-**jen**-yoo-us
50. **covetousness**
    kuv-e-tus-nes
51. **omniscient**
    om-**nish**-ent
52. **oligarchy**
    ol-i-gahr-kee
53. **egregious**
    i-**gree**-jus
54. **assuage**
    a-**swayj**
55. **terpsichorean**
    turp-si-ko-**ree**-an

Letter Reading Raw Score		/15
+ **Word Reading Raw Score***		/55
Word Reading Total Raw Score		/70

Next administer the Sentence Comprehension subtest, if applicable.

*Use this value for determining starting point on Sentence Comprehension subtest.

SPELLING SUBTEST

AGES 7 OR YOUNGER: Administer Part 1: Letter Writing first, followed by Part 2: Spelling. The Spelling section must be administered individually for participants ages 7 and younger. On the Spelling section, the test should be discontinued after the Participant spells 10 consecutive words incorrectly (*10 RULE*).

AGES 8 OR OLDER: Administer Part 2: Spelling first. Discontinue if 10 consecutive errors have been made (*10 RULE*). If the Participant has correctly spelled 5 or more items on the Spelling section before meeting the discontinue criterion, the preliminary Letter Writing section should not be administered. If the Participant does not spell at least 5 words correctly on the Spelling section, then administer Part 1: Letter Writing (*5 RULE*).

WORD READING SUBTEST

AGES 7 OR YOUNGER: Administer Part 1: Letter Reading first, followed by Part 2: Word Reading. Discontinue testing if a Participant has responded incorrectly to 10 consecutive items (*10 RULE*).

AGES 8 OR OLDER: Administer Part 2: Word Reading first. Discontinue the Word Reading section if the Participant has answered 10 consecutive items incorrectly (*10 RULE*). If the Participant has correctly answered 5 or more items on the Word Reading section before meeting the discontinue criterion, do not administer the preliminary Letter Reading section. If the Participant did not answer at least 5 items correctly on the Word Reading section, then administer Part 1: Letter Reading (*5 RULE*).

Part 1: Letter Reading Administration Instructions

After handing the Participant the Blue Word Reading List, say, **I want you to look at the letters on this line.** (Point to the row of letters at the top of the card) **Read to me the letters one-by-one across the line.** After the Participant has finished, say, **That's all. Now let's do something different.**

A	B	O	S	E	R	T	H	U	P	I	V	Z	J	Q
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

Part 2: Word Reading Administration Instructions

After handing the Participant the Blue Word Reading List, say, **Look at each of these words carefully.** (Point to the words) **Read the words across the page so I can hear you. When you finish the first line, go right on to the second line, and so on down the page until you finish or I tell you to stop. Read slowly and say the words clearly.** Allow 10 seconds for the Participant to respond to each word. If there is no response after 10 seconds, say, **OK, try the next one.** If you did not hear a word clearly, say, **I could not hear you clearly. Please say the word again just as you did the first time.** When the Participant has finished the Word Reading section, say, **That's all. Good job. Thanks. Now we are going to do something else.**

1. **cat**
   kat
2. **in**
   in
3. **book**
   buuk
4. **tree**
   tree
5. **how**
   how
6. **animal**
   an-i-mal
7. **hair**
   hair
8. **spell**
   spel
9. **even**
   ee-vĕn
10. **size**
    sīz
11. **finger**
    fing-gĕr
12. **felt**
    felt
13. **laugh**
    laf
14. **straight**
    strayt
15. **stretch**
    strech
16. **split**
    split
17. **lame**
    laym
18. **bulk**
    bulk
19. **knowledge**
    nol-ij
20. **abuse**
    ă-**byoos**, -**byooz**
21. **ceiling**
    see-ling
22. **diagram**
    di-ă-gram
23. **doubt**
    dowt
24. **collapse**
    kŏ-**laps**
25. **gigantic**
    ji-**gan**-tic
26. **contemporary**
    kŏn-**tem**-pŏ-rer-ee
27. **contagious**
    kŏn-**tay**-jŭs
28. **exterior**
    ik-**steer**-i-ŏr
29. **horizon**
    hŏ-**rī**-zŏn
30. **triumph**
    trī-ŭmf
31. **alcove**
    al-kohv
32. **tranquility**
    trang-**kwil**-i-tee
33. **efficiency**
    i-**fish**-ĕnt-see
34. **inquisitive**
    in-**kwiz**-i-tiv
35. **bibliography**
    bib-li-**og**-ră-fee
36. **municipal**
    myoo-**nis**-i-pal
37. **unanimous**
    you-**nan**-i-mŭs
38. **discretionary**
    di-**skresh**-ŏ-ner-ee
39. **seismograph**
    sīz-mŏ-graf
40. **benign**
    bi-**nīn**
41. **itinerary**
    ī-**tin**-ĕ-rer-ee
42. **heresy**
    her-ĕ-see
43. **usurp**
    yoo-**surp**, -**zurp**
44. **stratagem**
    strat-ă-jĕm
45. **pseudonym**
    soo-dŏ-nim
46. **irascible**
    i-**ras**-i-bĕl
47. **heinous**
    hay-nŭs
48. **poignant**
    poin-yănt
49. **disingenuous**
    dis-in-**jen**-yoo-ŭs
50. **covetousness**
    kuv-ĕ-tŭs-nes
51. **omniscient**
    om-**nish**-ĕnt
52. **oligarchy**
    ol-i-gahr-kee
53. **egregious**
    i-**gree**-jŭs
54. **assuage**
    ă-**swayj**
55. **terpsichorean**
    turp-si-kŏ-**ree**-ăn

Letter Reading Raw Score	+	/15
Word Reading Raw Score*		/55
Word Reading Total Raw Score		/70

Next administer the Sentence Comprehension subtest, if applicable.
*Use this value for determining starting point on Sentence Comprehension subtest.

SPELLING SUBTEST

AGES 7 OR YOUNGER: Administer Part 1: Letter Writing first, followed by Part 2: Spelling. The Spelling section must be administered individually for participants ages 7 and younger. On the Spelling section, the test should be discontinued after the Participant spells 10 consecutive words incorrectly (*10 RULE*).

AGES 8 OR OLDER: Administer Part 2: Spelling first. Discontinue if 10 consecutive errors have been made (*10 RULE*). If the Participant has correctly spelled 5 or more items on the Spelling section before meeting the discontinue criterion, the preliminary Letter Writing section should not be administered. If the Participant does not spell at least 5 words correctly on the Spelling section, then administer Part 1: Letter Writing (*5 RULE*).

Combined Form Score Summary Sheet

WORD READING

Part 1: Letter Reading*	/15
+	
Blue Form Part 2: Word Reading	/55
+	
Green Form Part 2: Word Reading	/55
Combined Form Word Reading Raw Score	/125

SPELLING

Part 1: Letter Writing*	/15
+	
Blue Form Part 2: Spelling	/42
+	
Green Form Part 2: Spelling	/42
Combined Form Spelling Raw Score	/99

SENTENCE COMPREHENSION

Blue Form Sentence Comprehension	/50
+	
Green Form Sentence Comprehension	/50
Combined Form Sentence Comprehension Raw Score	/100

MATH COMPUTATION

Part 1: Oral Math*	/15
+	
Blue Form Part 2: Math Computation	/40
+	
Green Form Part 2: Math Computation	/40
Combined Form Math Computation Raw Score	/95

*Because the preliminary sections—Letter Reading, Letter Writing, and Oral Math—of each form contain the same items these scores should only be counted once in determining the Combined Subtest raw score. If the preliminary sections were administered twice, use only the higher of the two scores.

Combined Form Score Summary Table

Subtest/Composite	Raw Score	Standard Score Norms: ☐ Age ☐ Grade (☐ Fall, ☐ Spring)	Confidence Interval ☐ 85% ☐ 90% ☐ 95%	%ile Rank	Optional Scores ☐ Grade Equivalent ☐ NCE ☐ Stanine
Word Reading			_____ – _____		
Sentence Comprehension			_____ – _____		
Spelling			_____ – _____		
Math Computation			_____ – _____		
Reading Composite*			_____ – _____		

*Reading Composite Raw Score = Word Reading Standard Score + Sentence Comprehension Standard Score.

WIDE RANGE

9 8 7 6 5

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WASI-II Record Form

WECHSLER ABBREVIATED SCALE OF INTELLIGENCE® — SECOND EDITION

Calculation of Examinee's Age

Test Date: Year ____ Month ____ Day ____

ID: ____

Sex: ☐ F ☐ M Handedness: ☐ R ☐ L

Test Age: ____

Address/School/Testing Site: ____

Highest Education/Grade: ____

Examiner Name: ____

Total Raw Score to *T* Score Conversion

Subtest	Raw Score	*T* Scores			
Block Design					
Vocabulary					
Matrix Reasoning					
Similarities					
Sum of *T* Scores					
		Verbal Comp.	Perc. Rsng.	Full Scale–4	Full Scale–2

Examinee Visual/Hearing Aids During Testing

Check type of aid examinee needed:	Used	Not Used
☐ Glasses	☐	☐
☐ Prescription Lenses	☐	☐
☐ Assisted Listening Device	☐	☐
☐ Other:	☐	☐

Sum of *T* Scores to Composite Score Conversion

Scale	Sum of *T* Scores	Composite Score	Percentile Rank	Confidence Interval 90% or 95%
Verbal Comp.		VCI			–
Perc. Rsng.		PRI			–
Full Scale–4		FSIQ–4			–
Full Scale–2		FSIQ–2			–

Ranges of Expected Scores

Scores	Confidence Level 90%	68%
FSIQ–4		
WISC-IV FSIQ	–	–
WAIS-IV FSIQ	–	–

Subtest *T* Score Profile

	Verbal Comprehension		Perceptual Reasoning	
	VC	SI	BD	MR
80				
75				
70				
65				
60				
55				
50				
45				
40				
35				
30				
25				
20				

Composite Score Profile

	VCI	PRI	FSIQ
160			
155			
150			
145			
140			
135			
130			
125			
120			
115			
110			
105			
100			
95			
90			
85			
80			
75			
70			
65			
60			
55			
50			
45			
40			

PEARSON

PsychCorp

3 4 5 6 7 8 9 10 11 12 A B C D E 282563-1 3

Product Number 0158981596

1. Block Design

(Time limit: See item)

Start
Ages 6–8: Item 1
Ages 9–90: Item 3

Reverse
Ages 9–90: Does not obtain a perfect score on *either* Item 3 or Item 4, administer the preceding items in reverse order until two consecutive perfect scores are obtained.

Discontinue
After 2 consecutive scores of 0.

Stop
Ages 6–8: After Item 11.

Record & Score
Items 1–4: Score 0, 1, or 2 points.
Items 5–13: Score 0, 4, 5, 6, or 7 points.

		Design	Presentation Method	Time Limit	Completion Time		Constructed Design		Score			
6–8	1.	Examinee / Examiner	Model and Picture	30"	Trial 1	Trial 2	Trial 1	Trial 2	0	1	2	
	2.		Model and Picture	30"	Trial 1	Trial 2	Trial 1	Trial 2	0	1	2	
9–90	3.		Model and Picture	45"	Trial 1	Trial 2	Trial 1	Trial 2	0	1	2	
	4.		Model and Picture	45"	Trial 1	Trial 2	Trial 1	Trial 2	0	1	2	
	5.		Picture	60"					0	21–60: 4	16–20: 5	11–15: 6	1–10: 7
	6.		Picture	60"					0	21–60: 4	16–20: 5	11–15: 6	1–10: 7
	7.		Picture	60"					0	21–60: 4	16–20: 5	11–15: 6	1–10: 7
	8.		Picture	60"					0	21–60: 4	16–20: 5	11–15: 6	1–10: 7
	9.		Picture	120"					0	71–120: 4	46–70: 5	31–45: 6	1–30: 7
	10.		Picture	120"					0	61–120: 4	46–60: 5	36–45: 6	1–35: 7
	11.		Picture	120"					0	61–120: 4	46–60: 5	36–45: 6	1–35: 7
6–8 STOP	12.		Picture	120"					0	61–120: 4	46–60: 5	36–45: 6	1–35: 7
	13.		Picture	120"					0	101–120: 4	81–100: 5	56–80: 6	1–55: 7

Maximum Raw Score
Ages 6–8: 57
Ages 9–90: 71

Block Design Total Raw Score ☐

2. Vocabulary

Start
Ages 6–90: Item 4

Reverse
Ages 6–90: Does not obtain a perfect score on *either* Item 4 or Item 5, administer the preceding items in reverse order until two consecutive perfect scores are obtained.

Discontinue
After 3 consecutive scores of 0.

Stop
Age 6: After Item 22.
Ages 7–11: After Item 25.
Ages 12–14: After Item 28.

Record & Score
Items 1–3: Score 0 or 1 point.
Items 4–5: Score 0 or 2 points.
Items 6–31: Score 0, 1, or 2 points.
See the Manual for sample responses.

	Item	Response	Score
	1. Fish		0 1
	2. Shovel		0 1
	3. Shell		0 1
6–90	†4. Shirt		0 2
	5. Car		0 2
	6. Lamp		0 1 2
	7. Bird		0 1 2
	8. Tongue		0 1 2
	9. Pet		0 1 2
	10. Lunch		0 1 2
	11. Bell		0 1 2
	12. Calendar		0 1 2
	13. Alligator		0 1 2
	14. Dance		0 1 2

†If the examinee provides a 2-point response that requires feedback or gives an incorrect (0 point) response, provide corrective feedback as instructed in the Manual.

continue

2. Vocabulary *(continued)*

Discontinue after 3 consecutive scores of 0.

	Item	Response	Score
	15. Summer		0 1 2
	16. Reveal		0 1 2
	17. Decade		0 1 2
	18. Entertain		0 1 2
	19. Tradition		0 1 2
	20. Enthusiastic		0 1 2
	21. Improvise		0 1 2
	22. Haste		0 1 2
6 STOP	23. Trend		0 1 2
	24. Impulse		0 1 2
	25. Ruminate		0 1 2
7–11 STOP	26. Mollify		0 1 2
	27. Extirpate		0 1 2
	28. Panacea		0 1 2
12–14 STOP			

2. Vocabulary *(continued)*

Discontinue after **3** consecutive scores of 0.

Item	Response	Score
29. Perfunctory		0 1 2
30. Insipid		0 1 2
31. Pavid		0 1 2

Maximum Raw Score
Age 6: 41
Ages 7–11: 47
Ages 12–14: 53
Ages 15–90: 59

Vocabulary Total Raw Score ____

3. Matrix Reasoning

Start
Ages 6–8: Sample Items A & B, then Item 1
Ages 9–90: Sample Items A & B, then Item 4

Reverse
Ages 9–90: Does not obtain a perfect score on *either* Item 4 or Item 5, administer the preceding items in **reverse** order until two consecutive perfect scores are obtained.

Discontinue
After **3** consecutive scores of 0.

Stop
Ages 6–8: After Item 24.

Record & Score
Score **0** or **1** point.
Correct responses are in **color**.

	Item	Response					Score	
6–90	SA.	1	**2**	3	4	5		
	SB.	1	2	**3**	4	5		
6–8	1.	1	**2**	3	4	5	0	1
	2.	**1**	2	3	4	5	0	1
	3.	1	2	**3**	4	5	0	1
9–90	4.	**1**	2	3	4	5	0	1
	5.	1	2	3	4	**5**	0	1
	6.	**1**	2	3	4	5	0	1
	7.	1	2	**3**	4	5	0	1
	8.	1	2	**3**	4	5	0	1
	9.	1	2	3	**4**	5	0	1
	10.	1	**2**	3	4	5	0	1
	11.	1	2	**3**	4	5	0	1
	12.	1	2	3	**4**	5	0	1
	13.	**1**	2	3	4	5	0	1
	14.	1	2	3	**4**	5	0	1
	15.	1	**2**	3	4	5	0	1
	16.	1	2	3	4	**5**	0	1
	17.	1	2	3	**4**	5	0	1
	18.	1	**2**	3	4	5	0	1
	19.	1	2	3	**4**	5	0	1
	20.	1	**2**	3	4	5	0	1
	21.	1	2	**3**	4	5	0	1
	22.	1	2	**3**	4	5	0	1
	23.	**1**	2	3	4	5	0	1
6–8 STOP	24.	1	2	3	**4**	5	0	1
	25.	1	2	3	**4**	5	0	1
	26.	1	**2**	3	4	5	0	1
	27.	1	2	3	4	**5**	0	1
	28.	1	2	3	4	**5**	0	1
	29.	**1**	2	3	4	5	0	1
	30.	1	**2**	3	4	5	0	1

Maximum Raw Score
Ages 6–8: 24
Ages 9–90: 30

Matrix Reasoning Total Raw Score ____

4. Similarities

Start
Ages 6–8: Item 1
Ages 9–90: Item 4

Reverse
Ages 9–90: Does not obtain a perfect score on *either* Item 4 or Item 5, administer the preceding items in **reverse** order until two consecutive perfect scores are obtained.

Discontinue
After **3** consecutive scores of 0.

Stop
Ages 6–8: After Item 22.

Record & Score
Items 1–3: Score **0** or **1** point. Correct responses are in **color**.
Items 4–5: Score **0** or **2** points.
Items 6–24: Score **0**, **1**, or **2** points. See Manual for sample responses.

	Picture Item	Response	Score
6–8	†1.	1 2 **3** 4 5	0 1

Picture Item	Response	Score
2.	1 2 3 **4** 5	0 1

Picture Item	Response	Score
3.	1 **2** 3 4 5	0 1

	Verbal Items	Response	Score
9–90	§† 4. Green–Blue		0 2
	§† 5. Square–Triangle		0 2
	6. Cow–Bear		0 1 2
	7. Shirt–Jacket		0 1 2
	8. Pen–Crayon		0 1 2
	9. Hat–Umbrella		0 1 2
	10. Airplane–Bus		0 1 2
	11. Door–Window		0 1 2
	12. Child–Adult		0 1 2

§If the examinee provides a response that suggests he or she does not understand the task, provide the specified prompt in the Manual.

†If the examinee provides a 2-point response that requires feedback or provides an incorrect (0 point) response, provide corrective feedback as instructed in the Manual.

continue

4. Similarities *(continued)*

Discontinue after **3** consecutive scores of 0.

Verbal Items	Response	Score
13. Shoulder–Ankle		0 1 2
14. Love–Hate		0 1 2
15. Smooth–Rough		0 1 2
16. Hand–Flag		0 1 2
17. Wall–Line		0 1 2
18. Heat–Wind		0 1 2
19. More–Less		0 1 2
20. Shadow–Echo		0 1 2
21. Tradition–Habit		0 1 2
22. Peace–War		0 1 2
6–8 STOP 23. Time–Progress		0 1 2
24. Memory–Practice		0 1 2

Maximum Raw Score
Ages 6–8: 41
Ages 9–90: 45

Similarities Total Raw Score _____
287

WASI®-II

WECHSLER ABBREVIATED SCALE OF INTELLIGENCE®— SECOND EDITION

Examinee Name: Age:

Parent/Guardian Name:

Examiner Name:

Record Form

Behavioral Observations

Referral source/Reason for referral/Presenting complaint(s)

Physical appearance

Language (e.g., first/native language, other language, English fluency, expressive and receptive language ability, articulation)

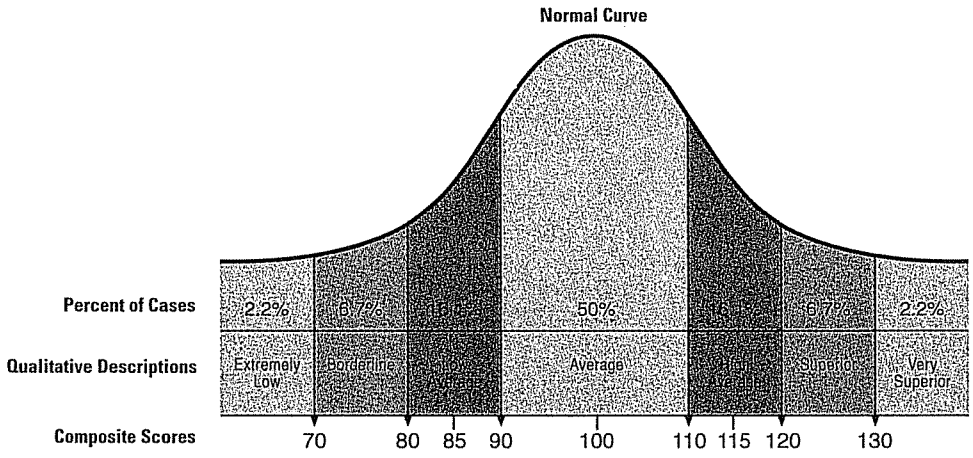
Attention and concentration

Attitude toward testing (e.g., rapport, eager to speak, working habits, interest, motivation, reaction to success/failure)

Affect/Mood

Unusual behaviors/Verbalizations (e.g., perseverations, stereotypic movements, bizarre and atypical verbalizations)

Other notes



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800.627.7271 www.PsychCorp.com

DSIQ (Baseline)

Day of Scan Information Questionnaire (DSIQ)

Date

_____

Date of Birth

_____
(in M-D-Y format)

Height

_____
(Inches (4 feet = 48 inches, 5 feet = 60 inches, 6 feet = 72 inches))

Weight

_____
(Pounds)

Sex

◯ Male
◯ Female

What is your eye color?

◯ Blue
◯ Brown
◯ Hazel
◯ Green
◯ Other

_____

What is the highest grade or level of school that you have completed or the highest degree you have obtained?

◯ Less than 9th grade
◯ Some high school, no diploma
◯ High school graduate, or equivalent
◯ Some college, no degree
◯ Technical/Vocational degree
◯ Associate degree
◯ Bachelor's degree
◯ Master's degree
◯ Doctorate degree

With what ethnicity do you identify?

◯ White
◯ Hispanic/Latino
◯ Black/African-American
◯ Native-American/American Indian
◯ Asian/Pacific Islander
◯ Other

Caffeine Use

Did you have any caffeine containing products today?

◯ Yes ◯ No

How many?

_____

On average, how many cups of caffeinated coffee do you drink per day?

_____

On average, how many cups of caffeinated tea do you drink per day?

_____

On average, how many bottles/cans of caffeinated soda do you drink per day?

_____

On average, how many energy drinks do you drink per day?

_____

What brand(s) do you drink?

_____

Do you use any other caffeinated products, such as Vivarin or NoDoz?

◯ Yes ◯ No

What product(s)?

_____

How much?

_____
((Designate mode of consumption in the next question))

Mode of consumption

_____
((e.g. tablets))

How often?

◯ Day
◯ Week
◯ Month

Nicotine Use

Do you smoke cigarettes?

◯ Yes
◯ No

About how many cigarettes do you smoke per day?

_____

How long have you been smoking?

_____
(Years)

Have you tried to quit?

◯ Yes
◯ No

How many times?

_____

Did you ever smoke cigarettes in the past?

◯ Yes
◯ No

How many cigarettes did you smoke per day?

_____

How many years ago did you start smoking?

_____

How many years ago did you quit?

_____

Do you use smokeless tobacco, such as dip or chew?

◯ Yes ◯ No

About how much do you use per day?

_____

((Designate mode of consumption in the next question))

Mode of consumption

_____

((e.g. pouches))

Did you ever use smokeless tobacco in the past?

◯ Yes ◯ No

How much did you use per day?

_____

((Designate mode of consumption in the next question))

Mode of consumption

_____

((e.g. pouches))

How many years ago did you start using smokeless tobacco?

_____

How many years ago did you quit?

_____

Do you use any other nicotine-containing products?

◯ Yes ◯ No

What product(s)?

_____

How much?

_____

((Designate mode of consumption in the next question))

Mode of consumption

_____

((e.g. lozenges))

How often?

◯ Day
◯ Week
◯ Month

Other

Do you take diet pills?

◯ Yes ◯ No

What brand(s)?

_____

How many?

_____

How often?

◯ Day
◯ Week
◯ Month

Are you currently taking any medications, vitamins, or supplements?

◯ Yes ◯ No

List medication

_____
((e.g. Ibuprofen, 200 mg, Daily))

List medication

_____

List medication

_____

List medication

_____

How many times per month do you drink (alcohol)?

_____

On those occasions, what is the average number of drinks you consume?

_____

On those occasions, what is the largest number of drinks you consume?

_____

How many times in the past year have you used marijuana?

_____

Have you ever used marijuana at other times in your life?

◯ Yes ◯ No

At what age did you begin smoking marijuana?

_____

On approximately how many occasions have you used marijuana?

_____

Do you use any other street drugs currently or in the past year?

◯ Yes ◯ No

Which drug(s)?

_____

How much?

_____
((Designate mode of consumption in the next question))

Mode of consumption

_____
((e.g. pills))

How often?

◯ Day
◯ Week
◯ Month

Physical Information

When was your last menstrual period (be as precise as possible)?

_____
(Date of period: _____ or about _____ days ago)

Do you typically eat breakfast?

◯ Yes ◯ No

Do you eat a snack within 1 hour of waking up?

◯ Yes ◯ No

Do you typically eat or snack within 1 hour of falling asleep at night?

◯ Yes ◯ No

Thinking about the past four weeks, on average, how many meals do you have per day?

◯ 0
◯ 1
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6 or more

Thinking about the past four weeks, on average, how many times do you snack per day?

◯ 0 ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 or more

How has your appetite been over the past four weeks on average?

◯ 1 (Never hungry)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Always hungry)

Do you feel that you eat more than you intend to?

◯ 1 (Never)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Always)

How much do you think you can eat, compared to others your age?

◯ 1 (Much less than others)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Much more than others)

When hungry, how much do you crave carbohydrates (e.g. rice, breads, pastas)?

◯ 1 (Not at all)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Always)

When hungry, how much do you crave fats (e.g. fried food, red meats, cheese/cream, chips)?

◯ 1 (Not at all)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Always)

When hungry, how much do you crave sweets?

◯ 1 (Not at all)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Always)

Thinking about the past four weeks, on average, how many servings of fruit and vegetables do you have per day? (1 Serving = 1/2 cup of raw fruit/vegetables, 1 apple/banana, etc.)

◯ 0
◯ 1
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 or more

Thinking about the past four weeks, on average, how many servings of meat, poultry, fish, beans, eggs, and nuts do you have per day?
(1 Serving = 3 oz. meat/poultry/fish, 1/2 cup beans, 2 tbsp. peanut butter, etc.)

◯ 0
◯ 1
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 or more

Thinking about the past four weeks, on average, how many times a week do you have microwave meals or eat fast food?

◯ 0
◯ 1
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 or more

Do you engage in regular exercise?

◯ Yes ◯ No

Thinking about the past four weeks, on average, how many days per week do you exercise?

◯ 1
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7

Thinking about the past four weeks, on average, how many minutes is each exercise session?

_____
(Minutes)

What percent of your exercise is cardio?

_____
(Percent (%))

What percent of your exercise is strength training?

_____
(Percent (%))

What percent of your exercise is light exercise (e.g. stretching, walking, and some types of yoga)?

_____
(Percent (%))

Sleep Habits

How many hours of sleep did you get last night?

_____
((e.g. 7.5 for 7 hours 30 minutes of sleep))

Keeping the past four weeks in mind, how many hours do you typically sleep on weeknights (Sun-Thurs)?

_____

Keeping the past four weeks in mind, how many hours do you typically sleep on weekend nights (Fri-Sat)?

_____

Keeping the past four weeks in mind, at what time do you normally go to bed at night on weeknights (Sun-Thurs)?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

Keeping the past four weeks in mind, at what time do you normally go to bed at night on weekends (Fri-Sat)?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

Keeping the past four weeks in mind, at what time do you typically awaken on weekdays (Mon-Fri)?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

Keeping the past four weeks in mind, at what time do you typically awaken on weekends (Sat-Sun)?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

Keeping the past four weeks in mind, how many minutes does it typically take to fall asleep at night on weeknights (Sun-Thurs)?

_____
((e.g. 15 for 15 minutes))

Keeping the past four weeks in mind, how many minutes does it typically take you to fall asleep at night on weekends (Fri-Sat)?

_____

At what time of day do you feel sleepiest?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

At what time of day do you feel most alert?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM ◯ PM

How many hours do you need to sleep per night to feel your best?

_____

"If I get less than _____ hours of sleep, I notice an impairment in my ability to function at work."

_____

"If I get more than _____ hours of sleep, I notice an impairment in my ability to function at work."

_____

Is daytime sleepiness currently a problem for you?

◯ Yes ◯ No

Are you currently doing shift work, that is, working early morning, evening, or night shifts?

◯ Yes ◯ No

Do you ever have trouble falling asleep?

◯ Yes ◯ No

How often per week, month, or year?

_____
((Designate time period in the next question))

Specify time period

◯ Week
◯ Month
◯ Year

Do you ever have trouble staying asleep?

◯ Yes ◯ No

How often per week, month, or year?

_____
((Designate time period in the next question))

Specify time period

◯ Week
◯ Month
◯ Year

Do you take more than two daytime naps per month?

◯ Yes ◯ No

About how many times per week do you nap?

_____

At what time of day do you normally begin your nap?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

At what time of day do you normally wake up from your nap?

_____
(Military Time (HH:MM))

AM or PM?

◯ AM
◯ PM

Do you consider yourself a light, normal, or heavy sleeper?

◯ Light
◯ Normal
◯ Heavy

I yawn often

◯ 1 (Never) ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 ◯ 7 ◯ 8 ◯ 9 ◯ 10 (Always yawning)

When I see or hear someone else yawn, I will yawn too

◯ 1 (Never)
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10 (Every time)

Recent Risk of Dozing Off (ESS)

How likely are you to doze off or fall asleep in the following situations, in contrast to just feeling tired? This refers to your usual way of life in the last two weeks. Even if you have not done some of these things recently, try to work out how they would have affected you. Use the following scale to choose the most appropriate number for each situation.

0 - Would never doze
1 - Slight chance of dozing
2 - Moderate chance of dozing
3 - High chance of dozing

	Would never doze (0)	Slight chance of dozing (1)	Moderate chance of dozing (2)	High chance of dozing (3)
1. Sitting and reading	○	○	○	○
2. Watching TV	○	○	○	○
3. Sitting, inactive in a public place (e.g. a theater or meeting)	○	○	○	○
4. As a passenger in a car for an hour without a break	○	○	○	○
5. Lying down to rest in the afternoon when circumstances permit	○	○	○	○
6. Sitting and talking to someone	○	○	○	○
7. Sitting quietly after a lunch without alcohol	○	○	○	○
8. In a car, while stopped for a few minutes in traffic	○	○	○	○

Source: Johns MW. A new method for measuring daytime sleepiness: The Epworth Sleepiness Scale. Sleep 1991; 14(6): 540-5.

Psychomotor Vigilance Test

Press the spacebar every time an “x” appears on the screen.

Subject Number_____ Date_____

Please put an **X** next to the statement that best describes how you feel:

Right now I am:

- ☐ Feeling active, vital, alert or wide awake
- ☐ Functioning at high levels, but not at peak; able to concentrate
- ☐ Awake, but relaxed; responsive but not fully alert
- ☐ Somewhat foggy, let down
- ☐ Foggy; losing interest in remaining awake; slowed down
- ☐ Sleepy, woozy, fighting sleep; prefer to lie down
- ☐ No longer fighting sleep, sleep onset soon; having dream-like thoughts
- ❖ Asleep

BDI-II

Date:

Subject ID: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today.** Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness
- 0 I do not feel sad.
- 1 I feel sad much of the time.
- 2 I am sad all the time.
- 3 I am so sad or unhappy that I can't stand it.

2. Pessimism
- 0 I am not discouraged about my future.
- 1 I feel more discouraged about my future than I used to be.
- 2 I do not expect things to work out for me.
- 3 I feel my future is hopeless and will only get worse.

3. Past Failure
- 0 I do not feel like a failure.
- 1 I have failed more than I should have.
- 2 As I look back, I see a lot of failures.
- 3 I feel I am a total failure as a person.

4. Loss of Pleasure
- 0 I get as much pleasure as I ever did from the things I enjoy.
- 1 I don't enjoy things as much as I used to.
- 2 I get very little pleasure from the things I used to enjoy.
- 3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings
- 0 I don't feel particularly guilty.
- 1 I feel guilty over many things I have done or should have done.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

6. Punishment Feelings
- 0 I don't feel I am being punished.
- 1 I feel I may be punished.
- 2 I expect to be punished.
- 3 I feel I am being punished.

7. Self-Dislike
- 0 I feel the same about myself as ever.
- 1 I have lost confidence in myself.
- 2 I am disappointed in myself.
- 3 I dislike myself.

8. Self-Criticalness
- 0 I don't criticize or blame myself more than usual.
- 1 I am more critical of myself than I used to be.
- 2 I criticize myself for all of my faults.
- 3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes
- 0 I don't have any thoughts of killing myself.
- 1 I have thoughts of killing myself, but I would not carry them out.
- 2 I would like to kill myself.
- 3 I would kill myself if I had the chance.

10. Crying
- 0 I don't cry any more than I used to.
- 1 I cry more than I used to.
- 2 I cry over every little thing.
- 3 I feel like crying, but I can't.

Subtotal Page 1

Continued on Back

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11. Agitation

0 I am no more restless or wound up than usual.
1 I feel more restless or wound up than usual.
2 I am so restless or agitated that it's hard to stay still.
3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

0 I have not lost interest in other people or activities.
1 I am less interested in other people or things than before.
2 I have lost most of my interest in other people or things.
3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.
1 I find it more difficult to make decisions than usual.
2 I have much greater difficulty in making decisions than I used to.
3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.
1 I don't consider myself as worthwhile and useful as I used to.
2 I feel more worthless as compared to other people.
3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.
1 I have less energy than I used to have.
2 I don't have enough energy to do very much.
3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.
1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.
2b I sleep a lot less than usual.

3a I sleep most of the day.
3b I wake up 1–2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.
1 I am more irritable than usual.
2 I am much more irritable than usual.
3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.
1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.
2b My appetite is much greater than usual.

3a I have no appetite at all.
3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.
1 I can't concentrate as well as usual.
2 It's hard to keep my mind on anything for very long.
3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.
1 I get more tired or fatigued more easily than usual.
2 I am too tired or fatigued to do a lot of the things I used to do.
3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

_____	Subtotal Page 2
_____	Subtotal Page 1
_____	Total Score

281283-2 987

Beck Anxiety Inventory (BAI)

Participant ID

_____

Beck Anxiety Inventory (BAI)

Below is a list of common symptoms of anxiety. Please read each item in the list carefully. Indicate how much you have been bothered by each symptom during the PAST WEEK, INCLUDING TODAY by selecting the corresponding space for each symptom.

	Not at all (0)	Mildly - It did not bother me (1)	Moderately - It was very unpleasant, but I could stand it (2)	Severely - I could barely stand it (3)
1. Numbness of tingling	◯	◯	◯	◯
2. Feeling hot	◯	◯	◯	◯
3. Wobbliness in legs	◯	◯	◯	◯
4. Unable to relax	◯	◯	◯	◯
5. Fear of the worst happening	◯	◯	◯	◯
6. Dizzy or lightheaded	◯	◯	◯	◯
7. Heart pounding or racing	◯	◯	◯	◯
8. Unsteady	◯	◯	◯	◯
9. Terrified	◯	◯	◯	◯
10. Nervous	◯	◯	◯	◯
11. Feelings of choking	◯	◯	◯	◯
12. Hands trembling	◯	◯	◯	◯
13. Shaky	◯	◯	◯	◯
14. Fear of losing control	◯	◯	◯	◯
15. Difficulty breathing	◯	◯	◯	◯
16. Fear of dying	◯	◯	◯	◯
17. Scared	◯	◯	◯	◯
18. Indigestion or discomfort in abdomen	◯	◯	◯	◯
19. Faint	◯	◯	◯	◯
20. Face flushed	◯	◯	◯	◯
21. Sweating (not due to heat)	◯	◯	◯	◯

Evaluation of Risks Scale (EVAR)

Participant ID

_____

Evaluation of Risks Scale (EVAR)

1. I feel like gambling

_____

2. I am driving and the light turns yellow, I feel like

_____

3. The lights suddenly go out in an unfamiliar stairwell

_____

4. I feel like

_____

5. I feel like diving from a diving board, which is

_____

6. I like

_____

7. I seek

_____

8. I am in a hurry

_____

9. I am open to

_____

10. I prefer to

_____

11. I give priority to

_____

12. I like to listen to music

_____

13. I am sure of myself

_____

14. I prefer discussions, which are

_____

15. A hostile situation

_____

16. A menacing dog approaches

_____

17. Faced with a potentially dangerous event

_____

18. Seeing a person who is drowning, I first

_____

19. I prefer work that is

_____

20. I am right

_____

21. I emphasize

_____

22. I like to drive

_____

23. I like to listen to music with a tempo that is

_____

24. I like to take risks

_____

State-Trait Anxiety Inventory for Adults™

Instrument and Scoring Key

Developed by Charles D. Spielberger
in collaboration with R.L. Gorsuch, R. Lushene, P.R. Vagg, and G.A. Jacobs

Published by Mind Garden, Inc.

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www.mindgarden.com

SELF-EVALUATION QUESTIONNAIRE STAI Form Y-1

Please provide the following information:

Subject ID_____ Date_____ S_____

Age_____ Gender (*Circle*) **M** **F** T_____

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I am tense	1	2	3	4
4. I feel strained	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am presently worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Subject ID_____Date_____

DIRECTIONS

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you *generally* feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant	1	2	3	4
22. I feel nervous and restless	1	2	3	4
23. I feel satisfied with myself	1	2	3	4
24. I wish I could be as happy as others seem to be	1	2	3	4
25. I feel like a failure	1	2	3	4
26. I feel rested	1	2	3	4
27. I am "calm, cool, and collected"	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29. I worry too much over something that really doesn't matter	1	2	3	4
30. I am happy	1	2	3	4
31. I have disturbing thoughts	1	2	3	4
32. I lack self-confidence	1	2	3	4
33. I feel secure	1	2	3	4
34. I make decisions easily	1	2	3	4
35. I feel inadequate	1	2	3	4
36. I am content	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind	1	2	3	4
39. I am a steady person	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

State-Trait Anxiety Inventory for Adults™

Scoring Key

Developed by Charles D. Spielberger
in collaboration with R.L. Gorsuch, R. Lushene, P.R. Vagg, and G.A. Jacobs

Published by Mind Garden, Inc.

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State-Trait Anxiety Inventory for Adults Scoring Key (Form Y-1, Y-2)

Developed by Charles D. Spielberger in collaboration with R.L. Gorsuch, R. Lushene, P.R. Vagg, and G.A. Jacobs

To use this stencil, fold this sheet in half and line up with the appropriate test side, either Form Y-1 or Form Y-2. Simply total the scoring **weights** shown on the stencil for each response category. For example, for question # 1, if the respondent marked 3, then the **weight** would be **2**. Refer to the manual for appropriate normative data.

Form Y-1	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1.	**4**	**3**	**2**	**1**
2.	**4**	**3**	**2**	**1**
3.	**1**	**2**	**3**	**4**
4.	**1**	**2**	**3**	**4**
5.	**4**	**3**	**2**	**1**
6.	**1**	**2**	**3**	**4**
7.	**1**	**2**	**3**	**4**
8.	**4**	**3**	**2**	**1**
9.	**1**	**2**	**3**	**4**
10.	**4**	**3**	**2**	**1**
11.	**4**	**3**	**2**	**1**
12.	**1**	**2**	**3**	**4**
13.	**1**	**2**	**3**	**4**
14.	**1**	**2**	**3**	**4**
15.	**4**	**3**	**2**	**1**
16.	**4**	**3**	**2**	**1**
17.	**1**	**2**	**3**	**4**
18.	**1**	**2**	**3**	**4**
19.	**4**	**3**	**2**	**1**
20.	**4**	**3**	**2**	**1**

Form Y-2	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21.	**4**	**3**	**2**	**1**
22.	**1**	**2**	**3**	**4**
23.	**4**	**3**	**2**	**1**
24.	**1**	**2**	**3**	**4**
25.	**1**	**2**	**3**	**4**
26.	**4**	**3**	**2**	**1**
27.	**4**	**3**	**2**	**1**
28.	**1**	**2**	**3**	**4**
29.	**1**	**2**	**3**	**4**
30.	**4**	**3**	**2**	**1**
31.	**1**	**2**	**3**	**4**
32.	**1**	**2**	**3**	**4**
33.	**4**	**3**	**2**	**1**
34.	**4**	**3**	**2**	**1**
35.	**1**	**2**	**3**	**4**
36.	**4**	**3**	**2**	**1**
37.	**1**	**2**	**3**	**4**
38.	**1**	**2**	**3**	**4**
39.	**4**	**3**	**2**	**1**
40.	**1**	**2**	**3**	**4**

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Instrument: ***State-Trait Anxiety Inventory for Adults***

Authors: ***Charles D. Spielberger, in collaboration with R.L. Gorsuch, G.A. Jacobs, R. Lushene, and P.R. Vagg***

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Connor-Davidson Resilience Scale (CD-RISC)

Participant ID

_____

Connor-Davidson Resilience Scale (CD-RISC)

For each item, please select the response that best indicates how much you agree with the following statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

	Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)
1. I am able to adapt when changes occur.	○	○	○	○	○
2. I have at least one close and secure relationship that helps me when I am stressed.	○	○	○	○	○
3. When there are no clear solutions to my problems, sometimes fate or God can help.	○	○	○	○	○
4. CI can deal with whatever comes my way.	○	○	○	○	○
5. Past successes give me confidence in dealing with new challenges and difficulties.	○	○	○	○	○
6. I try to see the humorous side of things when I am faced with problems.	○	○	○	○	○
7. Having to cope with stress can make me stronger.	○	○	○	○	○
8. I tend to bounce back after illness, injury, or other hardships.	○	○	○	○	○
9. Good or bad, I believe that most things happen for a reason.	○	○	○	○	○
10. I give my best effort no matter what the outcome may be.	○	○	○	○	○
11. I believe I can achieve my goals, even if there are obstacles.	○	○	○	○	○
12. Even when things look hopeless, I don't give up.	○	○	○	○	○
13. During times of stress/crisis, I know where to turn for help.	○	○	○	○	○
	Not true at all (0)	Rarely true (1)	Sometimes true (2)	Often true (3)	True nearly all the time (4)

14. Under pressure, I stay focused and think clearly.	○	○	○	○	○
15. I prefer to take the lead in solving problems rather than letting others make all the decisions.	○	○	○	○	○
16. I am not easily discouraged by failure.	○	○	○	○	○
17. I think of myself as a strong person when dealing with life's challenges and difficulties.	○	○	○	○	○
18. I can make unpopular or difficult decisions that affect other people, if it is necessary.	○	○	○	○	○
19. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	○	○	○	○	○
20. In dealing with life's problems, sometimes you have to act on a hunch without knowing why.	○	○	○	○	○
21. I have a strong sense of purpose in my life.	○	○	○	○	○
22. I feel in control of my life.	○	○	○	○	○
23. I like challenges.	○	○	○	○	○
24. I work to attain my goals no matter what roadblocks I encounter along the way.	○	○	○	○	○
25. I take pride in my achievements.	○	○	○	○	○

PCL-5

<u>Instructions</u>: This questionnaire asks about problems you may have had after a very stressful experience involving *actual or threatened death, serious injury, or sexual violence*. It could be something that happened to you directly, something you witnessed, or something you learned happened to a close family member or close friend. Some examples are a *serious accident; fire; disaster such as a hurricane, tornado, or earthquake; physical or sexual attack or abuse; war; homicide; or suicide.*

First, please answer a few questions about your *worst event*, which for this questionnaire means the event that currently bothers you the most. This could be one of the examples above or some other very stressful experience. Also, it could be a single event (for example, a car crash) or multiple similar events (for example, multiple stressful events in a war-zone or repeated sexual abuse).

Briefly identify the worst event (if you feel comfortable doing so): _____

How long ago did it happen? _____ ***(please estimate if you are not sure)***

Did it involve actual or threatened death, serious injury, or sexual violence?

_____Yes

_____No

How did you experience it?

_____ It happened to me directly

_____ I witnessed it

_____ I learned about it happening to a close family member or close friend

_____ I was repeatedly exposed to details about it as part of my job (for example, paramedic, police, military, or other first responder)

_____ Other, please describe _____

If the event involved the death of a close family member or close friend, was it due to some kind of accident or violence, or was it due to natural causes?

_____Accident or violence

_____Natural causes

_____Not applicable (the event did not involve the death of a close family member or close friend)

Second, keeping this worst event in mind, read each of the problems on the next page and then circle one of the numbers to the right to indicate how much you have been bothered by that problem <u>in the past month</u>.

In the past month, how much were you bothered by:	*Not at all*	*A little bit*	*Moderately*	*Quite a bit*	*Extremely*
1. Repeated, disturbing, and unwanted memories of the stressful experience?	**0**	**1**	**2**	**3**	**4**
2. Repeated, disturbing dreams of the stressful experience?	**0**	**1**	**2**	**3**	**4**
3. Suddenly feeling or acting as if the stressful experience were actually happening again *(as if you were actually back there reliving it)*?	**0**	**1**	**2**	**3**	**4**
4. Feeling very upset when something reminded you of the stressful experience?	**0**	**1**	**2**	**3**	**4**
5. Having strong physical reactions when something reminded you of the stressful experience *(for example, heart pounding, trouble breathing, sweating)*?	**0**	**1**	**2**	**3**	**4**
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	**0**	**1**	**2**	**3**	**4**
7. Avoiding external reminders of the stressful experience *(for example, people, places, conversations, activities, objects, or situations)*?	**0**	**1**	**2**	**3**	**4**
8. Trouble remembering important parts of the stressful experience?	**0**	**1**	**2**	**3**	**4**
9. Having strong negative beliefs about yourself, other people, or the world *(for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)*?	**0**	**1**	**2**	**3**	**4**
10. Blaming yourself or someone else for the stressful experience or what happened after it?	**0**	**1**	**2**	**3**	**4**
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	**0**	**1**	**2**	**3**	**4**
12. Loss of interest in activities that you used to enjoy?	**0**	**1**	**2**	**3**	**4**
13. Feeling distant or cut off from other people?	**0**	**1**	**2**	**3**	**4**
14. Trouble experiencing positive feelings *(for example, being unable to feel happiness or have loving feelings for people close to you)*?	**0**	**1**	**2**	**3**	**4**
15. Irritable behavior, angry outbursts, or acting aggressively?	**0**	**1**	**2**	**3**	**4**
16. Taking too many risks or doing things that could cause you harm?	**0**	**1**	**2**	**3**	**4**
17. Being "superalert" or watchful or on guard?	**0**	**1**	**2**	**3**	**4**
18. Feeling jumpy or easily startled?	**0**	**1**	**2**	**3**	**4**
19. Having difficulty concentrating?	**0**	**1**	**2**	**3**	**4**
20. Trouble falling or staying asleep?	**0**	**1**	**2**	**3**	**4**

PCL-5 (8/14/2013) Weathers, Litz, Keane, Palmieri, Marx, & Schnurr -- National Center for PTSD

Insomnia Severity Index

The Insomnia Severity Index has seven questions. The seven answers are added up to get a total score. When you have your total score, look at the 'Guidelines for Scoring/Interpretation' below to see where your sleep difficulty fits.

