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TITLE: Linking Returning Veterans in Rural Community Colleges to Mental Health Care

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CONTRACTING ORGANIZATION:

University of Arkansas for Medical Sciences

Little Rock, AR 72205

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# REPORT DOCUMENTATION PAGE

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<b>14. ABSTRACT</b>  This study is collecting survey data and rich qualitative information on student veterans' mental health, help-seeking behavior, and attitudes regarding mental health treatment. Ultimately, this survey and qualitative data will inform the development of a new screening and linkage to care intervention that is feasible in the community college setting and acceptable to this student veteran population and their families. The survey portion of the study is completed and we are conducting preliminary analyses. Qualitative interviews are ongoing, and the focus group portion of the study is schedule to begin next quarter. Preliminary analyses from the survey indicate that psychiatric distress is prevalent in the sample of veterans: 32% depression, 23% generalized anxiety, 25% PTSD, 61% with any MH disorder. Compared to a civilian sample from the same schools, the veterans have significantly higher prevalence of MH disorders in all categories except generalized anxiety. The rates being reported for positive screens are high, thereby demonstrated a need to for increased recognition and intervention in the population. The Veterans in the in-depth interviews are recommending linkage and or services interventions that are acceptable to them, many of which are consistent with current interventions in VA, while some are completely novel. In the next year we will be exploring these intervention ideas further, fleshing them out, and creating future intervention plans in partnership with student Veterans and representatives from these community colleges.					
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**INTRODUCTION:** While the majority of returning OEF and OIF military service members successfully reintegrate into family life, vocational pursuits, and educational activities, a significant percentage have difficulty because they suffer with TBI, PTSD, depression, and substance misuse and do not seek mental health treatment. It is critical to link OEF/OIF veterans with mental health problems to care in order to promote successful re-integration into a productive, civilian life. **One reintegration domain that is extremely important to veterans and the DOD is attaining further postsecondary education.** A substantial number of OEF/OIF veterans suffering with mental health difficulties will enter rural community colleges on the new GI Bill. They will be forced to make the transition from the highly structured and hierarchical military setting to the unstructured and sometimes chaotic environment of a college.

Rural community colleges represent an important community context through which we can potentially promote veterans' engagement with formal care. Yet little has been done to address student veterans' mental health needs as they reintegrate and attend two-year community colleges. A concurrent challenge is that many returning student veterans live and attend school in rural regions where mental health resources are scarce. In order to address the needs of rural OEF/OIF veterans, it is critical to partner with community stakeholders, such as community colleges, who are likely to have frequent interactions with these veterans. **Linking these suffering student veterans to quality care is critical to their educational success on the new GI bill and their successful re-integration into civilian life.**

*Overarching Research Objective:* This study proposes to first collect survey data and then rich qualitative information on student veterans' mental health, help-seeking behavior, and attitudes regarding mental health treatment. Ultimately, this survey and qualitative data will inform the development of a new screening and linkage to care intervention that is feasible in the rural community college setting and acceptable to this student veteran population and their families.

**BODY:** The following body is arranged in 3 separate sections, each titled descriptively.

### **Section 1: Progress to Date**

This section is arranged by the tasks in our DoD-approved Statement of Work that are relevant to **this annual report:**

#### **Task 4: Recruiting student veteran participants for the web-based quantitative survey, fielding this web-based survey, and cleaning of the survey data (Months 6-14):**

Survey Sciences Group-Center for Student Studies assisted us in recruiting student Veterans via both mail and email in the 11 rural Arkansas community colleges who agreed to participate in this study and provided student contact lists. Initially, we predicted that we would recruit from a pool of at least 1,000 student veterans. We ended up having a pool of 928 student Veterans at 11 participating community colleges. Student veterans were offered generous \$20 pre-incentives to complete the survey, and with this pre-incentive, we aimed to achieve at least a 70% response rate. Unfortunately, our response rate was less than this target—the response rate ended up being approximately 30%. Because of the large numbers, we will still have adequate power for our proposed calculations, but we are concerned about bias due to non-response. Please see below in the "Problem Areas" section how we are managing with this

lower than expected response rate. Per our expert colleagues at Survey Sciences Group, they were not particularly surprised with this low response rate at rural community colleges because they have noted lower response rates in 4-year commuter schools compared to residential 4-year schools. Of course, community colleges are “commuter schools” by definition.