For each question, please CIRCLE the number that best describes your answer.

Please rate the CURRENT (i.e. LAST 2 WEEKS) SEVERITY of your insomnia problem(s).

Insomnia Problem	None	Mild	Moderate	Severe	Very Severe
1. Difficulty falling asleep	0	1	2	3	4
2. Difficulty staying asleep	0	1	2	3	4
3. Problems waking up too early	0	1	2	3	4

4. How SATISFIED/DISSATISFIED are you with your CURRENT sleep pattern?

Very Satisfied	Satisfied	Moderately Satisfied	Dissatisfied	Very Dissatisfied
0	1	2	3	4

5. How NOTICEABLE to others do you think your sleep problem is in terms of impairing the quality of your life?

Not at all Noticeable	A Little	Somewhat	Much	Very Much Noticeable
0	1	2	3	4

6. How WORRIED/DISTRESSED are you about your current sleep problem?

Not at all Worried	A Little	Somewhat	Much	Very Much Worried
0	1	2	3	4

7. To what extent do you consider your sleep problem to INTERFERE with your daily functioning (e.g. daytime fatigue, mood, ability to function at work/daily chores, concentration, memory, mood, etc.) CURRENTLY?

Not at all Interfering	A Little	Somewhat	Much	Very Much Interfering
0	1	2	3	4

Guidelines for Scoring/Interpretation:

Add the scores for all seven items (questions 1 + 2 + 3 + 4 + 5 +6 + 7) = _____ your total score

Total score categories:
0–7 = No clinically significant insomnia
8–14 = Subthreshold insomnia
15–21 = Clinical insomnia (moderate severity)
22–28 = Clinical insomnia (severe)

Session _____ID#_____Date_____Time_____AM PM

PITTSBURGH SLEEP QUALITY INDEX

INSTRUCTIONS:
The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, what time have you usually gone to bed at night?

   BED TIME _____

2. During the past month, how long (in minutes) has it usually taken you to fall asleep each night?

   NUMBER OF MINUTES _____

3. During the past month, what time have you usually gotten up in the morning?

   GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spent in bed.)

   HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you . . .

a) Cannot get to sleep within 30 minutes

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

b) Wake up in the middle of the night or early morning

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

c) Have to get up to use the bathroom

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

d) Cannot breathe comfortably

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

e) Cough or snore loudly

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

f) Feel too cold

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

g) Feel too hot

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

h) Had bad dreams

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

i) Have pain

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

j) Other reason(s), please describe_____

_____

How often during the past month have you had trouble sleeping because of this?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

6. During the past month, how would you rate your sleep quality overall?

Very good _____

Fairly good _____

Fairly bad _____

Very bad _____

7. During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

8. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

9. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

No problem at all _____

Only a very slight problem _____

Somewhat of a problem _____

A very big problem _____

10. Do you have a bed partner or room mate?

No bed partner or room mate _____

Partner/room mate in other room _____

Partner in same room, but not same bed _____

Partner in same bed _____

If you have a room mate or bed partner, ask him/her how often in the past month you have had . . .

a) Loud snoring

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

b) Long pauses between breaths while asleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

c) Legs twitching or jerking while you sleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

d) Episodes of disorientation or confusion during sleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

e) Other restlessness while you sleep; please describe_____

_____

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

Buysse DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ: Psychiatry Research, 28:193-213, 1989.

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

SUBJECT #:_____ **DATE:**_____

Over the last *2 weeks,* how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
add columns		+	+	

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card).

TOTAL: _____

10. If you checked off *any problems,* how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

A2663B 10-04-2005

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder

- if there are at least 5 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.
Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1;
More than half the days = 2; Nearly every day = 3

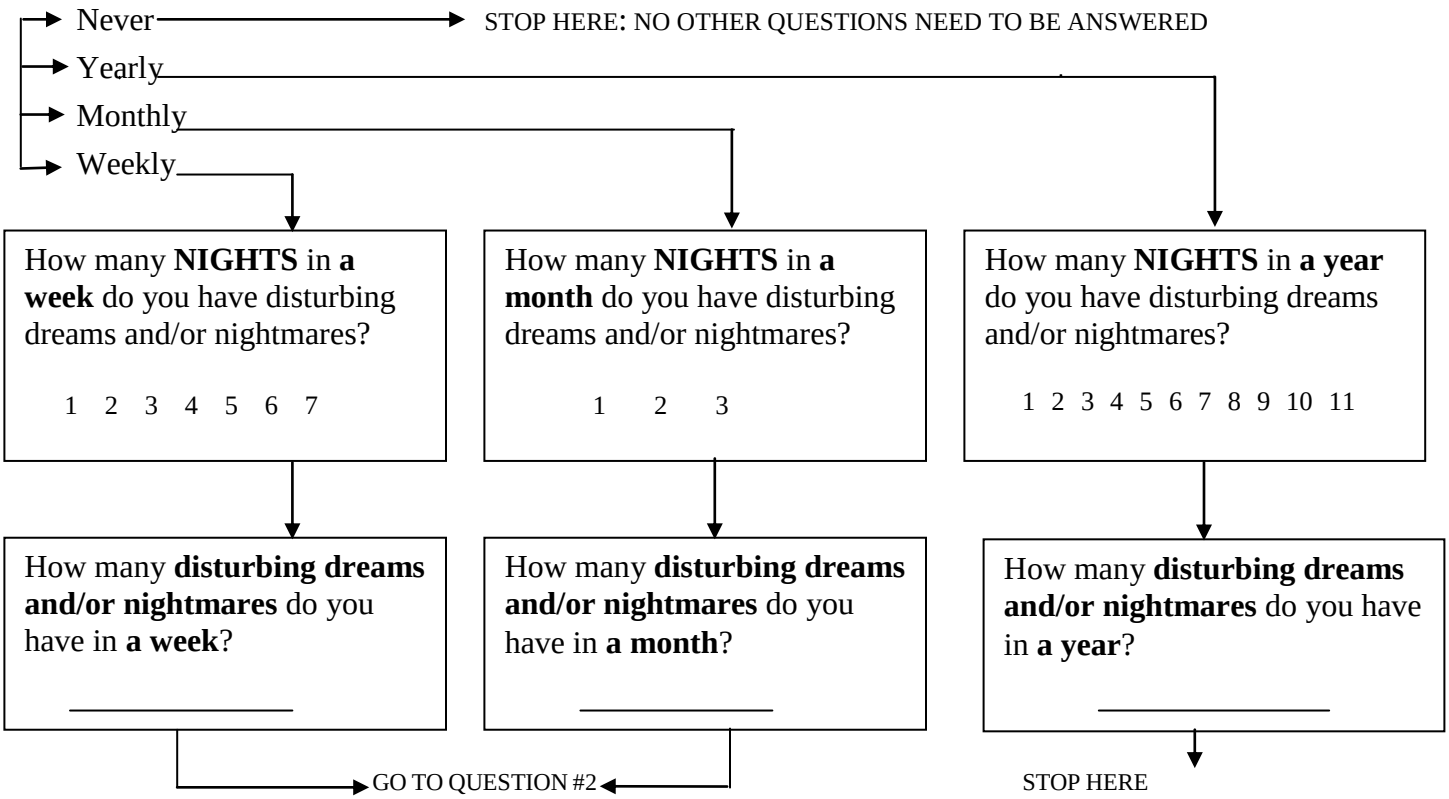
Interpretation of Total Score

Total Score	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

A2662B 10-04-2005

Disturbing Dream and Nightmare Severity Index

1. How often do you have disturbing dreams and/or nightmares: (Circle one, then follow the arrow)



2. Please estimate the NUMBER of months or years you have had disturbing dreams and/or nightmares:

_____months _____years

3. On average, do your nightmares wake you up? (Circle answer)

Never/Rarely Occasionally Sometimes Frequently Always

4. How would you rate the SEVERITY of your disturbing dreams and/or nightmare problem? (Circle answer)

No Problem	Minimal Problem	Mild Problem	Moderate Problem	Severe Problem	Very Severe Problem	Extremely Severe Problem

5. How would you rate the INTENSITY of your disturbing dreams and/or nightmares? (Circle answer)

Not Intense	Minimal Intensity	Mild Intensity	Moderate Intensity	Severe Intensity	Very Severe Intensity	Extremely Severe Intensity

Initials_____

Disturbing Dream and Nightmare Severity Index (cont.)

6. My disturbing dreams or nightmares cause me to lose sleep:

   Not at All Slightly Moderately Very Much A Great Deal

7. My disturbing dreams or nightmares make it difficult to fall asleep:

   Not at All Slightly Moderately Very Much A Great Deal

8. My disturbing dreams or nightmares interfere with the quality of my sleep:

   Not at All Slightly Moderately Very Much A Great Deal

9. My disturbing dreams or nightmares make it difficult to sleep through the night:

   Not at All Slightly Moderately Very Much A Great Deal

10. My disturbing dreams or nightmares interfere with my mood:

    Not at All Slightly Moderately Very Much A Great Deal

11. My disturbing dreams or nightmares interfere with my mental health:

    Not at All Slightly Moderately Very Much A Great Deal

12. My disturbing dreams or nightmares interfere with my physical health:

    Not at All Slightly Moderately Very Much A Great Deal

13. My disturbing dreams or nightmares interfere with social or recreational activities:

    Not at All Slightly Moderately Very Much A Great Deal

14. My disturbing dreams or nightmares interfere with my school or work performance:

    Not at All Slightly Moderately Very Much A Great Deal

15. My disturbing dreams or nightmares interfere with my relationships:

    Not at All Slightly Moderately Very Much A Great Deal

Initials_____

Functional Outcome Of Sleep Questionnaire (FOSQ)

Functional Outcome of Sleep Questionnaire (FOSQ)

1) Subject ID _____

2) Date _____

Some people have difficulty performing everyday activities when they feel tired or sleepy. The purpose of this questionnaire is to find out if you generally have difficulty carrying out certain activities because you are too sleepy or tired. In this questionnaire, when the words "sleepy" or "tired" are used, it means the feeling that you can't keep your eyes open, your head is droopy, that you want to "nod off," or that you feel the urge to take a nap. These words do not refer to the tired or fatigued feeling you may have after you have exercised.

Please circle one answer for each question. Please try to be as accurate as possible.

0 - I don't do this for other reasons
1 - No difficulty
2 - Yes, a little difficulty
3 - Yes, moderate difficulty
4 - Yes, extreme difficulty

		I don't do this activity for other reasons (0)	No difficulty (1)	Yes, a little difficulty (2)	Yes, moderate difficulty (3)	Yes, extreme difficulty (4)
3)	1. Do you generally have difficulty concentrating on things you do because you are sleepy or tired?	○	○	○	○	○
4)	2. Do you generally have difficulty remembering things because you are sleepy or tired?	○	○	○	○	○
5)	3. Do you have difficulty finishing a meal because you become sleepy or tired?	○	○	○	○	○
6)	4. Do you have difficulty working on a hobby (for example: sewing, collecting, gardening) because you are sleepy or tired?	○	○	○	○	○
7)	5. Do you have difficulty doing work around the house (for example: cleaning house, doing laundry, taking out the trash, repair work) because you are sleepy or tired?	○	○	○	○	○
8)	6. Do you have difficulty operating a motor vehicle for short distances (less than 100 miles) because you become sleepy or tired?	○	○	○	○	○

9)

		I don't do this activity for other reasons (0)	No difficulty (1)	Yes, a little difficulty (2)	Yes, moderate difficulty (3)	Yes, extreme difficulty (4)
	7. Do you have difficulty operating a motor vehicle for long distances (greater than 100 miles) because you become sleepy or tired?	○	○	○	○	○
10)	8. Do you have difficulty getting things done because you are too sleepy or tired to drive or take public transportation?	○	○	○	○	○
11)	9. Do you have difficulty taking care of financial affairs and doing paperwork (for example: writing checks, paying bills, keeping financial records, filling out tax forms, etc.) because you are sleepy or tired?	○	○	○	○	○
12)	10. Do you have difficulty performing employed or volunteer work because you are sleepy or tired?	○	○	○	○	○
13)	11. Do you have difficulty maintaining a telephone conversation because you become sleepy or tired?	○	○	○	○	○
14)	12. Do you have difficulty visiting with your family or friends in your home because you become sleepy or tired?	○	○	○	○	○
15)	13. Do you have difficulty visiting with your family or friends in their homes because you become sleepy or tired?	○	○	○	○	○
16)	14. Do you have difficulty doing things for your family or friends because you become sleepy or tired?	○	○	○	○	○
17)	15. Has you relationship with family, friends or work colleagues been affected because you are sleepy or tired?	○	○	○	○	○
18)	16. Do you have difficulty exercising or participating in a sporting activity because you are too sleepy or tired?	○	○	○	○	○
19)	17. Do you have difficulty watching a movie or videotape because you become sleepy or tired?	○	○	○	○	○
20)						

	18. Do you have difficulty enjoying the theater or a lecture because you become sleepy or tired?	○	○	○	○	○
21)	19. Do you have difficulty enjoying a concert because you become sleepy or tired?	○	○	○	○	○
22)	20. Do you have difficulty watching television because you are sleepy or tired?	○	○	○	○	○
		I don't do this activity for other reasons (0)	No difficulty (1)	Yes, a little difficulty (2)	Yes, moderate difficulty (3)	Yes, extreme difficulty (4)
23)	21. Do you have difficulty participating in religious services, meetings or a group club because you are sleepy or tired?	○	○	○	○	○
24)	22. Do you have difficulty being as active as you want to be in the evening because you are sleepy or tired?	○	○	○	○	○
25)	23. Do you have difficulty being as active as you want to be in the morning because you are sleep or tired?	○	○	○	○	○
26)	24. Do you have difficulty being as active as you want to be in the afternoon because you are sleepy or tired?	○	○	○	○	○
27)	25. How would you rate yourself in your general level of activity?	○	○	○	○	○
		Very low (1)	Low (2)	Medium (3)	High (4)	
28)	26. How would you rate yourself in your general level of activity	○	○	○	○	
		I don't do this activity for other reasons (0)	No difficulty (1)	Yes, a little difficulty (2)	Yes, moderate difficulty (3)	Yes, extreme difficulty (4)
29)	27. Has your intimate or sexual relationship been affected because you are sleepy or tired?	○	○	○	○	○
30)	28. Has your desire for intimacy or sex been affected because you are sleepy or tired?	○	○	○	○	○
31)	29. Has your ability to become sexually aroused been affected because you are sleepy or tired?	○	○	○	○	○
32)						

30. Has your ability to have an orgasm been affected because you are sleepy or tired?	○	○	○	○	○

Source: Weaver, T.E., Laizner, A.M., Evans, L.K., Maislin, G., Chugh, D.K., Lyon, K., Smith, P.L., Schwartz, A.R., Redline, S., Pack, A.I., Dinges, D.F. School of Nursing, Philadelphia, Pennsylvania, USA. Sleep [1997, 20(10): 835-843]

RBANS UPDATE

Christopher Randolph

Record Form a

Subject # _____ Age_____ Sex_____ Education Level _____

Examiner_____ Date of Testing _____ Ethnicity _____

	Immediate Memory	Visuospatial/ Constructional	Language	Attention	Delayed Memory		TOTAL SCALE	
Index Score								
Confidence Interval ____%								
Percentile								
Index Score						Percentile Rank		Total Scale Index Score
160						>99.9		160
155						>99.9		155
150						>99.9		150
145						99.9		145
140						99.6		140
135						99		135
130						98		130
125						95		125
120						91		120
115						84		115
110						75		110
105						63		105
100						50		100
95						37		95
90						25		90
85						16		85
80						9		80
75						5		75
70						2		70
65						1		65
60						0.4		60
55						0.1		55
50						<0.1		50
45						<0.1		45
40						<0.1		40

Observations: _____

_____

_____

PEARSON

PsychCorp

5 6 7 8 9 10 11 12 A B C D E

Product Number 0158007212

1 List Learning

Trial 1

Say ***I am going to read you a list of words. I want you to listen carefully and, when I finish, repeat back as many words as you can. You don't have to say them in the same order that I do—just repeat back as many words as you can remember, in any order. Okay?***

Trials 2–4

Say ***I am going to read the list again. When I finish, repeat back as many words as you can, even if you have already said them before. Okay?***

Record responses in order.

Scoring: 1 point for each word correctly recalled on each trial.

List	Trial 1	Trial 2	Trial 3	Trial 4
Market				
Package				
Elbow				
Apple				
Story				
Carpet				
Bubble				
Highway				
Saddle				
Powder				

Number Correct		+		+		+		=	
	Total Trial 1		Total Trial 2		Total Trial 3		Total Trial 4		Total Score Range=0–40

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2 Story Memory

Trial 1

Say ***I am going to read you a short story. I'd like you to listen carefully and, when I finish, repeat back as much of the story as you can remember. Try and use the same wording, if you can. Okay?***

Read the story below, then say ***Now repeat back as much of that story as you can.***

Trial 2

Say ***I am going to read that same story again. When I finish, I want you to again repeat back as much of the story as you can remember. Try to repeat it as exactly as you can.***

Read the story below, then say ***Now repeat back as much of that story as you can.***

Scoring: 1 point for *verbatim* recall of bold, italic words or alternatives, shown below in color within parentheses. Record intrusions or variations in the Responses column.

Story	Trial 1 Responses	Trial 1 Score (0 or 1)	Trial 2 Responses	Trial 2 Score (0 or 1)	Item Score (0–2)
1. On ***Tuesday,***					
2. ***May***					
3. ***Fourth,***					
4. in ***Cleveland,*** Ohio,					
5. a ***3 alarm***					
6. ***fire*** broke out.					
7. ***Two***					
8. ***hotels***					
9. and a ***restaurant***					
10. were ***destroyed***					
11. before the ***firefighters*** *(firemen)*					
12. were able to ***extinguish it*** ***(put it out).***					
				Total Score (Trial 1 + Trial 2) Range=0–24	

3 Figure Copy

Time Limit: 4 minutes

Fold this page back and present the Figure Copy Drawing Page along with the stimulus. Ask the examinee to make an exact copy of the figure. Tell the examinee that he or she is being timed, but that the score is based *only* on the exactness of his or her copy.

Scoring: 1 point for correctness and completeness (drawing), and 1 point for proper placement. See Appendix 1 in Stimulus Booklet A for complete scoring criteria and scoring examples.

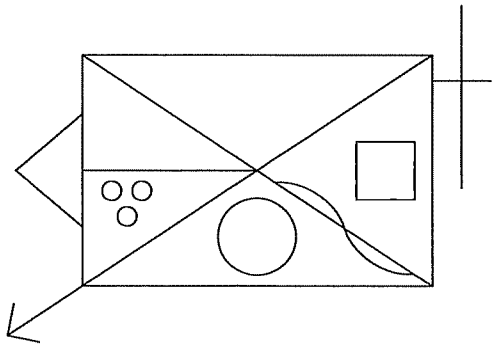


Figure Copy Criteria

(Fold back for use.)

Item	Drawing (0 or 1)	Placement (0 or 1)	Score (0, 1, or 2)	Scoring Criteria
1. rectangle				Drawing: lines are unbroken and straight; angles 90 degrees; top/bottom lines 25% longer than sides Placement: not rotated more than 15 degrees
2. diagonal cross				Drawing: lines are unbroken and straight and should approximately bisect each other Placement: ends of lines should meet corners of the rectangle without significant overlap or measurable distance between the ends of the lines and the corners
3. horizontal line				Drawing: line is unbroken and straight; should not exceed 1/2 the length of the rectangle Placement: should bisect left side of the rectangle at approximately a right angle and intersect the diagonal cross
4. circle				Drawing: round, unbroken and closed; diameter should be approximately 1/4–1/3 height of rectangle Placement: placed in appropriate segment; not touching any other part of figure
5. 3 small circles				Drawing: round, unbroken and closed; equal size; triangular arrangement; not touching each other Placement: in appropriate segment; not touching figure; triangle formed not rotated more than 15 degrees
6. square				Drawing: must be closed; 90 degree angles; lines straight and unbroken; height is 1/4–1/3 height of rectangle Placement: in appropriate segment; not touching any other part of figure; not rotated more than 15 degrees
7. curving line				Drawing: 2 curved segments are approximately equal in length and symmetrical; correct direction of curves Placement: ends of line touch diagonal; do not touch corner of rectangle or intersection of diagonal lines
8. outside cross				Drawing: vertical line of the outside cross is parallel to side of rectangle; >1/2 the height of rectangle; horizontal line crosses vertical at 90 degree angle and is between 20–50% of length of vertical line Placement: horizontal line of outside cross touches rectangle higher than 2/3 the height of rectangle, but below top; does not penetrate the rectangle
9. triangle				Drawing: angle formed by 2 sides of triangle is between 60–100 degrees; sides are straight, unbroken and meet in a point; distance on vertical side of rectangle subsumed by triangle is approximately 50% of the height of vertical side Placement: roughly centered on the left vertical side of the rectangle
10. arrow				Drawing: straight and unbroken; lines forming arrow are approximately equal in length and not more than 1/3 length of staff Placement: must protrude from appropriate corner of rectangle such that staff appears to be continuation of diagonal cross
		Total Score Range=0–20		

Figure Copy Drawing Page

(Fold back for use.)

4 Line Orientation

Time Limit: 20 seconds/item

Present the sample item, and say ***These two lines down here*** (indicate) ***match two of the lines on top. Can you tell me the numbers, or point to the lines that they match?*** Correct any errors and make sure the examinee understands the task. Continue with Items 1–10.

Scoring: 1 point for each line correctly identified.

Item	Responses	Correct Responses	Score (0, 1, or 2)
Sample		1, 7	
1.		10, 12	
2.		4, 11	
3.		6, 9	
4.		8, 13	
5.		2, 4	

Item	Responses	Correct Responses	Score (0, 1, or 2)
6.		1, 6	
7.		3, 10	
8.		5, 8	
9.		1, 3	
10.		11, 13	
		Total Score Range=0–20	

5 Picture Naming

Time Limit: 20 seconds/item

Ask the examinee to name each picture. Give the semantic cue only if the picture is obviously misperceived.

Scoring: 1 point for each item that is correctly named spontaneously or following semantic cue.

Item	Semantic Cue	Responses	Score (0 or 1)
1. chair	a piece of furniture		
2. pencil	used for writing		
3. well	you get water from it		
4. giraffe	an animal		
5. sailboat	used on the water (if "boat," query "what kind")		
6. cannon	a weapon, used in war		
7. pliers	a tool		
8. trumpet	a musical instrument ("cornet" okay)		
9. clothespin	used to hold laundry on a line		
10. kite	it's flown in the air		
		Total Score Range=0–10	

6 Semantic Fluency

Time Limit: 60 seconds

Say ***Now I'd like you to tell me the names of all of the different kinds of fruits and vegetables that you can think of. I'll give you one minute to come up with as many as you can. Ready?***

Scoring: 1 point for each correct response.

1. _____	11. _____	21. _____	31. _____
2. _____	12. _____	22. _____	32. _____
3. _____	13. _____	23. _____	33. _____
4. _____	14. _____	24. _____	34. _____
5. _____	15. _____	25. _____	35. _____
6. _____	16. _____	26. _____	36. _____
7. _____	17. _____	27. _____	37. _____
8. _____	18. _____	28. _____	38. _____
9. _____	19. _____	29. _____	39. _____
10. _____	20. _____	30. _____	40. _____

Total Score
Range=0–40 ☐

7 Digit Span

Say ***I am going to say some numbers, and I want you to repeat them after me. Okay?***
Read the numbers at the rate of 1 per second. Only read the second string in each set if the first string was failed. Discontinue after failure of both strings in any set.

Scoring: 2 points for the first string correct, 1 point for the second string correct, and 0 points for both strings failed.

Item	First String	String Score (0 or 2)	Second String	String Score (0 or 1)	Item Score (0–2)
1.	**4—9**		**5—3**		
2.	**8—3—5**		**2—4—1**		
3.	**7—2—4—6**		**1—6—3—8**		
4.	**5—3—9—2—4**		**3—8—4—9—1**		
5.	**6—4—2—9—3—5**		**9—1—5—3—7—6**		
6.	**2—8—5—1—9—3—7**		**5—3—1—7—4—9—2**		
7.	**8—3—7—9—5—2—4—1**		**9—5—1—4—2—7—3—8**		
8.	**1—5—9—2—3—8—7—4—6**		**5—1—9—7—6—2—3—6—5**		

Total Score
Range=0–16 ☐

8 Coding

Time Limit: 90 seconds

Say ***Look at these boxes*** (indicate key). ***For each one of these marks there is a number that goes with it. Down here there are marks, but no numbers. I want you to fill in the number that goes with each mark.***

Demonstrate the first three. Say ***Now I would like you to fill in the rest of these boxes up to the double lines*** (indicate) ***for practice.*** Correct any errors as they are made. Make sure that the examinee understands the task and has correctly completed the sample items before you begin timing.

Say ***Now I would like you to continue to fill in the numbers that match the marks. Go as quickly as you can without skipping any. When you reach the end of the line, go on to the next one. Ready? Go ahead.***

Redirect the examinee to the task if he or she becomes distracted. If the examinee is unable to comprehend the task, the subtest score is 0.

Scoring: 1 point for each item correctly coded within 90 seconds (*do not* score the sample items).

Note: Familiarize yourself with these instructions before administering this subtest.

Total Score
Range=0–89

9 List Recall

Say ***Do you remember the list of words that I read to you in the beginning? Tell me as many of those words as you can remember now.***

Scoring: 1 point for each word correctly recalled.

List (Do not read.)	Response	Score (0 or 1)
Market		
Package		
Elbow		
Apple		
Story		
Carpet		
Bubble		
Highway		
Saddle		
Powder		
	Total Score Range=0–10	

10 List Recognition

Say ***I'm going to read you some words. Some of these words were on that list, and some of them weren't. I want you to tell me which words were on the list.*** For each word, ask ***Was _____ on the list?***

Scoring: 1 point for each word correctly identified. Circle the letter corresponding to examinee's response (y = yes, n = no); bold, capitalized (**Y, N**) letter indicates correct response.

List	Circle One		List	Circle One		List	Circle One		List	Circle One	
1. **Apple**	**Y**	n	6. sailor	y	**N**	11. **Bubble**	**Y**	n	16. **Saddle**	**Y**	n
2. honey	y	**N**	7. velvet	y	**N**	12. prairie	y	**N**	17. **Powder**	**Y**	n
3. **Market**	**Y**	n	8. **Carpet**	**Y**	n	13. **Highway**	**Y**	n	18. angel	y	**N**
4. **Story**	**Y**	n	9. valley	y	**N**	14. oyster	y	**N**	19. **Package**	**Y**	n
5. fabric	y	**N**	10. **Elbow**	**Y**	n	15. student	y	**N**	20. meadow	y	**N**
									Total Score Range=0–20		

Story Recall

Say ***Do you remember that story about a fire that I read to you earlier? Tell me as many details from the story as you can remember now.***

Scoring: 1 point for each *verbatim* recall of bold, italic words or alternatives, shown below in color within parentheses. Record intrusions or variations in the Responses column.

Story (Do not read.)	Responses	Item Score (0 or 1)
1. On ***Tuesday,***		
2. ***May***		
3. ***Fourth,***		
4. in ***Cleveland,*** Ohio,		
5. a ***3 alarm***		
6. ***fire*** broke out.		
7. ***Two***		
8. ***hotels***		
9. and a ***restaurant***		
10. were ***destroyed***		
11. before the ***firefighters*** *(firemen)*		
12. were able to ***extinguish it*** *(put it out).*		
	Total Score Range=0–12	

12 Figure Recall

Say ***Do you remember that figure that I had you copy? I want you to draw as much of it as you can remember now. If you remember a part, but you're not sure where it goes, put it anywhere. Try to draw as much of it as you can.***

Now, present the Figure Recall Drawing Page.

Scoring: 1 point for correctness and completeness (drawing), and 1 point for proper placement. See Appendix 1 in Stimulus Booklet A for complete scoring criteria and scoring examples.

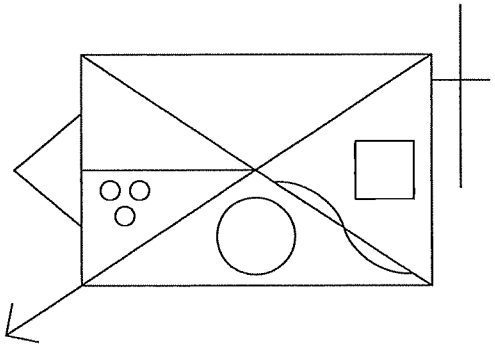


Figure Recall Criteria

(Fold back for use.)

Item	Drawing (0 or 1)	Placement (0 or 1)	Score (0, 1, or 2)	Scoring Criteria
1. rectangle				**Drawing:** lines are unbroken and straight; angles 90 degrees; top/bottom lines 25% longer than sides **Placement:** not rotated more than 15 degrees
2. diagonal cross				**Drawing:** lines are unbroken and straight and should approximately bisect each other **Placement:** ends of lines should meet corners of the rectangle without significant overlap or measurable distance between the ends of the lines and the corners
3. horizontal line				**Drawing:** line is unbroken and straight; should not exceed 1/2 the length of the rectangle **Placement:** should bisect left side of the rectangle at approximately a right angle and intersect the diagonal cross
4. circle				**Drawing:** round, unbroken and closed; diameter should be approximately 1/4–1/3 height of rectangle **Placement:** placed in appropriate segment; not touching any other part of figure
5. 3 small circles				**Drawing:** round, unbroken and closed; equal size; triangular arrangement; not touching each other **Placement:** in appropriate segment; not touching figure; triangle formed not rotated more than 15 degrees
6. square				**Drawing:** must be closed; 90 degree angles; lines straight and unbroken; height is 1/4–1/3 height of rectangle **Placement:** in appropriate segment; not touching any other part of figure; not rotated more than 15 degrees
7. curving line				**Drawing:** 2 curved segments are approximately equal in length and symmetrical; correct direction of curves **Placement:** ends of line touch diagonal; do not touch corner of rectangle or intersection of diagonal lines
8. outside cross				**Drawing:** vertical line of the outside cross is parallel to side of rectangle; >1/2 the height of rectangle; horizontal line crosses vertical at 90 degree angle and is between 20–50% of length of vertical line **Placement:** horizontal line of outside cross touches rectangle higher than 2/3 the height of rectangle, but below top; does not penetrate the rectangle
9. triangle				**Drawing:** angle formed by 2 sides of triangle is between 60–100 degrees; sides are straight, unbroken and meet in a point; distance on vertical side of rectangle subsumed by triangle is approximately 50% of the height of vertical side **Placement:** roughly centered on the left vertical side of the rectangle
10. arrow				**Drawing:** straight and unbroken; lines forming arrow are approximately equal in length and not more than 1/3 length of staff **Placement:** must protrude from appropriate corner of rectangle such that staff appears to be continuation of diagonal cross
		Total Score Range=0–20		

Figure Recall Drawing Page

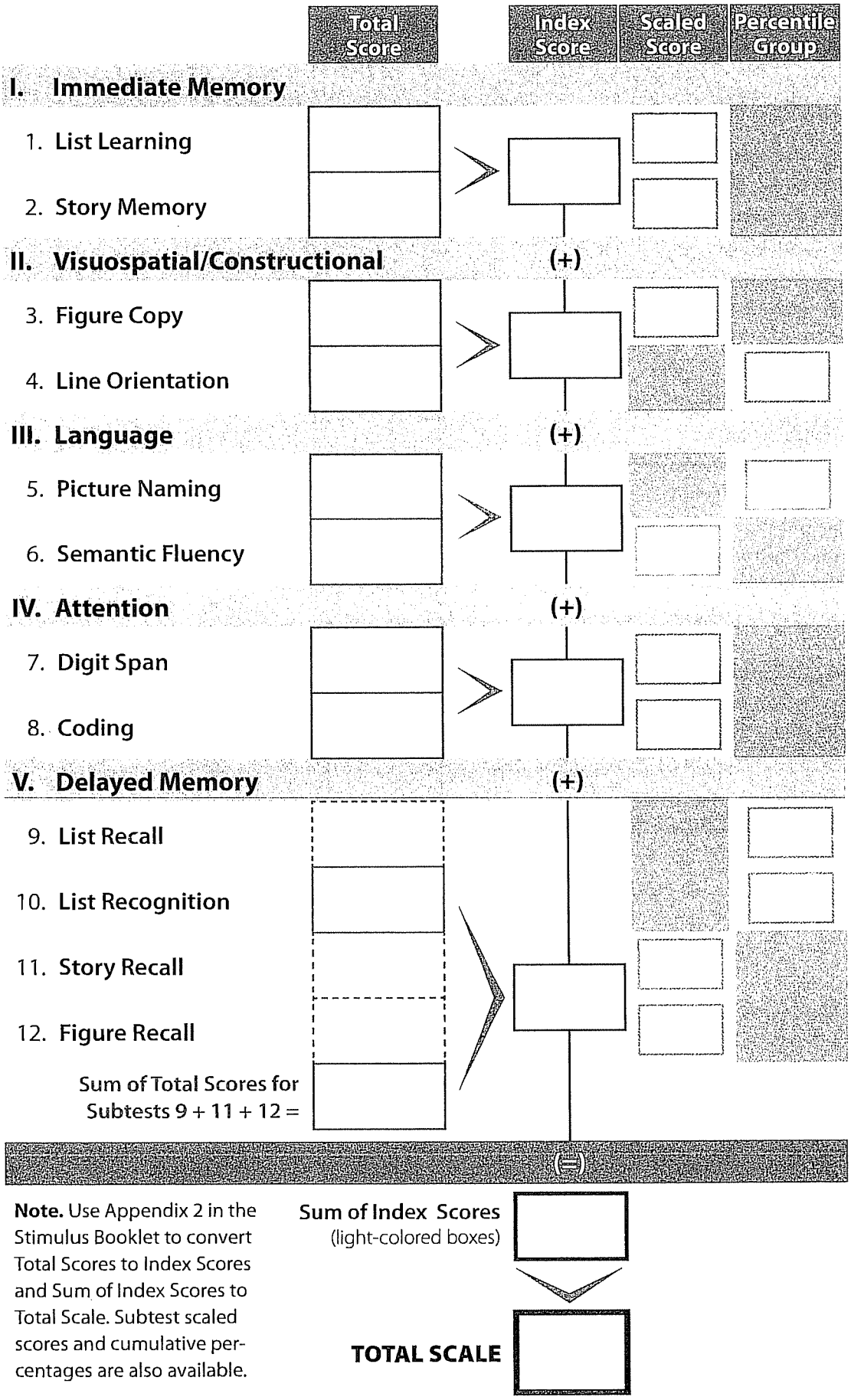
(Fold back for use.)

Supplemental Discrepancy Analysis Page

Index Differences

Score 1–Score 2	Score 1	Score 2	Difference	Statistical Significance _____Level	Frequency of Difference in Standardization Sample
Immediate Memory—Visuospatial/Constructional					
Immediate Memory—Attention					
Immediate Memory—Language					
Immediate Memory—Delayed Memory					
Immediate Memory—Total Scale					
Visuospatial/Constructional—Attention					
Visuospatial/Constructional—Language					
Visuospatial/Constructional—Delayed Memory					
Visuospatial/Constructional—Total Scale					
Attention—Language					
Attention—Delayed Memory					
Attention—Total Scale					
Language—Delayed Memory					
Language—Total Scale					
Delayed Memory—Total Scale					

Score Conversion Page



Note. Use Appendix 2 in the Stimulus Booklet to convert Total Scores to Index Scores and Sum of Index Scores to Total Scale. Subtest scaled scores and cumulative percentages are also available.

National Center for PTSD

CLINICIAN-ADMINISTERED PTSD SCALE FOR DSM-5

PAST MONTH VERSION

Subject ID: _____ ID#: _____

Interviewer: _____ Date: _____

Study: _____

Frank W. Weathers, Dudley D. Blake, Paula P. Schnurr,
Danny G. Kaloupek, Brian P. Marx, & Terence M. Keane

National Center for Posttraumatic Stress Disorder
October 28, 2013

Instructions

Standard administration and scoring of the CAPS-5 are essential for producing reliable and valid scores and diagnostic decisions. The CAPS-5 should be administered only by qualified interviewers who have formal training in structured clinical interviewing and differential diagnosis, a thorough understanding of the conceptual basis of PTSD and its various symptoms, and detailed knowledge of the features and conventions of the CAPS-5 itself.

Administration

1. Identify an index traumatic event to serve as the basis for symptom inquiry. Administer the Life Events Checklist and Criterion A inquiry provided on p. 5, or use some other structured, evidence-based method. The index event may involve either a single incident (e.g., "the accident") or multiple, closely related incidents (e.g., "the worst parts of your combat experiences").

2. Read prompts verbatim, one at a time, and in the order presented, EXCEPT:

    a. Use the respondent's own words for labeling the index event or describing specific symptoms.

    b. Rephrase standard prompts to acknowledge previously reported information, but return to verbatim phrasing as soon as possible. For example, inquiry for item 20 might begin: "You already mentioned having problems sleeping. What kinds of problems?"

    c. If you don't have sufficient information after exhausting all standard prompts, follow up ad lib. In this situation, repeating the initial prompt often helps refocus the respondent.

    d. As needed, ask for specific examples or direct the respondent to elaborate even when such prompts are not provided explicitly.

3. In general, DO NOT suggest responses. If a respondent has pronounced difficulty understanding a prompt it may be necessary to offer a brief example to clarify and illustrate. However, this should be done rarely and only after the respondent has been given ample opportunity to answer spontaneously.

4. DO NOT read rating scale anchors to the respondent. They are intended only for you, the interviewer, because appropriate use requires clinical judgment and a thorough understanding of CAPS-5 scoring conventions.

5. Move through the interview as efficiently as possible to minimize respondent burden. Some useful strategies:

    a. Be thoroughly familiar with the CAPS-5 so that prompts flow smoothly.

    b. Ask the fewest number of prompts needed to obtain sufficient information to support a valid rating.

    c. Minimize note-taking and write while the respondent is talking to avoid long pauses.

    d. Take charge of the interview. Be respectful but firm in keeping the respondent on task, transitioning between questions, pressing for examples, or pointing out contradictions.

Scoring

1. As with previous versions of the CAPS, CAPS-5 symptom severity ratings are based on symptom frequency and intensity, except for items 8 (amnesia) and 12 (diminished interest), which are based on amount and intensity. However, CAPS-5 items are rated with a single severity score, in contrast to previous versions of the CAPS which required separate frequency and intensity scores for each item that were either summed to create a symptom severity score or combined in various scoring rules to create a dichotomous (present/absent) symptom score. Thus, on the

CAPS-5 the clinician combines information about frequency and intensity before making a single severity rating. Depending on the item, frequency is rated as either the number of occurrences (how often in the past month) or percent of time (how much of the time in the past month). Intensity is rated on a four-point ordinal scale with ratings of *Minimal*, *Clearly Present*, *Pronounced*, and *Extreme*. Intensity and severity are related but distinct. Intensity refers to the strength of a typical occurrence of a symptom. Severity refers to the total symptom load over a given time period, and is a combination of intensity and frequency. This is similar to the quantity/frequency assessment approach to alcohol consumption. In general, intensity rating anchors correspond to severity scale anchors described below and should be interpreted and used in the same way, except that severity ratings require joint consideration of intensity and frequency. Thus, before taking frequency into account, an intensity rating of *Minimal* corresponds to a severity rating of *Mild / subthreshold*, *Clearly Present* corresponds with *Moderate / threshold*, *Pronounced* corresponds with *Severe / markedly elevated*, and *Extreme* corresponds with *Extreme / incapacitating*.

2. The five-point CAPS-5 symptom severity rating scale is used for all symptoms. Rating scale anchors should be interpreted and used as follows:

   0 ***Absent*** The respondent denied the problem or the respondent's report doesn't fit the DSM-5 symptom criterion.

   1 ***Mild / subthreshold*** The respondent described a problem that is consistent with the symptom criterion but isn't severe enough to be considered clinically significant. The problem doesn't satisfy the DSM-5 symptom criterion and thus doesn't count toward a PTSD diagnosis.

   2 ***Moderate / threshold*** The respondent described a clinically significant problem. The problem satisfies the DSM-5 symptom criterion and thus counts toward a PTSD diagnosis. The problem would be a target for intervention. This rating requires a minimum frequency of *2 X month* or *some of the time (20-30%)* PLUS a minimum intensity of *Clearly Present*.

   3 ***Severe / markedly elevated*** The respondent described a problem that is well above threshold. The problem is difficult to manage and at times overwhelming, and would be a prominent target for intervention. This rating requires a minimum frequency of *2 X week* or *much of the time (50-60%)* PLUS a minimum intensity of *Pronounced*.

   4 ***Extreme / incapacitating*** The respondent described a dramatic symptom, far above threshold. The problem is pervasive, unmanageable, and overwhelming, and would be a high-priority target for intervention.

3. In general, make a given severity rating only if the minimum frequency and intensity for that rating are both met. However, you may exercise clinical judgment in making a given severity rating if the reported frequency is somewhat lower than required, but the intensity is higher. For example, you may make a severity rating of *Moderate / threshold* if a symptom occurs *1 X month* (instead of the required *2 X month*) as long as intensity is rated *Pronounced* or *Extreme* (instead of the required *Clearly Present*). Similarly, you may make a severity rating of *Severe / markedly elevated* if a symptom occurs *1 X week* (instead of the required *2 X week*) as long as the intensity is rated *Extreme* (instead of the required *Pronounced*). If you are unable to decide between two severity ratings, make the lower rating.

4. You need to establish that a symptom not only meets the DSM-5 criterion phenomenologically, but is also functionally related to the index traumatic event, i.e., started or got worse as a result of the event. CAPS-5 items 1-8 and 10 (reexperiencing, effortful avoidance, amnesia, and blame) are inherently linked to the event. Evaluate the remaining items for trauma-relatedness (TR) using the TR inquiry and rating scale. The three TR ratings are:

   a. ***Definite*** = the symptom can clearly be attributed to the index trauma, because (1) there is an obvious change from the pre-trauma level of functioning and/or (2) the respondent makes the attribution to the index trauma with confidence.

   b. ***Probable*** = the symptom is likely related to the index trauma, but an unequivocal connection can't be made. Situations in which this rating would be given include the following: (1) there seems to be a change from the pre-

trauma level of functioning, but it isn't as clear and explicit as it would be for a "definite;" (2) the respondent attributes a causal link between the symptom and the index trauma, but with less confidence than for a rating of *Definite*; (3) there appears to be a functional relationship between the symptom and inherently trauma-linked symptoms such as reexperiencing symptoms (e.g., numbing or withdrawal increases when reexperiencing increases).

c. ***Unlikely*** = the symptom can be attributed to a cause other than the index trauma because (1) there is an obvious functional link with this other cause and/or (2) the respondent makes a confident attribution to this other cause and denies a link to the index trauma. Because it can be difficult to rule out a functional link between a symptom and the index trauma, a rating of *Unlikely* should be used only when the available evidence strongly points to a cause other than the index trauma. NOTE: Symptoms with a TR rating of *Unlikely* should not be counted toward a PTSD diagnosis or included in the total CAPS-5 symptom severity score.

5. **CAPS-5 total symptom severity score** is calculated by summing severity scores for items 1-20. NOTE: Severity scores for the two dissociation items (29 and 30) should NOT be included in the calculation of the total CAPS-5 severity score.

6. **CAPS-5 symptom cluster severity scores** are calculated by summing the individual item severity scores for symptoms contained in a given DSM-5 cluster. Thus, the Criterion B (reexperiencing) severity score is the sum of the individual severity scores for items 1-5; the Criterion C (avoidance) severity score is the sum of items 6 and 7; the Criterion D (negative alterations in cognitions and mood) severity score is the sum of items 8-14; and the Criterion E (hyperarousal) severity score is the sum of items 15-20. A symptom cluster score may also be calculated for dissociation by summing items 29 and 30.

7. **PTSD diagnostic status** is determined by first dichotomizing individual symptoms as "present" or "absent," then following the DSM-5 diagnostic rule. A symptom is considered present only if the corresponding item severity score is rated *2=Moderate/threshold* or higher. Items 9 and 11-20 have the additional requirement of a trauma-relatedness rating of *Definite* or *Probable*. Otherwise a symptom is considered absent. The DSM-5 diagnostic rule requires the presence of least one Criterion B symptom, one Criterion C symptom, two Criterion D symptoms, and two Criterion E symptoms. In addition, Criteria F and G must be met. Criterion F requires that the disturbance has lasted at least one month. Criterion G requires that the disturbance cause either clinically significant distress or functional impairment, as indicated by a rating of *2=moderate* or higher on items 23-25.

Criterion A: Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:

1. **Directly experiencing the traumatic event(s).**
2. **Witnessing, in person, the event(s) as it occurred to others.**
3. **Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.**
4. **Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.**

[Administer Life Events Checklist or other structured trauma screen]

I'm going to ask you about the stressful experiences questionnaire you filled out. First I'll ask you to tell me a little bit about the event you said was the worst for you. Then I'll ask how that event may have affected you over the past month. In general I don't need a lot of information – just enough so I can understand any problems you may have had. Please let me know if you find yourself becoming upset as we go through the questions so we can slow down and talk about it. Also, let me know if you have any questions or don't understand something. Do you have any questions before we start?

The event you said was the worst was (EVENT). What I'd like for you to do is briefly describe what happened.

Index event (specify):

What happened? *(How old were you? How were you involved? Who else was involved? Was anyone seriously injured or killed? Was anyone's life in danger? How many times did this happen?)*	*Exposure type:* *Experienced ___* *Witnessed ___* *Learned about ___* *Exposed to aversive details___* *Life threat? NO YES [self ___ other ___]* *Serious injury? NO YES [self ___ other ___]* *Sexual violence? NO YES [self ___ other ___]* *Criterion A met? NO PROBABLE YES*

For the rest of the interview, I want you to keep (EVENT) in mind as I ask you about different problems it may have caused you. You may have had some of these problems before, but for this interview we're going to focus just on the past month. For each problem I'll ask if you've had it in the past month, and if so, how often and how much it bothered you.

Criterion B: Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1. (B1) Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). Note: In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.

In the past month, have you had any <u>unwanted</u> <u>memories</u> of (EVENT) while you were awake, so not counting dreams? [Rate 0=Absent if only during dreams] **How does it happen that you start remembering (EVENT)?** [If not clear:] ***(Are these <u>unwanted</u> memories, or are you thinking about [EVENT] on purpose?)*** [Rate 0=Absent unless perceived as involuntary and intrusive] **How much do these memories bother you?** **Are you able to put them out of your mind and think about something else?** <u>Circle</u>: Distress = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often have you had these memories in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of distress*** Moderate = at least 2 X month / distress clearly present, some difficulty dismissing memories Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

2. (B2) Recurrent distressing dreams in which the content and/or affect of the dream are related to the event(s). Note: In children, there may be frightening dreams without recognizable content.

In the past month, have you had any <u>unpleasant</u> <u>dreams</u> about (EVENT)? **Describe a typical dream.** *(What happens?)* [If not clear:] ***(Do they wake you up?)*** [If yes:] ***(What do you experience when you wake up? How long does it take you to get back to sleep?)*** [If reports not returning to sleep:] ***(How much sleep do you lose?)*** **How much do these dreams bother you?** <u>Circle</u>: Distress = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often have you had these dreams in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of distress*** Moderate = at least 2 X month / distress clearly present, less than 1 hour sleep loss Severe = at least 2 X week / pronounced distress, more than 1 hour sleep loss	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

3. (B3) Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Note: In children, trauma-specific reenactment may occur in play.

In the past month, have there been times when you <u>suddenly</u> <u>acted</u> or <u>felt</u> as if (EVENT) were <u>actually</u> <u>happening</u> again? [If not clear:] ***(This is different than thinking about it or dreaming about it – now I'm asking about flashbacks, when you feel like you're actually back at the time of [EVENT], actually reliving it.)*** **How much does it seem as if (EVENT) were happening again?** *(Are you confused about where you actually are?)* **What do you do while this is happening?** *(Do other people notice your behavior? What do they say?)* **How long does it last?** <u>Circle</u>: Dissociation = *Minimal Clearly Present Pronounced Extreme* **How often has this happened in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of dissociation*** Moderate = at least 2 X month / dissociative quality clearly present, may retain some awareness of surroundings but relives event in a manner clearly distinct from thoughts and memories Severe = at least 2 X week / pronounced dissociative quality, reports vivid reliving, e.g., with images, sounds, smells	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

4. (B4) Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

In the past month, have you gotten <u>emotionally</u> <u>upset</u> when <u>something</u> <u>reminded</u> <u>you</u> of (EVENT)? **What kinds of reminders make you upset?** **How much do these reminders bother you?** **Are you able to calm yourself down when this happens?** *(How long does it take?)* <u>Circle</u>: Distress = *Minimal Clearly Present Pronounced Extreme* **How often has this happened in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of distress*** Moderate = at least 2 X month / distress clearly present, some difficulty recovering Severe = at least 2 X week / pronounced distress, considerable difficulty recovering	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

5. (B5) Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

In the past month, have you had any <u>physical</u> <u>reactions</u> when <u>something</u> <u>reminded</u> <u>you</u> of (EVENT)? **Can you give me some examples?** *(Does your heart race or your breathing change? What about sweating or feeling really tense or shaky?)* **What kinds of reminders trigger these reactions?** **How long does it take you to recover?** <u>Circle</u>: Physiological reactivity = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often has this happened in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of physiological arousal*** Moderate = at least 2 X month / reactivity clearly present, some difficulty recovering Severe = at least 2 X week / pronounced reactivity, sustained arousal, considerable difficulty recovering	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

Criterion C: Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

6. (C1) Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

In the past month, have you tried to <u>avoid</u> <u>thoughts</u> or <u>feelings</u> about (EVENT)? **What kinds of thoughts or feelings do you avoid?** **How hard do you try to avoid these thoughts or feelings?** *(What kinds of things do you do?)* <u>Circle</u>: Avoidance = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of avoidance*** Moderate = at least 2 X month / avoidance clearly present Severe = at least 2 X week / pronounced avoidance	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

7. (C2) Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

In the past month, have you tried to <u>avoid</u> <u>things</u> that <u>remind</u> <u>you</u> of (EVENT), like certain people, places, or situations? **What kinds of things do you avoid?** **How much effort do you make to avoid these reminders?** *(Do you have to make a plan or change your activities to avoid them?)* [If not clear:] ***(Overall, how much of a problem is this for you? How would things be different if you didn't have to avoid these reminders?)*** <u>Circle</u>: Avoidance = *Minimal Clearly Present Pronounced Extreme* **How often in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of avoidance*** Moderate = at least 2 X month / avoidance clearly present Severe = at least 2 X week / pronounced avoidance	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

Criterion D: Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

8. (D1) Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

In the past month, have you had <u>difficulty</u> <u>remembering</u> some <u>important</u> <u>parts</u> of (EVENT)? *(Do you feel there are gaps in your memory of [EVENT]?)* **What parts have you had difficulty remembering?** **Do you feel you should be able to remember these things?** [If not clear:] ***(Why do you think you can't? Did you have a head injury during [EVENT]? Were you knocked unconscious? Were you intoxicated from alcohol or drugs?)*** [Rate 0=Absent if due to head injury or loss of consciousness or intoxication during event] [If still not clear:] ***(Is this just normal forgetting? Or do you think you may have blocked it out because it would be too painful to remember?)*** [Rate 0=Absent if due only to normal forgetting] <u>Circle</u>: Difficulty remembering = *Minimal Clearly Present Pronounced Extreme* **In the past month, how many of the important parts of (EVENT) have you had difficulty remembering?** *(What parts do you still remember?)* *# of important aspects* _____ **Would you be able to recall these things if you tried?** ***Key rating dimensions = amount of event not recalled / intensity of inability to recall*** Moderate = at least one important aspect / difficulty remembering clearly present, some recall possible with effort Severe = several important aspects / pronounced difficulty remembering, little recall even with effort	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

9. (D2) Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," "The world is completely dangerous," "My whole nervous system is permanently ruined").

In the past month, have you had <u>strong</u> <u>negative</u> <u>beliefs</u> about yourself, other people, or the world? **Can you give me some examples?** *(What about believing things like "I am bad," "there is something seriously wrong with me," "no one can be trusted," "the world is completely dangerous"?)* **How strong are these beliefs?** *(How convinced are you that these beliefs are actually true? Can you see other ways of thinking about it?)* <u>Circle</u>: Conviction = *Minimal Clearly Present Pronounced Extreme* **How much of the time in the past month have you felt that way?** % *of time* _____ **Did these beliefs start or get worse after (EVENT)?** *(Do you think they're related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite Probable Unlikely* ***Key rating dimensions = frequency / intensity of beliefs*** Moderate = some of the time (20-30%) / exaggerated negative expectations clearly present, some difficulty considering more realistic beliefs Severe = much of the time (50-60%) / pronounced exaggerated negative expectations, considerable difficulty considering more realistic beliefs	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

10. (D3) Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.

In the past month, have you <u>blamed</u> <u>yourself</u> for (EVENT) or what happened as a result of it? Tell me more about that. *(In what sense do you see yourself as having caused [EVENT]? Is it because of something you did? Or something you think you should have done but didn't? Is it because of something about you in general?)* **What about <u>blaming</u> <u>someone</u> <u>else</u> for (EVENT) or what happened as a result of it? Tell me more about that.** *(In what sense do you see [OTHERS] as having caused [EVENT]? Is it because of something they did? Or something you think they should have done but didn't?)* **How much do you blame (YOURSELF OR OTHERS)?** **How convinced are you that [YOU OR OTHERS] are truly responsible for what happened?** *(Do other people agree with you? Can you see other ways of thinking about it?)* [Rate 0=Absent if only blames perpetrator, i.e., someone who deliberately caused the event and intended harm] <u>Circle</u>: Conviction = *Minimal Clearly Present Pronounced Extreme* **How much of the time in the past month have you felt that way?** % *of time* _____ ***Key rating dimensions = frequency / intensity of blame*** Moderate = some of the time (20-30%) / distorted blame clearly present, some difficulty considering more realistic beliefs Severe = much of the time (50-60%) / pronounced distorted blame, considerable difficulty considering more realistic beliefs	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

11. (D4) Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).

In the past month, have you had any <u>strong</u> <u>negative</u> <u>feelings</u> such as fear, horror, anger, guilt, or shame? **Can you give me some examples?** *(What negative feelings do you experience?)* **How strong are these negative feelings?** **How well are you able to manage them?** <u>Circle</u>: Negative emotions = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How much of the time in the past month have you felt that way?** % *of time* _____ **Did these negative feelings start or get worse after (EVENT)?** *(Do you think they're related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite* *Probable* *Unlikely* ***Key rating dimensions = frequency / intensity of negative emotions*** Moderate = some of the time (20-30%) / negative emotions clearly present, some difficulty managing Severe = much of the time (50-60%) / pronounced negative emotions, considerable difficulty managing	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

12. (D5) Markedly diminished interest or participation in significant activities.

In the past month, have you been <u>less</u> <u>interested</u> in <u>activities</u> that you used to enjoy? **What kinds of things have you lost interest in or don't do as much as you used to?** *(Anything else?)* **Why is that?** [Rate 0=Absent if diminished participation is due to lack of opportunity, physical inability, or developmentally appropriate change in preferred activities] **How strong is your loss of interest?** *(Would you still enjoy [ACTIVITIES] once you got started?)* <u>Circle</u>: Loss of interest= *Minimal* *Clearly Present* *Pronounced* *Extreme* **Overall, in the past month, how many of your usual activities have you been less interested in?** % *of activities* _____ **What kinds of things do you still enjoy doing?** **Did this loss of interest start or get worse after (EVENT)?** *(Do you think it's related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite* *Probable* *Unlikely* ***Key rating dimensions = percent of activities affected / intensity of loss of interest*** Moderate = some activities (20-30%) / loss of interest clearly present but still has some enjoyment of activities Severe = many activities (50-60%) / pronounced loss of interest, little interest or participation in activities	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

13. (D6) Feelings of detachment or estrangement from others.

In the past month, have you felt <u>distant</u> or <u>cut off</u> from other people? **Tell me more about that.** **How strong are your feelings of being distant or cut off from others?** *(Who do you feel closest to? How many people do you feel comfortable talking with about personal things?)* <u>Circle</u>: Detachment or estrangement = *Minimal Clearly Present Pronounced Extreme* **How much of the time in the past month have you felt that way?** *% of time* _____ **Did this feeling of being distant or cut off start or get worse after (EVENT)?** *(Do you think it's related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite Probable Unlikely* ***Key rating dimensions = frequency / intensity of detachment or estrangement*** Moderate = some of the time (20-30%) / feelings of detachment clearly present but still feels some interpersonal connection Severe = much of the time (50-60%) / pronounced feelings of detachment or estrangement from most people, may feel close to only one or two people	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

14. (D7) Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

In the past month, have there been times when you had <u>difficulty</u> <u>experiencing</u> <u>positive feelings</u> like love or happiness? **Tell me more about that.** *(What feelings are difficult to experience?)* **How much difficulty do you have experiencing positive feelings?** *(Are you still able to experience any positive feelings?)* <u>Circle</u>: Reduction of positive emotions = *Minimal Clearly Present Pronounced Extreme* **How much of the time in the past month have you felt that way?** *% of time* _____ **Did this trouble experiencing positive feelings start or get worse after (EVENT)?** *(Do you think it's related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite Probable Unlikely* ***Key rating dimensions = frequency / intensity of reduction in positive emotions*** Moderate = some of the time (20-30%) / reduction of positive emotional experience clearly present but still able to experience some positive emotions Severe = much of the time (50-60%) / pronounced reduction of experience across range of positive emotions	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

Criterion E: Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

15. (E1) Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.

In the past month, have there been times when you felt especially irritable or angry and showed it in your behavior? **Can you give me some examples?** *(How do you show it? Do you raise your voice or yell? Throw or hit things? Push or hit other people?)* Circle: Aggression = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often in the past month?** *# of times* _____ **Did this behavior start or get worse after (EVENT)?** *(Do you think it's related to [EVENT]? How so?)* Circle: Trauma-relatedness = *Definite* *Probable* *Unlikely* ***Key rating dimensions = frequency / intensity of aggressive behavior*** Moderate = at least 2 X month / aggression clearly present, primarily verbal Severe = at least 2 X week / pronounced aggression, at least some physical aggression	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

16. (E2) Reckless or self-destructive behavior.

In the past month, have there been times when you were taking more risks or doing things that might have caused you harm? **Can you give me some examples?** **How much of a risk do you take?** *(How dangerous are these behaviors? Were you injured or harmed in some way?)* Circle: Risk = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often have you taken these kinds of risks in the past month?** *# of times* _____ **Did this behavior start or get worse after (EVENT)?** *(Do you think it's related to [EVENT]? How so?)* Circle: Trauma-relatedness = *Definite* *Probable* *Unlikely* ***Key rating dimensions = frequency / degree of risk*** Moderate = at least 2 X month / risk clearly present, may have been harmed Severe = at least 2 X week / pronounced risk, actual harm or high probability of harm	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

17. (E3) Hypervigilance.

In the past month, have you been especially <u>alert</u> or <u>watchful</u>, even when there was no specific threat or danger? *(Have you felt as if you had to be on guard?)* **Can you give me some examples?** *(What kinds of things do you do when you're alert or watchful?)* [If not clear:] ***(What causes you to react this way? Do you feel like you're in danger or threatened in some way? Do you feel that way more than most people would in the same situation?)*** <u>Circle</u>: Hypervigilance = *Minimal Clearly Present Pronounced Extreme* **How much of the time in the past month have you felt that way?** *% of time* _____ **Did being especially alert or watchful start or get worse after (EVENT)?** *(Do you think it's related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite Probable Unlikely* ***Key rating dimensions = frequency / intensity of hypervigilance*** Moderate = some of the time (20-30%) / hypervigilance clearly present, e.g., watchful in public, heightened awareness of threat Severe = much of the time (50-60%) / pronounced hypervigilance, e.g., scans environment for danger, may have safety rituals, exaggerated concern for safety of self/family/home	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

18. (E4) Exaggerated startle response.

In the past month, have you had any <u>strong</u> <u>startle</u> reactions? **What kinds of things made you startle?** **How strong are these startle reactions?** *(How strong are they compared to how most people would respond? Do you do anything other people would notice?)* **How long does it take you to recover?** <u>Circle</u>: Startle = *Minimal Clearly Present Pronounced Extreme* **How often has this happened in the past month?** *# of times* _____ **Did these startle reactions start or get worse after (EVENT)?** *(Do you think they're related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite Probable Unlikely* ***Key rating dimensions = frequency / intensity of startle*** Moderate = at least 2 X month / startle clearly present, some difficulty recovering Severe = at least 2 X week / pronounced startle, sustained arousal, considerable difficulty recovering	**0 *Absent*** **1 *Mild / subthreshold*** **2 *Moderate / threshold*** **3 *Severe / markedly elevated*** **4 *Extreme / incapacitating***

19. (E5) Problems with concentration.

In the past month, have you had any <u>problems</u> with <u>concentration</u>? **Can you give me some examples?** **Are you able to concentrate if you really try?** <u>Circle</u>: Problem concentrating = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How much of the time in the past month have you had problems with concentration?** % *of time* _____ **Did these problems with concentration start or get worse after (EVENT)?** *(Do you think they're related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite* *Probable* *Unlikely* ***Key rating dimensions = frequency / intensity of concentration problems*** Moderate = some of the time (20-30%) / problem concentrating clearly present, some difficulty but can concentrate with effort Severe = much of the time (50-60%) / pronounced problem concentrating, considerable difficulty even with effort	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

20. (E6) Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

In the past month, have you had any problems <u>falling</u> or <u>staying</u> asleep? **What kinds of problems?** *(How long does it take you to fall asleep? How often do you wake up in the night? Do you wake up earlier than you want to?)* **How many total hours do you sleep each night?** **How many hours do you think you should be sleeping?** <u>Circle</u>: Problem sleeping = *Minimal* *Clearly Present* *Pronounced* *Extreme* **How often in the past month have you had these sleep problems?** *# of times* _____ **Did these sleep problems start or get worse after (EVENT)?** *(Do you think they're related to [EVENT]? How so?)* <u>Circle</u>: Trauma-relatedness = *Definite* *Probable* *Unlikely* ***Key rating dimensions = frequency / intensity of sleep problems*** Moderate = at least 2 X month / sleep disturbance clearly present, clearly longer latency or clear difficulty staying asleep, 30-90 minutes loss of sleep Severe = at least 2 X week / pronounced sleep disturbance, considerably longer latency or marked difficulty staying asleep, 90 min to 3 hrs loss of sleep	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

Criterion F: Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

21. Onset of symptoms

[If not clear:] **When did you first start having (PTSD SYMPTOMS) you've told me about?** *(How long after the trauma did they start? More than six months?)*	***Total # months delay in onset*** _____ ***With delayed onset (≥ 6 months)? NO YES***

22. Duration of symptoms

[If not clear:] **How long have these (PTSD SYMPTOMS) lasted altogether?**	***Total # months duration*** _____ ***Duration more than 1 month? NO YES***

Criterion G: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

23. Subjective distress

Overall, in the past month, how much have you been bothered by these (PTSD SYMPTOMS) you've told me about? [Consider distress reported on earlier items]	**0** ***None*** **1** ***Mild, minimal distress*** **2** ***Moderate, distress clearly present but still manageable*** **3** ***Severe, considerable distress*** **4** ***Extreme, incapacitating distress***

24. Impairment in social functioning

In the past month, have these (PTSD SYMPTOMS) affected your relationships with other people? How so? [Consider impairment in social functioning reported on earlier items]	**0** ***No adverse impact*** **1** ***Mild impact, minimal impairment in social functioning*** **2** ***Moderate impact, definite impairment but many aspects of social functioning still intact*** **3** ***Severe impact, marked impairment, few aspects of social functioning still intact*** **4** ***Extreme impact, little or no social functioning***

25. Impairment in occupational or other important area of functioning

[If not clear:] **Are you working now?** [If yes:] **In the past month, have these (PTSD SYMPTOMS) affected your work or your ability to work? How so?** [Consider reported work history, including number and duration of jobs, as well as the quality of work relationships. If premorbid functioning is unclear, inquire about work experiences before the trauma. For child/adolescent trauma, assess pre-trauma school performance and possible presence of behavior problems] [If no:] **Have these (PTSD SYMPTOMS) affected any other important part of your life?** [As appropriate, suggest examples such as parenting, housework, schoolwork, volunteer work, etc.] **How so?**	**0** ***No adverse impact*** **1** ***Mild impact, minimal impairment in occupational/other important functioning*** **2** ***Moderate impact, definite impairment but many aspects of occupational/other important functioning still intact*** **3** ***Severe impact, marked impairment, few aspects of occupational/other important functioning still intact*** **4** ***Extreme impact, little or no occupational/other important functioning***

Global Ratings

26. Global validity

Estimate the overall validity of responses. Consider factors such as compliance with the interview, mental status (e.g., problems with concentration, comprehension of items, dissociation), and evidence of efforts to exaggerate or minimize symptoms.	**0** ***Excellent, no reason to suspect invalid responses*** **1** ***Good, factors present that may adversely affect validity*** **2** ***Fair, factors present that definitely reduce validity*** **3** ***Poor, substantially reduced validity*** **4** ***Invalid responses, severely impaired mental status or possible deliberate "faking bad" or "faking good"***

27. Global severity

Estimate the overall severity of PTSD symptoms. Consider degree of subjective distress, degree of functional impairment, observations of behaviors in interview, and judgment regarding reporting style.	**0** ***No clinically significant symptoms, no distress and no functional impairment*** **1** ***Mild, minimal distress or functional impairment*** **2** ***Moderate, definite distress or functional impairment but functions satisfactorily with effort*** **3** ***Severe, considerable distress or functional impairment, limited functioning even with effort*** **4** ***Extreme, marked distress or marked impairment in two or more major areas of functioning***

28. Global improvement

Rate total overall improvement since the previous rating. Rate the degree of change, whether or not, in your judgment, it is due to treatment.	**0** ***Asymptomatic*** **1** ***Considerable improvement*** **2** ***Moderate improvement*** **3** ***Slight improvement*** **4** ***No improvement*** **5** ***Insufficient information***

Specify whether with dissociative symptoms: The individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

29. (1) Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

In the past month, have there been times when you felt as if you were separated from yourself, like you were watching yourself from the outside or observing your thoughts and feelings as if you were another person?

[If no:] ***(What about feeling as if you were in a dream, even though you were awake? Feeling as if something about you wasn't real? Feeling as if time was moving more slowly?)***

Tell me more about that.

How strong is this feeling? *(Do you lose track of where you actually are or what's actually going on?)*

What do you do while this is happening? *(Do other people notice your behavior? What do they say?)*

How long does it last?

Circle: Dissociation = *Minimal* *Clearly Present* *Pronounced* *Extreme*

[If not clear:] ***(Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?)*** [Rate 0=Absent if due to the effects of a substance or another medical condition]

How often has this happened in the past month? *# of times* _____

Key rating dimensions = frequency / intensity of dissociation
Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of self and awareness of environment
Severe = at least 2 X week / pronounced dissociative quality, marked sense of detachment and unreality

0 ***Absent***

1 ***Mild / subthreshold***

2 ***Moderate / threshold***

3 ***Severe / markedly elevated***

4 ***Extreme / incapacitating***

30. (2) Derealization: Persistent or recurrent experiences of unreality of surroundings (e.g., the world around the individual is experienced as unreal, dreamlike, distant, or distorted).

In the past month, have there been times when things going on around you seemed unreal or very strange and unfamiliar? [If no:] ***(Do things going on around you seem like a dream or like a scene from a movie? Do they seem distant or distorted?)*** **Tell me more about that.** **How strong is this feeling?** *(Do you lose track of where you actually are or what's actually going on?)* **What do you do while this is happening?** *(Do other people notice your behavior? What do they say?)* **How long does it last?** Circle: Dissociation = *Minimal Clearly Present Pronounced Extreme* [If not clear:] ***(Was this due to the effects of alcohol or drugs? What about a medical condition like seizures?)*** [Rate 0=Absent if due to the effects of a substance or another medical condition] **How often has this happened in the past month?** *# of times* _____ ***Key rating dimensions = frequency / intensity of dissociation*** Moderate = at least 2 X month / dissociative quality clearly present but transient, retains some realistic sense of environment Severe = at least 2 X week / pronounced dissociative quality, marked sense of unreality	**0** ***Absent*** **1** ***Mild / subthreshold*** **2** ***Moderate / threshold*** **3** ***Severe / markedly elevated*** **4** ***Extreme / incapacitating***

CAPS-5 SUMMARY SHEET

Name:_____ ID#:_____ Interviewer:_____ Study:_____ Date:_____

A. Exposure to actual or threatened death, serious injury, or sexual violence	
Criterion A met?	**0 = NO 1 = YES**

B. Intrusion symptoms (need 1 for diagnosis)	*Past Month*	
	Sev	***Sx (Sev ≥ 2)?***
(1) B1 – Intrusive memories		**0 = NO 1 = YES**
(2) B2 – Distressing dreams		**0 = NO 1 = YES**
(3) B3 – Dissociative reactions		**0 = NO 1 = YES**
(4) B4 – Cued psychological distress		**0 = NO 1 = YES**
(5) B5 – Cued physiological reactions		**0 = NO 1 = YES**
B subtotals	***B Sev =***	***# B Sx =***

C. Avoidance symptoms (need 1 for diagnosis)	*Past Month*	
	Sev	***Sx (Sev ≥ 2)?***
(6) C1 – Avoidance of memories, thoughts, feelings		**0 = NO 1 = YES**
(7) C2 – Avoidance of external reminders		**0 = NO 1 = YES**
C subtotals	***C Sev =***	***# C Sx =***

D. Cognitions and mood symptoms (need 2 for diagnosis)	*Past Month*	
	Sev	***Sx (Sev ≥ 2)?***
(8) D1 – Inability to recall important aspect of event		**0 = NO 1 = YES**
(9) D2 – Exaggerated negative beliefs or expectations		**0 = NO 1 = YES**
(10) D3 – Distorted cognitions leading to blame		**0 = NO 1 = YES**
(11) D4 – Persistent negative emotional state		**0 = NO 1 = YES**
(12) D5 – Diminished interest or participation in activities		**0 = NO 1 = YES**
(13) D6 – Detachment or estrangement from others		**0 = NO 1 = YES**
(14) D7 – Persistent inability to experience positive emotions		**0 = NO 1 = YES**
D subtotals	***D Sev =***	***# D Sx =***

E. Arousal and reactivity symptoms (need 2 for diagnosis)	*Past Month*	
	Sev	***Sx (Sev ≥ 2)?***
(15) E1 – Irritable behavior and angry outbursts		**0 = NO 1 = YES**
(16) E2 – Reckless or self-destructive behavior		**0 = NO 1 = YES**
(17) E3 – Hypervigilance		**0 = NO 1 = YES**
(18) E4 – Exaggerated startle response		**0 = NO 1 = YES**
(19) E5 – Problems with concentration		**0 = NO 1 = YES**
(20) E6 – Sleep disturbance		**0 = NO 1 = YES**
E subtotals	***E Sev =***	***# E Sx =***

PTSD totals	*Past Month*	
	Total Sev	*Total # Sx*
Sum of subtotals (B+C+D+E)		

F. Duration of disturbance	*Current*
(22) Duration of disturbance ≥ 1 month?	**0 = NO 1 = YES**

G. Distress or impairment (need 1 for diagnosis)	*Past Month*	
	Sev	*Cx (Sev ≥ 2)?*
(23) Subjective distress		**0 = NO 1 = YES**
(24) Impairment in social functioning		**0 = NO 1 = YES**
(25) Impairment in occupational functioning		**0 = NO 1 = YES**
G subtotals	*G Sev =*	*# G Cx =*

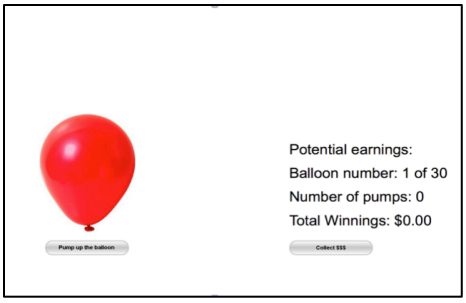
Global ratings	*Past Month*
(26) Global validity	
(27) Global severity	
(28) Global improvement	

Dissociative symptoms (need 1 for subtype)	*Past Month*	
	Sev	*Sx (Sev ≥ 2)?*
(29) 1 -- Depersonalization		**0 = NO 1 = YES**
(30) 2 – Derealization		**0 = NO 1 = YES**
Dissociative subtotals	*Diss Sev =*	*# Diss Sx =*

PTSD diagnosis	*Past Month*
PTSD PRESENT – ALL CRITERIA (A-G) MET?	**0 = NO 1 = YES**
With dissociative symptoms	**0 = NO 1 = YES**
(21) With delayed onset (≥ 6 months)	**0 = NO 1 = YES**

Balloon Analogue Risk Task

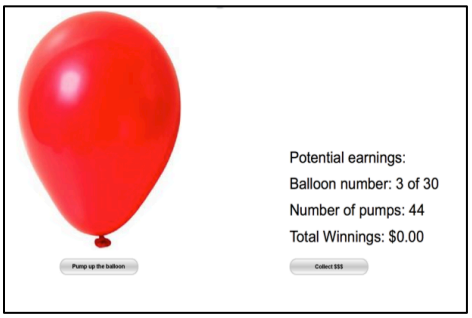
Inflate the Balloon by Pressing Key



The BART presents participants with 30 virtual balloons.

-Each balloon can be inflated one increment for each key press.

Balloon Grows in Size and Monetary Value

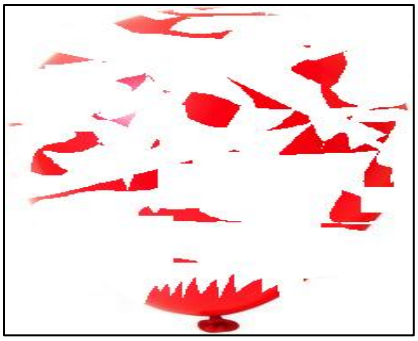


-With each key press the size of the balloon increases.

-Each increment also increases the potential value of the balloon by 5 cents.

-The balloon can be "cashed in" at any time and the total accumulated value retained.

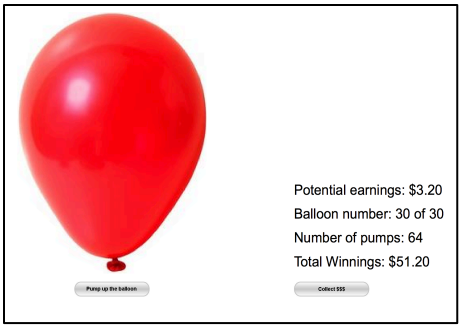
If Balloon Explodes, All $$$ is Lost



-Each Balloon can explode at any time.

-If a balloon explodes, all of the potential money accumulated *for that balloon* will be lost.

Goal: Earn as Much Money as Possible



-The goal is to maximize winnings

-Only 30 balloons are presented.

A Non-pharmacologic Method for Enhancing Sleep in PTSD

Log Number A-18333

W81XWH-14-1-0570

PI: William D. Killgore, Ph.D. **Org:** University of Arizona **Award Amount:** $3,823,700

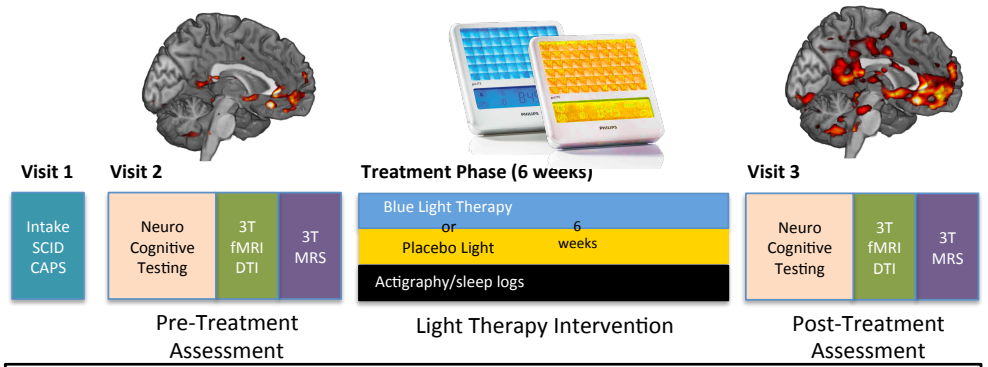
Study Aims

- **Objective 1**: Demonstrate effectiveness of blue wavelength light therapy for *improving sleep* in combat vets with PTSD.
- **Objective 2**: Link improved sleep with increased *extinction recall* following fear conditioning in PTSD.
- **Objective 3**: Link improved sleep with reduced symptom presentation, improved mood, and psychological resilience.
- **Objective 4**: Link improved sleep and cognitive/emotional changes with changes in brain functioning and neurochemistry using fMRI and magnetic resonance spectroscopy.

Approach

Test the effectiveness of a 6-week blue light therapy program based on clinical outcomes, fear conditioning/extinction, neurocognitive assessment, functional magnetic resonance imaging (fMRI), and neurochemistry changes. 90 individuals with PTSD will be randomly assigned to blue light (BL) or amber placebo light (PL) therapy.

6-week Treatment (N = 90; n = 45 per group)



Accomplishment: Currently in second No Cost Extension. Recruitment is underway and data are being collected (n = 3680 phone screened; n = 213 SCID assessed; n = 3 currently undergoing tx; n = 75 fully completed—**84%** complete)

Timeline and Total Cost (direct and indirect)

Activities	FY15	FY16	FY17	FY18	FY19	FY20
Preparation: Local IRB; USAMRMC HRPO; Program Development; Materials Acquisition; Training						
Data Collection: 90 participants complete 6-week blue or placebo light TX program, including pre- and post-TX assessments/scans						
Data Analysis: fMRI, MRS, clinical, behavioral, and cognitive data will be analyzed; manuscripts prepared						
Estimated Total Budget ($K)	942	968	983	931	0	0

Updated: OCT 30 2019

Goals/Milestones

FY15 Goal – Study Preparation
☑ Obtain Materials, complete IRB approvals
FY16 Goal – Recruitment and Data Collection
☑ Run development scans, begin recruitment
FY18 Goal – Continue Data Collection
☑Complete at least 60% of data collection
☑Conduct Preliminary Analysis
FY19 Goal – Continue Data Collection and Analysis
☑Continue data collection to 75% (**currently 84% complete**)
FY20 Goal – Complete Data Collection and Analysis
☐Continue data collection to 100%
☐Break blind and analyze data
☐Publish findings and submit final report

Budget Expenditure to Date

Projected Expenditure: $3,824K
Actual Expenditure: $2,925K

The Association Between Monrningness-Eveningness and Nightmares in PTSD

Anna I. Burns, K. Caleigh Shepard, Meltem Ozcan, Anna Alkozei, John R. Vanuk, & William D.S. Killgore

Objective:
Individuals with a morningness preference (MP) prefer earlier wake and bedtimes in comparison to those with an eveningness preference (EP), who prefer later wake and bedtimes. Previous work has found that an EP is associated with a greater frequency of nightmares. Individuals with post-traumatic stress disorder (PTSD) are more likely to have an EP, as well as experience a greater frequency of nightmares. Daily morning blue light therapy (BLT) has been used to treat sleep disorders and phase advance circadian rhythms, leading to earlier wake-up times and is being explored as a treatment for PTSD. It is not known whether BLT could improve frequency and severity of nightmares for individuals with PTSD. Here we examined whether trait differences in morningness-eveningness were associated with changes in nightmare frequency following six-weeks of BLT vs a placebo light therapy.

Participants and Methods:
Fifty-four individuals (53.7% female, Mean age =30.66, SD =8.15) with a clinical diagnosis of PTSD were administered the Morningness-Eveningness Questionnaire (MEQ) to assess self reported preference of time of wake and sleep. Participants also completed the Disturbing Dreams and Nightmare Severity Index (DDNSI) as a measure of nightmare severity and frequency.

Results:
The associations between MEQ and DDNSI did not differ between BLT (r = -.331, p =.180) and placebo light condition (r = -.481, p =.027), with the sample as a whole showing a significant negative association between morningness-eveningness and change in nightmare severity (r = -.410, p =.010).

Conclusion:
A greater MP was associated with a decrease in nightmare severity while greater EP was associated with an increase in nightmare severity, regardless of light treatment. Since light treatment was administered regularly in the morning, the morning structure may be more beneficial to those whom already have a MP, but may be disruptive for those with an EP. Further research is needed to fully understand the impact of EP on nightmares for PTSD.

The Association Between PTSD Severity and Life Satisfaction is Mediated by Trait Gratitude

Anna Burns, Meltem Ozcan, K. Caleigh Shepard, Anna Alkozei, & William D.S. Killgore

Objective:
Higher levels of trait gratitude (i.e. the ability to identify and appreciate positive aspects in one's life) have been associated with increased satisfaction with life (SWL) and lower levels of psychopathology. Even in individuals with post-traumatic stress disorder (PTSD), higher trait gratitude has been shown to predict lower PTSD symptom severity over time. However, it is not known whether gratitude can explain the relationship between PTSD symptom severity and SWL in this clinical population. We hypothesized that trait gratitude would mediate the relationship between PTSD symptom severity and SWL in individuals with PTSD.

Participants and Methods:
Fifty-two individuals (53.7% female, Mean age =30.66, SD =8.15) with a clinical diagnosis of PTSD were administered the Clinician-Administered PTSD Scale for DSM-5 as a measure of PTSD symptom severity. Participants also completed the Gratitude Questionnaire-6 as a measure of trait gratitude and the Satisfaction With Life Scale as a measure of their satisfaction with life as a whole. A mediation analysis using Hayes' PROCESS tool in SPSS was conducted to explore the hypothesis that trait gratitude would mediate the relationship between PTSD symptom severity and SWL.

Results:
As expected, trait gratitude partially mediated the negative relationship between PTSD symptom severity and SWL (b=-.32, 95% CI[-.69,-.08]).

Conclusion:
The relationship between PTSD symptom severity and SWL can, in part, be explained by an individual's level of trait gratitude. These findings may be explained by the impact of trait gratitude on one's cognitive style, including the ability to positively reframe negative situations, and its influence on self-reported self-esteem, both of which are often negatively impacted by traumatic experiences. These findings suggest a potential utility for gratitude training interventions as an adjunctive treatment approach for PTSD.

Differences in Anxiety Reduction between Minority and Majority Racial Groups Participating in Morning Blue Light Exposure

K. Caleigh Shepard[1], Meltem Ozcan[1], Anna I. Burns[1], Anna Alkozei[1], John R. Vanuk, William D.S. Killgore[1]

Background:
Those who identify as White/Caucasian are more likely to be diagnosed with an anxiety disorder than those who identify as a minority racial group. Increased anxiety is a common symptom for those with post-traumatic stress disorder (PTSD). Blue light therapy (BLT) has been used as a treatment for depression and sleep disorders, however, the effect of BLT on anxiety levels for individuals with PTSD has yet to be investigated. We examined the effect of BLT on anxiety symptoms between minority and majority racial groups in a sample of individuals with PTSD.

Participants and Methods:
Forty-four men and women (52.2% female, Mean age=31.0) with a clinical diagnosis of PTSD were randomized to 6 weeks of 30 minutes of morning BLT (n=22), or placebo amber light (n=22). Thirty of these participants identified as the culturally dominant racial group of White/Caucasian (68.1%, mean age= 31.6), while the remaining 14 participants identified as a minority racial group (Hispanic/Latino, African American/Black, Native American/American Indian, or Other). Pre- and post-light therapy, participants completed the Beck Anxiety Inventory (BAI) as a measure of anxiety symptoms.

Results:
A repeated-measures ANOVA showed a significant main effect of time, such that all individuals decreased in their anxiety level ($F(1,39)=38.86$, $p=.001$), as well as a significant time x race interaction, such that that those in the minority racial group reported a significantly greater reduction in anxiety levels than those in the majority racial group ($F(1,39)=10.15$, $p=.003$).

Conclusions:
After using either the blue light or amber light for a period of six weeks, both the minority and majority racial groups reported significant decreases in anxiety severity. However, racial minorities were found to have significantly larger reductions in anxiety symptoms, when compared to those in the majority racial group. Further research is needed to fully understand the increased effect the treatment has on anxiety levels within racial minorities.

Racial Differences Regarding the Effectiveness of Blue Light Therapy in Reducing PTSD Severity

K. Caleigh Shepard[1], Anna I. Burns[1], Meltem Ozcan[1], Anna Alkozei[1], William D.S. Killgore[1]
[1]Social, Cognitive & Affective Neuroscience Lab, Department of Psychiatry, University of Arizona

Objective:
Daily blue light therapy (BLT) has been used as a treatment for certain mood and sleep disorders. It has not yet been investigated if BLT would also be effective for post-traumatic stress disorder (PTSD) and whether its effectiveness may differ across racial groups. Here, we examined potential differences in the effectiveness of BLT for reducing PTSD severity between majority and minority racial groups.

Participants and Methods:
Forty-four men and women (52.2% female, Mean age=31.0, SD=8.45) with a clinical diagnosis of PTSD were randomized to 6 weeks of 30 minutes of morning BLT (n=23), or placebo amber light (n=21). Thirty participants identified as the culturally dominant racial group of White/Caucasian while the remaining 14 participants identified as a minority racial group (Hispanic/Latino, African American/Black, Native American/American Indian, or Other). Pre- and post-light therapy, participants completed the Clinician-Administered PTSD Scale for DSM-5 as a measure of PTSD severity.

Results:
A repeated-measures ANOVA showed a significant decrease in PTSD severity over time, regardless of race or light condition ($F(1,39)=61.58$, $p=.001$). However, there was a group x time x race interaction, such that BLT was found to be more effective at reducing PTSD severity for those in the racial majority than the minority group ($F(1,39)=5.14$, $p=.029$).

Conclusions:
While daily light therapy was effective at reducing PTSD symptoms across racial groups, BLT was more effective at reducing PTSD severity for those who identified as White/Caucasian, while the amber light condition was more effective at reducing PTSD severity within the racial minority category. The results highlight that race is an important factor to consider when evaluating light therapy effectiveness, and that further analyses regarding the effect of amber light therapy as a treatment for PTSD should be examined.

Individuals with PTSD whose traumatic experiences occurred within the home have worse sleep outcomes

Meltem Ozcan[1], Caleigh Shepard[1], Anna I. Burns[1], Adam Raikes[1], Natalie S. Dailey[1], Anna Alkozei[1], Michael A. Grandner, William D.S. Killgore[1]
[1]Social, Cognitive, and Affective Neuroscience Lab, Department of Psychiatry, University of Arizona

Introduction

For most people, the concept of "home" is associated with feelings of safety, privacy, and control. However, this may not be the case for individuals who have been traumatized in their home. We hypothesized that among individuals with PTSD, mentioning words related to "home" in trauma narratives would be associated with worse sleep outcomes.

Methods

Sixty-three individuals (38 Females; M_{age} = 31.60, SD_{age}=8.91) with a clinical diagnosis of PTSD were administered the Functional Outcomes of Sleep Questionnaire (FOSQ), Insomnia Severity Scale (ISI), and Clinician-Administered PTSD Scale for the DSM-5 (CAPS), and provided brief descriptions of traumatic events they experienced in their lifetimes. FOSQ is a measure of functional problems experienced due to sleepiness, with higher scores denoting better sleep outcomes. Linguistic Inquiry and Word Count (LIWC) 2015, a computerized text analysis tool, was used to quantify the percentage of references to "home" within each participant's narrative.

Results

Out of the sixty-three participants, 28 participants referred to "home" several times in their narratives (M=3.94, SD=3.30). These individuals had significantly higher ISI scores (M=17.29, SD=5.18 $t(62)$=2.01, p<.05) and significantly lower FOSQ scores (M=13.22, SD=3.44, $t(61)$=-2.80, p<.01) compared to individuals who did not have "home" references (ISI: M=14.61, SD=5.37; FOSQ: M=15.45, SD=2.88).There was no significant difference in CAPS scores between the two groups. Controlling for PTSD severity, ISI and FOSQ scores were significantly negatively correlated for individuals who had "home" references in their narratives (r=-.56, p<.01). ISI and FOSQ scores were not correlated for the remaining participants. The strength of association between the two groups was significantly different (z=-2.61, p<.01).

Conclusions

These findings suggest that individuals with PTSD who experienced traumatic events in the context of their homes have significantly worse sleep outcomes and their insomnia problems are associated with more difficulty performing day-to-day activities. It is possible that individuals who experienced traumatic events at home may have difficulty falling and staying asleep due to increased hypervigilance while at home. Interventions aimed at helping such individuals reclaim their homes as safe havens might be worthwhile for improving sleep outcomes.

Trait gratitude and the impact of excessive daytime sleepiness on daily functioning predict PTSD severity over time

Meltem Ozcan[1], K. Caleigh Shepard[1], Anna I. Burns[1], Anna Alkozei[1], William D.S. Killgore[1]
[1]Social, Cognitive & Affective Neuroscience Lab, Department of Psychiatry, University of Arizona

Background
Individuals with post-traumatic stress disorder (PTSD) also often report symptoms of anxiety, depression, and poor sleep quality. It has been suggested that higher emotional resilience, better sleep quality, and higher trait gratitude may be protective factors for PTSD severity. Here, we explored several of these potential protective factors of PTSD severity over time.

Methods
Forty-six individuals (52% female, M_{age}=31.57, *SD*=8.91) with a clinical diagnosis of PTSD were administered the Clinician-Administered PTSD Scale for DSM-5 (CAPS) to determine PTSD symptom severity at time 1 (T1) and after six weeks of light therapy (time 2; [T2]). Participants completed the Gratitude Questionnaire (GQ-6), the Functional Outcomes of Sleep Questionnaire (FOSQ), the Connor-Davidson Resilience Scale (CD-RISC), the Beck Anxiety Inventory (BAI) and the Beck Depression Inventory (BDI-II) at T1 and T2. A hierarchical regression to was run using SPSS with CAPS severity at time 2 as the outcome variable. CAPS severity at time 1 was entered in the first step, and GQ6, FOSQ, CD-RISC, BAI, BDI-II scores at time 1, and age and gender were entered as the second step in a stepwise fashion.

Results
Overall, participants showed a decrease in PTSD severity over time (T1 *M*=33.02, *SD*=8.65; T2 *M*=22.77, *SD*=12.59). For the group as a whole, CAPS severity at T1 was a significant predictor of CAPS severity at T2, explaining 63% of the variance (R^2=.631, p< .001). The inclusion of FOSQ and GQ6 scores at T1 explained an additional 4% of the variance in CAPS scores at T2 (R^2= .719, p< .001).

Conclusions
Individuals with PTSD who experienced fewer disruptions to their daily life activities due to excessive daytime sleepiness, and who felt more gratitude at the start of the light exposure treatment were more likely to exhibit lower PTSD severity over time. As such, interventions targeting PTSD severity would benefit from integrating exercises aimed at improving sleep quality to lower excessive daytime sleepiness and increasing gratitude.