Survey Sciences Group-Center for Student Studies has compiled and cleaned the collected survey data and has provided our team with an SPSS data file for data analysis. As you can see in the appended slide presentation, we are performing analyses on the unweighted data. The tables include demographic, clinical, and some attitudinal information on Veteran students and a comparison civilian student sample funded through a separate NIMH R21 grant. The one remaining rate limiting factor is collecting demographic information (Race/Ethnicity, Gender, and DoB) on all of the invited students to create survey response weights. See below “Problem Areas” section for a detailed discussion of this issue.

**Task 5: Development of a qualitative interview guide:**

Interview guides for the 40 in-depth qualitative key participant interviews were developed this year based on the methods of ethnographic interviewing. In addition, the related consent form and flier were developed as well.

**Task 6: Obtain UAMS IRB and USAMRMC HRPO approval for the qualitative portion of the study and then recruit, consent, and interview 40 (25 men and 15 women) student veterans who screened positive for a mental health condition (Months 12-24):**

We have obtained IRB approval at the University of Arkansas for Medical Sciences for human subject data collection in the key participant interview portion of the study (Task 6a). UAMS IRB has approved the interview guide, protocol, and the related consent form and flier. We also received HRPO approval for the qualitative key participant interviews on 3-14-2012 (Phase 2).

Another round of IRB/HRPO submissions will be performed for the focus group stage of this study. We have found that it has worked much more smoothly with our local IRB to make separate protocol modifications for each delineated stage of the study.

**6b. Recruit participants (25 men and 15 women student veterans who screened positive for a mental health condition) and conduct in-depth face-to-face interview (1-2 hours) at the participant’s college (or other location selected by the participant). Participants will have a \$50 incentive for participating in these involved interviews (Months 18-24).**

We received a list of 87 potential participants from our partners at SSG who both screened positive for at least one mental health condition and were willing to be contacted for further research when they completed their quantitative survey consent form. This is the pool from which we can draw the participants for the in-depth interviews. Participants receive a \$50 incentive for participating in these involved interviews.

In late August we began scheduling qualitative interviews. To date we have completed 12 interviews. This is fewer than we had hoped by this point in the study. We believe that we are now approximately 4 months behind schedule on completing this task. One complication that has arisen is that most of these potential interview participants are not answering their phones when we call, and in many cases were not able to leave a voicemail. We discuss the issue and potential solutions in more detail below in the “Problem Areas” section.

**Task 7: Focus Group and Intervention Development Process (Months 25-36)**

Work on this task has not begun yet. We are scheduled to begin work on this task this month. We will draw from the pool of veterans who completed the in-depth interviews to participate in the focus groups. We will attempt to schedule our initial focus group for February of 2013. Given that recruitment for the in-depth interviews is behind schedule, we suspect that the focus groups portion of the study will also be completed later than anticipated. As will be discussed further in the "Problem Areas" section, we believe that we will have enough available funding in the budget to extend the end date (if approved by the funding agency) in a "no cost extension" if needed to complete the work. Due to the departure of Dr. Hunt as PI and after getting a later start in hiring some staff last year, we are currently operating under budget.

#### **Task 8: Data analyses (Months 12-36):**

As described above, Survey Sciences Group-Center for Student Studies has compiled and cleaned the survey data and has provided our team with a SPSS data file for data analysis. As you can see in the appended slides from a recent presentation, we have begun our analyses of this unweighted data. The tables include selected demographic, clinical, and attitudinal information on Veteran students and a comparison civilian student sample funded through a separate NIMH R21 grant. We also include preliminary data from the in-depth interviews. Once we have created non-response weights, we will apply these weights to the current SPSS dataset. In the meantime, we are developing the statistical code for all of our planned analyses on mental health, help-seeking behavior, and attitudes regarding help-seeking behavior.