PTSD Severity and Use of Negative Emotion Words in Trauma Narratives Predict Nightmares in Individuals with PTSD

Meltem Ozcan[1], Caleigh Shepard[1], Anna I. Burns[1], Adam Raikes[1], Natalie S. Dailey[1], Anna Alkozei[1], Michael A. Grandner, William D.S. Killgore[1]

[1]Social, Cognitive, and Affective Neuroscience Lab, Department of Psychiatry, University of Arizona

Introduction

Recurring, distressing nightmares are commonly experienced by individuals with PTSD. Previous research shows that higher use of positive than negative emotion words while describing traumatic experiences is associated with better health outcomes. We hypothesized that greater use of negative words in trauma narratives, along with higher PTSD severity, would predict the severity and frequency of nightmares in individuals with PTSD.

Methods

Sixty-three individuals (38 Females; M_{age} = 31.60, SD_{age}=8.91) with a clinical diagnosis of PTSD were administered the Disturbing Dream and Nightmare Scale (DDNSI) and Clinician-Administered PTSD Scale for the DSM-5 (CAPS). Participants also typed a brief description of the most traumatic event they had experienced. These trauma narratives were processed with Linguistic Inquiry and Word Count (LIWC) 2015 to categorize positive and negative emotion words used in the descriptions. LIWC is a highly reliable and widely used computerized text analysis system that categorizes text into psychologically valuable (e.g. emotional state) and stylistic dimensions. Multiple linear regression analyses were run using SPSS.

Results

Participants used more negative than positive emotion words when describing their traumatic event (M_{positive}=0.55, SD=1.41; M_{negative}=10.11, SD=13.48). PTSD severity was a significant predictor of nightmares (β=0.49, F=17.61, p<.001), with an overall model fit of R^2=.24. When use of negative emotion words was entered as a second variable, both PTSD severity (β=0.45, t=3.92, p<.001) and the use of negative language in trauma narratives (β=.23, t=2.03, p<.05) were significant predictors of DDNSI, accounting for an additional 5% of the variance in the data (F=11.34, p<.001, R^2=.29).

Conclusion

These preliminary findings suggest that not only PTSD severity, but also the manner in which individuals with PTSD conceptualize and disclose their traumatic experiences might have implications for the severity and frequency with which these individuals have nightmares. The reappraisal of trauma narratives might be an important target in interventions for individuals with PTSD who experience nightmares.

Morning Blue Light Exposure Improves Sleep and Fear Extinction Recall in PTSD

William D. S. Killgore, Edward Pace-Schott, Meltem Ozcan, K. Caleigh Shepard, Anna I. Burns, Michael A. Grandner, John R. Vanuk, and Anna Alkozei

Background: Sleep disruption is considered to be the "hallmark symptom" of post-traumatic stress disorder (PTSD). In addition to sleep deficits, patients with PTSD who undergo experimental fear conditioning also typically show a deficit in the ability to recall extinction memories relative to those without the disorder. As memory consolidation is strongly influenced by sleep, we hypothesized that an intervention that regulates sleep and circadian rhythms (i.e., morning exposure to blue-wavelength light) might enhance consolidation and retention of learned extinction memory during a fear conditioning/extinction protocol among patients with PTSD.

Methods: Thirty-eight individuals with PTSD (18 male; Age=30.8, SD=9.0) underwent a well-validated fear conditioning and extinction protocol and were then randomly assigned to receive either BLUE (469 nm; n=20) or placebo AMBER (578 nm; n=18) morning light therapy for 30-minutes daily for 6-weeks. Participants returned after 6 weeks to undergo post-treatment extinction recall when exposed to the same previously conditioned stimuli. Extinction recall magnitude (ERM) at follow-up was calculated as the difference in skin conductance response (SCR) between the "extinguished" and the "never-extinguished" stimuli.

Results: BLUE light was associated with an increase in sleep duration relative to AMBER ($p=.016$). Based on the ERM, participants in the BLUE group showed sustained retention of extinction memory, while those in the placebo AMBER group showed a resurgence of the fear response after 6-weeks ($p=.016$). Moreover, retention of ERM was correlated with improvement in sleep on the Insomnia Severity Index for the BLUE ($r=.44$, $p<.05$) but not the AMBER group ($r=-.09$, ns).

Conclusions: Compared to placebo, 6-weeks of daily morning BLUE-wavelength light exposure was associated with increased sleep duration and greater retention of extinction learning in patients with PTSD. We speculate that increased sleep quantity or quality during the intervening weeks after learning led to greater consolidation of the fear extinction memory. Prominent exposure treatments for PTSD are based on principles of fear extinction, and our findings suggest that blue light treatment may facilitate treatment gains by stabilizing sleep in a manner that promotes consolidation of extinction memory.

Support: USAMRMC (W81XWH-14-1-0570).

The Relationships between Psychopathology and Sleep Problems Differ Between Racial Majority and Minority Groups

K. Caleigh Shepard, Meltem Ozcan, Anna I. Burns, John R. Vanuk, Michael A. Grandner, Anna Alkozei and William D.S. Killgore

Background:

Individuals with PTSD often experience lower sleep quality and higher rates of insomnia in comparison to the general population. In the U.S., when controlling for socioeconomic covariates, racial minorities consistently show worse sleep quality relative to the majority group. Here, we examine how anxiety, depression, and PTSD severity correspond with sleep problems between majority and minority racial groups.

Methods:

Sixty-four individuals meeting criteria for PTSD (39 female; Age=31.3, SD=9.0) completed the Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) as a measure of PTSD severity, the Beck Anxiety Inventory (BAI), and the Beck Depression Inventory (BDI). Participants also completed the Pittsburgh Sleep Quality Index (PSQI), and the Insomnia Severity Index (ISI) as measures of sleep quality. Forty of these participants identified as the culturally dominant racial group of White/Caucasian while 24 participants identified as a minority (e.g. Hispanic/Latino).

Results:

There were no significant differences between majority and minority racial groups on any of the measures. However, the strengths of association between PSQI and BAI scores were significantly different ($z=2.00$, $p=.045$) between majority ($r=.525$, $p \leq .001$) and minority groups ($r=-.066$, $p=.772$). A similar pattern was observed between the majority ($r=.455$, $p=.004$) and minority ($r=-.200$, $p=.373$) groups on CAPS scores ($z=1.98$, $p=.047$). Similarly, the association between ISI and CAPS scores was significant ($z=2.9$, $p=.003$) for individuals in the majority group ($r=.567$, $p< .001$), but not the minority group ($r=-.149$, $p=.486$). Although BDI was significantly correlated with ISI ($r=.445$, $p=.005$) and with PSQI ($r=.401$, $p=.014$) within the majority group and not the minority group, the strength of association for depression (i.e., BDI) did not differ between groups.

Conclusions:

Anxiety and PTSD severity were significantly correlated with sleep problems and insomnia for those in the majority group, but not among the racial minority group. This suggests that other psychosocial factors besides psychopathology, such as discrimination or acculturative stress, should be explored to better explain adverse sleep outcomes in minority populations. Further research investigating the effect of depression on sleep quality across racial groups should be conducted.

Use of Anger Words in Trauma Narratives is Negatively Associated with Sleep Quality for Single Individuals with PTSD

K. Caleigh Shepard, Meltem Ozcan, Anna I. Burns, Michael A. Grandner, and William D.S. Killgore

Background:

Irritability and sleep problems are commonly experienced by individuals with PTSD. Feelings of anger have been shown to increase cognitive agitation and psychological arousal, negatively affecting sleep quality. Prior research has shown that individuals in healthy romantic relationships report better sleep than single individuals, and there appears to be a bidirectional relationship between sleep and relationship quality. Here, we examine the relationship between sleep quality and the use of anger words (e.g., hate) in trauma narratives among individuals with PTSD who are single or in stable romantic relationships.

Methods:

Forty-six individuals meeting criteria for PTSD (26 Female; M_{Age}=31.30, *SD*=9.00) were administered the Pittsburgh Sleep Quality Index (PSQI) and provided brief narratives of lifetime traumatic events. Linguistic Inquiry and Word Count (LIWC) 2015 was utilized to compute percentage values for anger words used in these narratives. Twenty-five participants reported that they had never been married and were currently not in a stable romantic relationship (15 Female; M_{Age}=25.80, *SD*=5.13), and twenty-one participants indicated that they were currently married or were in a stable romantic relationship (11 Female; M_{Age}=32.02, *SD*=8.14).

Results:

The percentage of words relating to anger in trauma narratives was positively correlated with PSQI scores for individuals within the single group (*r*=.51, *p*=.01), but not for individuals with significant others (*r*=-.25, *p*=.33), when controlling for age. The strength of association between PSQI and percentage of anger words was significantly different (*z*=-2.24, *p*=.03) between groups. The groups did not differ significantly in the percentages of anger word use ($M_{married}$=3.33, *SD*=5.05, $M_{non\text{-}married}$=3.55, *SD*=4.34) or PSQI scores ($M_{married}$=9.74, *SD*=3.52, $M_{non\text{-}married}$=9.75, *SD*=2.69).

Conclusions:

These preliminary results suggest that expressing anger in relation to traumatic events may be associated with worse sleep quality among single individuals with PTSD. Having a significant other is typically associated with emotional support and validation, possibly allowing these individuals to express anger in a healthy manner that does not impact sleep quality. Future

research could benefit from clarifying the potential benefits of romantic relationships on sleep and recovery from PTSD.

The Association Between PTSD Severity and Insomnia is Mediated by Nightmares

Anna Burns, Meltem Ozcan, K. Caleigh Shepard, Kyle LaFollette, Anna Alkozei, Michael A. Grandner, & William D.S. Killgore

Objective:
Individuals with Post-Traumatic Stress Disorder (PTSD) are likely to experience nightmares and disturbed sleep. In fact, sleep disruption is often the most frequently reported symptom of PTSD. This population often re-experiences their traumatic events through nightmares. If left untreated, sleep disturbance can become a chronic issue and tends to be associated with poor recovery. Of the various sleep-related issues, nightmares can lead to a greater number of nocturnal awakenings and establish a conditioned fear response to sleep that further impacts emotional functioning. Here we examined whether nightmare severity mediates the relationship between PTSD severity and insomnia.

Participants and Methods:
Fifty-eight adults (59.3% female, Mean age = 31.1 years, SD = 8.5) with a clinical diagnosis of PTSD were administered the Clinician-Administered PTSD Scale for DSM-5 as a measure of symptom severity. Individuals completed the Disturbing Dreams and Nightmare Severity Index (DDNSI) as a measure of nightmare severity and frequency and the Insomnia Severity Index (ISI) to assess participants' degree of insomnia. A mediation analysis using Hayes' PROCESS tool in SPSS was conducted to test the hypothesis that nightmare severity would mediate the relationship between PTSD severity and insomnia.

Results:
Consistent with prior research, there was a significant positive relationship between PTSD severity and insomnia (b = .20). Moreover, nightmare severity fully mediated the positive relationship between PTSD severity and insomnia (b = .39, 95% CI [.10, .68]), F (2,55) = 6.77, p =. 0024.

Conclusion:
As expected, the severity of PTSD symptoms was significantly correlated with insomnia symptoms. However, the relationship between PTSD severity and insomnia appears to be fully mediated by the severity of nightmares. In other words, greater severity of PTSD appears to lead to more severe nightmares, which in turn, lead to greater problems with insomnia. These findings suggest that interventions aimed toward reducing nightmare severity may be particularly efficacious in the treatment of PTSD.

Gratitude and Frequency of Naps Predict Resilience for Individuals with PTSD

Anna I. Burns, K. Caleigh Shepard, Meltem Ozcan, Kyle LaFollette, Anna Alkozei, John R. Vanuk, Adam C. Raikes, Michael A. Grandner, William D.S. Killgore

Objective:
Resilience, the ability to bounce back from adversity, has been found to be a protective factor against the development of Post-Traumatic Disorder (PTSD). Positive emotions such as gratitude (i.e. the ability to appreciate positive aspects of one's life) can promote the development of critical resilience capacities. Moreover, sleep may play a role in resilience. For instance, napping can facilitate the retention of fear extinction memories. We hypothesized that both gratitude and weekly napping frequency would predict self-reported resilience in patients with PTSD.

Participants and Methods:
Twenty-seven individuals who had reported habitually napping (63% female, Mean age =31.7 years, SD =9.0) with a clinical diagnosis of PTSD were administered the Gratitude Questionnaire-6 as a measure of trait gratitude, and also reported how many times they nap per week. These were used to predict scores on the Connor-Davidson Resilience Scale, a self-report measure of resilience.

Results:
Multiple linear regression was used to predict resilience from gratitude and frequency of napping (for those who take naps during the week). Each variable was entered in a separate step. Individually, gratitude significantly predicted resilience (β=.594, p=0.002), R^2=.35. However, when added to the model, the frequency of weekly napping significantly increased prediction (R^2 Change=.135). In the final model, both gratitude (β=.403, p=0.029) and napping (β=.414, p=0.025) significantly predicted resilience (R^2=.487).

Conclusion:
Of those who indicate being habitual nappers, it was found that increased gratitude, combined with greater frequency of naps taken per week, predicted higher resilience levels than gratitude alone. These findings may be explained by the combination of higher trait gratitude, which would allow one to be able to reframe a negative situation positively, and the increased frequency of naps taken by individuals, promoting the retention of fear extinction. This combination appears to promote resilience. Combining naps with gratitude training interventions may prove useful in building resilience among patients recovering from PTSD.

Support: This project was supported by an USAMRMC grant to WDSK (W81XWH-14-1-0570).

The Relationship Between Sleep Onset Latency and Gratitude

Anna I. Burns, Meltem Ozcan, K. Caleigh Shepard, Anna Alkozei, John R. Vanuk, William D.S. Killgore

Objective:
Post-traumatic stress disorder (PTSD) is a common diagnosis among military personnel returning from combat operations. While PTSD is associated with a number of symptoms, sleep disruption is often considered to be the "hallmark symptom" of this disorder. In fact, upward of 91% of patients with PTSD have reported sleep disturbances in some samples. Treating the sleep problems is critical, as emerging evidence suggests that improvements in sleep disruption can lead to improvements in symptoms and a faster recovery. While pharmacologic interventions can be helpful, there is a great need for non-pharmacologic or behavioral methods to improve sleep in this population. One potential non-pharmacologic approach is through the implementation of gratitude interventions. Gratitude is the recognition of the positive aspects within one's life and can be a useful tool in elevating positive affect in those with PTSD. Previous research has found that Veterans with PTSD who experience higher levels of gratitude also experience a greater satisfaction with life and better self-reported sleep quality, although research on this topic is extremely limited. To further understand the associations between gratitude and sleep disruption, we conducted a preliminary study to examine the correlations between actigraphically measured sleep and self-rated trait gratitude. We hypothesized that for those with PTSD, sleep onset latency (i.e., how long it takes to fall asleep) would correlate negatively with self-report of trait gratitude. Furthermore, as sex differences in outcomes are important to assess, we also hypothesized that the associations would differ for men and women with PTSD.

Participants and Methods:
Fifty-six individuals (71.4% female; Age: M =31.8, SD =8.8) with a clinical diagnosis of PTSD based on the Structured Clinical Interview for DSM-5 were administered the Gratitude Questionnaire-6 as a measure of trait gratitude and the Clinician Administered PTSD Scale for the DSM-5 (CAPS-5) as a measure of PTSD severity. Participants wore a Phillips Respironics Actiwatch Spectrum PRO for one week collecting sleep onset latency data. PTSD severity for men (M=30.25, SD = 8.9) and women (M=34.68, SD = 7.98) was not significantly different (t (54)= -1.814, p = .075).

Results:
A two-tailed Pearson's correlation showed that sleep onset latency was negatively correlated with gratitude (r = -.271, p = .043), suggesting that those with lower trait gratitude tended to take longer to fall asleep based on their actigraphic data. This relationship was further investigated separately for women and men using a two-tailed Pearson's correlation. There was a significant negative correlation between sleep onset latency and gratitude for women (r = -.477, p = .004). On the other hand, sleep onset latency and gratitude were positively correlated for men, but this relationship was not statistically significant (r = .433, p = .094). We next examined the difference between these two correlations using a Fisher's r-to-z transformation, which revealed that the relationship between sleep onset latency and gratitude was significantly different between women and men (Z = -3.05, p = .002, two-tailed).

Conclusion:

As predicted, higher trait gratitude was associated with shorter sleep onset latency. This finding is consistent with previous research on gratitude and self-reported sleep quality (Wood et al., 2009), as gratitude may be able to lessen negative pre-sleep cognitions, fostering a quicker sleep onset. Moreover, there were significant gender differences in the direction of this association. Women were found to have a significant negative relationship between sleep onset latency and gratitude, suggesting that higher gratitude is associated with shorter time to sleep onset, while men tend to show the opposite association. The reason for this difference is not entirely clear, but previous research by Kashdan et al., 2009, indicates that men may react negatively towards gratitude as they find the emotion more challenging to express than women. These findings suggest that when implementing gratitude interventions for sleep disturbance, clinicians should take gender differences into account. This is particularly important within the U.S. military where the vast majority of Service members are male. While these findings are preliminary, they raise concern over the potential utility of gratitude interventions within the military. Further research comparing the effects of gratitude interventions on sleep-related outcomes will be necessary before such interventions should be implemented in a widespread fashion throughout the military.

Blue Light Therapy Differences in Sleep Quality Improvement in Military and Civilian Populations

K. Caleigh Shepard, Meltem Ozcan, Anna I. Burns, Anna Alkozei, and William D.S. Killgore

Background:

Poor sleep quality is a hallmark symptom of Post-Traumatic Stress Disorder (PTSD). In a recent self-report survey, United States Veterans indicated insomnia as the most common and most severe symptom of PTSD they experience. Poor sleep quality is additionally linked to higher severity of other PTSD symptoms.[1] It is, therefore, of critical importance to find ways to reduce sleep disruption in this population, which in turn, may lead to improvements in symptom presentation. One potential method for improving sleep is to regulate the daily circadian rhythm through timed exposure to light. Recent evidence suggests that there are retinal ganglion cells that are specifically attuned to respond to the blue wavelengths of light. Interestingly, these cells project directly to the surprachiasmatic nucleus of the hypothalamus and play a key role in regulating the circadian rhythm of sleep and wake. Recently, daily morning blue light therapy (BLT) has been used as a treatment for certain sleep disorders through the entrainment and regulation of circadian rhythms. Here, we investigated if BLT would be similarly effective in improving sleep quality among both Veterans and civilians suffering from sleep disturbance due to PTSD.

Methods:

Fifty-eight individuals meeting DSM-5 criteria for PTSD (24 male; 34 female; Age=31.6, SD=8.9) completed a six-week course of experimental light exposure therapy. Participants were randomly assigned a light condition, either the active treatment of BLT, or a placebo treatment of amber light. Participants completed the Pittsburgh Sleep Quality Index (PSQI) as a measure of sleep quality, both at pre- and post-treatment. Twelve male participants identified as military Veterans, while the remaining forty-six participants (12 male; 34 female) identified as civilians. We compared outcomes on the PSQI between the blue and amber conditions at each time point for military and civilian groups using a mixed analysis of variance (ANOVA).

Results:

Sleep quality scores on the PSQI were not statistically different between military and civilian groups at baseline or at post-treatment. However, a mixed ANOVA indicated a light group x military status x time interaction, in which only the BLT condition improved sleep quality for the military group, but both BLT and the placebo amber light group improved sleep quality for civilians ($F(1,49)=5.42$, $p=.024$) after controlling for the influence of subject sex.

Conclusions:

Civilians showed a significant improvement in sleep quality over time, regardless of light exposure condition. However, among Veterans, only BLT improved sleep quality, whereas placebo was essentially ineffective at altering sleep quality. These findings suggest that there are differences between Veteran and civilian populations in their response to treatment, which are most likely accounted for by different trauma types. Further research with an increased Veteran sample size and a focus on the potential role of military versus civilian trauma experiences in sleep disruption will likely help delineate the mechanisms underlying these differences in response to light.

1. Robert N. McLay, Warren P. Klam, Stacy L. Volkert; Insomnia Is the Most Commonly Reported Symptom and Predicts Other Symptoms of Post-Traumatic Stress Disorder in U.S. Service Members Returning From Military Deployments, Military Medicine, Volume 175, Issue 10, 1 October 2010, Pages 759–762, https://doi.org/10.7205/MILMED-D-10-00193

Blue Light Exposure Enhances Sleep and Fear Extinction Recall in PTSD

William D. S. Killgore, Meltem Ozcan, K. Caleigh Shepard, Anna I. Burns, John R. Vanuk, and Anna Alkozei

Background: Among military personnel who have deployed in support of combat operations in recent decades, the rate of post-traumatic stress disorder (PTSD) ranges from around 14-20%. Of those who are diagnosed with PTSD, sleep disorders are generally the most prevalent complaint, ranging from 70-91% across studies, leading sleep disruption to be considered as the "hallmark symptom" of the disorder. Importantly, poor sleep can exacerbate symptoms, as sleep plays a critical role in normal emotional regulation and in the consolidation of emotional memories. In addition to sleep deficits, patients with PTSD who undergo experimental fear conditioning also typically show a deficit in the ability to recall extinction memories relative to those without the disorder. This is critical to recovery, as most prominent models of therapy for PTSD are based on theories of emotional memory reconsolidation and extinction. Because memory consolidation is strongly influenced by sleep, we hypothesized that an intervention that regulates sleep and circadian rhythms might enhance consolidation and retention of learned extinction memory during a fear conditioning/extinction protocol among patients with PTSD. Blue light exposure in the morning is associated with a suppression of melatonin and a phase advance in the rhythm and timing of sleep. Therefore, in the present study, we tested the hypothesis that exposure to blue-wavelength light for 30-minutes each morning for 6-weeks would enhance sleep and the retention of fear extinction memory during a classical fear conditioning paradigm.

Methods: Thirty-eight individuals meeting DSM-5 criteria for PTSD (18 male; Age=30.8, SD=9.0) completed sleep questionnaires, including the Insomnia Severity Index (ISI) and Epworth Sleepiness Scale, and measures of PTSD symptoms, including the Clinician Administered PTSD Scale and PTSD Symptom Checklist-5. Participants then underwent a well-validated fear conditioning and extinction protocol. After the extinction training, participants were then randomly assigned to receive either BLUE (469 nm; n=20) or placebo AMBER (578 nm; n=18) morning light therapy for 30-minutes daily at home for 6-weeks. Participants returned after 6 weeks to complete the questionnaires and undergo post-treatment extinction recall when exposed to the same previously conditioned stimuli. Skin conductance response (SCR) was measured at each session in response to the stimuli. Extinction recall magnitude (ERM) at follow-up was calculated as the difference in SCR between the "extinguished" and the "never-extinguished" stimuli.

Results: Six weeks of BLUE light exposure was associated with an increase in sleep duration relative to AMBER (p=.016), and was associated with a significant reduction in daytime sleepiness on the ESS (r = -.41, p = .03), and a reduction in CAPS Arousal/Reactivity (r = -.44, p = .018), and a reduction in PCL5 (r = -.64, p = .0002). Based on the ERM, participants in the BLUE group showed sustained retention of extinction memory, while those in the placebo AMBER group showed a resurgence of the fear response after 6-weeks (p=.016). Moreover, retention

of ERM was correlated with improvement in sleep on the Insomnia Severity Index for the BLUE ($r = .44$, $p < .05$) but not the AMBER group ($r = -.09$, ns).

Conclusions: Compared to placebo, 6-weeks of daily morning BLUE-wavelength light exposure was associated with increased sleep duration, reduced daytime sleepiness, and reduced symptom severity relative to AMBER placebo treatment. Further, we found that BLUE light exposure was associated with enhanced retention of fear extinction learning in patients with PTSD. We speculate that increased sleep quantity or quality during the intervening weeks after learning led to greater consolidation of the fear extinction memory. This is important, as prominent exposure treatments for PTSD are based on principles of fear extinction. Our findings suggest that blue light treatment may potentially facilitate treatment gains from such exposure therapies by stabilizing sleep in a manner that promotes consolidation of extinction memory.

Support: USAMRMC (W81XWH-14-1-0570).

The relationship between combat and non-combat trauma and risk-taking propensity in individuals with PTSD

Meltem Ozcan[1], Anna I. Burns[1], Kristin C. Shepard[1], Anna Alkozei[1], William D. Killgore[1]
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Background

Service members returning from combat commonly report a variety of physical, psychological and behavioral health problems (Kazis, Miller, Clark, et al., 1998). Research shows that combat exposure experiences, especially those of a violent nature, are associated with increased propensity for risky behavior and decision-making (Killgore, Cotting, Thomas, et al., 2008). Here, we investigated the relationship between prior combat exposure, PTSD severity, and risk-taking propensity in male individuals clinically diagnosed with PTSD.

Methods

Thirteen male participants who have served in the military (Age: *M*=30.62, *SD*=4.93) and 12 male participants who have not served in the military (*M*=33.08, *SD*=9.64) completed the Combat Exposure Scale (CES), the Evaluation of Risks Scale Bubble Sheet Version (EVAR-B), and the Clinician-Administered PTSD Scale for the DSM-5 (CAPS). Independent samples t-tests compared the military and non-military participants on the measures, and Spearman's rank order correlations were run to assess the relationship between combat exposure levels, PTSD severity, and risk-taking behavior.

Results

The combat experience of the military participants was characterized by light-moderate (7.7%), moderate (30.8%), moderate-heavy (38.5%), and heavy (23.1%) exposure. The groups did not significantly differ on overall PTSD severity, but military participants (*M*=5.69, *SD*=3.07) scored significantly lower on the CAPS_Intrusions_Severity subscale compared to the non-military participants (*M*=8.58, *SD*=3.18, *p*=.03). On the EVAR, military participants (*M*=366.15, *SD*=50.43) scored significantly higher than non-military participants (*M*=299.83, *SD*=68.27, *p*=.01) in their propensity to engage in risky behavior. Specifically, military participants scored significantly higher on the EVAR American factors of Risk/Thrill Seeking (*M*=15.26, *SD*=2.51) and Need for Control (*M*=12.16, *SD*=2.16) compared to non-military participants (Risk/Thrill Seeking: *M*=11.83, *SD*=3.05, *p*=.01; Need for Control: *M*=9.85, *SD*=1.95, *p*=0.01). Spearman's rank order correlations revealed significant relationships between the experience of having been under enemy fire and CAPS_Intrusions_Severity scores (*r*s=.621, *p*=.02). The experience of having been surrounded by the enemy was positively associated with CAPS_Cognitions_Severity scores (*r*s=.597, *p*=.03). Spearman's rank order correlations indicated no specific association between combat exposure levels and risk-taking behavior or PTSD severity.

Conclusions

Our findings indicate that individuals who have had combat experiences (e.g., taking enemy fire) may engage in more risky behaviors than individuals who have experienced other forms of trauma (e.g. being in a car accident). The elevations in the Risk/Thrill Seeking and Need for Control factors indicate that the higher risk propensity of military individuals in our sample might be driven by an increased sense of invincibility and impulsivity having lived through combat. Furthermore, our findings suggest that the type of combat exposure, such as being surrounded by the enemy or taking fire in a combat situation, may be more closely linked with increases in PTSD symptoms rather than the severity of combat exposure. Overall, our findings suggest that combat experiences might affect risk taking behavior and attitudes differently than non-combat trauma. Programs aimed at improving the well-being of veterans might benefit from incorporating targeted preventative interventions for risky behaviors such as alcohol and

substance abuse. The present findings are preliminary and the sample size is still quite small. Thus, future research should investigate the mechanisms by which certain violent combat experiences might increase service members' risk of experiencing intrusive memories and/or negative alterations in cognition using a larger sample.

Alterations in Cognitive Symptoms of PTSD are Correlated with Somatic Symptoms

Ayla Bullock, Anna Burns, Caleigh Shepard, Anna Alkozei, William D.S. Killgore

Objective:
Patients with post-traumatic stress disorder (PTSD) experience more somatic illnesses than the general population. However, it is unknown which symptom class(es) of PTSD, including arousal, cognition/mood, intrusion, and avoidance, most strongly predict somatic symptoms (SS). In addition, depression and poor sleep quality, both symptoms of PTSD, also impact physical health. This study aimed to identify the symptom class of PTSD most associated with SS, controlling for depression and sleep quality. On the basis of prior findings that cognition and mood can influence physical health, we hypothesized that alterations in cognitive and mood symptoms would predict the severity of SS.

Participants and Methods:
Seventy-five individuals meeting DSM-5 criteria for PTSD (65.3% female; mean age=31.8, *SD*=8.8) were administered the Clinician-Administered PTSD Scale for the DSM-5 (to obtain scores for each symptom class), a self-report questionnaire on SS (e.g. headaches, dizziness), the Beck Depression Inventory (BDI), and the Insomnia Severity Scale (ISI). A hierarchical linear regression analysis was conducted with BDI and ISI scores entered in the first step as covariates and the four PTSD symptom classes entered stepwise in the second step.

Results:
BDI and ISI scores significantly predicted SS (R^2=.22, p<.001). Of the four symptom classes, only cognition/mood significantly predicted an additional 5% of the variance in SS (R^2 change=.05, β=.298, p=.030).

Conclusion:
After controlling for sleep and depression, cognitive and mood symptoms significantly predicted general somatic symptoms. This suggests a possible influence of maladaptive changes in mood and cognition on SS in individuals with PTSD, perhaps via increased allostatic load and HPA-axis dysfunction secondary to perceived stresses. One potential explanation for this finding is that individuals experiencing troublesome physical symptoms have fewer cognitive resources to combat maladaptive thoughts that may exacerbate symptoms (e.g., “I cannot handle this pain”). These findings point to a potential intervention avenue for addressing somatic issues via treatments aimed at cognition and mood.

Curriculum Vitae

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PLACE AND DATE OF BIRTH	Anchorage Alaska, September 2, 1965
CITIZENSHIP	USA

CHRONOLOGY OF EDUCATION

8/83 - 5/85	A.A. (Liberal Arts), San Antonio College
8/83 - 5/85	A.A.S (Radio-TV-Film), San Antonio College
8/85 - 5/90	B.A. (Psychology), *Summa cum laude* with Distinction, University of New Mexico
8/90 - 5/92	M.A. (Clinical Psychology), Texas Tech University
8/92 - 8/96	Ph.D. (Clinical Psychology), Texas Tech University Dissertation Title: *Development and validation of a new instrument for the measurement of transient mood states: The facial analogue mood scale (FAMS)*. Lubbock, TX: Texas Tech University;1995. Advisor: Bill Locke, Ph.D.

POST-DOCTORAL TRAINING

8/95 - 7/96	Predoctoral Fellow, Clinical Psychology, Yale School of Medicine
8/96 - 7/97	Postdoctoral Fellow, Clinical Neuropsychology, University of OK Health Sciences Center
8/97 - 7/99	Postdoctoral Fellow, Clinical Neuropsychology, University of Pennsylvania Medical School
7/99 - 9/00	Research Fellow, Neuroimaging, McLean Hospital/ Harvard Medical School
9/13 - 5/14	Certificate in Applied Biostatistics, Harvard Medical School

LICENSURE/CERTIFICATION

2001 -	Licensed Psychologist, #966, State of New Hampshire

CHRONOLOGY OF EMPLOYMENT

Academic Appointments

10/00 - 8/02	Instructor in Psychology in the Department of Psychiatry Harvard Medical School, Boston, MA
9/02 - 7/07	Clinical Instructor in Psychology in the Department of Psychiatry Harvard Medical School, Boston, MA
8/07 - 10/10	Instructor in Psychology in the Department of Psychiatry Harvard Medical School, Boston, MA
4/08-	Faculty Affiliate, Division of Sleep Medicine Harvard Medical School, Boston, MA
10/10 - 10/12	Assistant Professor of Psychology in the Department of Psychiatry Harvard Medical School, Boston, MA
10/12 - 6/14	Associate Professor of Psychology in the Department of Psychiatry Harvard Medical School, Boston, MA
7/14-	Associate Professor of Psychology in the Department of Psychiatry (part-time) Harvard Medical School, Boston, MA
7/14-	Professor of Psychiatry—Tenured University of Arizona College of Medicine, Tucson, AZ
7/14-	Professor of Medical Imaging University of Arizona College of Medicine, Tucson, AZ
9/14-	Professor of Psychology University of Arizona College of Science, Tucson, AZ

Hospital/Clinical/Institutional Appointments

10/00 - 8/02	Assistant Research Psychologist, McLean Hospital, Belmont, MA
8/02 - 7/04	Research Psychologist, Department of Behavioral Biology, Walter Reed Army Institute of Research, Silver Spring, MD
7/04 - 10/07	Chief, Neurocognitive Performance Branch, Walter Reed Army Institute of Research, Silver Spring, MD
10/07 - 3/10	DoD Contractor, Chief Psychologist, GovSource, Inc., U.S. Department of Defense (DoD)
8/08	Consulting Psychologist, The Brain Institute, University of Utah
9/02 - 4/05	Special Volunteer, National Institute on Deafness and Other Communication Disorders (NIDCD), National Institutes of Health (NIH), Bethesda, MD
9/02 - 7/07	Research Consultant, McLean Hospital, Belmont, MA
8/05 - 5/06	Neuropsychology Postdocotoral Research Program Training Supervisor, Walter Reed Hospital, Washington, DC
8/07 -	Research Psychologist, McLean Hospital, Belmont, MA
7/10 - 6-11	DoD Contractor, Consulting Psychologist, Clinical Research Management (CRM)
7/11 - 6/14	Director, Social Cognitive, and Affective Neuroscience (SCAN) Laboratory, McLean Hospital, Belmont, MA
7/14-	Director, Social, Cognitive, and Affective Neuroscience (SCAN) Laboratory, University of Arizona, Tucson, AZ
3/16 -12/18	ORISE Knowledge Preservation Fellow; Walter Reed Army Institute of Research, Silver Spring, MD

Military Positions

11/01 - 8/02	First Lieutenant, Medical Service Corps, United States Army Reserve (USAR)
8/02 - 7/05	Captain, Medical Service Corps, United States Army-Active Regular Army (RA)
8/05 - 10/07	Major, Medical Service Corps, United States Army-Active Regular Army (RA)
10/07 - 7/12	Major, Medical Service Corps, United States Army Reserve (USAR)
7/12 – 9/19	Lieutenant Colonel, Medical Service Corps, United States Army Reserve (USAR)
3/16 -	Deputy Consultant to the Surgeon General of the Army (SGA) for 71F Research Psychology, US Army Reserves
9/19-	Colonel, Medical Service Corps, United States Army Reserve (USAR)

HONORS AND AWARDS

1990	Outstanding Senior Honors Thesis in Psychology, University of New Mexico
1990-1995	Maxey Scholarship in Psychology, Texas Tech University
2001	Rennick Research Award, Co-Author, International Neuropsychological Society
2002	Honor Graduate, AMEDD Officer Basic Course, U.S. Army Medical Department Center and School
2002	Lynch Leadership Award Nominee, AMEDD Officer Basic Course, U.S. Army Medical Department Center and School
2003	Outstanding Research Presentation Award, 2003 Force Health Protection Conference, U.S. Army Center for Health Promotion and Preventive Medicine
2003	Who's Who in America
2004	Who's Who in Medicine and Healthcare
2005	Edward L. Buescher Award for Excellence in Research by a Young Scientist, Walter Reed Army Institute of Research (WRAIR) Association
2009	Merit Poster Award, International Neuropsychological Society
2009	Outstanding Research Presentation Award, 2009 Force Health Protection Conference, U.S. Army Center for Health Promotion and Preventive Medicine
2010	Best Paper Award, Neuroscience, 27th U.S. Army Science Conference
2011	Published paper included in *Best of Sleep Medicine 2011*
2011	Blue Ribbon Finalist, 2011 Top Poster Award in Clinical and Translational Research, Society of Biological Psychiatry
2012	Defense Advanced Research Projects Agency (DARPA) Young Faculty Award in Neuroscience
2014	Blue Ribbon Finalist, 2014 Top Poster Award in Basic Neuroscience, Society of Biological Psychiatry
2014	Harvard Medical School Excellence in Mentoring Award Nominee
2014	AASM Young Investigator Award (co-author), Honorable Mention, American Academy of Sleep Medicine
2017	Trainee Abstract Merit Award (mentor/co-author), Sleep Research Society
2018	Trainee Abstract Merit Award (mentor/co-author), Sleep Research Society.

SERVICE/OUTREACH

Local/State Service/Outreach

2003	Scientific Review Committee, Walter Reed Army Institute of Research (WRAIR), Silver Spring, MD
2005	Scientific Review Committee, Walter Reed Army Institute of Research (WRAIR), Silver Spring, MD
2012-14	McLean Hospital Research Committee, McLean Hospital, Belmont, MA
2016	House Ad Hoc Committee on Treatment of Traumatic Brain Injuries and Benefits of Hyperbaric Oxygen Therapy, Arizona House of Representatives

National/International Service/Outreach

2004	University of Alabama, Clinical Nutrition Research Center (UAB CNRC) Pilot/Feasibility Study Program Review Committee
2006	U.S. Small Business Administration, Small Business Technology Transfer (STTR) Program Review Committee
2006	Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program Funding Panel
2006	External Member, Doctoral Thesis Committee, Belinda J. Liddle, Ph.D., University of Sydney, Australia
2007	Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program Funding Panel
2008	United States Army Medical Research and Materiel Command (USAMRMC) Congressionally Directed Medical Research Programs (CDMRP) Extramural Grant Review Panel
2008-2011	Long-Distance High School Research Mentor, Christina Song, NY
2009	NIH-CSR Brain Disorders and Clinical Neuroscience N02 Member Study Conflict Section Review Panel
2009	Sleep Physiology and Fatigue Interventions Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program
2009	Scotland, UK, Biomedical and Therapeutic Research Committee, Grant Reviewer
2010	Canada, Social Sciences and Humanities Research Council of Canada, Grant Reviewer
2011	National Science Foundation (NSF) Grant Reviewer
2011-	National Network of Depression Centers (NNDC), Military Task Group
2011	Israel, Israel Science Foundation (ISF), Grant Reviewer
2011	Scientific Review Committee, US Army Institute of Environmental Medicine (USARIEM)
2012	National Science Foundation (NSF) Grant Reviewer
2012-	American Academy of Sleep Medicine, Member
2013	Israel, Israel Science Foundation (ISF), Grant Reviewer
2014-	Organization for Human Brain Mapping, Member
2015-	Human Affectome Project Advisory Board Member
2016-	Sleep Research Society Member
2017-2018	External Reviewer, Doctoral Thesis Reviewer, Kalina R. Rossa, Queensland University of Technology, Australia.
2018	Marsden Fund Council Grant Proposal Referee, Royal Society Te Aparangi, New Zealand.
2018	External Faculty Promotion Dossier Reviewer, Oregon Health & Science University
2018-2019	Long-Distance High School Research Mentor, Taleen Postian, Byram Hills HS, NY
2019	External Reviewer, Doctoral Thesis Reviewer, William Ryan McMahon, Monash University, Australia.

Departmental Committees

2006	Chair, Undergraduate Honors Thesis Committee, Jessica Richards, Department of Psychology, University of Maryland, Baltimore County, MD
2012-	Member, Research Committee, McLean Hospital, Belmont, MA
2014	Psychiatry Senior Research Manager Candidate Search Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2014-2015	Member, Faculty Search Committee, Department of Psychology, University of Arizona, Tucson, AZ.
2014-2016	Member, Comprehensive Examination Committee, Natalie Bryant, Department of Psychology, University of Arizona, Tucson, AZ
2014-2015	Chair/Research Faculty Mentor, Undergraduate Honors Thesis Committee, Haley Kent, Department of Biochemistry, University of Arizona, Tucson, AZ
2014-	Member, Psychiatry Research Investigator Committee, Department of Psychiatry, University of Arizona, Tucson, AZ.
2015	Member, Dissertation Committee, Ryan S. Smith, Ph.D., Department of Psychology, University of Arizona, Tucson AZ.
2015	Imaging Excellence Cluster Hire Search Committee, Department of Medical Imaging, University of Arizona, Tucson, AZ
2015-	Member, Mentoring Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2016	Member, Chief of Neuroradiology Faculty Search Committee, Department of Medical Imaging, University of Arizona, Tucson, AZ
2016-2017	Member, Dissertation Committee, Brian Arizmendi, Department of Psychology, University of Arizona, Tucson, AZ
2016-2017	Member, Masters Thesis Committee, Saren Seeley, Department of Psychology, University of Arizona, Tucson, AZ
2016-2017	Member, Masters Thesis Committee, Mairead McConnell, Department of Psychology, University of Arizona, Tucson, AZ
2016-2018	Member, Masters Thesis Committee, John Vanuk, Department of Psychology, University of Arizona, Tucson, AZ
2016-2017	Faculty Advisor, Undergraduate Honor Thesis Committee, Matthew Nettles, Neuroscience/Cognitive Science, University of Arizona, Tucson, AZ
2016-	Scientific Review Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2017-2018	Faculty Advisor, Undergraduate Honors Thesis Committee, Debby Waugaman, Psychology, University of Arizona, Tucson, AZ
2017-2018	Faculty Advisor, Undergraduate Honors Thesis Committee, Jun Lee, Department of Psychology, University of Arizona, Tucson, AZ
2017-	Chair, Psychiatry Research Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2017-	Member, Promotion and Tenure Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2017-	Member, Mentoring Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2019	Member, Comprehensive Examination Committee, Ji-Soo Kim, Department of Psychology, University of Arizona, Tucson, AZ

2019 Member, Comprehensive Examination Committee, John Vanuk, Department of Psychology, University of Arizona, Tucson, AZ
2019- Member, Masters Thesis Committee, Veronica Kraft, Department of Psychology, University of Arizona, Tucson, AZ

University Committees/Service

2014 Ad Hoc Member, Interview Committee for Defense and Security Research Institute Director Position, University of Arizona, Tucson, AZ.
2014-2018 Member, Mechanisms of Emotion, Social Relationships, and Health Interdisciplinary Developing Research Program, Clinical and Translational Science Institute, BIO5, University of Arizona, Tucson, AZ
2015 Vice President's Executive Committee for Defense and Security Strategic Planning, University of Arizona, Tucson, AZ
2015- MRI Operations Committee, University of Arizona, Tucson, AZ
2016 Faculty Mentor, Undergraduate Biology Research Program (UBRP), University of Arizona, Tucson, AZ
2016 Faculty Mentor, Border Latino & American Indian Summer Exposure to Research (BLAISER) Program, University of Arizona, Tucson, AZ
2016 Faculty Mentor, Medical Student Research Committee (MSRC) Program, University of Arizona College of Medicine, Tucson, AZ
2018 Administrative Review Committee: Psychiatry Department Chair
2019 Reviewer, Psychology Department Faculty Pilot Grant Program
2019 Reviewer, Arizona Alzheimer's Consortium
2019- 3T Faculty Advisory Committee, University of Arizona, Tucson, AZ
2019 Faculty Mentor, Steps 2 STEM High School Research Internship Program, Tucson, AZ

Editorial Board Membership

2009-2018 Editorial Board Member, International Journal of Eating Disorders
2012- Editorial Board Member, Dataset Papers in Neuroscience
2012- Editorial Board Member, Dataset Papers in Psychiatry
2012- Editor, Journal of Sleep Disorders: Treatment and Care

Ad Hoc Journal Reviewer (102 Journals)

2001-2012 Reviewer, Psychological Reports
2001-2012 Reviewer, Perceptual and Motor Skills
2002 Reviewer, American Journal of Psychiatry
2002-2013 Reviewer, Biological Psychiatry
2003 Reviewer, Clinical Neurology and Neurosurgery
2004-2016 Reviewer, NeuroImage
2004-2006 Reviewer, Neuropsychologia
2004-2016 Reviewer, Journal of Neuroscience
2004 Reviewer, Consciousness and Cognition
2005 Reviewer, Experimental Brain Research

2005	Reviewer, Schizophrenia Research
2005-2012	Reviewer, Archives of General Psychiatry
2005	Reviewer, Behavioral Brain Research
2005-2009	Reviewer, Human Brain Mapping
2005-2013	Reviewer, Psychiatry Research: Neuroimaging
2006	Reviewer, Journal of Abnormal Psychology
2006	Reviewer, Psychopharmacology
2006	Reviewer, Developmental Science
2006	Reviewer, Acta Psychologica
2006, 2015	Reviewer, Neuroscience Letters
2006-2019	Reviewer, Journal of Sleep Research
2006-2016	Reviewer, Physiology and Behavior
2006-2019	Reviewer, SLEEP
2007	Reviewer, Journal of Clinical and Experimental Neuropsychology
2008	Reviewer, European Journal of Child and Adolescent Psychiatry
2008	Reviewer, Judgment and Decision Making
2008-2010	Reviewer, Aviation, Space, & Environmental Medicine
2008	Reviewer, Journal of Psychophysiology
2008	Reviewer, Brazilian Journal of Medical and Biological Research
2008	Reviewer, The Harvard Undergraduate Research Journal
2008	Reviewer, Bipolar Disorders
2008-2013	Reviewer, Chronobiology International
2008	Reviewer, International Journal of Obesity
2009	Reviewer, European Journal of Neuroscience
2009-2018	Reviewer, International Journal of Eating Disorders
2009	Reviewer, Psychophysiology
2009	Reviewer, Traumatology
2009	Reviewer, Clinical Medicine: Therapeutics
2009	Reviewer, Acta Pharmacologica Sinica
2009	Reviewer, Collegium Antropologicum
2009	Reviewer, Journal of Psychopharmacology
2009-2014	Reviewer, Obesity
2009	Reviewer, Scientific Research and Essays
2009	Reviewer, Child Development Perspectives
2009-2010	Reviewer, Personality and Individual Differences
2009-2010	Reviewer, Noise and Health
2009-2010	Reviewer, Sleep Medicine
2010	Reviewer, Nature and Science of Sleep
2010	Reviewer, Psychiatry and Clinical Neurosciences
2010	Reviewer, Learning and Individual Differences
2010	Reviewer, Cognitive, Affective, and Behavioral Neuroscience
2010	Reviewer, BMC Medical Research Methodology
2010-2011	Reviewer, Journal of Adolescence
2010-2012	Reviewer, Brain Research
2011	Reviewer, Brain
2011-2019	Reviewer, Social Cognitive and Affective Neuroscience
2011	Reviewer, Journal of Traumatic Stress
2011	Reviewer, Social Neuroscience

2011-2014	Reviewer, Brain and Cognition
2011	Reviewer, Frontiers in Neuroscience
2011-2012	Reviewer, Sleep Medicine Reviews
2012	Reviewer, Journal of Experimental Psychology: General
2012	Reviewer, Ergonomics
2012-2017	Reviewer, Behavioral Sleep Medicine
2012	Reviewer, Neuropsychology
2012	Reviewer, Emotion
2012	Reviewer, JAMA
2012	Reviewer, BMC Neuroscience
2012-2015	Reviewer, Cognition and Emotion
2012	Reviewer, Journal of Behavioral Decision Making
2012	Reviewer, Psychosomatic Medicine
2012-2014	Reviewer, PLoS One
2012	Reviewer, American Journal of Critical Care
2012-2014	Reviewer, Journal of Sleep Disorders: Treatment and Care
2013	Reviewer, Experimental Psychology
2013	Reviewer, Clinical Interventions in Aging
2013	Reviewer, Frontiers in Psychology
2013	Reviewer, Brain Structure and Function
2013	Reviewer, Appetite
2013-2018	Reviewer, JAMA Psychiatry
2014	Reviewer, Acta Psychologica
2014	Reviewer, Neurology
2014	Reviewer, Applied Neuropsychology: Child
2014-2016	Reviewer, Journal of Applied Psychology
2015	Reviewer, Early Childhood Research Quarterly
2015	Reviewer, Behavioral Neuroscience
2015-2018	Reviewer, Scientific Reports
2016-2018	Reviewer, Neuroscience & Biobehavioral Reviews
2016	Reviewer, Psychological Science
2016	Reviewer, Medicine & Science in Sports and Exercise
2016	Reviewer, Archives of Clinical Neuropsychology
2016	Reviewer, Advances in Cognitive Psychology
2017	Reviewer, Data in Brief
2017	Reviewer, Neuroscience
2017-2018	Reviewer, Sleep Health
2017	Reviewer, Journal of Experimental Social Psychology
2017-2018	Reviewer, Neural Plasticity
2018	Reviewer, NeuroImage: Clinical
2018	Reviewer, Journal of Psychiatric Research
2018	Reviewer, Journal of Clinical Sleep Medicine
2019	Reviewer, Harvard Review of Psychiatry
2019	Reviewer, Progress in Brain Research

PUBLICATIONS/CREATIVE ACTIVITY

Refereed Journal Articles

1. **Killgore WD**. The Affect Grid: a moderately valid, nonspecific measure of pleasure and arousal. Psychol Rep. 83(2):639-42, 1998.

2. **Killgore WD**. Empirically derived factor indices for the Beck Depression Inventory. Psychol Rep. 84(3 Pt 1):1005-13, 1999.

3. **Killgore WD**. Affective valence and arousal in self-rated depression and anxiety. Percept Mot Skills. 89(1):301-4, 1999.

4. **Killgore WD**, Adams RL. Prediction of Boston Naming Test performance from vocabulary scores: preliminary guidelines for interpretation. Percept Mot Skills. 89(1):327-37, 1999.

5. **Killgore WD**, Gangestad SW. Sex differences in asymmetrically perceiving the intensity of facial expressions. Percept Mot Skills. 89(1):311-4, 1999.

6. **Killgore WD**. The visual analogue mood scale: can a single-item scale accurately classify depressive mood state? Psychol Rep. 85(3 Pt 2):1238-43, 1999.

7. **Killgore WD**, DellaPietra L, Casasanto DJ. Hemispheric laterality and self-rated personality traits. Percept Mot Skills. 89(3 Pt 1):994-6, 1999.

8. **Killgore WD**, Glosser G, Casasanto DJ, French JA, Alsop DC, Detre JA. Functional MRI and the Wada test provide complementary information for predicting post-operative seizure control. Seizure. 8(8):450-5, 1999.

9. **Killgore WD**. Evidence for a third factor on the Positive and Negative Affect Schedule in a college student sample. Percept Mot Skills. 90(1):147-52, 2000.

10. **Killgore WD**, Dellapietra L. Item response biases on the logical memory delayed recognition subtest of the Wechsler Memory Scale-III. Psychol Rep. 86(3 Pt 1):851-7, 2000.

11. **Killgore WD**, Casasanto DJ, Yurgelun-Todd DA, Maldjian JA, Detre JA. Functional activation of the left amygdala and hippocampus during associative encoding. Neuroreport. 11(10):2259-63, 2000.

12. Yurgelun-Todd DA, Gruber SA, Kanayama G, **Killgore WD**, Baird AA, Young AD. fMRI during affect discrimination in bipolar affective disorder. Bipolar Disord. 2(3 Pt 2):237-48, 2000.

13. **Killgore WD**. Sex differences in identifying the facial affect of normal and mirror-reversed faces. Percept Mot Skills. 91(2):525-30, 2000.

14. **Killgore WD**, DellaPietra L. Using the WMS-III to detect malingering: empirical validation of the rarely missed index (RMI). J Clin Exp Neuropsychol. 22(6):761-71, 2000.

15. **Killgore WD**. Academic and research interest in several approaches to psychotherapy: a computerized search of literature in the past 16 years. Psychol Rep. 87(3 Pt 1):717-20, 2000.

16. Maldjian JA, Detre JA, **Killgore WD**, Judy K, Alsop D, Grossman M, Glosser G. Neuropsychologic performance after resection of an activation cluster involved in cognitive memory function. AJR Am J Roentgenol. 176(2):541-4, 2001.

17. **Killgore WD**, Oki M, Yurgelun-Todd DA. Sex-specific developmental changes in amygdala responses to affective faces. Neuroreport. 12(2):427-33, 2001.

18. **Killgore WD**, Yurgelun-Todd DA. Sex differences in amygdala activation during the perception of facial affect. Neuroreport. 12(11):2543-7, 2001.

19. Casasanto DJ, **Killgore WD**, Maldjian JA, Glosser G, Alsop DC, Cooke AM, Grossman M, Detre JA. Neural correlates of successful and unsuccessful verbal memory encoding. Brain Lang. 80(3):287-95, 2002.

20. **Killgore WD**. Laterality of lesions and trait-anxiety on working memory performance. Percept Mot Skills. 94(2):551-8, 2002.

21. **Killgore WD**, Cupp DW. Mood and sex of participant in perception of happy faces. Percept Mot Skills. 95(1):279-88, 2002.

22. Yurgelun-Todd DA, **Killgore WD**, Young AD. Sex differences in cerebral tissue volume and cognitive performance during adolescence. Psychol Rep. 91(3 Pt 1):743-57, 2002.

23. Yurgelun-Todd DA, **Killgore WD**, Cintron CB. Cognitive correlates of medial temporal lobe development across adolescence: a magnetic resonance imaging study. Percept Mot Skills. 96(1):3-17, 2003.

24. **Killgore WD**, Young AD, Femia LA, Bogorodzki P, Rogowska J, Yurgelun-Todd DA. Cortical and limbic activation during viewing of high- versus low-calorie foods. Neuroimage. 19(4):1381-94, 2003.

25. **Killgore WD**, Yurgelun-Todd DA. Activation of the amygdala and anterior cingulate during nonconscious processing of sad versus happy faces. Neuroimage. 21(4):1215-23, 2004.

26. **Killgore WD**, Yurgelun-Todd DA. Sex-related developmental differences in the lateralized activation of the prefrontal cortex and amygdala during perception of facial affect. Percept Mot Skills. 99(2):371-91, 2004.

27. **Killgore WD**, Glahn DC, Casasanto DJ. Development and Validation of the Design Organization Test (DOT): a rapid screening instrument for assessing visuospatial ability. J Clin Exp Neuropsychol. 27(4):449-59, 2005.

28. **Killgore WD**, Yurgelun-Todd DA. Body mass predicts orbitofrontal activity during visual presentations of high-calorie foods. Neuroreport. 16(8):859-63, 2005.

29. Wesensten NJ, **Killgore WD**, Balkin TJ. Performance and alertness effects of caffeine, dextroamphetamine, and modafinil during sleep deprivation. J Sleep Res. 14(3):255-66, 2005.

30. **Killgore WD**, Yurgelun-Todd DA. Social anxiety predicts amygdala activation in adolescents viewing fearful faces. Neuroreport. 16(15):1671-5, 2005.

31. **Killgore WD**, Yurgelun-Todd DA. Developmental changes in the functional brain responses of adolescents to images of high and low-calorie foods. Dev Psychobiol. 47(4):377-97, 2005.

32. Kahn-Greene ET, Lipizzi EL, Conrad AK, Kamimori GH, **Killgore WD**. Sleep deprivation adversely affects interpersonal responses to frustration. Pers Individ Dif. 41(8):1433-1443, 2006.

33. McBride SA, Balkin TJ, Kamimori GH, **Killgore WD**. Olfactory decrements as a function of two nights of sleep deprivation. J Sens Stud. 24(4):456-63, 2006.

34. **Killgore WD**, Yurgelun-Todd DA. Ventromedial prefrontal activity correlates with depressed mood in adolescent children. Neuroreport. 17(2):167-71, 2006.

35. **Killgore WD**, Vo AH, Castro CA, Hoge CW. Assessing risk propensity in American soldiers: preliminary reliability and validity of the Evaluation of Risks (EVAR) scale--English version. Mil Med. 171(3):233-9, 2006.

36. **Killgore WD**, Balkin TJ, Wesensten NJ. Impaired decision making following 49 h of sleep deprivation. J Sleep Res. 15(1):7-13, 2006.

37. **Killgore WD**, Stetz MC, Castro CA, Hoge CW. The effects of prior combat experience on the expression of somatic and affective symptoms in deploying soldiers. J Psychosom Res. 60(4):379-85, 2006.

38. **Killgore WD**, McBride SA, Killgore DB, Balkin TJ. The effects of caffeine, dextroamphetamine, and modafinil on humor appreciation during sleep deprivation. Sleep. 29(6):841-7, 2006.

39. **Killgore WD**, McBride SA. Odor identification accuracy declines following 24 h of sleep deprivation. J Sleep Res. 15(2):111-6, 2006.

40. **Killgore WD**, Yurgelun-Todd DA. Affect modulates appetite-related brain activity to images of food. Int J Eat Disord. 39(5):357-63, 2006.

41. Kendall AP, Kautz MA, Russo MB, **Killgore WD**. Effects of sleep deprivation on lateral visual attention. Int J Neurosci. 116(10):1125-38, 2006.

42. Yurgelun-Todd DA, **Killgore WD**. Fear-related activity in the prefrontal cortex increases with age during adolescence: a preliminary fMRI study. Neurosci Lett. 406(3):194-9, 2006.

43. **Killgore WD**, Killgore DB, Ganesan G, Krugler AL, Kamimori GH. Trait-anger enhances effects of caffeine on psychomotor vigilance performance. Percept Mot Skills. 103(3):883-6, 2006.

44. **Killgore WD**, Yurgelun-Todd DA. Unconscious processing of facial affect in children and adolescents. Soc Neurosci. 2(1):28-47, 2007.

45. **Killgore WD**, Yurgelun-Todd DA. The right-hemisphere and valence hypotheses: could they both be right (and sometimes left)?. Soc Cogn Affect Neurosci. 2(3):240-50, 2007.

46. **Killgore WD**, Killgore DB. Morningness-eveningness correlates with verbal ability in women but not men. Percept Mot Skills. 104(1):335-8, 2007.

47. **Killgore WD**, Killgore DB, Day LM, Li C, Kamimori GH, Balkin TJ. The effects of 53 hours of sleep deprivation on moral judgment. Sleep. 30(3):345-52, 2007.

48. Rosso IM, **Killgore WD**, Cintron CM, Gruber SA, Tohen M, Yurgelun-Todd DA. Reduced amygdala volumes in first-episode bipolar disorder and correlation with cerebral white matter. Biol Psychiatry. 61(6):743-9, 2007.

49. Kahn-Greene ET, Killgore DB, Kamimori GH, Balkin TJ, **Killgore WD**. The effects of sleep deprivation on symptoms of psychopathology in healthy adults. Sleep Med. 8(3):215-21, 2007.

50. **Killgore WD**. Effects of sleep deprivation and morningness-eveningness traits on risk-taking. Psychol Rep. 100(2):613-26, 2007.

51. **Killgore WD**, Gruber SA, Yurgelun-Todd DA. Depressed mood and lateralized prefrontal activity during a Stroop task in adolescent children. Neurosci Lett. 416(1):43-8, 2007.

52. **Killgore WD**, Yurgelun-Todd DA. Positive affect modulates activity in the visual cortex to images of high calorie foods. Int J Neurosci. 117(5):643-53, 2007.

53. Vo AH, Satori R, Jabbari B, Green J, **Killgore WD**, Labutta R, Campbell WW. Botulinum toxin type-a in the prevention of migraine: a double-blind controlled trial. Aviat Space Environ Med. 78(5 Suppl):B113-8, 2007.

54. **Killgore WD**, Yurgelun-Todd DA. Neural correlates of emotional intelligence in adolescent children. Cogn Affect Behav Neurosci. 7(2):140-51, 2007.

55. **Killgore WD**, Kendall AP, Richards JM, McBride SA. Lack of degradation in visuospatial perception of line orientation after one night of sleep loss. Percept Mot Skills. 105(1):276-86, 2007.

56. **Killgore WD**, Lipizzi EL, Kamimori GH, Balkin TJ. Caffeine effects on risky decision making after 75 hours of sleep deprivation. Aviat Space Environ Med. 78(10):957-62, 2007.

57. **Killgore WD**, Richards JM, Killgore DB, Kamimori GH, Balkin TJ. The trait of Introversion-Extraversion predicts vulnerability to sleep deprivation. J Sleep Res. 16(4):354-63, 2007.

58. **Killgore WD**, Kahn-Green ET, Killgore DB, Kamimori GH, Balkin TJ. Effects of acute caffeine withdrawal on Short Category Test performance in sleep-deprived individuals. Percept Mot Skills. 105(3 pt.2):1265-74, 2007.

59. **Killgore WD**, Killgore DB, McBride SA, Kamimori GH, Balkin TJ. Odor identification ability predicts changes in symptoms of psychopathology following 56 hours of sleep deprivation. J Sensory Stud. 23(1):35-51, 2008.

60. **Killgore WD**, Rupp TL, Grugle NL, Reichardt RM, Lipizzi EL, Balkin TJ. Effects of dextroamphetamine, caffeine and modafinil on psychomotor vigilance test performance after 44 h of continuous wakefulness. J Sleep Res. 17(3):309-21, 2008.

61. Huck NO, McBride SA, Kendall AP, Grugle NL, **Killgore WD**. The effects of modafinil, caffeine, and dextroamphetamine on judgments of simple versus complex emotional expressions following sleep deprivation. Int. J Neuroscience. 118(4):487-502, 2008.

62. **Killgore WD**, Kahn-Greene ET, Lipizzi EL, Newman RA, Kamimori GH, Balkin TJ. Sleep deprivation reduces perceived emotional intelligence and constructive thinking skills. Sleep Med. 9(5):517-26, 2008.

63. **Killgore WD**, Grugle NL, Killgore DB, Leavitt BP, Watlington GI, McNair S, Balkin TJ. Restoration of risk-propensity during sleep deprivation: caffeine, dextroamphetamine, and modafinil. Aviat Space Environ Med. 79(9):867-74, 2008.

64. **Killgore WD**, Muckle AE, Grugle NL, Killgore DB, Balkin TJ. Sex differences in cognitive estimation during sleep deprivation: effects of stimulant countermeasures. Int J Neurosci. 118(11):1547-57, 2008.

65. **Killgore WD**, Cotting DI, Thomas JL, Cox AL, McGurk D, Vo AH, Castro CA, Hoge CW. Post-combat invincibility: violent combat experiences are associated with increased risk-taking propensity following deployment. J Psychiatr Res. 42(13):1112-21, 2008.

66. **Killgore WD**, Gruber SA, Yurgelun-Todd DA. Abnormal corticostriatal activity during fear perception in bipolar disorder. Neuroreport. 19(15):1523-7, 2008.

67. **Killgore WD**, McBride SA, Killgore DB, Balkin TJ, Kamimori GH. Baseline odor identification ability predicts degradation of psychomotor vigilance during 77 hours of sleep deprivation. Int. J Neurosci. 118(9):1207-1225, 2008.

68. **Killgore WD**, Rosso HM, Gruber SA, Yurgelun-Todd DA. Amygdala volume and verbal memory performance in schizophrenia and bipolar disorder. Cogn Behav Neur. 22(1):28-37, 2009.

69. **Killgore WD**, Kahn-Greene ET, Grugle NL, Killgore DB, Balkin TJ. Sustaining executive functions during sleep deprivation: A comparison of caffeine, dextroamphetamine, and modafinil. Sleep. 32(2):205-16, 2009.

70. **Killgore WD**, Grugle NL, Reichardt RM, Killgore DB, Balkin TJ. Executive functions and the ability to sustain vigilance during sleep loss. Aviat Space Environ Med. 80(2):81-7, 2009.

71. Picchioni, D, **Killgore, WD,** Braun, AR, & Balkin, TJ. Positron emission tomography correlates of EEG microarchitecture waveforms during non-REM sleep. Int J Neurosci. 119: 2074-2099, 2009.

72. **Killgore, WD**, Lipizzi, EL, Grugle, NL, Killgore, DB, & Balkin, TJ. Handedness correlates with actigraphically measured sleep in a controlled environment. Percept Mot Skills. 109: 395-400, 2009.

73. **Killgore, WD**, Killgore, DB, Grugle, NL, & Balkin, TJ. Odor identification predicts executive function deficits during sleep deprivation. Int J Neurosci, 120: 328-334, 2010.

74. **Killgore, WD**, Ross, AJ, Kamiya, T, Kawada, Y, Renshaw, PF, & Yurgelun-Todd, DA. Citicoline affects appetite and cortico-limbic responses to images of high calorie foods. Int J Eat Disord. 43: 6-13, 2010.

75. **Killgore, WD,** & Yurgelun-Todd, DA. Cerebral correlates of amygdala responses during non-conscious perception of facial affect in adolescent and pre-adolescent children. Cogn Neurosci, 1: 33-43, 2010.

76. **Killgore, WD**, & Yurgelun-Todd, DA. Sex differences in cerebral responses to images of high vs low calorie food. Neuroreport, 21: 354-358, 2010.

77. **Killgore, WD**, Grugle, NL, Killgore, DB, & Balkin, TJ. Sex differences in self-reported risk-taking propensity on the Evaluation of Risks scale. Percept Mot Skills, 106: 693-700, 2010.

78. **Killgore, WD**, Kelley, AM, & Balkin, TJ. So you think you're bulletproof: Development and validation of the Invincibility Belief Index. Mil Med, 175: 499-508, 2010.

79. **Killgore, WD**, Castro, CA, & Hoge, CW. Preliminary Normative Data for the Evaluation of Risks Scale—Bubble Sheet Version (EVAR-B) for Large Scale Surveys of Returning Combat Veterans. Mil Med, 175: 725-731, 2010.

80. Britton, JC, Rauch, SL, Rosso, IM, **Killgore, WD**, Price, LM, Ragan, J, Chosak, A, Hezel, D, Pine, DS, Leibenluft, E, Pauls, DL, Jenike, MA, Stewart, SE. Cognitive inflexibility and frontal cortical activation in pediatric obsessive-compulsive disorder. J Am Acad Child Adolesc Psychiatry, 49: 944-953, 2010.

81. Britton, JC, Stewart, SE, **Killgore, WD**, Rosso, IM, Price, LM, Gold, AL, Pine, DS, Wilhelm, S, Jenike, MA, & Rauch, SL. Amygdala activation in response to facial expressions in pediatric obsessive-compulsive disorder. Depress Anxiety, 27: 643-651, 2010.

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insula structure in specific animal phobia. Depress Anxiety, 27: 1104-1110, 2010.

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87. **Killgore, WD**, Grugle, NL, & Balkin, TJ. Gambling when sleep deprived: Don't bet on stimulants. Chronobiol Int, 29: 43-54, 2012.

88. Gruber, SA, Dahlgren, MK, Sagar, KA, Gonenc, A, & **Killgore, WD.** Age of onset of marijuana use impacts inhibitory processing. Neurosci Lett 511(2):89-94, 2012.

89. **Killgore, WD**, Capaldi, VF, & Guerrero, ML. Nocturnal polysomnographic correlates of daytime sleepiness. Psychol Rep, 110(10), 63-72, 2012.

90. **Killgore, WD**, Weber, M, Schwab, ZJ, DelDonno, SR, Kipman, M, Weiner, MR, & Rauch, SL. Grey matter correlates of trait and ability models of emotional intelligence. Neuroreport 23, 551-555, 2012.

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92. **Killgore, WD**, Schwab, ZJ, & Weiner, MR. Self-reported nocturnal sleep duration is associated with next-day resting state functional connectivity. Neuroreport, 23, 741-745, 2012.

93. **Killgore, WD**, & Schwab, ZJ. Sex differences in the association between physical exercise and cognitive ability. Perceptual and Motor Skills, 115, 605-617, 2012.

94. Kipman, M, Weber, M, Schwab, ZJ, DelDonno, SR, & **Killgore, WD**. A funny thing happened on the way to the scanner: Humor detection correlates with gray matter volume. Neuroreport, 23, 1059-1064, 2012.

95. **Killgore, WD**, Schwab, ZJ, Weber, M, Kipman, M, DelDonno, SR, Weiner, MR, & Rauch, SL. Daytime sleepiness affects prefrontal regulation of food intake. NeuroImage, 71, 216-223, 2013.

96. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, & Weber, M. Insomnia-related complaints correlate with functional connectivity between sensory-motor regions. Neuroreport, 24, 233-240, 2013.

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cortex, higher emotional intelligence, and better mental health. Journal of Sleep Research, 22, 527-534, 2013.

98. Weber, M., **Killgore, WD**, Rosso, IM, Britton, JC, Schwab, ZJ, Weiner, MR, Simon, NM, Pollack, MH, & Rauch, SL. Voxel-based morphometric gray matter correlates of posttraumatic stress disorder. Journal of Anxiety Disorders, 27, 413-419, 2013.

99. **Killgore, WD**, Schwab, ZJ, Tkachenko, O, Webb, CA, DelDonno, SR, Kipman M, Rauch SL, and Weber M. Emotional intelligence correlates with functional responses to dynamic changes in facial trustworthiness. Social Neuroscience, 8, 334-346, 2013.

100. **Killgore, WD**. Self-reported sleep correlates with prefrontal-amygdala functional connectivity and emotional functioning. Sleep, 36, 1597-1608, 2013.

101. **Killgore, WD**, Kipman, M, Schwab, ZJ, Tkachenko, O, Preer, L, Gogel, H, Bark, JS, Mundy, EA, Olson, EA, & Weber, M. Physical exercise and brain responses to images of high calorie food. Neuroreport, 24, 962-967, 2013.

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118. Cui, J, Tkachenko, O, Gogel, H, Kipman, M, Preer, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Bark, JS, Rosso, IM, Rauch, SL, & **Killgore, WD**. Microstructure of frontoparietal connections predicts individual resistance to sleep deprivation. NeuroImage, 106, 123-133, 2015.

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123. Olson, EA, Rosso, IM, Demers, LA, Divatia, S., & **Killgore, WD**. Sex differences in psychological factors associated with social discounting. Journal of Behavioral Decision Making, 29, 60-66, 2016.

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173. Smith, R, Alkozei, A, & **Killgore, WD**. Parameters as trait indicators: Exploring a complementary neurocomputational approach to conceptualizing and measuring trait differences in emotional intelligence. Frontiers in Psychology (in press).

174. Vanuk, JR, Alkozei, A, Raikes, AC, Allen, JJB, & **Killgore, WD**. Ability-based emotional intelligence is associated with greater cardiac vagal control and reactivity. Frontiers in Human Neuroscience (in press).

175. Bajaj, S, Raikes, AC, Smith RS, Vanuk, JR, & **Killgore WD**. The role of prefrontal cortical surface area and volume in preclinical suicidal ideation in a non-clinical sample. Frontiers in Psychiatry (in press).

176. Bajaj, S, & **Killgore, WD**. Sex differences in limbic network and risk-taking propensity in healthy individuals. Journal of Neuroscience Research (in press).

177. Satterfield, BC & **Killgore, WD**. Habitual sleep duration predicts caloric and macronutrient intake during sleep deprivation. Sleep Health (in press).

178. Bajaj, S, & **Killgore, WD**. Vulnerability to mood degradation during sleep deprivation is influenced by white-matter compactness of the triple-network model. NeuroImage (in press).

179. Alkozei, A, Smith, R, Waugaman, D, Kotzin, M, Bajaj, S, & **Killgore, WD**. The mediating role of interpretation bias on the relationship between trait gratitude and depressive symptoms. International Journal of Applied Positive Psychology (in press).

Book Chapters/Editorials/Other Published Articles

1. **Killgore, WD.** Cortical and limbic activation during visual perception of food. In Dube, L, Bechara, A, Dagher, A, Drewnowski, A, Lebel, J, James, P, & Yada, R. (Eds), Obesity Prevention: The Role of Brain and Society on Individual Behavior. Elsevier, Boston, 2010, pp. 57-71.

2. **Killgore, WD.** Asleep at the trigger: Warfighter judgment and decision-making during prolonged wakefulness. In Bartone, P. (Ed), Applying Research Psychology to Improve Performance and Policy. 2010, pp. 59-77.

3. **Killgore, WD.** Effects of Sleep Deprivation on Cognition. In Kerkhof, G. & Van Dongen, H. Progress in Brain Research: Sleep and Cognition. Elsevier, B.V. New York, 2010, pp. 105-129.

4. **Killgore, WD.** Caffeine and other alerting agents. In Thorpy, M. & Billiard, M. (Eds), Sleepiness: Causes, Consequences, Disorders and Treatment. Cambridge University Press, UK, 2011, pp. 430-443.

5. **Killgore WD.** Priorities and challenges for caffeine research: Energy drinks, PTSD, and withdrawal reversal. The Experts Speak Column, J Caffeine Res, 1, 11-12, 2011.

6. **Killgore, WD.** Odor identification ability predicts executive function deficits following sleep deprivation. In Lee-Chiong, T (Ed), Best of Sleep Medicine 2011. National Jewish Health, Denver CO, 2011, pp. 31-33.

7. **Killgore, WD.** Socio-emotional and neurocognitive effects of sleep loss. In Matthews, G. (Ed), Handbook of Operator Fatigue. Ashgate, London UK, 2012, pp. 227-243.

8. **Killgore, WD.** Sleepless nights and bulging waistlines (Editorial). Journal of Sleep Disorders: Treatment and Care, 1(1), doi: 10.4172/jsdtc.1000e101, 2012.

9. **Killgore, WD**, & Penetar, DM. Sleep and Military Operational Effectiveness. In Kushida, CA (Ed), The Encyclopedia of Sleep, 2013, vol. 1, pp. 311-319. Academic Press, Waltham, MA.

10. **Killgore, WD**, Weiner, MR, & Schwab, ZJ. Sleep deprivation, personality, and psychopathic changes. In Kushida, CA (Ed), The Encyclopedia of Sleep, 2013, vol. 1, pp. 264-271. Academic Press, Waltham, MA.

11. Schoenberg, MR, & **Killgore, WD**. Psychologic and Psychiatric Assessment. In Kushida, CA (Ed), The Encyclopedia of Sleep, 2013, vol. 2, pp. 23-26. Academic Press, Waltham, MA.

12. **Killgore, WD.** Sleep loss and performance. In Moore, BA, & Barnett, JE (Eds), Military Psychologists' Desk Reference, 2013, pp. 241-246. Oxford University Press, New York.

13. Weber, M., & **Killgore, WD**. What are the emerging therapeutic uses of bright light therapy for neurological disorders? (Editorial). Future Neurology, 8, 495-497, 2013.

14. **Killgore WD** & Weber, M. Sleep deprivation and cognitive performance. In Bianchi, M (Ed),

Sleep Deprivation and Disease: Effects on the Body, Brain and Behavior, 2014, pp. 209-229. Springer, New York.

15. **Killgore, WD**. Sleep deprivation and behavioral risk taking. In Watson, RR, Sleep Modulation by Obesity, Diabetes, Age and Diet, 2015, pp. 279-287. Elsevier, San Diego, CA.

16. **Killgore, WD**. Lighting the way to better sleep and health (Editorial). Journal of Sleep Disorders: Treatment and Care, 5:1, 2016.

17. Singh, P, & **Killgore WD**. Time dependent differences in gray matter volume post mild traumatic brain injury. Neural Regeneration Research, 11, 920-921, 2016.

18. Klimova, A, Singh, P, & **Killgore WD**. White matter abnormalities in MS: Advances in diffusion tensor imaging/tractography. In Watson, RR & Killgore, WD (Eds), Nutrition and Lifestyle in Neurological Autoimmune Diseases: Multiple Sclerosis. Elsevier, San Diego, CA, pp. 21-28, 2017.

19. Alkozei, A, Smith, R, & **Killgore, WD**. Grateful people are happy and healthy—But why? Frontiers for Young Minds (in press).

20. Smith, R, Alkozei, A, & **Killgore WD**. How do emotions work? Frontiers for Young Minds (in press).

21. Satterfield, B. C., & **Killgore, WD**. Sleep loss, executive function, and decision-making. In Grandner, MG (Ed), Sleep and Health. Elsevier, San Diego (in press).

Books

1. Watson, RR, **& Killgore, WD** (Eds.). Nutrition and lifestyle in neurological autoimmune diseases: Multiple Sclerosis. Elsevier, San Diego, CA, 2017.

Published U.S. Government Technical Reports

1. **Killgore, WD**, Estrada, A, Rouse, T, Wildzunas, RM, Balkin, TJ. Sleep and performance measures in soldiers undergoing military relevant training. USAARL Report No. 2009-13. June, 2009.

2. Kelley, AM, **Killgore, WD**, Athy, JR, Dretsch, M. Risk propensity, risk perception, and sensation seeking in U.S. Army Soldiers: A preliminary study of a risk assessment battery. USAARL Report No. 2010-02. DTIC #: ADA511524. October, 2009.

CONFERENCES/SCHOLARLY PRESENTATIONS

Colloquia

2000 *The Neurobiology of Emotion in Children*, McLean Hospital, Belmont, MA *[Invited Lecture]*

2001 *The Neurobiology of Emotion in Children and Adolescents*, McLean Hospital, Belmont, MA *[Invited Lecture]*

2002 Cortico-Limbic Activation in Adolescence and Adulthood, Youth Advocacy Project, Cape Cod, MA [Invited Lecture]

2008 Lecture on *Sleep Deprivation, Executive Function, and Resilience to Sleep Loss*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2008 Lecture on *The Role of Research Psychology in the Army*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2008 Lecture on *Combat Stress Control: Basic Battlemind Training*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2009 Lecture entitled *Evaluate a Casualty, Prevent Shock, and Prevent Cold Weather injuries*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA*[Invited Lecture]*

2009 Lecture on *Combat Exposure and Sleep Deprivation Effects on Risky Decision-Making*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2009 Lecture on the *Sleep History and Readiness Predictor (SHARP)*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2009 Lecture on *The Use of Actigraphy for Measuring Sleep in Combat and Military Training*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2010 Lecture entitled *Casualty Evaluation*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2010 Lecture entitled *Combat Stress and Risk-Taking Behavior Following Deployment*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2010 Lecture entitled *Historical Perspectives on Combat Medicine at the Battle of Gettysburg*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2010 Lecture entitled *Sleep Loss, Stimulants, and Decision-Making*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2010 Lecture entitled *PTSD: New Insights from Brain Imaging*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2011 Lecture entitled *Effects of bright light therapy on sleep, cognition and brain function after mild traumatic brain injury*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2011 Lecture entitled *Laboratory Sciences and Research Psychology in the Army*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2011 Lecture entitled *Tools for Assessing Sleep in Military Settings*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2011 Lecture entitled *The Brain Basis of Emotional Trauma and Practical Issues in Supporting Victims of Trauma*, U.S. Department of Justice, United States Attorneys Office, Serving Victims of Crime Training Program, Holyoke, MA *[Invited Lecture]*

2011 Lecture entitled *The Brain Altering Effects of Traumatic Experiences*; 105th Reinforcement Training Unit (RTU), U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2012 Lecture entitled *Sleep Loss, Caffeine, and Military Performance*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2012 Lecture entitled *Using Light Therapy to Treat Sleep Disturbance Following Concussion*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2013 Lecture entitled *Brain Responses to Food: What you See Could Make you Fat*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2013 Lecture entitled *Predicting Resilience Against Sleep Loss*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2014 Lecture entitled *Get Some Shut-Eye or Get Fat: Sleep Loss Affects Brain Responses to Food*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2014 Lecture entitled *Emotional Intelligence: Developing a Training Program*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2014 Lecture entitled *Supporting Cognitive and Emotional Health in Warfighters*. Presented to the Senior Vice President for the Senior Vice President for Health Sciences and Dean of the Medical School, University of Arizona, Tucson, AZ *[Invited Lecture]*

2015 Lecture entitled *Understanding the Effects of Mild TBI (Concussion) on the Brain*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2015 Presentation entitled Superhuman Brains: The Neurocircuitry that Underlies the Ability to Resist Sleep Deprivation. Presented at the Neuroscience Datablitz, University of Arizona, Tucson, AZ *[Invited Lecture]*

2015 Presentation entitled: SCAN Lab Traumatic Stress Study. Presented at the Tucson Veteran Center, Tucson AZ *[Invited Lecture]*

2016 Presentation entitled: SCAN Lab Overview. Presented at the University of Arizona 2016 Sleep workshop, Tucson, AZ *[Invited Lecture]*

2016 Lecture entitled *Trauma Exposure and the Brain*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2016 Presentation entitled *Supporting Cognitive and Emotional Health in Warfighters*. UAHS Development Team, University of Arizona Health Sciences Center, Tucson, AZ *[Invited Lecture]*

2016 Lecture entitled Novel Approaches for Reducing Depression in the Military; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2016 Presentation entitled: SCAN Lab Traumatic Stress and TBI Studies. Presented at the Tucson Veteran Center, Tucson AZ *[Invited Lecture]*

2016 Lecture entitled The Battle for Mosul: An S2 Brief; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2017 Lecture entitled *A New Experimental Treatment for Sleep Problems Following Mild TBI*; 105th IMA Detachment, U.S. Army Reserve Center, Boston, MA *[Invited Lecture]*

2017 Lecture entitled *Basics of Neuroimaging Research*; UA Psychiatry Resident Neuroscience Course, University of Arizona Department of Psychiatry, Tucson, AZ *[Invited Lecture]*

2019 Presentation entitled Physiology Student Opportunities in the Social Cognitive and Affective Neuroscience Lab. Presented at the University of Arizona Physiology Honors Academy, Tucson, AZ *[Invited Discussant]*

2019 Presentation entitled Morning Blue Light Exposure Improves Sleep and Fear Extinction Recall in PTSD. Presented at the University of Arizona Sleep Lecture Series, Tucson, AZ *[Invited Lecture]*

2019 Presentation entitled Morning Blue Light Exposure Improves Sleep and Fear Extinction Recall in PTSD. Presented at the Annual Club Hypnos Meeting Datablitz, San Antonio, TX *[Invited Lecture]*

Seminars

2001 *Using Functional MRI to Study the Developing Brain*, Judge Baker Children's Center, Harvard Medical School, Boston, MA *[Invited Lecture]*

2002 Lecture on the *Changes in the Lateralized Structure and Function of the Brain during Adolescent Development*, Walter Reed Army Institute of Research, Washington, DC *[Invited Lecture]*

2005 Lecture on *Functional Neuroimaging, Cognitive Assessment, and the Enhancement of Soldier Performance*, Walter Reed Army Institute of Research, Washington, DC *[Invited Lecture]*

2005 Lecture on *The Sleep History and Readiness Predictor*: Presented to the Medical Research and Materiel Command, Ft. Detrick, MD *[Invited Lecture]*

2006 Lecture on *Optimization of Judgment and Decision Making Capacities in Soldiers Following Sleep Deprivation*, Brain Imaging Center, McLean Hospital, Belmont MA *[Invited Lecture]*

2006 Briefing to the Chairman of the Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program, entitled *Optimization of Judgment and Decision Making Capacities in Soldiers Following Sleep Deprivation*, Walter Reed Army Institute of Research *[Invited Lecture]*

2005 Briefing to the Chairman of the National Research Council (NRC) Committee on Strategies to Protect the Health of Deployed U.S. Forces, John H. Moxley III, on the *Optimization of Judgment and Decision Making Capacities in Soldiers Following Sleep Deprivation*, Walter Reed Army Institute of Research, Washington, DC *[Invited Lecture]*

2006 Lecture on *Norming a Battery of Tasks to Measure the Cognitive Effects of Operationally Relevant Stressors*, Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program, Washington, DC *[Invited Lecture]*

2007 Lecture on *Cerebral Responses During Visual Processing of Food*, U.S. Army Institute of Environmental Medicine, Natick, MA *[Invited Lecture]*

2007 Briefing on the *Measurement of Sleep-Wake Cycles and Cognitive Performance in Combat Aviators*, U.S. Department of Defense, Defense Advanced Research Projects Agency (DARPA), Washington, DC *[Invited Lecture]*

2007 Lecture on *The Effects of Fatigue and Pharmacological Countermeasures on Judgment and Decision-Making*, U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL *[Invited Lecture]*

2008 Lecture on the *Validation of Actigraphy and the SHARP as Methods of Measuring Sleep and Performance in Soldiers*, U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL *[Seminar]*

2009 Lecture on Sleep Deprivation, *Executive Function, and Resilience to Sleep Loss*: Walter Reed Army Institute of Research AIBS Review, Washington DC *[Invited Lecture]*

2009 Lecture Entitled *Influences of Combat Exposure and Sleep Deprivation on Risky Decision-Making*, Evans U.S. Army Hospital, Fort Carson, CO *[Invited Lecture]*

2009 Lecture on *Making Bad Choices: The Effects of Combat Exposure and Sleep Deprivation on Risky Decision-Making*, 4th Army, Division West, Quarterly Safety Briefing to the Commanding General and Staff, Fort Carson, CO*[Invited Lecture]*

2010 Lecture on *Patterns of Cortico-Limbic Activation Across Anxiety Disorders*, Center for Anxiety, Depression, and Stress, McLean Hospital, Belmont, MA *[Invited Lecture]*

2010 Lecture on *Cortico-Limbic Activation Among Anxiety Disorders*, Neuroimaging Center, McLean Hospital, Belmont, MA *[Invited Lecture]*

2011 Lecture on *Shared and Differential Patterns of Cortico-Limbic Activation Across Anxiety Disorders*, McLean Research Day Brief Communications, McLean Hospital, Belmont, MA *[Invited Lecture]*

2011 Lecture Entitled *The effects of emotional intelligence on judgment and decision making, Military Operational Medicine Research Program Task Area C*, R & A Briefing, Walter Reed Army Institute of Research, Silver Spring, MD *[Invited Lecture]*

2011 Lecture Entitled *Effects of bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, Military Operational Medicine Research Program Task Area C, R & A Briefing, Walter Reed Army Institute of Research, Silver Spring, MD *[Invited Lecture]*

2012 Briefing to GEN (Ret) George Casey Jr., former Chief of Staff of the U.S. Army, entitled *Research for the Soldier*. McLean Hospital, Belmont, MA. *[Invited Lecture]*

2012 Lecture Entitled *Effects of bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2013 Lecture Entitled *Update on the Effects of Bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2013 Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]

2013 Seminar Entitled *Predicting Resilience Against Sleep Loss*, United States Military Academy at West Point, West Point, NY [*Invited Symposium*].

2014 Lecture entitled *Sleep Loss, Brain Function, and Cognitive Performance*, presented to the Psychiatric Genetics and Translational Research Seminar, Massachusetts General Hospital/Harvard Medical School, Boston, MA *[Invited Lecture]*

2014 Grand Rounds Lecture entitled *Sleep Loss, Brain Function, and Performance of the Emotional-Executive System*. University of Arizona Psychiatry Grand Rounds, Tucson, AZ *[Invited Lecture]*

2014 Psychology Department Colloquium entitled *Sleep Loss, Brain Function, and Performance of the Emotional-Executive System*. University of Arizona Department of Psychology, Tucson, AZ *[Invited Lecture]*

2014 Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2014 Lecture Entitled *The Neurobiological Basis and Potential Modification of Emotional Intelligence Through Affective/Behavioral Training*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2014 Lecture entitled *Supporting Cognitive and Emotional Health in Warfighters*. Presented to the Senior Vice President for t for Health Sciences and Dean of the Medical School, University of Arizona, Tucson, AZ *[Invited Lecture]*

2015 Lecture entitled *Sleep Loss and Brain Responses to Food*. Presented for the Sleep Medicine Lecture Series, University of Arizona Medical Center, Tucson, AZ *[Invited Lecture]*

2015 Presentation entitled *Superhuman Brains: The Neurocircuitry that Underlies the Ability to Resist Sleep Deprivation*. Presented at the Neuroscience Datablitz, University of Arizona, Tucson, AZ *[Invited Lecture]*

2015 Lecture entitled *Sleep Deprivation Selectively Impairs Emotional Aspects of Cognition*. Presented at the Pamela Turbeville Speaker Series, McClelland Institute for Children, Youth, and Families, Tucson, AZ, *[Invited Lecture]*

2015 Lecture Entitled Multimodal Neuroimaging to Predict Resistance to Sleep Deprivation, presented at the Pulmonary Research Conference, Department of Medicine, Sleep Medicine Sleep Lecture Series, University of Arizona College of Medicine, Tucson, AZ *[Invited Lecture]*.

2015 Lecture entitled Sleep Deprivation Selectively Impairs Emotional Aspects of Cognition. Presented at the Pamela Turbeville Speaker Series, McClelland Institute for Children, Youth, and Families, Tucson, AZ, *[Invited Lecture]*

2015 Lecture Entitled *Effects of bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2015 Lecture Entitled *A Non-Pharmacologic Method for Enhancing Sleep in PTSD*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2015 Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2015 Lecture Entitled *Operating Under the Influence: The Effects of Sleep Loss and Stimulants on Decision-Making and Performance.* Presented at the annual SAFER training for interns and residents, University of Arizona Department of Psychiatry, Tucson AZ *[Invited Lecture]*

2016 Lecture entitled *Translational Neuroimaging: Using MRI Techniques to Promote Recovery and Resilience*. Functional Neuroimaging Course, Spring 2016, Psychology Department, University of Arizona, Tucson, AZ *[Invited Lecture]*

2016 Lecture entitled *Supporting Cognitive and Emotional Health in Warfighters*. Presented at the Department of Behavioral Biology, Walter Reed Army Institute of Research, Silver Spring, MD *[Invited Lecture]*

2016 Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2016 Lecture Entitled *A Model for Predicting Cognitive and Emotional Health from Structural and Functional Neurocircuitry following TBI*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2016 Lecture Entitled *Refinement and Validation of a Military Emotional Intelligence Training Program*, Military Operational Medicine Research Program 2016 Resilience In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2017 Lecture Entitled *Bright Light Therapy for Treatment of Sleep Problems following Mild TBI*, Military Operational Medicine Research Program Combat Casualty Care In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2017 Lecture Entitled *Refinement and Validation of a Military Emotional Intelligence Training Program*, Military Operational Medicine Research Program 2017 Resilience In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2018 Lecture Entitled *Introduction to Chronobiology (Part 1)*, Sleep Research Seminar Series, Walter Reed Army Institute of Research, Silver Spring, MD *[Invited Lecture]*

2018 Lecture Entitled *Introduction to Chronobiology (Part 2)*, Sleep Research Seminar Series, Walter Reed Army Institute of Research, Silver Spring, MD *[Invited Lecture]*

2018 Lecture Entitled *A Non-Pharmacologic Method for Enhancing Sleep in PTSD*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2018 Lecture Entitled *Refinement and Validation of a Military Emotional Intelligence Training Program*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2019 Lecture Entitled *Update: A Non-Pharmacologic Method for Enhancing Sleep in PTSD*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

2019 Lecture Entitled *Update: Refinement and Validation of a Military Emotional Intelligence Training Program*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD *[Invited Lecture]*

Symposia/Conferences

1999 Oral Platform Presentation entitled *Functional MRI lateralization during memory encoding predicts seizure outcome following anterior temporal lobectomy*, 27th Annual Meeting of the International Neuropsychological Society, Boston, MA. *[Submitted Presentation]*

2000 Lecture on the *Neurobiology of Emotional Development in Children*, 9th Annual Parents as Teachers Born to Learn Conference, St. Louis, MO *[Invited Lecture]*

2001 Oral Platform Presentation entitled *Sex differences in functional activation of the amygdala during the perception of happy faces*, 29th Annual Meeting of the International Neuropsychological Society, Chicago, IL. *[Submitted Presentation]*

2002 Oral Platform Presentation entitled *Developmental changes in the lateralized activation of the prefrontal cortex and amygdala during the processing of facial affect*, 30th Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada. *[Submitted Presentation]*

2002 Oral Platform Presentation *Gray and white matter volume during adolescence correlates with cognitive performance: A morphometric MRI study*, 30th Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada. *[Submitted Presentation]*

2004 Lecture on *Sleep Deprivation, Cognition, and Stimulant Countermeasures*: Seminar Presented at the Bi-Annual 71F Research Psychology Short Course, Ft. Detrick, MD, U.S. Army Medical Research and Materiel Command *[Invited Lecture]*

2004 Lecture on the *Regional Cerebral Blood Flow Correlates of Electroencephalographic Activity During Stage 2 and Slow Wave Sleep: An H215O PET Study*: Presented at the Bi-Annual 71F Research Psychology Short Course, Ft. Detrick, MD, U.S. Army Medical Research and Materiel Command *[Invited Lecture]*

2004 Oral Platform Presentation entitled *Regional cerebral metabolic correlates of electroencephalographic activity during stage-2 and slow-wave sleep: An H215O PET Study*, 18th Associated Professional Sleep Societies Annual Meeting, Philadelphia, PA. *[Submitted Presentation]*

2006 Lecture on *The Sleep History and Readiness Predictor*: Presented at the Bi-Annual 71F Research Psychology Short Course, Ft. Rucker, AL, U.S. Army Medical Research and Materiel Command *[Invited Lecture]*

2007 Symposium on *Cortical and Limbic Activation in Response to Visual Images of Low and High-Caloric Foods*, 6th Annual Meeting of the International Society for Behavioral Nutrition and Physical Activity (ISBNPA), Oslo, Norway *[Invited Lecture]*

2008 Lecture on *Sleep Deprivation, Executive Function, & Resilience to Sleep Loss*, First Franco-American Workshop on War Traumatism, IMNSSA, Toulon, France *[Invited Lecture]*

2009 Symposium Entitled *Sleep Deprivation, Judgment, and Decision-Making*, 23rd Annual Meeting of the Associated Professional Sleep Societies, Seattle, WA *[Invited Symposium]*

2009 Symposium Session Moderator for *Workshop on Components of Cognition and Fatigue: From Laboratory Experiments to Mathematical Modeling and Operational Applications*, Washington State University, Spokane, WA *[Invited Speaker]*

2009 Lecture on *Comparative Studies of Stimulant Action as Countermeasures for Higher Order Cognition and Executive Function Impairment that Results from Disrupted Sleep Patterns*, Presented at the NIDA-ODS Symposium entitled: Caffeine: Is the Next Problem Already Brewing, Rockville, MD *[Invited Lecture]*

2010 Oral Platform Presentation entitled *Sleep deprivation selectively impairs emotional aspects of cognitive functioning*, 27th Army Science Conference, Orlando, FL. *[Submitted Presentation]*

2010 Oral Platform Presentation entitled *Exaggerated amygdala responses to masked fearful faces are specific to PTSD versus simple phobia*, 27th Army Science Conference, Orlando, FL. *[Submitted Presentation]*

2012 Oral Symposium Presentation entitled *Shared and distinctive patterns of cortico-limbic activation across anxiety disorders*, 32nd Annual Conference of the Anxiety Disorders Association of America, Arlington, VA. *[Invited Symposium]*

2012 Oral Platform Presentation entitled *Shared and unique patterns of cortico-limbic activation across anxiety disorders*. 40th Meeting of the International Neuropsychological Society, Montreal, Canada. *[Submitted Presentation]*

2013 Lecture entitled *Brain responses to visual images of food: Could your eyes be the gateway to excess?* Presented to the NIH Nutrition Coordinating Committee and the Assistant Surgeon General of the United States, Bethesda, MD *[Invited Lecture]*

2014 Symposium Entitled *Operating Under the Influence: The Effects of Sleep Loss and Stimulants on Decision-Making and Performance*, Invited Faculty Presenter at the 34th Annual Cardiothoracic Surgery Symposium (CREF), San Diego, CA [*Invited Symposium*].