#### **Task 9: Manuscript Development (Months 18-36):**

We have begun work on our first manuscript. A rate-limiting step in completing this and some of the other manuscripts we plan to write is the delay in getting the data to create response weights. We have many analyses done, but cannot publish them until we have applied the response weights.

### **Section II: Problem Areas**

(a) A description of current problems that may impede performance along with proposed corrective action.

At this time we are experiencing two major problem areas:

1) As described above, our primary problem has been the lower than expected response rate on our quantitative web-based survey. Even with the very generous incentives, we were only able to attain a 30% response rates among the 928 student Veterans in the 11 participating rural community colleges. It is difficult to determine the exact reason for this low response. It likely was a combination of cultural factors among this specific population, lower than average computer and broadband access in these rural areas, and less than perfect student contact lists provided by these community colleges who are not particularly accustomed to participating in large scale research projects. We are not concerned about having adequate power for our analyses, but we are more worried about the potential non-response bias.

To assist with this possible non-response bias, we have communicated with each of the 11 community colleges to obtain basic demographic variables that have been demonstrated to be associated with survey non-response in student populations (Race/Ethnicity, gender, and DoB (age)). Most of the schools have provided information on the student Veterans at their institution, but unfortunately, our largest school (ASU, Beebe) has thus far provide age data, but not gender and Ethnicity. As that school has provided

50% of our overall study sample, we need these data to be able to create the response weights. At the moment, the school is resisting providing us these data due to FERPA restrictions on the release of data. The attorney at ASU Beebe is interpreting the FERPA regulations in such a way as to limit their willingness to provide those data. At this point we have two options with ASU Beebe: 1) work with UAMS legal counsel to approach ASU Beebe and resolve the situation, and 2) have ASU Beebe provide us with the necessary data in a fashion that allows them to not include identifiers for specific students. At the present time, we are pursuing both solutions simultaneously. Once we have the information we need we can then create response weights to make our subsequent analyses more rigorous.

2) In terms of the in-depth interview data collection, we are below our expected enrollment at this time. We have attempted to reach about 75 of the 87 eligible Veterans thus far to invite them to participate in the qualitative interview. Nobody has yet refused. However, many telephone numbers have turned out to be "wrong numbers." Further, most people we have attempted to reach have not actually answered our calls, and we have left many voicemails and/or are repeating calls. We have learned that many of the Veterans do not have voicemail-enabled phones (i.e., we are not able to leave a message). This is impacting recruitment. We have two possible remedies-- we have home addresses as for each participant, and we can contact them by mail (we are already approved to do so in the current protocol). Further, we could possibly contact the schools and ask if they have any additional telephone contact information on those who are not picking up. We will attempt both solutions beginning in January 2013. We will continue to call the existing numbers we have.

It is possible that we will not reach our target of 25 males and 15 females for the in-depth interviews. It is common to reach "theoretical saturation" at 15-20 interviews for similar subpopulations (e.g., male Veterans in community colleges), so we believe strongly that we can reach theoretical saturation for the male Veterans. Certainly, we will continue to attempt to recruit to the target numbers for the duration of the study. And we will field focus groups whenever we reach the needed number to field each group.

### **Section III—Description of work to be performed during the 1<sup>st</sup> quarter of the 3<sup>rd</sup> year.**

We describe the upcoming work for each Task.

#### **Task 6b. Recruit participants (25 men and 15 women student veterans who screened positive for a mental health condition) and conduct in-depth face-to-face interview (1-2 hours) at the participant's college (or other location selected by the participant).**

We will continue to recruit and interview participants in the 1st quarter of Year 3. We hope to be close to our recruitment target by the close of the quarter, but we acknowledge that this might not be possible.

#### **Task 6c. Transcribe interviews and prepare the transcripts for data analyses (Research Technologist) with the Atlas.ti software program for qualitative data analysis**

We are currently transcribing the in-depth interviews we have and have begun preliminary analyses. We will continue to transcribe interviews as they come in.

#### **Task 7: Focus Group and Intervention Development Process**

We are scheduled to begin work on this task this month. We will draw from the pool of veterans who completed the in-depth interviews to participate in the focus groups. We will attempt to schedule our

initial focus group for February of 2013. Given that recruitment for the in-depth interviews is behind schedule, we suspect that the focus groups portion of the study will also be completed later than anticipated.

### **Task 8: Data analyses**

Quantitative analyses has been underway since last Spring (see appended slides for a summary of preliminary findings). We will continue to conduct analyses as proposed in the upcoming quarter.

Qualitative analysis software is being used to analyze, code, and interpret the transcribed interview data. Data analyses began soon after the first interviews were done, and analyses will continue in an iterative manner across the next quarter and across the majority of the study period. Drs. Curran, Cheney, and the RA, LaKiesha Mitchell, serve as coders (Months 20-36).

### **Task 9: Manuscript development**

Manuscript development has already begun. We have prepared two scientific presentations thus far. We will be able to begin submitting quantitative data for publication as soon as the data is weighted for potential response bias. Manuscripts will be generated based on answering key research questions posed in the proposal narrative. They will be developed from both quantitative and qualitative data.

**KEY RESEARCH ACCOMPLISHMENTS:** We are pleased to report the following accomplishments this year:

- The survey was fielded and completed (228 veterans). An accompanying set of surveys from civilians from the same schools were collected as well, funded by NIMH, (554 civilians).
- The dataset has been cleaned and analyses have begun. See the appended slides from a recent presentation for a summary of the preliminary findings.
- The IRB documents and interview guides were completed for the in-depth interview portion of the study, and recruitment and interviewing began.
- Preliminary analyses of the qualitative data has begun.

**REPORTABLE OUTCOMES:** As noted above, we have prepared two presentations with preliminary findings thus far-- the first presented in September at USAMRMC, Fort Detrick, MD (conference on "Stigma/Barriers to Care and Accessing Solutions"), and the second presented in December at a local "research conference" hosted by The Division Of Health Services Research, Department of Psychiatry, University of Arkansas for Medical Sciences. The slides prepared for the December presentation are appended to this document. We will not fully re-create the reported findings here, we will summarize some key preliminary findings here.



Preliminary analyses from the survey indicate that the student Veterans are reporting high levels of psychological distress. Thirty-two percent of the student Veterans screened positive on a 9-item screener for current depression (past 2 weeks). Twenty-three percent screened positive on a 7-item screener for generalized anxiety. Twenty-Five percent of the student Veterans screened positive on a 4-item screener for post-traumatic stress (PTSD). Sixty-one percent of the student Veterans screened positive on at least one mental health screening instrument. Thirty-five percent of the student Veterans reported recent binge drinking. All of these rates, with the exception of generalized anxiety, are statistically significantly and substantially higher for the student veterans than the comparison group of non-Veterans from the same colleges. Further, 18% of the student Veterans reported thoughts of suicide in the past year, compared to 10% of the non-Veterans comparison group from the same colleges. In terms of perceived need for help, 38% of the student Veterans reported a perceived need for help for an emotional or mental health problem. In terms of service use, 24% of student veterans reported the use of a psychiatric medication, and 21% reported using counseling. Compared to non-Veterans from the same colleges, these rates were not significantly different, except in the case of counseling services, where the student Veterans used more counseling services.

Preliminary analyses from the in-depth interviews are uncovering a number of consistent emergent themes. For example, numerous barriers to help-seeking are being reported and elucidated, including-- lack of perceived need, skepticism of treatment efficacy, stigma, and lack of available services. Relative to their recommendations for interventions they would find acceptable, a common theme that is emerging is "Vet-to-Vet connections." Numerous participants have discussed their ideas about using student Veterans as liaisons and/or connectors to care. Some also recommend using student Veterans to screen the Veteran student populations for potential problems. Others recommended setting up activities for student Veterans that were "positive" (such as fishing or volunteering), to enhance well-being, but also to allow relationships to be established, thereby allowing those student Veterans who are struggling avenues to self-identify as needing help.