2014 Symposium Entitled *The Effects of Sleep Loss on Food Preference*, SLEEP 2014, Minneapolis, MN *[Invited Symposium]*

2015 Symposium Entitled *The Neurobiological Basis and Potential Modification of Emotional Intelligence in Military Personnel*. Invited presentation at the Yale Center for Emotional Intelligence, New Haven, CT *[Invited Lecture]*

2015 Lecture Entitled *Predicting Resilience to Sleep Loss with Multi-Modal Neuroimaging*. Invited presentation at the DARPA Sleep Workshop 2015, Arlington, VA *[Invited Lecture]*

2015 Symposium Entitled: *The Brain and Food: How your (sleepy) Eyes Might be the Gateway to Excess*, Invited Faculty Presenter at the 2015 University of Arizona Update on Psychiatry, Tucson, AZ [*Invited Symposium*].

2015 Oral Platform presentation entitled *Multimodal Neuroimaging to Predict Resistance to Sleep Deprivation*, Associated Professional Sleep Societies (APSS) SLEEP meeting, Seattle, WA *[Invited Lecture]*

2015 Symposium Entitled presentation entitled *Sleep Deprivation and Emotional Decision Making*, Virginia Tech Sleep Workshop, Arlington, VA *[Invited Symposium]*

2016 Oral Platform presentation entitled *Default Mode Activation Predicts Vulnerability to Sleep Deprivation in the Domains of Mood, Sleepiness, and Vigilance*. Presentation given at the Associated Professional Sleep Societies (APSS) SLEEP meeting, Denver, CO *[Invited Lecture]*

2016 Symposium presentation entitled *Short Wavelength Light Therapy Facilitates Recovery from Mild Traumatic Brain Injury*, 2016 Military Health Systems Research Symposium (MHSRS), Orlando, FL *[Invited Lecture]*

2017 Lecture Entitled: *Military Update on Blue Light Therapy for mTBI*. Lecture presented at the DoD Sleep Research Meeting breakout session at the Associated Professional Sleep Societies (APSS) SLEEP meeting, Boston, MA *[Invited Lecture]*

2017 Symposium entitled: *Judgment and Decision Making During Sleep Loss*. Invited symposium presentation at the SLEEP 2017 Trainee Symposium Series, Associated Professional Sleep Societies (APSS) SLEEP meeting, Boston, MA *[Invited Lecture]*

2017 Oral Platform presentation entitled *Short Wavelength Light Therapy Facilitates Recovery from Mild Traumatic Brain Injury*. Presentation given at the Associated Professional Sleep Societies (APSS) SLEEP meeting, Boston, MA *[Invited Lecture]*

2017 Symposium entitled: What makes a super-soldier: Identifying the neural correlates of individual differences in resilience against sleep deprivation. Invited symposium presentation at the 2017 Military Health Systems Research Symposium (MHSRS), Orlando, FL *[Invited Lecture]*

2018 Oral Platform presentation entitled: Short Wavelength Light Therapy Enhances Brain and Cognitive Recovery Following Mild Traumatic Brain Injury. Presentation given at the Arizona Research Institute for Biomedical Imaging (ARIBI) Workshop, Tucson, AZ *[Invited Lecture]*

2018 Session Chair: Healthy Shiftwork? Measures, Mitigation and Functional Outcomes. Session presented at the Associated Professional Sleep Societies (APSS) SLEEP Conference (Session O02), Baltimore, MD *[Session Chair]*

2018 Lecture Entitled: *Lapses During Sleep Loss are Predicted by Gray Matter Volume of the Ascending Reticular Activating Systems*. Lecture presented at the 2nd Annual DoD Sleep Research Meeting breakout session at the Associated Professional Sleep Societies (APSS) SLEEP meeting, Baltimore, MD *[Invited Lecture]*

2018 Oral Platform presentation entitled *Resistance to Sleep Deprivation is Predicted by Gray Matter Volume in the Posterior Brain Stem*. Presentation given at the Associated Professional Sleep Societies (APSS) SLEEP meeting, Baltimore, MD *[Invited Lecture]*

2018 Oral Platform presentation entitled *Why Can't You Just Stay Awake? Resistance to Sleep Deprivation is Associated with Measurable Differences in Brainstem Gray Matter*. Presentation given at the Military Health Systems Research Symposium (MHSRS) 2018 Meeting, Orlando, FL *[Invited Lecture]*

2019 Oral Platform presentation entitled Morning Blue Light Exposure Improves Sleep and Fear Extinction Recall in PTSD. Presentation given at the Associated Professional Sleep Societies (APSS) SLEEP 2019 meeting, San Antonio, TX *[Invited Lecture]*

2019 Oral Platform presentation entitled Blue Light Exposure Enhances Sleep and Fear Extinction Recall in PTSD. Presentation given at the Military Health Systems Research Symposium (MHSRS) 2019 Meeting, Orlando, FL *[Invited Lecture]*

2019 Oral Platform presentation entitled Baseline GABA Levels are Associated with Time-on-Task Performance During Sleep Deprivation. Presentation given at the Military Health Systems Research Symposium (MHSRS) 2019 Meeting, Orlando, FL *[Invited Lecture]*

Published Abstracts/Conference Proceedings

1. **Killgore, WD.** Development and validation of a new instrument for the measurement of transient mood states: The facial analogue mood scale (FAMS) [Abstract]. Dissertation Abstracts International: Section B: The Sciences & Engineering 1995; 56 (6-B): 3500.

2. **Killgore, WD,** & Locke, B. A nonverbal instrument for the measurement of transient mood states: The Facial Analogue Mood Scale (FAMS) [Abstract]. Proceedings of the Annual Conference of the Oklahoma Center for Neurosciences 1996, Oklahoma City, OK.

3. **Killgore, WD,** Scott, JG, Oommen, KJ, & Jones, H. Lateralization of seizure focus and performance on the MMPI-2 [Abstract]. Proceedings of the Annual Conference of the Oklahoma Center for Neurosciences 1996, Oklahoma City, OK.

4. **Killgore, WD,** & Adams, RL. Vocabulary ability and Boston Naming Test performance: Preliminary guidelines for interpretation [Abstract]. Archives of Clinical Neuropsychology 1997; 13(1).

5. **Killgore, WD**, Glosser, G, Cooke, AN, Grossman, M, Maldjian, J, Judy, K, Baltuch, G, King, D, Alsop, D, & Detre, JA. Functional activation during verbal memory encoding in patients with lateralized focal lesions [Abstract]. Epilepsia 1998; 39(Suppl. 6): 99.

6. **Killgore, WD.** A new method for assessing subtle cognitive deficits: The Clock Trail Making Test [Abstract]. Archives of Clinical Neuropsychology 1998; 14(1): 92.

7. **Killgore, WD,** & DellaPietra, L. Item response biases on the WMS-III Auditory Delayed

Recognition Subtests [Abstract]. Archives of Clinical Neuropsychology 1998; 14(1): 92.

8. **Killgore, WD,** Glosser, G, Alsop, DC, Cooke, AN, McSorley, C, Grossman, M, & Detre, JA. Functional activation during material specific memory encoding [Abstract]. NeuroImage 1998; 7: 811.

9. **Killgore, WD,** & DellaPietra, L. Using the WMS-III to detect malingering: Empirical development of the Rarely Missed Index. [Abstract]. Journal of the International Neuropsychological Society 1999; 5(2).

10. **Killgore, WD,** Glosser, G, & Detre, JA. Prediction of seizure outcome following anterior temporal lobectomy: fMRI vs. IAT [Abstract]. Archives of Clinical Neuropsychology 1999; 14(1): 143.

11. **Killgore, WD,** Glosser, G, King, D, French, JA, Baltuch, G, & Detre, JA. Functional MRI lateralization during memory encoding predicts seizure outcome following anterior temporal lobectomy [Abstract]. Journal of the International Neuropsychological Society 1999; 5(2): 122.

12. **Killgore, WD,** Casasanto, DJ, Maldjian, JA, Alsop, DC, Glosser, G, French, J, & Detre, J. A. Functional activation of mesial temporal lobe during nonverbal encoding [abstract]. Epilepsia, 1999; 40 (Supplement 7): 188.

13. **Killgore, WD,** Casasanto, DJ, Maldjian, JA, Gonzales-Atavales, J, & Detre, JA. Associative memory for faces preferentially activates the left amygdala and hippocampus [abstract]. Journal of the International Neuropsychological Society, 2000; 6: 157.

14. Casasanto, DJ, **Killgore, WD,** Maldjian, JA, Gonzales-Atavales, J, Glosser, G, & Detre, JA. Task-dependent and task-invariant activation in mesial temporal lobe structures during fMRI explicit encoding tasks [abstract]. Journal of the International Neuropsychological Society, 2000; 6: 134. ***[*Winner of Rennick Research Award]***.

15. **Killgore, WD,** Glahn, D, & Casasanto, DJ. Development and validation of the Design Organization Test (DOT): A rapid screening instrument for assessing for visuospatial ability [abstract]. Journal of the International Neuropsychological Society, 2000; 6: 147.

16. Casasanto DJ, **Killgore, WD,** Glosser, G, Maldjian, JA, & Detre, JA. Hemispheric specialization during episodic memory encoding in the human hippocampus and MTL. Proceedings of the Society for Cognitive Science 2000: Philadelphia, PA.

17. Casasanto, DJ, Glosser, G, **Killgore, WD,** Siddiqi, F, Falk, M, Maldjian, J, Lev-Reis, I, & Detre, JA. FMRI evidence for the functional reserve model of post-ATL neuropsychological outcome prediction. Poster Presented at the David Mahoney Institute of Neurological Sciences 17th Annual Neuroscience Retreat, University of Pennsylvania, April 17, 2000.

18. Casasanto, DJ, **Killgore, WD,** Maldjian, JA, Glosser, G, Grossman, M, Alsop, D. C, & Detre, JA. Neural Correlates of Successful and Unsuccessful Verbal Encoding [abstract]. Neuroimage, 2000 11: S381.

19. Siddiqui, F, Casasanto, DJ, **Killgore, WD,** Detre, JA, Glosser, G, Alsop, DC, & Maldjian, JA. Hemispheric effects of frontal lobe tumors on mesial temporal lobe activation during scene encoding [abstract]. Neuroimage, 2000 11: S448.

20. Oki, M, Gruber, SA, **Killgore, WD,** Yurgelun-Todd, DA. Bilateral thalamic activation occurs during lexical but not semantic processing [abstract]. Neuroimage, 2000 11: S353.

21. Yurgelun-Todd, DA, Gruber, SA, **Killgore, WD,** & Tohen, M. Neuropsychological performance in first-episode bipolar disorder [Abstract]. Collegium Internationale Neuro-Psychopharmacologicum. Brussels, Belgium. July, 2000.

22. **Killgore, WD,** & DellaPietra, L. Detecting malingering with the WMS-III: A revision of the Rarely Missed Index (RMI) [abstract]. Journal of the International Neuropsychological Society, 2001; 7 (2): 143-144.

23. Casasanto, DJ, Glosser, G, **Killgore, WD,** Siddiqi, F, Falk, M, Roc, A, Maldjian, JA, Levy-Reis, I, Baltuch, G, & Detre, JA. Presurgical fMRI predicts memory outcome following anterior temporal lobectomy [abstract]. Journal of the International Neuropsychological Society, 2001; 7 (2): 183.

24. **Killgore, WD,** & Yurgelun-Todd, DA. Amygdala but not hippocampal size predicts verbal memory performance in bipolar disorder [abstract]. Journal of the International Neuropsychological Society, 2001; 7 (2): 250-251.

25. **Killgore, WD,** Kanayama, G, & Yurgelun-Todd, DA. Sex differences in functional activation of the amygdala during the perception of happy faces [abstract]. Journal of the International Neuropsychological Society, 2001; 7 (2): 198.

26. **Killgore, WD,** Gruber, SA, Oki, M, & Yurgelun-Todd, DA. Amygdalar volume and verbal memory in schizophrenia and bipolar disorder: A correlative MRI study [abstract]. Meeting of the International Congress on Schizophrenia Research. Whistler, British Columbia. April 2001.

27. Kanayama, G, **Killgore, WD,** Gruber, SA, & Yurgelun-Todd, DA. FMRI BOLD activation of the supramarginal gyrus in schizophrenia [abstract]. Meeting of the International Congress on Schizophrenia Research. Whistler, British Columbia. April 2001.

28. Gruber, SA, **Killgore, WD,** Renshaw, PF, Pope, HG. Jr, Yurgelun-Todd, DA. Gender differences in cerebral blood volume after a 28-day washout period in chronic marijuana smokers [abstract]. Meeting of the International Congress on Schizophrenia Research. Whistler, British Columbia. April 2001.

29. Rohan, ML, **Killgore, WD,** Eskesen, JG, Renshaw, PF, & Yurgelun-Todd, DA. Match-warped EPI anatomic images and the amygdala: Imaging in hard places. Proceedings of the International Society for Magnetic Resonance in Medicine, 2001; 9: 1237.

30. **Killgore, WD** & Yurgelun-Todd, DA. Developmental changes in the lateralized activation of the

prefrontal cortex and amygdala during the processing of facial affect [Abstract]. Oral platform paper presented at the 30th Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada, February 13-16, 2002.

31. Yurgelun-Todd, DA. & **Killgore, WD.** Gray and white matter volume during adolescence correlates with cognitive performance: A morphometric MRI study [Abstract]. Oral platform paper presented at the 30th Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada, February 13-16, 2002.

32. **Killgore, WD,** Reichardt, R. Kautz, M, Belenky, G, Balkin, T, & Wesensten, N. Daytime melatonin-zolpidem cocktail: III. Effects on salivary melatonin and performance [abstract]. Poster presented at the 17th Annual Meeting of the Associated Professional Sleep Societies, Chicago, Illinois, June 3-8, 2003.

33. **Killgore, WD,** Young, AD, Femia, LA, Bogorodzki, P, Rogowska, J, & Yurgelun-Todd, DA. Cortical and limbic activation during viewing of high- versus low-calorie foods [abstract]. Poster Presented at the Organization for Human Brain Mapping Annual Meeting, New York, NY, June 18-22, 2003.

34. **Killgore, WD,** & Yurgelun-Todd, DA. Amygdala activation during masked presentations of sad and happy faces [abstract]. Poster presented at the Organization for Human Brain Mapping Annual Meeting, New York, NY, June 18-22, 2003.

35. **Killgore, WD,** Stetz, MC, Castro, CA, & Hoge, CW. Somatic and emotional stress symptom expression prior to deployment by soldiers with and without previous combat experience [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2003. ***[*Best Paper Award]***

36. Wesensten, NJ, Balkin, TJ, Thorne, D, **Killgore, WD,** Reichardt, R, & Belenky, G. Caffeine, dextroamphetamine, and modafinil during 85 hours of sleep deprivation: I. Performance and alertness effects [abstract]. Poster presented at the 75th Annual Meeting of the Aerospace Medical Association, Anchorage, AK, May 2-6 2004.

37. **Killgore, WD,** Braun, AR, Belenky, G, Wesensten, NJ, & Balkin, TJ. Regional cerebral metabolic correlates of electroencephalographic activity during stage-2 and slow-wave sleep: An H215O PET Study [abstract]. Oral platform presentation at the 18th Associated Professional Sleep Societies Annual Meeting, Philadelphia, PA, June 5-10, 2004.

38. **Killgore, WD,** Arora, NS, Braun, AR, Belenky, G, Wesensten, NJ, & Balkin, TJ. Sleep strengthens the effective connectivity among cortical and subcortical regions: Evidence for the restorative effects of sleep using H215O PET [abstract]. Poster presented at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.

39. **Killgore, WD,** Arora, NS, Braun, AR, Belenky, G, Wesensten, NJ, & Balkin, TJ An H215O PET study of regional cerebral activation during stage 2 sleep [abstract]. Poster presented at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.

40. Wesensten, N, **Killgore, WD,** Belenky, G, Reichardt, R, Thorne, D, & Balkin, T. Caffeine, dextroamphetamine, and modafinil during 85 H of sleep deprivation. II. Effects of tasks of executive function [abstract]. Poster presented at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.

41. Balkin, T, Reichardt, R, Thorne, D, **Killgore, WD,** Belenky, G, & Wesensten, N. Caffeine, dextroamphetamine, and modafinil during 85 hours of sleep deprivation. I. Psychomotor vigilance and objective alertness effects [abstract]. Oral paper presentation at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.

42. Belenky, G, Reichardt, R, Thorne, D, **Killgore, WD,** Balkin, T, & Wesensten, N. Caffeine, dextroamphetamine, and modafinil during 85 hours of sleep deprivation. III. Effect on recovery sleep and post-recovery sleep performance [abstract]. Oral paper presentation at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.

43. Vo, A, Green, J, Campbell, W, **Killgore, WD,** Labutta, R, & Redmond, D. The quantification of disrupted sleep in migraine via actigraphy: A pilot study [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A281.

44. Kendall, AP, **Killgore, WD,** Kautz, M, & Russo, MB. Left-visual field deficits in attentional processing after 40 hours of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A143.

45. Reichardt, RM, Grugle, NL, Balkin, TJ, & **Killgore, WD.** Stimulant countermeasures, risk propensity, and IQ across 2 nights of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A145.

46. Killgore, DB, McBride, SA, Balkin, TJ, & **Killgore, WD.** Post-stimulant hangover: The effects of caffeine, modafinil, and dextroamphetamine on sustained verbal fluency following sleep deprivation and recovery sleep [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A137.

47. **Killgore, WD,** Balkin, TJ, & Wesensten, NJ. Impaired decision-making following 49 hours of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A138.

48. **Killgore, WD,** McBride, SA, Killgore, DB, & Balkin, TJ. Stimulant countermeasures and risk propensity across 2 nights of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A136.

49. McBride, SA, Balkin, TJ, & **Killgore, WD.** The effects of 24 hours of sleep deprivation on odor

identification accuracy [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A137.

50. Picchioni, D, **Killgore, WD,** Braun, AR, & Balkin, TJ. PET correlates of EEG activity during non-REM sleep. Poster presentation at the annual UCLA/Websciences Sleep Training Workshop, Lake Arrowhead, CA, September, 2005.

51. **Killgore, WD,** Killgore, DB, McBride, SA, & Balkin, TJ. Sustained verbal fluency following sleep deprivation and recovery sleep: The effects of caffeine, modafinil, and dextroamphetamine. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.

52. **Killgore, WD,** Balkin, TJ, & Wesensten, NJ. Decision-making is impaired following 2-days of sleep deprivation. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.

53. **Killgore, WD,** & Yurgelun-Todd, DA. Neural correlates of emotional intelligence in adolescent children. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.

54. **Killgore, WD,** & Yurgelun-Todd, DA. Social anxiety predicts amygdala activation in adolescents viewing fearful faces. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.

55. McBride, SA & **Killgore, WD.** Sleepy people smell worse: Olfactory deficits following extended wakefulness. Paper presented at the Workshop on Trace Gas Detection Using Artificial, Biological, and Computational Olfaction. Monell Chemical Senses Center, Philadelphia, PA, March 29-31, 2006.

56. **Killgore, WD,** Day LM, Li, C, Kamimori, GH, Balkin, TJ, & Killgore DB. Moral reasoning is affected by sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A137.

57. **Killgore, WD,** Killgore DB, Kahn-Green, E, Conrad, A, Balkin, TJ, & Kamimori, G. H. Introversion-Extroversion predicts resilience to sleep loss [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A137.

58. Newman, R, Kamimori, GH, **Killgore, WD.** Sleep deprivation diminishes constructive thinking [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A136-137.

59. Huck, NO, Kendall, AP, McBride, SA, **Killgore, WD.** The perception of facial emotion is enhanced by psychostimulants following two nights of sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A136.

60. O'Sullivan, M, Reichardt, RM, Krugler, AL, Killgore, DB, & **Killgore, WD.** Premorbid intelligence correlates with duration and quality of recovery sleep following sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A372.

61. McBride, SA, **Killgore, WD,** Kahn-Green, E, Conrad, A, & Kamimori, GH. Caffeine administered to maintain overnight alertness does not disrupt performance during the daytime withdrawal period [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A136.

62. McBride, SA, Killgore DB, Balkin, TJ, Kamimori, GH, & **Killgore, WD.** Sleepy people smell worse: Olfactory decrements as a function of sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A135.

63. Day, LM, Li, C, Killgore, DB, Kamimori, GH, & **Killgore, WD.** Emotional intelligence moderates the effect of sleep deprivation on moral reasoning [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A135.

64. Murray, CJ, Killgore, DB, Kamimori, GH, & **Killgore, WD.** Individual differences in stress management capacity predict responsiveness to caffeine during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A43.

65. Murray, CJ, Newman, R, O'Sullivan, M, Killgore, DB, Balkin, TJ, & **Killgore, WD.** Caffeine, dextroamphetamine, and modafinil fail to restore Stroop performance during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A370-371.

66. Richards, J, Killgore, DB, & **Killgore, WD.** The effect of 44 hours of sleep deprivation on mood using the Visual Analog Mood Scales [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A132.

67. Richards, J, & **Killgore, WD.** The effect of caffeine, dextroamphetamine, and modafinil on alertness and mood during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A43.

68. Lipizzi, EL, Leavitt, BP, Killgore, DB, Kamimori, GH, & **Killgore, WD.** Decision making capabilities decline with increasing duration of wakefulness [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A131.

69. Lipizzi, EL, Killgore, DB, Kahn-Green, E, Kamimori, GH, & **Killgore, WD.** Emotional

intelligence scores decline during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A131.

70. Kahn-Green, E, Day, L, Conrad, A, Leavitt, BP, Killgore, DB, & **Killgore, WD.** Short-term vs. long-term planning abilities: Differential effects of stimulants on executive function in sleep deprived individuals [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A370.

71. Kahn-Green, E, Conrad, A, Killgore, DB, Kamimori, GH, & **Killgore, WD.** Tired and frustrated: Using a projective technique for assessing responses to stress during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A130.

72. Killgore, DB, Kahn-Green, E, Balkin, TJ, Kamimori, GH, & **Killgore, WD.** 56 hours of wakefulness is associated with a sub-clinical increase in symptoms of psychopathology [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A130.

73. Killgore, DB, McBride, SA, Balkin, TJ, Leavitt, BP, & **Killgore, WD.** Modafinil improves humor appreciation during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A42.

74. Reichardt, RM, Killgore, DB, Lipizzi, EL, Li, CJ, Krugler, AL, & **Killgore, WD.** The effects of stimulants on recovery sleep and post-recovery verbal performance following 61-hours of sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A42.

75. Bailey, JD, Richards, J, & **Killgore, WD.** Prediction of mood fluctuations during sleep deprivation with the SAFTE Model [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A60.

76. Kendall, AP, McBride, S. A, & **Killgore, WD.** Visuospatial perception of line orientation is resistant to one night of sleep loss [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A369.

77. Kendall, AP, McBride, SA, Kamimori, GH, & **Killgore, WD.** The interaction of coping skills and stimulants on sustaining vigilance: Poor coping may keep yoiu up at night [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A129.

78. Muckle, A, Killgore, DB, & **Killgore, WD.** Gender differences in the effects of stimulant medications on the ability to estimate unknown quantities when sleep deprived [abstract].

Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A369.

79. Krugler, AL, **Killgore, WD,** & Kamimori, G. H. Trait anger predicts resistance to sleep loss [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A129.

80. **Killgore, WD,** Cotting, DI, Vo, A. H, Castro, CA, & Hoge, CW. The invincibility syndrome: Combat experiences predict risk-taking propensity following redeployment [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.

81. **Killgore, WD,** Wesensten, NJ, & Balkin, TJ. Stimulants improve tactical but not strategic planning during prolonged wakefulness [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.

82. **Killgore, WD,** Balkin, TJ, Wesensten, NJ, & Kamimori, G. H. The effects of sleep loss and caffeine on decision-making [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.

83. **Killgore, WD,** Balkin, TJ, & Kamimori, GH. Sleep loss can impair moral judgment [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.

84. **Killgore, WD,** Lipizzi, EL, Reichardt, RM, Kamimori, GH, & Balkin, TJ. Can stimulants reverse the effects of sleep deprivation on risky decision-making [abstract]? Abstract presented at the 25th Army Science Conference, Orlando, FL, November 27-30, 2006.

85. **Killgore, WD,** Killgore, DB, Kamimori, GH, & Balkin, TJ. Sleep deprivation impairs the emotional intelligence and moral judgment capacities of Soldiers [abstract]. Abstract presented at the 25th Army Science Conference, Orlando, FL, November 27-30, 2006.

86. **Killgore, WD,** Cotting, DI, Vo, AH, Castro, C.A, & Hoge, CW. The post-combat invincibility syndrome: Combat experiences increase risk-taking propensity following deployment [abstract]. Abstract presented at the 25th Army Science Conference, Orlando, FL, November 27-30, 2006.

87. Adam, GE, Szelenyi, ER, **Killgore, WD,** & Lieberman, HR. A double-blind study of two days of caloric deprivation: Effects on judgment and decision-making. Oral paper presentation at the Annual Scientific Meeting of the Aerospace Medical Association, New Orleans, LA, May, 2007.

88. Killgore, DB, Kahn-Greene, ET, Kamimori, GH, & **Killgore, WD.** The effects of acute caffeine withdrawal on short category test performance in sleep deprived individuals [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A43.

89. Richards, JM, Lipizzi, EL, Kamimori, GH, & **Killgore, WD.** Extroversion predicts change in

attentional lapses during sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A137.

90. Lipizzi, EL, Richards, JM, Balkin, TJ, Grugle, NL, & **Killgore, WD.** Morningness-Eveningness and Intelligence [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A345.

91. Lipizzi, EL, Richards, JM, Balkin, TJ, Grugle, NL, & **Killgore WD.** Morningness-Eveningness affects risk-taking propensity during sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A136.

92. McBride, SA, Ganesan, G, Kamimori, GH, & **Killgore, WD.** Odor identification ability predicts vulnerability to attentional lapses during 77 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A135.

93. Smith, KL, McBride, S. A, Kamimori, GH, & **Killgore, WD.** Individual differences in odor discrimination predict mood dysregulation following 56 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A136.

94. McBride, SA, Leavitt, BP, Kamimori, GH, & **Killgore, WD.** Odor identification accuracy predicts resistance to sleep loss. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A137.

95. Killgore, DB, McBride, SA, Balkin, TJ, Grugle, NL. & **Killgore, WD.** Changes in odor discrimination predict executive function deficits following 45 hours of wakefulness [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A136.

96. Rupp, TL, Killgore, DB, Balkin, TJ, Grugle, NL, & **Killgore, WD.** The effects of modafinil, dextroamphetamine, and caffeine on verbal and nonverbal fluency in sleep deprived individuals [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A43.

97. Newman, RA, Krugler, AL, Kamimori, GH, & **Killgore, WD.** Changes in state and trait anger following 56 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A138.

98. Rupp, TL, Grugle, NL, Krugler, AL, Balkin, TJ, & **Killgore, WD.** Caffeine, dextroamphetamine, and modafinil improve PVT performance after sleep deprivation and recovery sleep [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement),

A44.

99. **Killgore, WD,** Lipizzi, EL, Balkin, TJ, Grugle, NL, & Killgore, DB. The effects of sleep deprivation and stimulants on self-reported sensation seeking propensity [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A42.

100. **Killgore, WD,** Richards, JM, Balkin, TJ, Grugle, NL, & Killgore DB. The effects of sleep deprivation and stimulants on risky behavior [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A41.

101. Newman, RA, Smith, KL, Balkin, TJ, Grugle, NL, & **Killgore, WD.** The effects of caffeine, dextroamphetamine, and modafinil on executive functioning following 45 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A45.

102. Richards, JM, Lipizzi, EL, Balkin, TJ, Grugle, NL, & **Killgore, WD.** Objective alertness predicts mood changes during 44 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A56.

103. **Killgore, WD,** & Yurgelun-Todd, DA. Cortical and Limbic Activation in Response to Visual Images of Low and High-Caloric Food [abstract]. Oral symposium presented at the 6th Annual Conference of the Society of Behavioral Nutrition and Physical Activity (ISBNPA), Oslo, Norway, June 20-23, 2007. Proceedings of the ISBNPA, 2007, 75.

104. Estrada, A, **Killgore, WD,** Rouse, T, Balkin, TJ, & Wildzunas, RM. Total sleep time measured by actigraphy predicts academic performance during military training [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A134.

105. **Killgore, WD,** Lipizzi, EL, Smith, KL, Killgore, DB, Rupp, TL, Kamimori, GH, & Balkin, T. J. Nonverbal intelligence is inversely related to the ability to resist sleep loss [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A134.

106. **Killgore, WD,** Lipizzi, EL, Killgore, DB, Rupp, TL, Kamimori, GH, & Balkin, TJ. Emotional intelligence predicts declines in emotion-based decision-making following sleep deprivation [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A134.

107. Reid, CT, Smith, K, **Killgore, WD,** Rupp, TL, & Balkin, TJ. Higher intelligence is associated with less subjective sleepiness during sleep restriction [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A375.

108. Newman, R, **Killgore, WD,** Rupp, T. L, & Balkin, TJ. Better baseline olfactory discrimination is

associated with worse PVT and MWT performance with sleep restriction and recovery [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A375.

109. Smith, KL, Reid, CT, **Killgore, WD,** Rupp, TL, & Balkin, TJ. Personality factors associated with performance and sleepiness during sleep restriction and recovery [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A376.

110. Lipizzi, EL, **Killgore, WD,** Rupp, TL, & Balkin, TJ. Risk-taking behavior is elevated during recovery from sleep restriction [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A376.

111. Lipizzi, EL, Rupp, TL, **Killgore, WD,** & Balkin, TJ. Sleep restriction increases risk-taking behavior [abstract]. Poster presented at the 11th Annual Force Health Protection Conference, Albuquerque, NM, August, 9-15, 2008.

112. **Killgore, WD,** Estrada, A, Balkin, TJ, & Wildzunas, RM. Sleep duration during army training predicts course performance [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.

113. **Killgore, WD,** Lipizzi, EL, Smith, KL, Killgore, DB, Rupp, TL, Kamimori, GH, & Balkin, TJ. Higher cognitive ability is associated with reduced relative resistance to sleep loss [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.

114. **Killgore, WD,** Rupp, TL, Grugle, NL, Lipizzi, EL, & Balkin, TJ. Maintaining alertness during sustained operations: Which stimulant is most effective after 44 hours without sleep [abstract]? Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.

115. **Killgore, WD,** Newman, RA, Lipizzi, EL, Kamimori, GH, & Balkin, TJ. Sleep deprivation increases feelings of anger but reduces verbal and physical aggression in Soldiers [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.

116. Kelley, AM, Dretsch, M, **Killgore, WD,** & Athy, JR. Risky behaviors and attitudes about risk in Soldiers. Abstract presented at the 29th Annual Meeting of the Society for Judgment and Decision Making, Chicago, IL, November, 2008.

117. **Killgore, WD,** Ross, AJ, Silveri, MM, Gruber, SA, Kamiya, T, Kawada, Y, Renshaw, PF, & Yurgelun-Todd, DA. Citicoline affects appetite and cortico-limbic responses to images of high calorie foods. Abstract presented at the Society for Neuroscience, Washington DC, November 19, 2008.

118. Britton, JC, Stewart, SE, Price, LM, **Killgore, WD,** Gold, AL, Jenike, MA, & Rauch, SL. Reduced amygdalar activation in response to emotional faces in pediatric Obsessive-

Compulsive Disorder. Abstract presented at the Annual meeting of the American College of Neuropsychopharmacology, Scottsdale, AZ, December 7-11, 2008.

119. **Killgore, WD,** Balkin, TJ, Estrada, A, & Wildzunas, RM. Sleep and performance measures in soldiers undergoing military relevant training. Abstract presented at the 26th Army Science Conference, Orlando, FL, December 1-4, 2008.

120. **Killgore, WD** & Yurgelun-Todd, DA. Cerebral correlates of amygdala responses during non-conscious perception of affective faces in adolescent children. Abstract presented at the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

121. **Killgore, WD,** Killgore, DB, Grugle, NL, & Balkin, TJ. Odor identification ability predicts executive function deficits following sleep deprivation. Abstract presented the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

122. **Killgore, WD,** Rupp, TL, Killgore, DB, Grugle, NL, and Balkin, TJ. Differential effects of stimulant medications on verbal and nonverbal fluency during sleep deprivation. Abstract presented the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

123. **Killgore, WD,** Killgore, DB, Kamimori, GH, & Balkin, TJ. When being smart is a liability: More intelligent individuals may be less resistant to sleep deprivation. Abstract presented the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

124. **Killgore, WD,** Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Introversion is associated with greater amygdala and insula activation during viewing of masked affective stimuli. Abstract presented the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

125. **Killgore, WD,** Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Amygdala responses of specific animal phobics do not differ from healthy controls during masked fearful face perception. Abstract presented the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

126. **Killgore, WD,** Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Small animal phobics show sustained amygdala activation in response to masked happy facial expressions. Abstract presented the 37th Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009. ***[*Merit Poster Award]***

127. Price, LM, **Killgore, WD,** Britton, JC, Kaufman, ML, Gold, AL, Deckersbach, T, & Rauch, SL. Anxiety sensitivity correlates with insula activation in response to masked fearful faces in specific animal phobics and healthy subjects. Abstract presented at the Annual Conference of the Anxiety Disorders Association of America, Santa Ana Pueblo, New Mexico, March 12-15, 2009.

128. **Killgore, WD,** Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Neuroticism is

inversely correlated with amygdala and insula activation during masked presentations of affective stimuli. Abstract presented at the Annual Conference of the Anxiety Disorders Association of America, Santa Ana Pueblo, New Mexico, March 12-15, 2009.

129. **Killgore, WD,** Kelley, AM, & Balkin, TJ. Development and validation of a scale to measure the perception of invincibility. Abstract presented at the Annual Conference of the Anxiety Disorders Association of America, Santa Ana Pueblo, New Mexico, March 12-15, 2009.

130. Kelly, AM, **Killgore WD,** Athy, J, & Dretsch, M. Risk propensity, risk perception, risk aversion, and sensation seeking in U.S. Army soldiers. Abstract presented at the 80th Annual Scientific Meeting of the Aerospace Medical Association, Los Angeles, CA, May 3-7, 2009.

131. Britton, JC, Stewart, SE, Price, LM, **Killgore, WD,** Jenike, MA, & Rauch, SL. The neural correlates of negative priming in pediatric obsessive-compulsive disorder (OCD). Abstract presented at the 64th Annual Scientific Meeting of the Society of Biological Psychiatry, Vancouver, Canada, May 14-16, 2009.

132. **Killgore, WD,** Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine protects against increased risk-taking behavior during severe sleep deprivation. Abstract presented at the 23rd Annual Meeting of the Associated Professional Sleep Societies, Seattle, Washington, June 7-12, 2009.

133. Killgore, DB, **Killgore, WD,** Grugle, NL, & Balkin, TJ. Executive functions predict the ability to sustain psychomotor vigilance during sleep loss. Abstract presented at the 23rd Annual Meeting of the Associated Professional Sleep Societies, Seattle, Washington, June 7-12, 2009.

134. **Killgore, WD,** & Yurgelun-Todd, DA. Trouble falling asleep is associated with reduced activation of dorsolateral prefrontal cortex during a simple attention task. Abstract presented at the 23rd Annual Meeting of the Associated Professional Sleep Societies, Seattle, Washington, June 7-12, 2009.

135. **Killgore, WD,** Kelley, AM, & Balkin, TJ. A new scale for measuring the perception of invincibility. Abstract presented at the 12th Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.

136. **Killgore, WD,** Killgore, DB, Grugle, NL, & Balkin, TJ. Executive functions contribute to the ability to resist sleep loss. Abstract presented at the 12th Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.

137. **Killgore, WD,** Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine reduces risk-taking behavior during severe sleep deprivation. Abstract presented at the 12th Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009. ***[*Best Paper: Research]***

138. **Killgore, WD,** Castro, CA, & Hoge, CW. Normative data for the Evaluation of Risks Scale—Bubble Sheet Version (EVAR-B) for large scale surveys of returning combat veterans. Abstract presented at the 12th Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.

139. **Killgore, WD,** Castro, CA, & Hoge, CW. Combat exposure and post-deployment risky behavior. Abstract presented at the 12th Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.

140. **Killgore, WD**, Price, LM, Britton, JC, Simon, N, Pollack, MH, Weiner, MR, Schwab, ZJ, Rosso, IM, & Rauch, SL. Paralimbic responses to masked emotional faces in PTSD: Disorder and valence specificity. Abstract presented at the Annual McLean Hospital Research Day, January 29, 2010.

141. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine minimizes behavioral risk-taking during 75 hours of sleep deprivation. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

142. **Killgore, WD** & Balkin, TJ. Vulnerability to sleep loss is affected by baseline executive function capacity. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

143. **Killgore, WD**, Smith, KL, Reichardt, RM., Killgore, DB, & Balkin, TJ. Intellectual capacity is related to REM sleep following sleep deprivation. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

144. **Killgore, WD** & Yurgelun-Todd, DA. Cerebral correlates of amygdala responses to masked fear, anger, and happiness in adolescent and pre-adolescent children. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

145. **Killgore, WD**, Post, A, & Yurgelun-Todd, DA. Sex differences in cortico-limbic responses to images of high calorie food. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

146. **Killgore, WD** & Yurgelun-Todd, DA. Self-reported insomnia is associated with increased activation within the default-mode network during a simple attention task. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

147. **Killgore, WD**, Price, LM, Britton, JC, Gold, AL, Deckersbach, T, & Rauch, SL. Neural correlates of anxiety sensitivity factors during presentation of masked fearful faces. Abstract presented at the 38th Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

148. **Killgore, WD**, Grugle, NL, Conrad, TA, & Balkin, TJ. Baseline executive function abilities predict risky behavior following sleep deprivation. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

149. **Killgore, WD**, Grugle, NL, & Balkin, TJ. Judgment of objective vigilance performance is affected by sleep deprivation and stimulants. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

150. Killgore, DB, **Killgore, WD**, Grugle, NL, & Balkin, TJ. Resistance to sleep loss and its relationship to decision making during sleep deprivation. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

151. Killgore DB, **Killgore, WD**, Grugle, NL, & Balkin, TJ. Subjective sleepiness and objective performance: Differential effects of stimulants during sleep deprivation. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

152. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Vulnerability to sleep deprivation is differentially mediated by social exposure in extraverts vs. introverts. Oral presentation at the "Data Blitz" section at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

153. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Extraverts may be more vulnerable than introverts to sleep deprivation on some measures of risk-taking and executive functioning. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

154. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Vulnerability to sleep deprivation is differentially mediated by social exposure in extraverts vs. introverts. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

155. Capaldi, VF, Guerrero, ML, & **Killgore, WD**. Sleep disorders among OIF and OEF Soldiers. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

156. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine reduces behavioral risk-taking during sleep deprivation. Abstract presented at the 65th Annual Meeting of the Society for Biological Psychiatry, New Orleans, Louisiana, May 20-22, 2010.

157. **Killgore, WD**, Price, LM, Britton, JC, Simon, N, Pollack, MH, Weiner, MR, Schwab, ZJ, Rosso, IM, & Rauch, SL. Paralimbic responses to masked emotional faces in PTSD: Disorder and valence specificity. Abstract presented at the 65th Annual Meeting of the Society for Biological Psychiatry, New Orleans, Louisiana, May 20-22, 2010.

158. Rosso, IM, Makris, N, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, **Killgore, WD**, & Rauch SL. Anxiety sensitivity correlates with insular cortex volume and thickness in specific animal phobia. Abstract presented at the 65th Annual Meeting of the Society for Biological Psychiatry, New Orleans, Louisiana, May 20-22, 2010.

159. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Vulnerability to sleep deprivation is mediated by social exposure in extraverts versus introverts. Oral platform presentation at the 20th Congress of the European Sleep Research Society, Lisbon, Portugal, September 14-18, 2010.

160. **Killgore, WD**, Estrada, A, & Balkin, TJ. A tool for monitoring soldier fatigue and predicting

cognitive readiness: The Sleep History and Readiness Predictor (SHARP). Abstract presented at the 27th Army Science Conference, Orlando, FL, November 29-December 2, 2010.

161. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Caffeinated gum minimizes risk-taking in soldiers during prolonged sleep deprivation. Abstract presented at the 27th Army Science Conference, Orlando, FL, November 29-December 2, 2010.

162. **Killgore, WD**, Britton, JC, Schwab, ZJ, Weiner, MR, Rosso, IM, & Rauch, SL. Exaggerated amygdala responses to masked fearful faces are specific to PTSD versus simple phobia. Oral platform presentation at the 27th Army Science Conference, Orlando, FL, November 29-December 2, 2010. ***[*Winner Best Paper in Neuroscience]***

163. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Sleep deprivation selectively impairs emotional aspects of cognitive functioning. Oral platform presentation at the 27th Army Science Conference, Orlando, FL, November 29-December 2, 2010.

164. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Evaluation of personality and social exposure as individual difference factors influencing response to sleep deprivation. Oral platform presentation at the 27th Army Science Conference, Orlando, FL, November 29-December 2, 2010.

165. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, Weiner, MR, & Rauch, SL. Shared and differential patterns of amygdalo-cortical activation across anxiety disorders. Abstract presented at the 49th Annual Meeting of the American College of Neuropsychopharmacology, Miami Beach, FL, December 5-9, 2010.

166. Rosso, IM, **Killgore, WD**, Britton, JC, Weiner, MR, Schwab, ZJ, & Rauch, SL. Neural correlates of PTSD symptom dimensions during emotional processing: A functional magnetic resonance imaging study. Abstract presented at the 49th Annual Meeting of the American College of Neuropsychopharmacology, Miami Beach, FL, December 5-9, 2010.

167. **Killgore, WD,** Rosso, IM, Britton, JC, Schwab, ZJ, Weiner, MR, & Rauch, SL. Cortico-limbic activation differentiates among anxiety disorders with and without a generalized threat response. Abstract presented at the McLean Hospital Research Day, January 13, 2011.

168. Weiner, MR, Schwab, ZJ, Rauch, SL, & **Killgore WD**. Personality factors predict brain responses to images of high-calorie foods. Abstract presented at the McLean Hospital Research Day, January 13, 2011.

169. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD.** Emotional and cognitive intelligence: Support for the neural efficiency hypothesis. Abstract presented at the McLean Hospital Research Day, January 13, 2011.

170. Crowley, DJ, Covell, MJ, **Killgore, WD**, Schwab, ZJ, Weiner, MR, Acharya, D, Rosso, IM, & Silveri, MM. Differential influence of facial expression on inhibitory capacity in adolescents versus adults. Abstract presented at the McLean Hospital Research Day, January 13, 2011.

171. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, Weiner, MR, & Rauch, SL. Similarities and

differences in cortico-limbic responses to masked affect probes across anxiety disorders. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

172. Rosso, IM, **Killgore, WD**, Britton, JC, Weiner, MR, Schwab, ZJ, & Rauch, SL. Hyperarousal and reexperiencing symptoms of post-traumatic stress disorder are differentially associated with limbic-prefrontal brain responses to threatening stimuli. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

173. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Neural correlates of cognitive and emotional intelligence in adults. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

174. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Cognitive and emotional intelligences: Are they distinct or related constructs? Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

175. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Discrepancy scores between cognitive and emotional intelligence predict neural responses to affective stimuli. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

176. **Killgore, WD**, Schwab, ZJ, Weiner, MR, & Rauch, SL. Smart people go with their gut: Emotional intelligence correlates with non-conscious insular responses to facial trustworthiness. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

177. **Killgore, WD**, Weiner, MR, Schwab, ZJ, & Rauch, SL. Whom can you trust? Neural correlates of subliminal perception of facial trustworthiness. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

178. Weiner, MR, Schwab, ZJ, & Rauch, SL, **Killgore, WD**. Impulsiveness predicts responses of brain reward circuitry to high-calorie foods. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

179. Weiner, MR, Schwab, ZJ, & Rauch, SL, **Killgore, WD**. Conscientiousness predicts brain responses to images of high-calorie foods. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

180. Crowley, DJ, Covell, MJ, **Killgore, WD**, Schwab, ZJ, Weiner, MR, Acharya, D, Rosso, IM, & Silveri, MM. Differential influence of facial expression on inhibitory capacity in adolescents versus adults. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

181. Gruber, SA, Dahlgren, MK, **Killgore, WD**, Sagar, KA, & Racine, MT. Marijuana: Age of onset of use impacts executive function and brain activation. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

182. **Killgore, WD,** Conrad, TA, Grugle, NL, & Balkin, TJ. Baseline executive function abilities correlate with risky behavior following sleep deprivation. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

183. **Killgore, WD,** Grugle, NL, Killgore, DB, & Balkin, TJ. Resistance to sleep loss and decision making during sleep deprivation. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

184. **Killgore, WD,** Rosso, IM, Britton, JC, Schwab, ZJ, Weiner, MR, & Rauch, SL. Cortico-limbic activation differentiates among anxiety disorders with and without a generalized threat response. Abstract presented at the 66th Annual Meeting of the Society for Biological Psychiatry, San Francisco, CA, May 12-14, 2011. ***[*Blue Ribbon Finalist: Clinical/Translational]***

185. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD.** Emotional and cognitive intelligence: Support for the neural efficiency hypothesis. Abstract presented at the 66th Annual Meeting of the Society for Biological Psychiatry, San Francisco, CA, May 12-14, 2011.

186. Weiner, MR, Schwab, ZJ, Rauch, SL, & **Killgore WD**. Personality factors predict brain responses to images of high-calorie foods. Abstract presented at the 66th Annual Meeting of the Society for Biological Psychiatry, San Francisco, CA, May 12-14, 2011.

187. **Killgore, WD,** Grugle, NL, & Balkin, TJ. Sleep deprivation impairs recognition of specific emotions. Abstract presented at the 25th Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.

188. **Killgore, WD,** & Balkin, TJ. Does vulnerability to sleep deprivation influence the effectiveness of stimulants on psychomotor vigilance? Abstract presented at the 25th Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.

189. Killgore, DB, **Killgore, WD,** Grugle, NJ, & Balkin, TJ. Sleep deprivation impairs recognition of specific emotions. Abstract presented at the 25th Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.

190. Weiner, MR, Schwab, ZJ, & **Killgore, WD.** Daytime sleepiness is associated with altered brain activation during visual perception of high-calorie foods: An fMRI study. Abstract presented at the 25th Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.

191. Schwab, ZJ, Weiner, MR, & **Killgore, WD.** Functional MRI correlates of morningness-eveningness during visual presentation of high calorie foods. Abstract presented at the 25th Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.

192. **Killgore, WD,** Weiner, MR, & Schwab, ZJ. Daytime sleepiness affects prefrontal regulation of food intake. Abstract presented at the McLean Hospital Research Day, January 11, 2012.

193. Kipman, M, Schwab ZJ, Weiner, MR, DelDonno, S, Rauch SL, & **Killgore WD**. The insightful yet bitter comedian: The role of emotional versus cognitive intelligence in humor appreciation. Abstract presented at the McLean Hospital Research Day, January 11, 2012.

194. Weber, M, & **Killgore, WD**. Gray matter correlates of emotional intelligence. Abstract presented at the McLean Hospital Research Day, January 11, 2012.

195. Schwab, ZJ, & **Killgore, WD**. Sex differences in functional brain responses to food. Abstract presented at the McLean Hospital Research Day, January 11, 2012.

196. DelDonno, S, Schwab, ZJ, Kipman M, Rauch, SL, & **Killgore, WD**. The influence of cognitive and emotional intelligence on performance on the Iowa Gambling Task. Abstract presented at the McLean Hospital Research Day, January 11, 2012.

197. Song, CH, Kizielewicz, J, Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Time is of the essence: The Design Organization Test as a valid, reliable, and brief measure of visuospatial ability. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

198. Kipman, M, Schwab, ZJ, DelDonno, S, & **Killgore, WD**. Gender differences in the contribution of cognitive and emotional intelligence to the left visual field bias for facial perception. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

199. Kipman, M., Schwab, ZJ, Weiner, MR, DelDonno, S, Rauch, SL, & **Killgore, WD**. Contributions of emotional versus cognitive intelligence in humor appreciation. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

200. Schwab, ZJ, & **Killgore, WD**. Disentangling emotional and cognitive intelligence. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

201. Schwab, ZJ, & **Killgore, WD**. Sex differences in functional brain responses to food. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

202. DelDonno, S, Schwab, ZJ, Kipman, M, Rauch, SL, & **Killgore, WD**. The influence of cognitive and emotional intelligence on performance on the Iowa Gambling Task. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

203. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, Weiner, MR, & Rauch, SL. Shared and unique patterns of cortico-limbic activation across anxiety disorders. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

204. **Killgore, WD**, & Balkin, TJ. Sleep deprivation degrades recognition of specific emotions. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

205. **Killgore, WD**, & Schwab, ZJ. Emotional intelligence correlates with somatic marker circuitry responses to subliminal cues of facial trustworthiness. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

206. **Killgore, WD**, & Schwab, ZJ. Trust me! Neural correlates of the ability to identify facial trustworthiness. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

207. **Killgore, WD**, Schwab, ZJ, Weiner, MR, Kipman, M, DelDonno, S, & Rauch SL. Overeating is associated with altered cortico-limbic responses to images of high calorie foods. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

208. **Killgore, WD**, Weiner, MR, & Schwab, ZJ. Daytime sleepiness affects prefrontal regulation of food intake. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

209. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of self-reported sleep duration. Abstract presented at the Harvard Medical School Research Day, Boston, MA, March 28, 2012.

210. **Killgore, WD**. Overlapping and distinct patterns of neurocircuitry across PTSD, Panic Disorder, and Simple Phobia. Abstract presented at the 32nd Annual Conference of the Anxiety Disorders Association of America, Arlington, VA, April 12-15, 2012.

211. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, & Rauch, SL. Shared and unique patterns of cortico-limbic activation across anxiety disorders. Abstract presented at the 67th Annual Meeting of the Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012.

212. **Killgore, WD**, Schwab, ZJ, & Rauch, SL. Daytime sleepiness affects prefrontal inhibition of food consumption. Abstract presented at the 67th Annual Meeting of the Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012.

213. Rosso, IM, Britton, JC, Makris, N, **Killgore, WD**, Rauch SL, & Stewart ES. Impact of major depression comorbidity on prefrontal and anterior cingulate volumes in pediatric OCD. Abstract presented at the 67th Annual Meeting of the Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012.

214. Kipman, M, Weber, M, DelDonno, S., Schwab, ZJ, & **Killgore, WD**. Morningness-Eveningness correlates with orbitofrontal gray matter volume. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

215. Kipman, M, Schwab, ZJ, Weber, M, DelDonno, S, & **Killgore, WD**. Yawning frequency is

correlated with reduced medial thalamic volume. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

216. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of daytime sleepiness. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

217. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of self-reported sleep duration. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

218. DelDonno, S, Weber, M, Kipman M, Schwab, ZJ, & **Killgore, WD**. Resistance to insufficient sleep correlates with olfactory cortex gray matter. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

219. DelDonno, S, Schwab, ZJ, Kipman, M, Weber, M, & **Killgore, WD**. Weekend sleep is related to greater coping and resilience capacities. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

220. Schwab, ZJ, DelDonno, S, Weber, M, Kipman M, & **Killgore, WD**. Habitual caffeine consumption and cerebral gray matter volume. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

221. Schwab, ZJ, & **Killgore, WD**. Daytime sleepiness affects prefrontal regulation of food intake. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

222. **Killgore, WD**, Schwab, ZJ, DelDonno S, Kipman, M, Weber M, & Rauch, SL. Greater nocturnal sleep time is associated with increased default mode functional connectivity. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

223. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Caffeine improves efficiency of planning and sequencing abilities during sleep deprivation. Abstract presented at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

224. Sneider, JT, **Killgore, WD**, Crowley, DJ, Cohen-Gilbert, JE, Schwab, ZJ, & Silveri, MM. Inhibitory capacity in emerging adult binge drinkers: Influence of Facial Cues. Abstract presented at the 35th Annual Scientific Meeting of the Research Society on Alcoholism, San Francisco, CA, June 23-27, 2012.

225. **Killgore WD**. Multimodal neuroimaging to predict cognitive resilience against sleep loss. Abstract presented at the DARPA Young Faculty Award 2012 Meeting, Arlington, VA, July 30-31, 2012. ***[*Winner Young Faculty Award in Neuroscience]***

226. Cohen-Gilbert, JE, **Killgore WD**, Crowley, DJ, Covell, MJ, Schwab, ZJ, Weiner, MR, Acharya, D, Sneider, JT, & Silveri, MM. Differential influence of safe versus threatening facial expressions on inhibitory control across adolescence and adulthood. Abstract presented at the

Society for Neuroscience 2012 Meeting, New Orleans, LA, October 13-17, 2012.

227. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of self-reported sleep duration. Abstract presented at the Harvard Division of Sleep Medicine Annual Poster Session, Boston, MA, September 27, 2012.

228. Weber, M, DelDonno, SR, Kipman, M, Preer, LA, Schwab ZJ, Weiner, MR, & **Killgore, WD.** The effect of morning bight light therapy on sleep, cognition and emotion following mild traumatic brain injury. Abstract presented at the 2012 Sleep Research Network Meeting, 22-23 October 2012, Bethesda, MD.

229. Sneider, JT, **Killgore, WD**, Crowley, DJ, Cohen-Gilbert, JE, Schwab, ZJ, & Silveri, MM. Inhibitory capacity in emerging adult binge drinkers: Influence of Facial Cues. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

230. Cohen-Gilbert, JE, **Killgore WD**, Crowley, DJ, Covell, MJ, Schwab, ZJ, Weiner, MR, Acharya, D, Sneider, JT, & Silveri, MM. Differential influence of safe versus threatening facial expressions on inhibitory control across adolescence and adulthood. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

231. Tkachenko, O, Schwab, ZJ, Kipman, M, DelDonno, S, Gogel, H., Preer, L, & **Killgore, WD**. Smarter women need less sleep. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

232. DelDonno, S, Kipman, M, Schwab, ZJ, & **Killgore, WD**. The contributions of emotional intelligence and facial perception to social intuition. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

233. Kipman, M, Schwab, ZJ, DelDonno, S, Weber, M, Rauch, SL, & **Killgore, WD**. The neurocircuitry of impulsive behavior. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

234. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, & **Killgore, WD**. Emotional intelligence as a mediator of the association between anxiety sensitivity and anxiety symptoms. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

235. Gogel, H, DelDonno, S, Kipman M, Preer, LA, Schwab, ZJ, Tkachenko, O, & **Killgore, WD**. Validation of the Design Organization Test (DOT) in a healthy population. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

236. Brennan, BP, Schwab, ZS, Athey, AJ, Ryan, EM, Pope, HG, **Killgore, WD**, Jenike, MA, & Rauch, SL. A functional magnetic resonance imaging study of rostral anterior cingulate cortex activation in obsessive-compulsive disorder using an emotional counting stroop paradigm. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

237. Cohen-Gilbert, JE, Schwab, ZJ, **Killgore, WD**, Crowley, DJ, & Silveri MM. Influence of Binge Drinking on the Neural Correlates of Inhibitory Control during Emotional Distraction in

Young Adults. Abstract presented at the 3rd International Conference on Applications of Neuroimaging to Alcoholism (ICANA-3), New Haven, CT, February 15-18, 2013.

238. Weber, M, & **Killgore, WD**. The interrelationship between 'sleep credit', emotional intelligence and mental health – a voxel-based morphometric study. Abstract presented at Harvard Medical School Psychiatry Research Day, April 10, 2013.

239. Cohen-Gilbert, JE, Schwab, ZJ, **Killgore, WD**, Crowley, DJ, & Silveri MM. Influence of Binge Drinking on the Neural Correlates of Inhibitory Control during Emotional Distraction in Young Adults. Abstract presented at Harvard Medical School Psychiatry Research Day, April 10, 2013.

240. Mundy, EA, Weber, M, Rauch, SL, **Killgore, WD**, & Rosso, IM. The relationship between subjective stress levels in childhood and anxiety as well as perceived stress as an adult. Abstract presented at Harvard Medical School Psychiatry Research Day, April 10, 2013.

241. Webb, CA, **Killgore, WD**, Britton, JC, Schwab, ZJ, Price, LM, Weiner, MR, Gold, AL, Rosso, IM, Simon, NM, Pollack, MH, & Rauch, SL. Comparing categorical versus dimensional predictors of functional response across three anxiety disorders. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

242. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, Rauch, SL, & **Killgore, WD**. Linking Sleep Trouble to Neuroticism, Emotional Control, and Impulsiveness. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

243. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, Rauch, SL, & **Killgore, WD**. Emotional Intelligence as a Mediator of the Association between Anxiety Sensitivity and Anxiety Symptoms. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

244. Kipman, M, Schwab, ZJ, DelDonno, S, Weber, M, Rauch, SL, & **Killgore, WD**. The neurocircuitry of impulsive behavior. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

245. Weber, M, **Killgore, WD**, Rosso, IM, Britton, JC, Simon, NM, Pollack, MH, & Rauch, SL. Gray matter correlates of posttraumatic stress disorder—A voxel based morphometry study. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

246. Weber, M, Penetar, DM, Trksak, GH, DelDonno, SR, Kipman, M, Schwab, ZJ, & **Killgore, WD**. Morning blue wavelength light therapy improves sleep, cognition, emotion and brain function following mild traumatic brain injury. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

247. Tkachenko, O, Schwab, ZJ, Kipman, M, Preer, LA, Gogel, H, DelDonno, SR, Weber, M, Webb, CA, Rauch, SL, & **Killgore, WD**. Difficulty in falling asleep and staying asleep linked to a sub-clinical increase in symptoms of psychopathology. Abstract presented at the 68th Annual

Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

248. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, Rauch, SL, & Weber, M. Problems with sleep initiation and sleep maintenance correlate with functional connectivity among primary sensory cortices. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

249. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, Rauch, SL, & Weber, M. A Couple of Hours Can Make a Difference: Self-Reported Sleep Correlates with Prefrontal-Amygdala Connectivity and Emotional Functioning. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

250. Brennan, BP, Schwab, ZS, Athey, AJ, Ryan, EM, Pope, HG, **Killgore, WD**, Jenike, MA, & Rauch, SL. A functional magnetic resonance imaging study of rostral anterior cingulate cortex activation in obsessive-compulsive disorder using an emotional counting stroop paradigm. Abstract presented at the 68th Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.

251. Weber, M, & **Killgore, WD**. The interrelationship between 'sleep credit', emotional intelligence and mental health – a voxel-based morphometric study. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.

252. Weber, M, Penetar, DM, Trksak, GH, DelDonno, SR, Kipman, M, Schwab, ZJ, & **Killgore, WD**. Morning blue wavelength light therapy improves sleep, cognition, emotion and brain function following mild traumatic brain injury. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.

253. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, & Weber, M. Problems with Sleep Initiation and Sleep Maintenance Correlate with Functional Connectivity Among Primary Sensory Cortices. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.

254. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, & Weber, M. A Couple of Hours Can Make a Difference: Self-Reported Sleep Correlates with Prefrontal-Amygdala Connectivity and Emotional Functioning. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.

255. Tkachenko, O, Schwab, ZJ, Kipman, M, DelDonno, SR, Preer, LA, Gogel, H, Weber, M, Webb, CA, & **Killgore, WD**. Difficulty in falling asleep and staying asleep linked to a sub-clinical increase in symptoms of psychopathology. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.

256. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, & **Killgore, WD**. Linking Sleep Initiation Trouble to Neuroticism, Emotional Control, and Impulsiveness. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.

257. **Killgore, WD**. Sleep duration contributes to cortico-limbic functional connectivity, emotional

functioning, & psychological health. Abstract presented at the 52nd Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, December 8-12, 2013.

258. Preer, L, Tkachenko, O, Gogel, H, Bark, JS, Kipman, M, Olson, EA, & **Killgore, WD**. The role of personality in sleep initiation problems. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.

259. Demers, LA, Olson, EA, Weber, M, Divatia, S, Preer, L, & **Killgore, WD**. Paranoid traits are related to deficits in complex social decision-making and reduced superior temporal sulcus volume. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.

260. Tkachenko, O, Weber, M, Gogel, H, & **Killgore, WD**. Predisposition towards unhealthy foods linked with increased gray matter in the cerebellum. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.

261. Olson, EA, Weber, M, Tkachenko, O, & **Killgore, WD**. Daytime sleepiness is associated with decreased integration of remote outcomes on the IGT. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.

262. Cui, J, Tkachenko, O, & **Killgore, WD**. Can the activation of anterior cingulate predict the emotional suppression? An fMRI study with masked faces. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.

263. Gogel, H, & **Killgore WDS**. A psychometric validation of the Design Organization Test (DOT) in a healthy sample. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

264. **Killgore, WD**, Kipman, M, Tkachenko, O, Gogel, H., Preer, L, Demers, LA, Divatia, SC, Olson, EA, & Weber, M. Predicting resilience against sleep loss with multi-modal neuroimaging. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

265. **Killgore, WD**, Weber, M, Bark, JS, Kipman, M, Gogel, H, Preer, L, Tkachenko, O, Demers, LA, Divatia, SC, & Olson, EA. Physical exercise correlates with hippocampal volume in healthy adults. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

266. **Killgore, WD**, Tkachenko, O, Weber, M, Kipman, M, Preer, L, Gogel, H, & Olson, EA. The association between sleep, functional connectivity, and emotional functioning. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

267. Preer, L, Tkachenko, O, Gogel, H, Bark, JS, Kipman, M, Olson, EA, & **Killgore, WD**. The role of personality in sleep initiation problems. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

268. Tkachenko, O, Weber, M, Olson, EA, Gogel, H, Preer, LA, Divatia, SC, Demers, LA, & **Killgore, WD**. Gray matter volume within the medial prefrontal cortex correlates with

behavioral risk taking. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

269. Olson, EA, Weber, M, Bark JS, Demers L, Divatia, SC, Gogel, H, Kipman M, Preer, L, Tkachenko, O, & **Killgore, WD**. Sex differences in threat evaluation of emotionally neutral faces. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.

270. Cui, J, Tkachenko, O, & **Killgore, WD**. Can the activation of anterior cingulate predict the emotional suppression? An fMRI study with masked faces. Abstract presented at the 36nd Annual Conference of the Anxiety Disorders Association of America, Chicago, IL, March 27-30, 2014.

271. Webb, CA, Weber, M, Mundy, EA, & **Killgore, WD**. Reduced gray matter volume in the anterior cingulate, orbitofrontal cortex and thalamus as a function of depressive symptoms: A voxel-based morphometric analysis. Abstract presented at the 36nd Annual Conference of the Anxiety Disorders Association of America, Chicago, IL, March 27-30, 2014.

272. Weber, M, Penetar, DM, Trksak, GH, Kipman, M, Tkachenko, O, Bark, JS, Jorgensen, AL, Rauch, SL, & **Killgore, WD**. Light therapy may improve sleep and facilitate recovery from mild traumatic brain injury. Abstract presented at the 10th World Congress on Brain Injury, San Francisco, CA, March 19-22, 2014.

273. Cui, J, Tkachenko, O, & **Killgore, WD**. Can the activation of anterior cingulate predict the emotional suppression? An fMRI study with masked faces. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.

274. Divatia, S, Demers, LA, Preer, L, Olson, EA, Weber, M, & **Killgore, WD**. Advantageous decision making linked with increased gray matter volume in the ventromedial prefrontal cortex. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.

275. Demers, LA, Olson, EA, Weber, M, Divatia, S, Preer, L, & **Killgore, WD**. Paranoid traits are related to deficits in complex social decision making and reduced superior temporal sulcus volume. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.

276. Preer, LA, Weber, M, Tkachenko, O, Divatia, S, Demers, LA, Olson, EA, & **Killgore, WD**. Gray matter volume in the amygdala is associated with facial assessments of trustworthiness. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.

277. Tkachenko, O, Weber, M, Gogel, H, & **Killgore, WD**. Predisposition towards unhealthy foods linked with increased gray matter volume in the cerebellum. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.

278. Olson, EA, Weber, M, Gogel, H, & **Killgore, WD**. Daytime sleepiness is associated with decreased integration of remote outcomes on the IGT. Abstract presented at the 21st Annual

Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.

279. Demers, LA, Preer, LA, Gogel, H, Olson, EA, Weber, M, & **Killgore, WD**. Left-hemifield bias on sad chimeric face task correlates with interpersonal emotional intelligence. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.

280. Weber, M, **Killgore, WD**, Olson, EA, Rosso, IM, & Rauch, SL. Morphological brain network organization in relation to trauma and posttraumatic stress disorder. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.

281. Divatia, S, Demers, LA, Preer, L, Gogel, H, Kipman, M, & **Killgore, WD**. Schizotypal and manic traits are associated with poorer perception of emotions in healthy individuals. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.

282. **Killgore, WD**, Weber, M, Olson, EA, & Rauch, SL. Sleep reduction and functioning of the emotion regulation circuitry. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014. ***[*Blue Ribbon Finalist for Top Poster Award: Basic Neuroscience]***

283. Webb, CA, Weber, M, Mundy, EA, & **Killgore, WD**. Reduced gray matter volume in the anterior cingulate, orbitofrontal cortex and thalamus as a function of depressive symptoms: A voxel-based morphometric analysis. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.

284. Marin MF, Song H, Landau AJ, Lasko NB, Foy Preer LA, Campbell A, Pace-Schott EF, **Killgore WD**, Orr SP, Pitman RK, Simon NM, Milad MR (2014). Psychophysiological and Neuroimaging Correlates of Fear Extinction Deficits Across Anxiety Disorders. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.

285. **Killgore, WD**. The effects of sleep loss on food preference. Abstract presented at SLEEP 2014, Minneapolis, MN, May 31-June 4, 2014.

286. Weber, M, & **Killgore, WD**. Sleep habits reflect in functional brain network organization. Abstract presented at SLEEP 2014, Minneapolis, MN, May 31-June 4, 2014. ***[*2014 AASM Young Investigator Award, Honorable Mention]***

287. Freed, MC, Novak, LA, **Killgore, WD**, Koehlmoos, TP, Ginsberg, JP, Krupnick, J, Rauch S, Rizzo, A, Engle, CC. DoD IRB delays: Do they really matter? And if so, why and for whom? Abstract presented at the Military Health System Research Symposium, Fort Lauderdale, FL, August 18-21, 2014.

288. Freed, MC, Novak, LA, **Killgore, WD**, Koehlmoos, TP, Ginsberg, JP, Krupnick, J, Rauch S, Rizzo, A, Engle, CC. DoD IRB delays: Do they really matter? And if so, why and for whom? Abstract presented at the AMSUS Annual Meeting, Washington DC, December 2-5, 2014.

289. **Killgore, WD**, Demers, LA, Olson, EA, Rosso, IM, Webb, CA, & Rauch, SL. Anterior cingulate gyrus and sulcus thickness: A potential predictor of remission following internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the 53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, December 7-11, 2014.

290. Olson, EA, Buchholz, J, Rosso, IM, **Killgore, WD**, Webb, CA, Gogel, H, & Rauch, SL. Internet-based cognitive behavioral therapy effects on symptom severity in major depressive disorder: preliminary results from a randomized controlled trial. Abstract presented at the 53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, December 7-11, 2014.

291. Brennan, B, Tkachenko, O, Schwab, Z, Ryan, E, Athey, A, Pope, H, Dougherty, D, Jenike, M, **Killgore, WD**, Hudson, J, Jensen, E, & Rauch SL. Abstract presented at the 53rd Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, December 7-11, 2014.

292. Alkozei, A, Pisner, D, & **Killgore, WD**. Emotional intelligence is differentially correlated with prefrontal cortical responses to backward masked fearful and angry faces. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

293. Alkozei, A, Schwab, Z, & **Killgore, WD**. Looking for evil intent: Emotional intelligence and the use of socially relevant facial cues during an emotional decision making task. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

294. Shane, BR, Alkozei, A, & **Killgore, WD**. The contribution of general intelligence and emotional intelligence to the ability to appreciate humor. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

295. Markowski, SM, Alkozei, A, & **Killgore, WD**. Sleep onset latency and duration are associated with self-perceived invincibility. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

296. Pisner, D, Alkozei, A, & **Killgore, WD**. Visuospatial reasoning mediates the relationship between emotion recognition and emotional intelligence. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

297. Vanuk, JR, Fridman, A, Demers, LA, Divatia, S, & **Killgore, WD**. Engaging in meditation and internet based training as a means of enhancing emotional intelligence. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

298. Vanuk, JR, Divatia, S, Demers, LA, Markowski, SM, & **Killgore, WD**. Napping in conjunction with brief internet-based training as a means of enhancing emotional intelligence. Abstract

presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

299. Cui, J, Tkachenko, O, Gogel, H, Kipman, M, Preer, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Bark, JS, Rosso, IM, Rauch, SL, & **Killgore, WD**. Fractional Anisotropy of frontoparietal connections presicts individual resistance to sleep deprivation. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

300. **Killgore, WD**, Olson, EA, Weber, M, Rauch, SL, & Nickerson, LD. Emotional intelligence is associated with coordinated resting state activity between emotion regulation and interoceptive experience networks. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

301. **Killgore, WD**, Demers, LA, Divatia, S, Kipman, M, Tkachenko, O, Weber, M, Preer, LA, Gogel, H, Olson, EA, Vanuk, JR, & Rauch, SL. Enhancing emotional intelligence via brief internet-based training. Abstract presented at the 43rd Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.

302. Buchholz, JL, Rosso, IM, Olson, EA, **Killgore, WD**, Fukunaga, R, Webb, CA, & Rauch, SL. Internet-based cognitive behavioral therapy is associated with symptom reduction and cognitive restructuring in adults with major depressive disorder. Abstract presented at the Anxiety and Depression Conference, Miami, FL, April 9-12, 2015.

303. Alkozei, A, Pisner, D, Rauch, SL, & **Killgore, WD**. Emotional intelligence and subliminal presentations of social threat. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

304. Shane, BR, Alkozei, A, Vanuk, JR, Weber, M, & **Killgore, WD**. The effect of bright light therapy for improving sleep among individuals with mild traumatic brain injury. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

305. Vanuk, JR, Shane, BR, Alkozei, A, & **Killgore, WD**. Trait emotional intelligence is associated with greater resting state functional connectivity within the default mode and task positive networks. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

306. Vanuk, JR, Fridman, A, Demers, LA, & **Killgore, WD**. Engaging in meditation and internet-based training as a means of enhancing emotional intelligence. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

307. Pisner, D, Alkozei, A, & **Killgore, WD**. Trait emotional suppression is associated with decreased activation of the insula and thalamus in response to masked angry faces. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

308. Markowski, SM, Alkozei, A, & **Killgore, WD**. The trait of neuroticism predicts neurocognitive performance in healthy individuals. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

309. Buchholz, JL, Rosso, IM, **Killgore, WD**, Fukunaga, R, Olson, EA, Demers, LA, & Rauch, SL. Amygdala volume is associated with helplessness in adults with major depressive disorder (MDD). Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

310. Sneider, JT, **Killgore, WD**, Rauch, SL, Jensen, JE, & Silveri, MM. Sex differences in the associations between prefrontal GABA and resistance to sleep deprivation. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

311. **Killgore, WD**, Rosso, IM, Rauch, SL, & Nickerson, LD. Emotional intelligence correlates with coordinated resting state activity between brain networks involved in emotion regulation and interoceptive experience. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

312. **Killgore, WD**, Demers, LA, Divatia, S, Rosso, IM, & Rauch, SL. Boosting Emotional intelligence with a brief internet-based program. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

313. **Killgore, WD**, Vanuk, JR, Alkozei, A, Markowski, SM, Pisner, D, Shane, BR, Fridman, A, & Knight, SA. Greater daytime sleepiness correlates with altered thalamocortical connectivity. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

314. **Killgore, WD**, Tkachenko, O, Gogel, H, Kipman, M, Sonis, LA, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Rosso, IM, & Rauch, SL. Activation of the ventral striatum predicts overeating during subsequent sleep loss. Abstract presented at the 70th Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

315. Alkozei, A, Markowski, SM, Shane, BR, Rauch, SL, & **Killgore, WD**. Emotional resilience is not associated with increased emotional resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

316. Alkozei, A, Pisner, D, Markowski, SM, Rauch, SL, & **Killgore, WD**. The effect of emotional resilience on changes in appetitie for high-sugary food during sleep loss. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

317. Markowski, SM, Alkozei, A, Rauch, SL, & **Killgore, WD**. Self-perceived invincibility is associated with sleep onset latency and duration. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

318. Markowski, SM, Alkozei, A, Rauch, SL, & **Killgore, WD**. Sex differences in the association between personality and resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

319. Shane, BR, Alkozei, A, & **Killgore, WD**. Physical exercise may contribute to vulnerability to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

320. Cui, J, Tkachenko, O, Gogel, H, Kipman, M, Sonis, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Rosso, IM, Rauch, SL, & **Killgore, WD**. Resistance to sleep deprivation involves greater functional activation and white matter connectivity within a fronto-parietal network. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

321. Vanuk, JR, Rosso, IM, Rauch, SL, Alkozei, A, Markowski, SM, Pisner, D, Shane, BR, Fridman A, Knight, SA, & **Killgore, WD**. Daytime sleepiness is associated with altered thalamocortical connectivity. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

322. Sneider, JT, Jensen JE, Silveri, MM, & **Killgore, WD**. Prefrontal GABA predicts resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

323. **Killgore, WD**, Tkachenko, O, Gogel, H, Kipman, M, Sonis, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Rosso, IM, & Rauch, SL. Individual differences in rested activation of the ventral striatum predict overeating during sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

324. **Killgore, WD**, Tkachenko, O, Rosso, IM, Rauch, SL, & Nickerson, LA. Multimodal neuroimaging to predict resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

325. Nickerson, LD & **Killgore, WD**. Resting state brain circuits underpinning a neurobiological model of Theory of Mind and Mentalizing. Abstract presented at the Organization for Human Brain Mapping Annual Meeting, 2015, Honolulu, HI, June 14-18, 2015.

326. Rosso, IM, Olson, EA, **Killgore WD**, Fukunaga, R, Webb, CA, & Rauch SL. A randomized trial of internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the 54th Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, December 6-10, 2015.

327. Alkozei, A & **Killgore, WD**. Exposure to blue wavelength light is associated with increased dorsolateral prefrontal cortex responses during a working memory task. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

328. Klimova, A, Pisner, D & **Killgore, WD**. Neural correlates of cognitive and emotional impairments in acute versus chronic mild traumatic brain injury: a diffusion tensor imaging study. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

329. Markowski, S, Alkozei, A, & **Killgore, WD.** Greater neuroticism predicts higher performance in immediate memory, language, and attention in healthy individuals. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

330. Alkozei, A & **Killgore, WD.** Exposure to blue wavelength light suppresses anterior cingulate cortex activation in response to uncertainty during anticipation of negative or positive stimuli. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

331. Smith, R, Alkozei, A, Bao, J, & **Killgore, WD.** Successful goal-directed memory suppression is associated with increased inter-hemispheric coordination between right and left fronto-parietal control networks. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

332. Singh, P, Fridman, A, Pisner, D, Singh, A, & **Killgore, WD.** A voxel based morphometric analysis of ventromedial prefrontal cortex volume related with executive function task performance post mild traumatic injury. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

333. **Killgore, WD.** Baseline responsiveness of the ventral striatum predicts overeating during subsequent sleep deprivation. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

334. **Killgore, WD** & Nickerson, LD. Predicting resistance to sleep deprivation using multimodal neuroimaging. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

335. Sneider, J, Jensen, JE, Silveri, MM, & **Killgore, WD.** Prefrontal GABA correlates with the ability to sustain vigilance during sleep deprivation. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

336. Buchholz, JL, Olson, EA, Fukunaga, R, Webb, CA, **Killgore, WD**, Rauch, SL, & Rosso, IM. Expressive suppression is associated with greater lateral orbitofrontal cortex volume in adults with major depressive disorder. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

337. Fridman, A, Pisner, D, Singh, P, & **Killgore, WD**. Gray matter volume in left medial prefrontal cortex is related to life satisfaction in individuals with mild traumatic brain injury. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

338. Singh, P, Pisner, D, Fridman, A, Roberts, S, & **Killgore, WD.** Volumetric differences in gray matter in healthy versus overweight/obese individuals post mild traumatic brain injury: A voxel based morphometric study. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

339. **Killgore, WD** & Weber, M. Blue wavelength light therapy reduces daytime sleepiness following

mild traumatic brain injury. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

340. **Killgore, WD**, Weber, M, & Penetar, D. Blue wavelength light therapy improves balance following mild traumatic brain injury. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

341. Pisner, D, Smith, R, Alkozei, A, Klimova, A, & **Killgore, WD.** Highways of the emotional intellect: White matter microstructural correlates of an ability-based measure of emotional intelligence. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

342. Vanuk, JR, Smith, R, Knight, S, & **Killgore, WD.** Resting RSA correlates with coordinated resting state activity between brain networks involved in emotion perception. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

343. Vanuk, JR, Alkozei, A, Markowski, S, & **Killgore WD.** Greater resting state functional connectivity within the default mode and task positive networks is associated with trait emotional intelligence. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

344. Fukunaga, R, Webb, CA, Olson, EA, **Killgore, WD**, Rauch, SL, & Rosso, IM. Reduced rostral anterior cingulate volume is associated with greater frequency of negative automatic thoughts in adults with major depressive disorder. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

345. Olson, EA, Fukunaga, R., Webb, CA, Rosso, IM, **Killgore, WD**, & Rauch, SL. Delay discounting and anhedonia are independently associated with suicidal ideation in depression. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

346. Pisner, D, Singh, P, Fridman, A, & **Killgore, WD**. Resilience following mild traumatic brain injury is associated with gray matter volume in the left precentral gyrus. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

347. Sing, P, Fridman, A, Pisner, D, & **Killgore, WD.** Time dependent differences in gray matter volume in individuals post mild traumatic brain injury: A voxel based morphometric study. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

348. Smith, C, Smith, R, Sanova, A, & **Killgore, WD.** The neural basis of emotional working memory and its relation to adaptive emotional functioning. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

349. Quan, M, Gruber, SA, Lukas, SE, Hill, KP, **Killgore, WD**, & Nickerson, LD. Altered functional

connectivity within large-scale brain networks during a cognitive task in chronic marijuana smokers. Abstract presented at the Harvard Psychiatry Research Day, Boston, MA, March 23, 2016. ***[*Semi Finalist Poster: Harvard Medical School Mysell Award]***

350. Fukunaga, R, Webb, CA, Olson, EA, **Killgore, WD**, Rauch, SL, & Rosso, IM. Improvement in negative automatic thoughts as a mediator of symptom improvement in internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the 2016 Meeting of the Anxiety and Depression Association of America, Philadelphia, PA, March 31-April 3, 2016.

351. Bernstein, AS, Pisner, D, Klimova, A, Umapathy, L, Do, L, Squire, S, **Killgore, WD**, & Trouard, T. Effects of multiband acceleration on high angular resolution diffusion imaging data collection, processing, and analysis. Abstract presented at the 24th Annual Meeting of the International Society for Magnetic Resonance in Medicine (IMSRM), Singapore, May 7-8, 2016.

352. Alkozei, A, Markowski, SM, Pisner, D, Fridman, A, Shane, BR, Vanuk, JR, Knight, SA, & **Killgore, WD.** Exposure to blue wavelength light reduces activation within the anterior cingulate cortex during anticipation of certain reward stimuli. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

353. Alkozei, A., Pisner, D, Markowski, SM, Vanuk, JR, Fridman, A, Shane, BR, Knight SA, & **Killgore, WD.** Increases in prefrontal activation after exposure to blue versus amber wavelength light during cognitive load. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

354. Pisner, DA, Smith, R, Alkozei, A, Klimova, A, Millan, M, & **Killgore, WD.** Highways of the emotional intellect: White matter mictrostructural correlates of an ability-based measure of emotional intelligence. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

355. Singh, P, Pisner, D, Fridman, A, Singh A, Millan, M, & **Killgore, WD.** A voxel based morphometric analysis of ventromedial prefrontal cortex volume related with executive function task performance post mild traumatic brain injury. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

356. Smith, R, Smith, C, Khodr, O, Nettles, M, Sanova, A, & **Killgore, WD.** Emotional working memory: A relatively unexplored aspect of emotional and cognitive ability. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

357. Smith, R, Nettles, M, Khodr, O, Sanova, A, Smith, C, Alkozei, A, & **Killgore, WD.** Conflict-related dorsomedial frontal activation during healthy food decisions is associated with increased cravings for high-fat foods. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

358. Smith, R, Sanova, A, Nettles, M, Khodr, O, Smith, C, Alkozei, A, Lane, RD, & **Killgore, WD**. Unwanted reminders: The effects of emotional memory suppression on later neuro-cognitive processing. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

359. **Killgore, WD**, Weber, M, Palmer, W, & Penetar, D. Blue wavelength light therapy improves balance following mild traumatic brain injury. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

360. **Killgore, WD**, Tkachenko, O, Palmer, W, & Rauch, SL. Default mode activation predicts vulnerability to sleep deprivation in domains of mood, sleepiness, and vigilance. Abstract presented at the 71st Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

361. Alkozei, A, Markowski, SM, Pisner, D, Fridman, A, Shane, BR, Vanuk, JR, Knight, SA, Grandner, MA, & **Killgore, WD.** Exposure to blue wavelength light reduces activation within the anterior cingulate cortex during anticipation of certain reward stimuli. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

362. Alkozei, A, Pisner, D, Markowski, SM, Vanuk, JR, Fridman, A, Shane, BR, Knight, SA, Grandner, MA, & **Killgore, WD.** Exposure to blue wavelength light is associated with increased dorsolateral prefrontal cortex responses and increases in response times during a working memory task. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

363. Davis, B, Yang, R, **Killgore, WD**, Gallagher, RA, Carrazco, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Nightmares in a community sample: Prevalence and associations with daytime function independent of poor sleep quality and depression. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

364. Fisseha, E, Havens, C, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration's important role in the relationship among difficulty concentrating, fatigue, stress, and depressed mood: Data from the SHADES study. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

365. Graham, PM, Goldstein, M, David, BM, Perlis, ML, Perfect, MM, Frye, S, **Killgore, WD**, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Longitudinal analysis of sleep duration using actigraphy and sleep diary: Stability and agreement over 8-11 months. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

366. Granados, K, Rojo-Wissar, DM, Chakravorty, S, Prather, A, Perfect, MM, Frye, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Adverse childhood exposures associated with adult insomnia symptoms. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO,

June 11-15, 2016.

367. Grandner, MA, **Killgore, WD**, Khader, W, & Perlis, ML. Positive and negative mood ratings across 24-hours. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

368. Hall, C, Forbush, S, Youngstedt, S, **Killgore, WD**, Barilla, H, Gehrels, J, Alfonso-Miller, P, Palmer, W, Carrazco, N, & Grandner, MA. Habitual sleep duration and health: A possible role for exercise. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

369. Jackson, N, Patterson, F, Seixas, A, Jean-Louis, G, **Killgore, WD**, & Grandner, MA. Using big data to determine the social, behavioral, and environmental, determinants of sleep duration in the U.S. population: Application of a machine learning approach to data from approximately 700,000 Americans. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

370. **Killgore, WD**, Tkachenko, O, Grandner, MA, & Rauch, SL. Default mode activation predicts vulnerability to sleep deprivation in the domains of mood, sleepiness, and vigilance. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

371. **Killgore, WD**, Weber, M, Grandner, MA, & Penetar, DM. Blue wavelength light therapy improves balance following mild traumatic brain injury. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

372. Knight, SA & Killgore, WD. Typical sleep duration is associated with constructive thinking patterns. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

373. Kotzin, MD, Alkozei, A, Knight, SA, Grandner, MA, & **Killgore, WD**. The effects of trait gratitude on quality of sleep, intrusiveness, of pre-sleep cognitions, and daytime energy in healthy individuals. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

374. Markowski, SM, Alkozei, A, McIntosh, MB, Grandner, MA, & **Killgore, WD**. Chronotype and risk-taking propensity. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

375. McIntosh, MB, Markowski, SM, Grandner, MA, & **Killgore, WD**. Prior-night sleep duration is negatively associated with impulsivity in women. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

376. Ocano, D, Jean-Louis, G, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration and decreased social support from family, friends, and significant other: Influence of insomnia and perceived stress level. Abstract

presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

377. Okuagu, A, Perlis, ML, Ellis, JA, Prather, AA, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Does thinking keep people awake? Or does it matter what they are thinking about? Self-directed cognitions associated with insomnia and insufficient sleep. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

378. Olivier, K, Gallagher, RA, **Killgore, WD**, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Development and initial validation of the Assessment of Sleep Environment: A novel inventory for describing and quantifying the impact of environmental factors on sleep. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

379. Paine, KN, Forbush, S, Ellis, J, Nowakowski, S, Newman-Smith, K, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration and satisfaction with life, health, finances and relationship. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

380. Rhee, JU, Haynes, P, Chakravorty, S, Patterson, F, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Susceptibility to smoking during the day and its relationship with insomnia and sleep duration. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

381. Roberts, SE, Singh, P, Grandner, MA, & **Killgore, WD.** Later wake up time and impulsivity. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

382. Saccone, J, Davis, B, Chakravorty, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Habitual caffeine use and motivation to consume caffeine: Associations with sleep duration, sleepiness, fatigue, and insomnia severity. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

383. Singh, A, Fridman, A, Silveri, MM, Grandner, MA, & **Killgore, WD.** Medial prefrontal GABA predicts hunger ratings during sleep deprivation for men but not women. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

384. Vanuk, JR, Alkozei, A, Smith, R, Pisner, D, Markowski, SM, Shane, BR, Fridman, A, Knight, SA, Grandner, MA, & **Killgore, WD.** Changes in heart rate variability due to light exposure predict frontoparietal connectivity. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

385. Vanuk, JR, Alkozei, A, Knight, SA, Fridman, A, Markowski, SM, Pisner, D, Shane, BR,

Grandner, MA, & **Killgore, WD.** The effects of light exposure on heart rate variability predict sleepiness and vigilance. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

386. Warlick, C, Chakravorty, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Timing of alcohol intake associated with insomnia symptoms. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

387. Waugaman, DL, Markowski, SM, Alkozei, A, Grandner, MA, & **Killgore, WD.** Chronotype and Emotional Intelligence. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

388. Weber, M, Grandner, MA, & **Killgore, WD.** Smaller gray matter volume of the visual cortex predicts vulnerability to sleep deprivation. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

389. Weber, M, Grandner, MA, & **Killgore, WD.** Blue wavelength light therapy reduces daytime sleepiness following mild traumatic brain injury. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

390. Yang, R, Ocano, D, Chakravorty, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Relationship between insomnia and depression moderated by caffeine. Abstract presented at the 30th Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

391. **Killgore, WD**, Vanuk, JR, Pisner, D, Penetar, DM, & Weber, M. Short wavelength light therapy facilitates recovery from mild traumatic brain injury. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.

392. **Killgore, WD**, Alkozei, A, Smith, R, Divatia, S, & Demers, L. Enhancing emotional intelligence skills with a brief internet-based program: A pilot study. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.

393. **Killgore, WD**, Rosso, IM, Olson, EA, Webb, CA, Fukunaga, R, Gogel, H, Buchholz, JL, & Rauch, SL. Efficacy of an internet-based cognitive behavior therapy program for major depression. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.

394. **Killgore, WD**, & Nickerson, LA. Linked analysis of multimodal neuroimaging identifies neural systems associated with the ability to resist sleep deprivation. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.

395. Vanuk, JR, Allen, JJB, & **Killgore, WD**. Heart rate variability during light exposure and subsequent network connectivity patterns. Abstract presented at the Annual Meeting of the Society for Psychophysiological Research, Minneapolis, MN, September 21-25, 2016.

396. Haberman, JT, Olson, EA, Webb, CA, **Killgore, WD**, Rauch, SL, & Rosso, IM. The relation between treatment expectancies and outcome in internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the Association for Behavioral and Cognitive Therapies, New York, NY, October 27-30, 2016.

397. Rosso, IM, Olson, EA, Thomas, MO, Webb, CA, **Killgore, WD**, & Rauch, SL. Anterior cingulate cortex morphology predicts remission from major depression following internet-based cognitive behavior therapy. Abstract presented at the 55th Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, December 4-8, 2016.

398. Shane, BR, Vanuk, JR, Bajaj, S, Millan, M, **Killgore, WD**. Multimodal brain imaging in patients receiving bright light therapy following a mild traumatic brain injury. Abstract presented at the Western Medical Research Conference, Carmel CA, January 26-28, 2017.

399. Franco, J, Millan, M, Shane, BR, Castellanos, A, **Killgore, WD**. Blue wavelength light therapy increases thalamic grey matter volume following mild traumatic brain injury. Abstract presented at the 45th Annual Meeting of the International Neuropsychological Society, New Orleans, LA, February 1-4, 2017.

400. Alkozei, A, Smith, R, Demers, LA, Divatia, S, Weber, M, Berryhill, SM, & **Killgore, WD**. Emotional intelligence can be trained via an online training program and is associated with better performance on the IGT. Abstract accepted for oral platform presentation at the 45th Annual Meeting of the International Neuropsychological Society, New Orleans, LA, February 1-4, 2017.

401. Li, H, Gruber, S, Lukas, S, Silveri, M, Hill, K, **Killgore, WD**, & Nickerson, LD. Data fusion to investigate the effect of chronic heavy marijuana use on brain structure. Abstract presented at the 2017 Harvard Psychiatry Research Day Poster Session, Boston, MA, April 12, 2017.