**CONCLUSIONS:** It is clear thus far that the student Veterans are experiencing substantial psychological distress. The rates being reported for positive screens are high, thereby demonstrated a need to for increased recognition and intervention in the population. The Veterans in the in-depth interviews are recommending linkage and or services interventions that are acceptable to them, many of which are consistent with current interventions in VA, while some are completely novel. In the next year we will be exploring these intervention ideas further, fleshing them out, and creating future intervention plans in partnership with student Veterans and representatives from these community colleges.

# Mental Health and Help Seeking Among Student Veterans in Rural Community Colleges

**Geoffrey Curran, PhD**

**John Fortney, PhD**

**Ann Cheney, PhD**

**Jeffrey Pyne, MD**

UAMS PSYCHIATRIC RESEARCH INSTITUTE

# Funding Sources and Affiliations

## ○ Funding

- Department of Defense (W81XH-11-2-0059)
  - PI: Geoffrey Curran
- National Institutes of Mental Health (R21 MH092641)
  - PI: John Fortney

## ○ Affiliations

- UAMS Psychiatric Research Institute
- Department of Veterans Affairs
  - South Central Mental Illness Education and Clinical Center
  - HSR&D Center for Mental Healthcare and Outcomes Research

# Acknowledgements

## ○ Co-Investigators

- Justin M. Hunt, M.D., M.S. (past PI of DoD)
- Daniel Eisenberg, Ph.D.
- Marcia Valenstein, PhD

We thank the Survey Sciences Group, LLC, at Ann Arbor, Michigan, and the local study coordinators at the participating campuses for their assistance. We also thank the soldiers and veterans who participated in the study.

## Why Student Veterans?

- Committed to educating our returning Veterans
- *3 out of 5 students who use the GI Bill will enroll in community colleges or a distance-education institution (e.g., U of Phoenix) where MH services are limited*
- Gap in the literature on the MH needs of student veterans attending two-year community colleges



In 2009 nearly  
3000 Veterans in  
AR were using the  
GI Bill

## The Healthy Minds Study

- **MH burden and treatment-seeking behaviors of college students**
  - Online survey fielded in 2007 and 2009
  - Total of 26 4-year colleges and universities participated
  - Over 14,000 students
- **Results:**
  - 17% + screens for depression
  - 1 in 3 students w/MH problems received any MH tx in previous year and 1 in 5 was currently receiving treatment
  - MH status associated w/lower GPA, dropping out

## Background

### AR National Guard Study

- **Prevalence of MH disorders is high**
  - 24% of soldiers met criteria for PTSD
  - 20% of soldiers met criteria for depression
- **Help-seeking is low**

# Research Questions

1. What are the MH needs and help-seeking behaviors of student Veterans at community colleges?
2. How do the MH and help seeking behaviors of student veterans differ from civilian students at community colleges?
3. What kind of screening and linkage-to-care intervention would best meet the needs of this student Veterans?

# Research Design

- **Study Population**

- Veterans/soldiers and civilians enrolled in community colleges in AR

- **Mixed-methods study**

- Quantitative data collected from students
  - Web-based, survey questionnaire
- Qualitative data collected from subset of Veterans with MH disorder
  - Semi-structured interviews



# Study Locations



# Quantitative Research

- **Recruitment**

- List of civilian students and students using GI bill from participating colleges
- Sampled civilians and selected all veterans/soldiers
- Email, mailed letter (\$20)

- **Procedures**

- Secure, confidential survey website, anonymous
- Online consent form
  - Veterans, n=228 (funded by DoD)
  - Civilians, n=554 (funded by NIMH)

- **Measures**

- Self-administered
- Validated measures of MH and service utilization

# Measures

## Mental Health

- Depression
  - PHQ-9
- Generalized Anxiety Disorder
  - GAD-7
- TBI
  - Asked if had been diagnosed
- PTSD
  - 4-item Primary Care-PTSD screen
- Substance Use
  - CSLS, CAS, ACHA
- Suicide Ideation
  - PHQ9 & National Comorbidity Survey Replication (NCSR)