402. Challener, S, Alkozei, A, Fridman, A, Dormer A, & **Killgore, WD.** Higher depressive symptoms are associated with lower activation in the orbitofrontal cortex when anticipating negative stimuli in individuals with PTSD. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

403. Alkozei, A, Smith R, Fridman A, Dormer, A, Challener, S, & **Killgore, WD.** Neural responses to emotional stimuli in individuals with PTSD after daily morning blue light exposure. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

404. Alkozei, A, Smith R, Fridman, A, Dormer, A, Challener, S, & **Killgore, WD.** The role of trait gratitude on functional brain activation changes when anticipating negative events in individuals with PTSD. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

405. Fridman, AJ, Alkozei, A, Smith, R, Challener, S, Knight, SA, & **Killgore, WD**. Resiliency is associated with reduced activation within the retrosplenial cortex and secondary motor area for individuals with PTSD during anticipation of a negative event. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20,

2017.

406. Vanuk, JR, Millan, M, Shane, BR, Bajaj, S, & **Killgore, WD**. Blue light therapy following a mild traumatic brain injury improves MPFC-amygdala functional connectivity and mood. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

407. **Killgore, WD**, Shane, BR, Vanuk, JR, Franco, J, Castellanos, A, Millan, M, Grandner, MA, & Bajaj, S. Light therapy facilitates thalamo-cortical brain recovery from mild traumatic brain injury. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

408. Smith, R, Lane, RD, Alkozei, A, Bao J, Smith, C, Sanova, A, Nettles, M, & **Killgore, WD**. Common and unique neural systems underlying the maintenance of emotional vs. bodily reactions to affective stimuli: the moderating role of emotional awareness. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

409. Bajaj, S, Alkozei, A & **Killgore, WD**. Effect of bright light therapy on white matter abnormalities following a mild traumatic brain injury. Abstract presented at the 72nd Annual Convention of the Society for Biological Psychiatry, San Diego, CA, May 18-20, 2017.

410. Alkozei, A, Smith, R, Fridman, A, Dormer A, Challener, S, Grandner, MA, & **Killgore, WD**. Daily morning blue light exposure leads to changes in functional brain responses during emotional anticipation in individuals with PTSD. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

411. Gottschlich, MK, Hyman, S, Millan M, Pisner, D, Singh, A, Knight, SA, Grandner, MA, & **Killgore, WD**. Post-concussion severity is associated with sleep problems and neuropsychological status. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

412. Vanuk, JR, Shane, BR, Millan, M., Bajaj, S, Grandner, MA, & **Killgore, WD**. Short-wavelength light therapy as a way of improving sleep, cognition, and functional connectivity following mild traumatic brain injury. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

413. **Killgore, WD**, Shane, BR, Vanuk, JR, Franco, J, Castellanos, A, Millan, M, Grandner, MA, & Bajaj, S. Short wavelength light therapy facilitates recovery from mild traumatic brain injury. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

414. **Killgore, WD**, Capaldi, VF, Balkin, TJ, & Kamimori, GH. The trait of introversion-extraversion contributes to sustained performance on planning and sequencing abilities during sleep deprivation. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

415. Bajaj, S, Alkozei, A, Grandner, MA, & **Killgore, WD**. Effect of bright light therapy on brain and behavioral abnormalities following a mild traumatic brain injury. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

416. Oliver, K, Gallagher, R, Hale, L, Barrett, M, Branas, C, **Killgore, WD**, Parthasarathy, S, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Development and initial validation of a brief measure of control over sleep. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

417. Grandner, MA, Athey, A, **Killgore WD**, Alfonso-Miller, P. Preliminary results of a sleep health intervention in student athletes: Changes in sleep, energy level, and mental well-being, and body weight. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

418. Yang, R, Gallagher, R, Hale, L, Perlis, M, Barrett, M, Branas, C, **Killgore, WD**, Parthasarathy, S, Alfonso-Miller, P, Gehrels, J, Grandner, MA. Would you call yourself a short or long sleeper? Perceptions of sleep category associated with reported sleep duration, insomnia, and health. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

419. Fisseha, E, Gallagher, R, Hale, L, Branas, C, Barrett, M, **Killgore, WD**, Alfonso-Miller, P, Jean-Louis, G, Seixas, A, Williams, N, Gehrels, J, & Grandner, MA. Habitual weekday sleep duration associated with multiple dimensions of socioeconomic status. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

420. Poling, K, Gallagher, R, Hale, L, Branas, C, Seixas, A, Jean-Louis, G, **Killgore, WD**, Alfonso-Miller, P, Parthasarathy, S, Gehrels, J, & Grandner, MA. Sleep partially mediates the association between food insecurity and obesity: Roles of short sleep duration, insomnia, and socioeconomic factors. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

421. Forbush, S, Fisseha, E, Gallagher, R, Hale, L, Malone, S, Patterson, F, Branas, C, Barrett, M, **Killgore, WD**, Gehrels, J, Alfonso-Miller, P, & Grandner, MA. Sociodemographics, poor overall health, cardiovascular disease, depression, fatigue, and daytime sleepiness associated with social jetlag independent of sleep duration and insomnia. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

422. Till, K, Athey, A, Chakravorty, S, **Killgore, WD**, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Insomnia and daytime tiredness in student athletes associated with risky behaviors and poor decision making when under the influence of alcohol. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

423. Warlick, C, Hall, C, Athey, A, Chakravorty, S, **Killgore, WD**, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Difficulty sleeping associated with substance use among student athletes. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

424. Jaszewski, A, Athey, A, **Killgore, WD**, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration and quality associated with mental well-being in student athletes. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

425. Athey, A, Alfonso-Miller, P, **Killgore, WD**, & Grandner, MA. Preliminary results of a sleep health intervention in student athletes: Perceived changes to sleep, performance, and mental and physical wellbeing. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7,

2017.

426. Goel, N, Taylor, DM, Abel, T, **Killgore, WD**, Pearson-Leary, J, & Bhatnagar, S. MicroRNAs are cross-species markers of sleep loss in humans and rats. Abstract presented at the Organization for Human Brain Mapping Conference, Boston, MA, June 3-7, 2017.

427. Meridew, C, Jaszewski, A, Athey, A, Alfonso-Miller, P, **Killgore, WD**, Gehrels, J, & Grandner, MA. Impact of time and activity demands on sleep of student athletes: It's not about reduced sleep opportunity. Abstract presented at the SLEEP Meeting, Boston, MA, June 3-7, 2017.

428. Bajaj, S, Rosso, IM, Rauch, SL, & **Killgore WD**. Impact of bright light therapy on volume and cortical thickness of the brain following mild traumatic brain injury. Abstract presented at the Organization for Human Brain Mapping Conference, Vancouver, Canada, June 25-29, 2017.***[selected for travel award]**

429. Bajaj, S, Rosso, IM, Rauch, SL, & **Killgore, WD**. Effect of bright light therapy on white matter abnormalities following mild traumatic brain injury. Abstract presented at the Organization for Human Brain Mapping Conference, Vancouver, Canada, June 25-29, June 3-7, 2017.

430. Alkozei, A, Haack, M, Smith, R, Dailey, N, Bajaj, S, & **Killgore, WD**. Chronic sleep restriction increases negative implicit attitudes toward Arab Muslims. Abstract presented at the Military Health Systems Research Symposium, Kissimmee, FL, August 27-30, 2017.

431. **Killgore WD**, Vanuk, JR, Bajaj, S. Blue wavelength light therapy increases axonal myelination in mild traumatic brain injury. Abstract presented at the Military Health Systems Research Symposium, Kissimmee, FL, August 27-30, 2017.

432. **Killgore WD**. What makes a Super-Soldier: Identifying the neural correlates of individual differences in resilience against sleep deprivation. Abstract presented at the Military Health Systems Research Symposium, Kissimmee, FL, August 27-30, 2017.

433. Dailey, NS, Bajaj, S, Alkozei, A, & **Killgore WD**. Neural correlates of aggression during chronic and subacute stages of recovery from mild traumatic brain injury. Abstract presented at the Military Health Systems Research Symposium, Kissimmee, FL, August 27-30, 2017.

434. Bajaj, S, Alkozei, A, & **Killgore WD**. Short wavelength light therapy following mild traumatic brain injury: Can we normalize the abnormal diffusion and quantity of water within the brain? Abstract presented at the Military Health Systems Research Symposium, Kissimmee, FL, August 27-30, 2017.

435. Goel, N, Taylor, DM, Abel, T, **Killgore, WD**, Pearson-Leary, J, & Bhatnagar, S. MicroRNAs are cross-species markers of sleep loss in humans and rats. Abstract presented at the Society for Neuroscience, Washington, DC, November 11-15, 2017.

436. Dailey, NS, Bajaj, S, Alkozei, A, Smith, R, Knight, SA, & **Killgore, WD**. Neural correlates of aggression in the chronic and post-acute stages of recovery from mild traumatic brain injury: A diffusion tensor imaging study. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

437. Challener, S, Alkozei, A, Fridman, A, Dormer, A, & **Killgore, WD**. Higher depressive symptoms are associated with lower activation in the orbital frontal cortex when anticipating negative stimuli in individuals with PTSD. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

438. Alkozei, A, Smith, R, Demers, L, Divatia, S, Weber, M, Berryhill, S, & **Killgore, WD**. Emotional intelligence can be trained via an online training program and is associated with better performance on the IGT. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

439. Satterfield, B, Raikes, AC, & **Killgore, WD**. A voxel-based morphometric analysis of resilience to vigilant attention impairment during sleep deprivation. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

440. Singh, A, Thurston, MD, Gottschlich, MK, Miller, MA, & **Killgore, WD**. Trait anxiety predicts hostile tendencies post-traumatic brain injury. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

441. Raikes, AC, Satterfield, BC, Knight, SA, & **Killgore, WD**. Grey matter volumetric differences with increasing numbers of previous mild traumatic brain injuries: A voxel-based morphometric study. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

442. Bajaj, S, Dailey, N, Alkozei, A, Vanuk, JR, & **Killgore, WD**. Preservation of limbic network structure in healthy young adults. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

443. Alkozei, A, **Killgore, WD**, Smith, R, Dailey, NS, Bajaj, S, & Haack, M. Chronic sleep restriction increases negative implicit attitudes toward Arab Muslims. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

444. Skalamera, J, Alkozei, A, Haack, M, & **Killgore, WD**. Chronic sleep restriction increases racial bias and affects actual decision-making about people. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

445. Alkozei, A, Smith, R, & **Killgore, WD**. Increases in prefrontal activation after exposure to blue versus amber wavelength light during cognitive load. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

446. Knight, SA, & **Killgore, WD**. Typical sleep duration is associated with constructive thinking patterns. Abstract presented at the University of Arizona Junior Investigator Poster Forum, Tucson, AZ, November 17, 2017.

447. Nickerson, L, Li, H, Smith, S, Lukas, S, Silveri, M, Hill, K, **Killgore, WD**, & Gruber, S. Combining multi-site/study MRI data: A novel linked-ICA denoising method for removing scanner and site variability from muli-modal MRI data. Abstract presented at the American College of Neuropsychopharmacology (ACNP) 56th Annual Meeting, Palm Springs, CA,

December 3-7, 2017.

448. Bajaj, S, Raikes, AC, Dailey, NS, Vanuk, JR, Weber, M, Rosso, IM, Rauch, SL, & **Killgore, WD**. Changes in cortical structure, sleep, and anxiety symptoms following blue-wavelength light therapy in individuals with mild traumatic brain injury. Abstract presented at the Big Sky Athletic Training Sports Medicine Conference, Big Sky, MT, February 4-8, 2018.

449. Dailey, NS, Raikes, AC, Smith, R, Alkozei, A, & **Killgore, WD**. The executive control network after mild traumatic brain injury: Associations between functional connectivity and aggression. Abstract presented at the Big Sky Athletic Training Sports Medicine Conference, Big Sky, MT, February 4-8, 2018.

450. Raikes, AC, Satterfield, BC, Dailey, NS, Bajaj, S, & **Killgore, WD**. Self-reported sleep quality is related to cerebellar grey matter volume after mild traumatic brain injury. Abstract presented at the Big Sky Athletic Training Sports Medicine Conference, Big Sky, MT, February 4-8, 2018.

451. Raikes, AC, Bajaj, S, Dailey, NS, Satterfield, BC, Alkozei, A, Smith, R, & **Killgore, WD**. White matter correlates of self-reported sleep quality after a mild traumatic brain injury: A DTI study. Abstract presented at the Big Sky Athletic Training Sports Medicine Conference, Big Sky, MT, February 4-8, 2018.

452. Satterfield, BC, Raikes, AC, & **Killgore, WD**. A voxel-based morphometric analysis of resilience to vigilant attention impairment during sleep deprivation. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

453. Alkozei, A, Smith, R, Dailey, NS, Bajaj, S, Knight SA, & **Killgore, WD**. Exposure to blue wavelength light during memory consolidation improves long-delay verbal memory performance. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

454. Alkozei, A, Smith, R, Dailey, NS, Bajaj, S, Haack, M, & **Killgore, WD**. Men, but not Women, show a decrease in implicit preferences for low-calorie food after 3 weeks of chronic sleep restriction. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

455. Alkozei, A, Smith, R, & **Killgore, WD**. A positive cognitive style mediates the relationship between trait gratitude and depressive symptoms. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

456. Bajaj, S, Dailey, NS, Alkozei, A, Vanuk, JR, & **Killgore, WD**. Preservation of limbic network structure in healthy young adults. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

457. Alkozei, A, Smith, R, Demers, LA, Divatia, S, Weber, M, Berryhill, SM, & **Killgore, WD**. Emotional intelligence can be trained via an online training program and is associated with

better performance on the IGT. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

458. Dailey, NS, Bajaj, S, Alkozei, A, Smith, R, Knight, SA, & **Killgore, WD**. Neural correlates of aggression in the chronic and post-acute stages of recovery from mild traumatic brain injury: A diffusion tensor imaging study. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

459. **Killgore, WD**, Shane, BR, Vanuk, JR, Millan, M, Knight, SA, & Bajaj, S. Blue light therapy accelerates brain and cognitive recovery from mild traumatic brain injury. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

460. **Killgore, WD**. Default mode activation and the ability to resist sleep deprivation. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

461. **Killgore, WD**, Capaldi, VF, Balkin, TJ, & Kamimori, GH. Personality traits predict the ability to sustain executive function abilities during sleep deprivation. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

462. Raikes, AC, & **Killgore, WD**. Increased cerebellar grey matter in the presence of decreased subjective sleep quality following mild traumatic brain injury. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

463. Raikes, AC, Satterfield, BC, Knight, SA, & **Killgore, WD**. Gray matter volumetric differences with increasing numbers of previous mild traumatic brain injuries: A voxel-based morphometric study. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

464. Skalamera, J, Alkozei, A, Haack, M, & **Killgore, WD**. Chronic sleep restriction increases implicit racial biases and affects actual decision-making about people. Abstract presented at the 46th Annual Meeting of the International Neuropsychological Society, Washington, DC, February 14-17, 2018.

465. Huanjie, L, Silveri, M, Lukas, SE, Hill, K, **Killgore, WD**, Gruber, S, & Nickerson, LD. Data fusion to investigate multimodal MRI patterns associated with chronic heavy marijuana use. Abstract presented at the Harvard Psychiatry Day Poster Session, Boston, MA, April 4, 2018.

466. Bajaj, S, Dailey, NS, Vanuk, JR, Raikes, A, Weber, M, Rosso, IM, Rauch, SL, & **Killgore, WD**. Impact of blue light therapy on cortical volume, sleep and anxiety symptoms following mild traumatic brain injury. Abstract presented at the Anxiety and Depression Association of America (ADAA) Conference, Washington, DC, April 5-8, 2018.

467. Knight, SA, & **Killgore, WD**. Constructive thinking patterns correlate with typical sleep habits. Abstract presented at the Anxiety and Depression Association of America (ADAA)

Conference, Washington, DC, April 5-8, 2018.

468. Raikes, AC, Dailey, NS, Bajaj, S, & **Killgore, WD**. White matter structure changes associated with depressive symptoms following recent mild traumatic brain injury. Abstract presented at the Anxiety and Depression Association of America (ADAA) Conference, Washington, DC, April 5-8, 2018.

469. Singh, A, Thurston, MD, Gottschlich, MK, Miller, MA, & **Killgore, WD**. Trait anxiety predicts hostile tendencies post-traumatic brain injury. Abstract presented at the Anxiety and Depression Association of America (ADAA) Conference, Washington, DC, April 5-8, 2018.

470. Bajaj, S, Raikes, AC, Alkozei, A, Dailey, NS, Satterfield, BC, Vanuk, JR, & **Killgore, WD**. Association between suicidal ideation and cortical volume in a sub-clinical sample of young individuals. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

471. Challener, S, Alkozei, A, Young, A, Ozcan, M, Raikes, AC, & **Killgore, WD**. Sleep problems are associated with greater default mode network activation when anticipating negative stimuli in individuals with PTSD. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

472. Dailey, NS, Smith, R, Raikes, AC, Alkozei, A, & **Killgore, WD**. Reduced functional connectivity in the executive control network following mild traumatic brain injury: Implications for emotional regulation. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

473. **Killgore, WD**, Kent, HC, Knight, SA, & Alkozei, A. Changes in morning salivary melatonin correlate with prefrontal responses during working memory performance. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

474. **Killgore, WD**, Alkozei, A, & Weber, M. Blue light therapy improves executive function following mild traumatic brain injury. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

475. Ozcan, M, Challener, S, Yung, A, Alkozei, A, Raikes, AC, & **Killgore, WD**. Daytime sleepiness in individuals with PTSD is associated with greater activation in the right angular gyrus when viewing negative images. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

476. Smith, R, Sanova, A, Lane, RD, & **Killgore, WD**. Graph-theoretic correlates of trait differences in emotional awareness. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

477. Yung, A, Challener, S, Ozcan, M, Alkozei, A, Raikes, AC, & **Killgore, WD**. Improvements in PTSD symptom severity are associated with greater activation in the hippocampus during anticipation of negative stimuli. Abstract presented at the Society of Biological Psychiatry 73rd Annual Meeting, New York, NY, May 10-12, 2018.

478. Satterfield, BC, Silveri, M, Alkozei, A, Raikes, AC, & **Killgore, WD**. GABA: A neural marker of resilience to psychomotor vigilance impairment during sleep deprivation. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018. [*Trainee Merit Award]

479. Satterfield, BC, Alkozei, A, Raikes, AC, & **Killgore, WD**. Habitual sleep duration predicts caloric and mactronutrient intake during sleep deprivation. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

480. Bajaj, S, Raikes, A, Dailey, NS, Vanuk, JR, Satterfield, BC, Alkozei, A, Weber, M, Rosso, IM, Rauch, SL, Grandner, MA, & **Killgore, WD**. Impact of blue light therapy on cortical structure, sleep, and anxiety symptoms following mild traumatic brain injury. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

481. Challener, S, Alkozei, A, Yung, A, Ozcan, M, Raikes, AC, & **Killgore, WD**. Functional impairment due to excessive daytime sleepiness is associated with greater activation in the default mode network when anticipating negative stimuli in individuals with PDSD. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

482. **Killgore, WD**, Alkozei, A, Knight, SA, Miller, MA, Grandner, MA, & Weber, M. Daily morning blue light exposure enhances executive functioning in individuals with mild traumatic brain injury. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

483. **Killgore, WD**, & Nickerson, LA. Resistance to sleep deprivation is predicted by gray matter volume in the posterior brain stem. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

484. Alkozei, A, Kent, HC, Knight, SA, & **Killgore, WD**. Changes in morning salivary melatonin correlate with prefrontal responses during working memory performance. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

485. Ozcan, M, Alkozei, A, Raikes, A, & **Killgore, WD**. Pre-sleep cognitions partially mediate the relationship between depression and daytime energy. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

486. Raikes, AC, Dailey, NS, Satterfield, BC, Bajaj, S, & **Killgore, WD**. Self-reported sleep quality is associated with reductions in white-matter integrity following recent mild traumatic brain injury. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

487. Raikes, AC, Satterfield, BC, Dailey, NS, Bajaj, S, & **Killgore, WD**. Subjectively poor sleep quality is associated with increased cerebellar grey matter volume following mild traumatic brain injury. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

488. Skalamera, J, Alkozei, A, Haack, M, & **Killgore, WD**. The effect of chronic sleep restriction on

implicit racial biases and explicit judgmental decision-making. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

489. Sanchez, C, Hale, L, Branas, C, Gallagher, R, **Killgore, WD**, Gehrels, J, Alfonso,-Miller, P, & Grandner, MA. Relationships between dietary supplement intake and sleep duration, insomnia, and fatigue. Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

490. Tubbs, A, Perlis, M, Chakravorty, S, Basner, M, **Killgore, WD**, Gehreles, J, Alfonso-Miller, P, & Grandner, MA. Does increased risk of suicide at night favor one method of suicide over another? Abstract presented at the SLEEP 2018 Annual Meeting, Baltimore, MD, June 2-6, 2018.

491. Huanjie, L, Gruber, S, Smith, SM, Lukas, SE, Silveri, M, Hill, KP, **Killgore, WD**, & Nickerson, LD. Combining multi-site/study MRI data: A novel linked-ICA denoising method for removing scanner and site variability from multi-modal MRI data. Abstract presented at the Joint Annual Meeting of ISMRM-ESMRMB, Paris, France, June 16-21, 2018. [*Trainee Stipend Award]

492. Bajaj, S, Raikes, AC, Alkozei, A, Dailey, NS, Vanuk, J, Satterfield, BC, & **Killgore, WD**. Suicidal ideation is associated with diminished cortical volume in a sub-clinical population. Abstract presented at the Organization for Human Brain Mapping (OHBM) Annual Meeting, Singapore, June 17-21, 2018.

493. Bajaj, S, Raikes, AC, Dailey, NS, Vanuk, J, Alkozei, A, Satterfield, BC, Weber, M, Rosso, IM, Rauch, SL, & **Killgore, WD**. Effect of blue light therapy on cortical volume, sleep, and anxiety symptoms following mild traumatic brain injury. Abstract presented at the Organization for Human Brain Mapping (OHBM) Annual Meeting, Singapore, June 17-21, 2018.

494. Dailey, NS, Bajaj, S, Smith, R, Raikes, AC, Alkozei, A, & **Killgore, WD**. Disrupted functional connectivity and elevated aggression in young adults with mild traumatic brain injury. Abstract presented at the Organization for Human Brain Mapping (OHBM) Annual Meeting, Singapore, June 17-21, 2018.

495. Raikes, AC, Bajaj, S, Dailey, NS, Alkozei, A, Smith, R, & **Killgore, WD**. Post-mTBI white matter correlates of self-reported sleep quality: A DTI study. Abstract presented at the Organization for Human Brain Mapping (OHBM) Annual Meeting, Singapore, June 17-21, 2018.

496. Nickerson, LD, Li, H, Silveri, MM, Lukas, SE, Hill, KP, **Killgore, WD**, & Gruber, SA. Multimodal MRI data fusion reveals structure-function patterns associated with chronic heavy marijuana use. Abstract presented at the Organization for Human Brain Mapping (OHBM) Annual Meeting, Singapore, June 17-21, 2018.

497. Raikes, AC, Satterfield, BC, Alkozei, A, & **Killgore, WD**. Blue light therapy improves self-reported sleep quality in individuals with a recent mild traumatic brain injury. Abstract presented at the Military Health Systems Research Symposium, Orlando, FL, August 20-23,

2018.

498. **Killgore, WD**. Executive functioning in individuals with mild traumatic brain injury is enhanced by daily morning blue light therapy. Abstract presented at the Military Health Systems Research Symposium, Orlando, FL, August, 20-23, 2018.

499. **Killgore, WD, &** Nickerson, LA. Why can't you just stay awake? Resistance to sleep deprivation is associated with measureable differences in brainstem gray matter. Abstract presented at the Military Health Systems Research Symposium, Orlando, FL, August 20-23, 2018.

500. Dailey, NS, Smith, R, Satterfield, BC, Raikes, AC, & **Killgore, WD**. Verbal fluency following mild traumatic brain injury: The strength of switching. Abstract presented at the American Speech-Language-Hearing Association Annual Convention, Boston, MA, November 15-17, 2018.

501. Forbeck, B, Dailey, NS, Esbit, S, & **Killgore, WD**. Reduced information processing speed: A dynamic deficit in mild traumatic brain injury. Abstract presented at the American Speech-Language-Hearing Association Annual Convention, Boston, MA, November 15-17, 2018.

502. Raikes, AC, Dailey, NS, & **Killgore, WD**. Neural and neurocognitive correlates of responsiveness to blue light therapy following mild traumatic brain injury. Abstract presented at the American Speech-Language-Hearing Association Annual Convention, Boston, MA, November 15-17, 2018.

503. Burns, AI, Ozcan, M, Shepard, KC, Alkozei, A, & **Killgore, WD**. The association between PTSD severity and life satisfaction is mediated by trait gratitude. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

504. Burns, AI, Shepard, KC, Ozcan, M, Alkozei, A, Vanuk, JR, & **Killgore, WD**. The association between morningness-eveningness and nightmares in PTSD. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

505. Dailey, NS, Meinhausen, C, & **Killgore, WD**. Self-initiated recall strategies in mild traumatic brain injury: Identifying the neural correlates. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

506. Esbit, S, Dailey, NS, & **Killgore, WD**. Making a list and checking it twice: Episodic verbal recall in mild traumatic brain injury. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

507. Esbit, S, LaFollette, K, Botello, R, Satterfield, BC, Alkozei, A, & **Killgore, WD**. High self-perceived adroitness: An altered perception of reality during sleep deprivation. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

508. **Killgore, WD**, Vanuk, JR, & Bajaj, S. Improving executive functioning in mild traumatic brain injury with daily morning blue light therapy. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

509. **Killgore, WD**, & Nickerson, LA. Vulnerability and resistance to sleep deprivation are associated with measurable differences in brainstem gray matter. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

510. LaFollette, K, Satterfield, BC, Lazar, M, & **Killgore, WD**. Predicting psychosocial stress reactivity from ability and trait-based emotional intelligence. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

511. LaFollette, K, Satterfield, BC, Lazar, M, & **Killgore, WD**. Stay negative? Positive affect is associated with increased psychosocial stress reactivity. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

512. Meinhausen, C, Dailey, NS, & **Killgore, WD**. Identifying memory retrieval strategies following a mild traumatic brain injury using the CVLT-II. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

513. Ozcan, M, Shepard, KC, Burns, AI, Alkozei, A, & **Killgore, WD**. Trait gratitude and the impact of daytime sleepiness on daily functioning predict PTSD severity over time. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

514. Raikes, AC, & **Killgore, WD**. Anterior cingulate gyrus volume predicts changes in post-mTBI daytime sleepiness following blue wavelength light therapy. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

515. Satterfield, BC, LaFollette, K, Lazar, M, & **Killgore, WD**. Prolonged psychosocial stress impairs cognitive flexibility. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

516. Shepard, KC, Burns, AI, Ozcan, M, Alkozei, A, & **Killgore, WD**. Racial differences regarding the effectiveness of blue light therapy in reducing PTSD severity. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

517. Shepard, KC, Ozcan, M, Burns, AI, Alkozei, A, Vanuk, JR, & **Killgore, WD**. Differences in anxiety reduction between minority and majority racial groups participating in morning blue light exposure. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

518. Vanuk, JR., Smith, R, Raikes, AC, Alkozei, A, Skalamera, J, & **Killgore, WD**. Ability based

emotional intelligence is associated with greater cardiac vagal tone. Abstract presented at the Annual Meeting of the International Neuropsychological Society (INS), New York, NY, February 20-23, 2019.

519. Vanuk, JR, Shields, S, Slavich, M, & **Killgore, WD**. Lifetime stress exposure during adulthood is associated with lower trait-based emotional intelligence. Abstract presented at the Annual Meeting of the American Psychosomatic Society, Vancouver, BC, March 6-9, 2019.

520. Raikes, AC, Satterfield, BC, Grandner, MA, & **Killgore, WD**. Daily blue light therapy reduces persistent post-mild traumatic brain injury daytime sleepiness and post-concussion. Abstract presented at the Rocky Mountain Athletic Trainer's Association Annual Meeting, Phoenix, AZ, April 12, 2019.

521. Bajaj, S, Dailey, NS, Raikes, AC, Vanuk, JR, Weber, M, Rosso, IM, Rauch, SL, & **Killgore, WD**. Effect of blue light therapy on cortical volume and reaction time following mild TBI. Abstract presented at the Organization for Human Brain Mapping Annual Meeting, June 9-13, 2019.

522. Bajaj, S, Raikes, AC, & **Killgore, WD**. Water anisotropy within the default mode network predicts mod shifts following sleep deprivation. Abstract presented at the Organization for Human Brain Mapping Annual Meeting, June 9-13, 2019.

523. Bajaj, S, Raikes, AC, Razi, A, & **Killgore, WD**. Blue-wavelength light strengthens default mode network following mild TBI: A DCM-DTI study. Abstract presented at the Organization for Human Brain Mapping Annual Meeting, June 9-13, 2019.

524. Bajaj, S, & **Killgore, WD**. Sex differences in limbic and risk-taking propensity in healthy individuals. Abstract presented at the Organization for Human Brain Mapping Annual Meeting, June 9-13, 2019.

525. Raikes, AC, Satterfield, BC, Grandner, MA, & **Killgore, WD**. Daily blue light therapy reduces persistent post-mild traumatic brain injury daytime sleepiness and post-concussion. Abstract presented at the Rocky Mountain Athletic Trainer's Association Annual Meeting, Phoenix, AZ, April 12, 2019.

526. Raikes, AC., Athey, A, Alfonso-Miller, P, **Killgore, WD**, & Grandner, MA. Self-reported insomnia and daytime sleepiness increase athletes' sports-related concussion risk. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

527. Raikes, AC, Satterfield, BC, Bajaj, S, Grandner, MA, & **Killgore, WD**. Daily blue light therapy reduces daytime sleepiness and post-concussion symptoms after mild traumatic brain injury. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

528. Burns, AI, Shepard, KC, Ozcan, M, LaFollette, K, Alkozei, A, Vanuk, JR, Raikes, AC, Grandner, MA, & **Killgore, WD**. Gratitude and frequency of naps predict resilience for individuals with PTSD. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep

Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

529. Burns, AI, Ozcan, M, Shepard, KC, LaFollette, K, Alkozei, A, Grandner, MA, & **Killgore, WD**. The association between PTSD severity and insomnia is mediated by nightmares. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

530. Bajaj, S, Dailey, NS, Raikes, AC, Vanuk, JR, Grandner, MA, Weber, M, Rosso, IM, Rauch, SL, & **Killgore, WD**. Impact of light therapy on brain structure and simple reaction time following mild traumatic brain injury. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

531. Bajaj, S, Raikes, AC, Grandner, MA, & **Killgore, WD**. Quantitative anisotropy within the default-mode network predicts mood degradation following sleep-deprivation. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

532. Dailey, NS, Satterfield, BC, Raikes, AC, Strong, MJ, Forbeck, B, Grandner, MA, & **Killgore, WD**. Disrupted thalamocortical connectivity following mild traumatic brain injury: Associations with daytime sleepiness. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

533. Shepard, KC, Ozcan, M, Burns, AI, Grandner, MA, & **Killgore, WD**. Use of anger words in trauma narratives is negatively associated with sleep quality for single individuals with PTSD. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

534. Shepard, KC, Ozcan, M, Burns, AI, Vanuk, JR, Grandner, MA, Alkozei, A, & **Killgore, WD**. The relationships between psychopathology and sleep problems differe between racial minority groups. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

535. **Killgore, WD**, & Kamimori, GH. Can caffeine sustain attention and vigilance under prolonged monotonous conditions during 77 hours of total sleep deprivation? Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

536. **Killgore, WD,** Pace-Schott, Ozcan, M, Shepard, KC, Burns, AI, Grandner, MA, Vanuk, JR, & Alkozei, A. Morning blue light exposure improves sleep and fear extinction recall in PTSD. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

537. LaFollette, K, Satterfield, BC, Esbit, S, Lazar, M, Grandner, MA, & **Killgore, WD**. Negative mood and poor sleep are associated with altered moral reasoning under stress. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

538. LaFollette, KJ, Satterfield, BC, Esbit, S, Lazar, M, Grandner, MA, & **Killgore, WD**. The effects of prior at-home sleep duration on reversal-learning during a "shoot/no-shoot" task. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

539. Ozcan, M, Shepard, KC, Burns, AI, Raikes, AC, Dailey, NS, Alkozei, A, Grandner, MA, & **Killgore, WD**. Individuals with PTSD whose traumatic experiences occurred within the home have worse sleep outcomes. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

540. Ozcan, M, Shepard, KC., Burns, AI, Raikes, AC, Dailey, NS, Alkozei, A, Grandner, MA, & **Killgore, WD**. PTSD severity and use of negative emotion words in trauma narratives predict nightmares in individuals with PTSD. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

541. Satterfield, BC, Silveri, MM, Grandner, MA, & **Killgore, WD**. Baseline GABA levels predict time-on-task performance during sleep deprivation. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

542. Skalamera, J, Huang, YH, Chinkers, M, Richards, MM, & **Killgore, WDS**. The influence of habitual sleep duration on rational thinking ability. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

543. Bliznak, V, Perlis, ML, Ellis, J, Hale, L, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. What is the ideal bedtime? Data from a community sample. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

544. Lane, E, Ellis, J, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Sociodemographic, socioeconomic, and behavioral correlates of nightmare frequency in a community sample. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

545. Jajoo, A, Taylor-Pilliae, R, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Types of habitual physical activity associated with habitual sleep duration, sleep quality, and daytime sleepiness. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

546. Khader, W, Fernandez, F, Seizas, A, Knowlden, A, Ellis, J, Williams, N, Hale, L, Perlis, M, Jean-Louis, G, **Killgore, WD**, Alfonso-Miller, P, & Grandner, MA. What makes people want to make changes to their sleep? Assessment of perceived risks of insufficient sleep as a predictor of intent to improve sleep. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

547. Pham, B, Hale, L, St-Onge, M, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA.

Habitual dietary quality associated with habitual sleep duration, insomnia, daytime sleepiness, and fatigue in a community sample. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

548. Begay, T, Gooneratne, N, Williams, N, Seixas, A, Jean-Louis, G, Gilles, A, **Killgore, WD**, Alfonso-Miller, P, & Grandner, MA. Sleep disparities in the United States and the impact of poverty. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

549. Griffen, N, Hale, L, Jean-Louis, G, **Killgore, WD**, Warlick, C, Alfonso-Miller, & Grandner, MA. Aspects of disordered neighborhoods are associated with insomnia, sleepiness, fatigue and control over sleep. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

550. Liang, O, Seixas, A, Parthasarathy, S, Jean-Louis, G, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Healthcare financial hardship and habitual sleep duration, impact on sleep disparities, and impact on the sleep-obesity relationship. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

551. Olivier, K, Perlis, ML, Troxel, W, Basner, M, Chakravorty, S, Tubbs, A, Owens, J, Jean-Louis, G, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Influence of likely nocturnal wakefulness on 24-hour patterns of violent crime in adults and juveniles. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

552. Featherston, B, Perlis, ML, Ellis, J, Williams, N, Jean-Louis, G, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. The concept of "satisfaction with sleep: Associations with sleep continuity, sleep quality, daytime sleepiness, and related concepts of overall health, stress, depression, and anxiety. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

553. Fourte, DA, Patterson, F, Malhotra, A, Seixas, A, **Killgore, WD**, Alfonso-Miller, P, & Grandner, MA. Should habitual sleep duration be added to the American Heart Association's "Life's Simple 7?" Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

554. Wills, C, Athey, A, Robbins, R, Patterson, F, Turner, R, **Killgore, WD**, Tubbs, A, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Chronotype and social support among student athletes: Impact on depressive symptoms. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

555. Ramsey, T, Athey, A, Ellis, J, Tubbs, A, Turner, R, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Dose-response relationships between insufficient sleep and mental health symptoms I collegiate student athletes and non-athletes. Abstract presented at the 2019

Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

556. Quiroz, H, Chakravorty, S, **Killgore, WD**, Warlick, C, Alfonso-Miller, P, & Grandner, MA. Sleep-related determinants of habitual cannabis use, desire to use, and problematic use: Data from a community sample. Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

557. Warlick, C, Williams, N, Hale, L, **Killgore, WD**, Alfonso-Miller, P, & Grandner, MA. Is relationship satisfaction associated with habitual sleep? Abstract presented at the 2019 Annual Meeting of the Associated Professional Sleep Societies (SLEEP) Conference, San Antonio TX, June 8-12, 2019.

558. Ozcan, M, Burns, AI, Shepard, KC, & **Killgore, WD**. The relationship between combat and non-combat trauma and risk-taking propensity in individuals with PTSD. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

559. Esbit, S, Satterfield, BC, & **Killgore, WD**. Exploration of emotional intelligence and self-perceived invincibility. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

560. LaFollette, KJ, Satterfield, BC, & **Killgore, WD**. Self-perceived invincibility is associated with greater cognitive flexibility. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

561. Strong, M, Esbit, S, LaFollette, KJ, Dailey, NS, & **Killgore, WD**. Big Five personality traits and how they relate to self-perceived invincibility. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

562. Shepard, KC, Ozcan, M, Burn, AI, Alkozei, A, & **Killgore, WD**. Blue light therapy differences in sleep quality improvement in military and civilian populations. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

563. Raikes, AC, Athey, A, Alfonso-Miller, P, **Killgore, WD**, & Grandner, MA. Moderate-to-severe self-reported insomnia and frequent daytime sleepiness increase athletes' risk for sustaining a sports-related concussion. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

564. Bajaj, S, Dailey, NS, Raikes, AC, Vanuk, JR, Weber, M, Rosso, IM, Rauch, SL, & **Killgore, WD**. Impact of blue-wavelength light therapy on cortical volume and simple reaction time following mild TBI. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

565. Raikes, AC, Satterfield, BC, Bajaj, S, Grandner, MA, & **Killgore, WD**. Daily administered blue light therapy reduces daytime sleepiness and improves somatic symptoms following mild traumatic brain injury. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

566. Burns, AI, Ozcan, M, Shepard, KC, Alkozei, A, Vanuk, JR, & **Killgore, WD**. The relationship between sleep onset latency and gratitude. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

567. LaFollette, KJ, Satterfield, BC, Esbit, S, Lazar, M, & **Killgore, WD**. Inadequate sleep quality and duration predicts disinhibited shooting on a "shoot/no shoot" task. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

568. Bajaj, S, & **Killgore, WD**. Sex differences in risk-taking behavior and brain morphometry in healthy individuals. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

569. Satterfield, BC, Silveri, MM, & **Killgore, WD**. Baseline GABA levels are associated with time-on-task performance during sleep deprivation. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

570. **Killgore, WD**, Ozcan, M, Shepard, KC, Burns, AI, Vanuk, JR, & Alkozei, A. Blue light exposure enhances sleep and fear extinction recall in PTSD. Abstract presented at the 2019 Military Health System Research Symposium, Kissimmee, FL, August 19-2, 2019.

AWARDED GRANTS AND CONTRACTS

Completed

2001-2003 fMRI of Unconscious Affect Processing in Adolescence.
NIH, 1R03HD41542-01
PI: **Killgore** ($79,000.)

2003-2006 The Effects of Sleep-Loss and Stimulant Countermeasures on Judgment and Decision Making.
U.S. Army Medical Research and Materiel Command (USAMRMC) Competitive Medical Research Proposal Program (CMRP); Intramural Funding,
PI: **Killgore** (Total Award: $1,345,000.)

2004-2005 Sleep/wake Schedules in 3ID Aviation Brigade Soldiers.
Defense Advanced Research Projects Agency (DARPA)
PI: **Killgore** (Total Award: $60,000.)

2005-2006 Functional Neuroimaging Studies of Neural Processing Changes with Sleep and Sleep Deprivation.
U.S. Army Medical Research and Materiel Command (USAMRMC); Intramural Funding
Task Area C (Warfighter Judgment and Decision Making) Program Funding
PI: **Killgore** (Total Award: $219,400.)

2006-2007 Establishing Normative Data Sets for a Series of Tasks to Measure the Cognitive Effects of Operationally Relevant Stressors.
U.S. Army Medical Research and Materiel Command (USAMRMC); Intramural Funding
Task Area C (Warfighter Judgment and Decision Making) Program Funding,
PI: **Killgore** (Total Award: $154,000.)

2006-2007 Military Operational Medicine Research Program (MOM-RP), Development of the Sleep History and Readiness Predictor (SHARP).
U.S. Army Medical Research and Materiel Command (USAMRMC); Intramural Funding
PI: **Killgore** (Total Award:$291,000.)

2009-2014 The Neurobiological Basis and Potential Modification of Emotional Intelligence through Affective Behavioral Training (W81XWH-09-1-0730).
U.S. Army Medical Research and Materiel Command (USAMRMC),
PI: **Killgore** (Total Award: $551,961.)
Major Goal: To identify the neurobiological basis of cognitive and emotional intelligence using functional and structural magnetic resonance imaging.

2011-2016 Effects of Bright Light Therapy on Sleep, Cognition, and Brain Function following Mild Traumatic Brain Injury (W81XWH-11-1-0056).
U.S. Army Medical Research and Materiel Command (USAMRMC),
PI: **Killgore** (Total Award: $941,924)
Major Goal: To evaluate the effectiveness of morning exposure to bright light as a treatment for improving in sleep patterns among individuals with post-concussive syndrome. Effects of improved sleep on recovery due to this treatment will be evaluated using neurocognitive testing as well as functional and structural neuroimaging.

2012-2014 Neural Mechanisms of Fear Extinction Across Anxiety Disorders
NIH NIMH
PI: Milad, M. Site Subcontract PI: **Killgore** (Subcontract Award: $505,065)
Major Goal: To examine the neurocircuitry involved in fear conditioning, extinction, and extinction recall across several major anxiety disorders.

2012-2014 Multimodal Neuroimaging to Predict Cognitive Resilience Against Sleep Loss
Defense Advance Research Projects Agency (DARPA) Young Faculty Award in Neuroscience (D12AP00241)
PI: **Killgore** (Total Award: $445,531)
Major Goal: To combine several neuroimaging techniques, including functional and structural magnetic resonance imaging, diffusion tensor imaging, and magnetic resonance spectroscopy to predict individual resilience to 24 hours of sleep deprivation.

2012-2015 Internet Based Cognitive Behavioral Therapy Effects on Depressive Cognitions and Brain function (W81XWH-12-1-0109).
U.S. Army Medical Research and Materiel Command (USAMRMC),
PI: Rauch, SL; Co-PI: **Killgore** (Total Award: $1,646,045)
Major Goal: To evaluate the effectiveness of an internet-based cognitive behavioral therapy treatment program on improving depressive symptoms, coping and resilience skills, cognitive

processing and functional brain activation patterns within the prefrontal cortex.

2015 Effects of Blue Light on Melatonin Levels and EEG Power Density Spectrum
Arizona Area Health Education Centers (AHEC) Program
Co-PI: Alkozei, A.; Co-PI: **Killgore** (Total Award: $4,373)
Percent Effort: 0%
Major Goal: Adjunctive intramural funding to add a melatonin collection to an ongoing study of the effects of blue wavelength light on alertness and brain function.

Current

2012-2020 A Model for Predicting Cognitive and Emotional Health from Structural and Functional Neurocircuitry following Traumatic Brain Injury (W81WH-12-0386)
Congressionally Directed Medical Research Program (CDMRP), Psychological Health/Traumatic Brain Injury (PH/TBI) Research Program: Applied Neurotrauma Research Award.
PI: **Killgore** (Total Award: $2,272,098)
Percent Effort: 25%
Major Goal: To evaluate the relation between axonal damage and neurocognitive performance in patients with traumatic brain injury at multiple points over the recovery trajectory, in order to predict recovery.

2014-2019 Bright Light Therapy for Treatment of Sleep Problems following Mild TBI (W81XWH-14-1-0571).
Psychological Health and Traumatic Brain Injury Research Program (PH/TBI RP) Traumatic Brain Injury Research Award-Clinical Trial.
PI: **Killgore** (Total Award: $1,853,921)
Percent Effort: 40%
Major Goal: To verify the effectiveness of morning exposure to bright light as a treatment for improving in sleep patterns, neurocognitive performance, brain function, and brain structure among individuals with a recent mild traumatic brain injury.

2014-2020 A Non-pharmacologic Method for Enhancing Sleep in PTSD (W81XWH-14-1-0570)
Military Operational Medicine Research Program (MOMRP) Joint Program Committee 5 (JPC-5), FY13 Basic and Applied Psychological Health Award (BAPHA)
PI: **Killgore** (Total Award: $3,821,415)
Percent Effort: 35%
Major Goal: To evaluate the effectiveness of blue light exposure to modify sleep in PTSD and its effects on fear conditioning/extinction, symptom expression, and brain functioning.

2016-2020 Refinement and Validation of a Military Emotional Intelligence Training Program (JW150005)
Joint Warfighter Medical Research Program 2015
PI: **Killgore** (Total Award: $5,977,570)
Percent Effort: 45%
Major Goal: To develop and validate a new internet-based training program to enhance emotional intelligence capacities in military Service Members.

2017-2019 Emotional State and Personality: A Proof-of-Concept Model for Predicting Performance Under Stress (DM160347)
USAMRMC 2015
PI: **Killgore** (Total Award: $1,247,290)
Percent Effort: 20%
Major Goal: To develop a statistical model to predict effective cognitive performance under stress using personality and state emotion metrics.

2018-2020 Understanding the Mechanisms of Blue Light Exposure on Cognitive Performance
USAMRDC
PI: Alkozei **Co-I: Killgore** (Total Award: $306,903)
Percent Effort: 4%
Major Goal: To identify the subcortical systems responsible for acute cognitive improvement associated with blue light exposure in the scanner.

2019-2022 Transcranial Magnetic Stimulation of the Default Mode Network to Improve Sleep
USAMRDC
PI: **Killgore** (Total Award: $TBD)
Percent Effort: 5%
Major Goal: Determine whether continuous theta burst stimulation of the default mode network can improve sleep among individuals with insomnia.