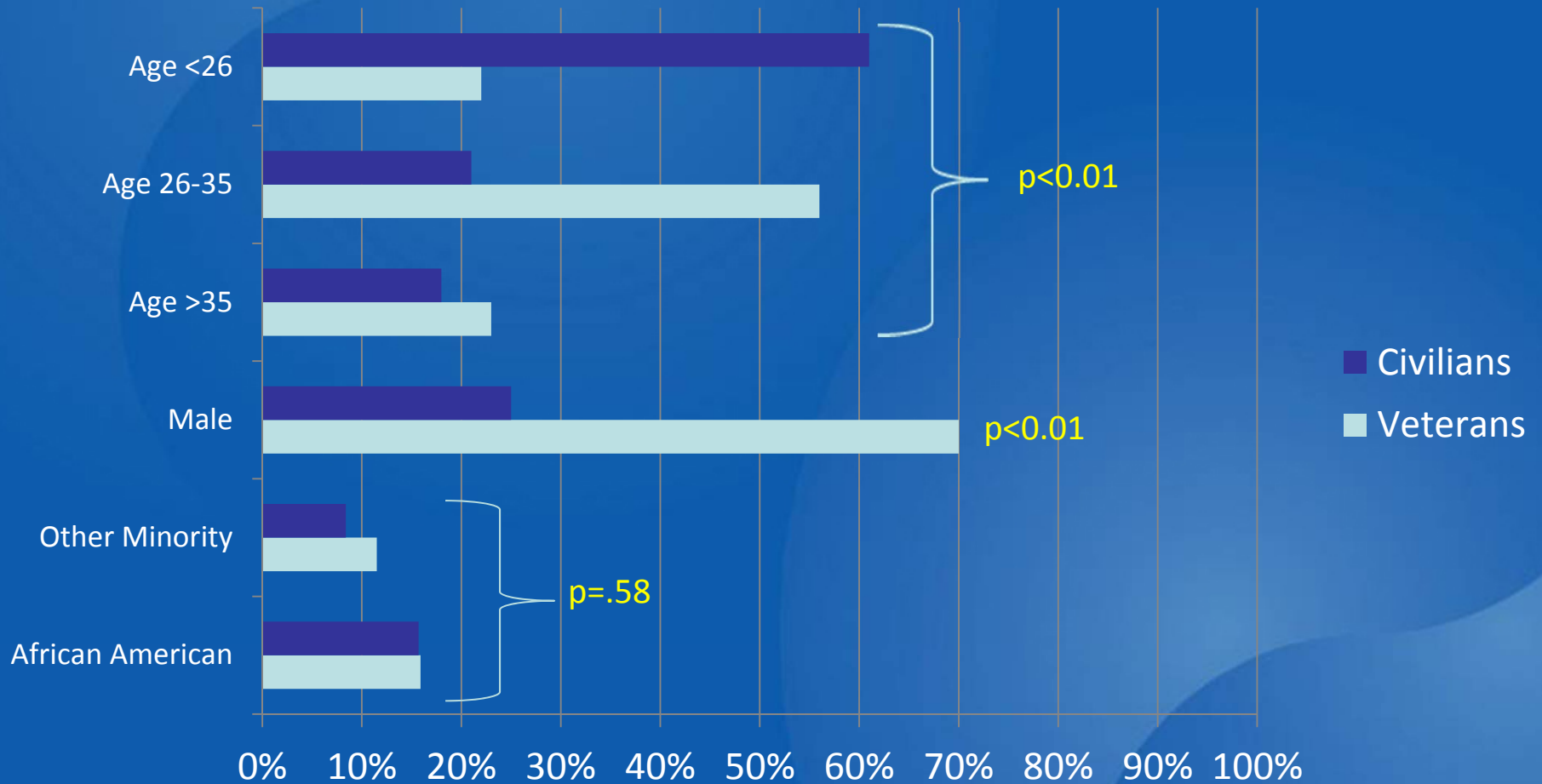
## Help-seeking

- Perceived need
  - Healthcare for communities study
- Use of Psychotropic Medications
  - Healthcare for communities study
- Use of Psychotherapy
  - Healthcare for communities study

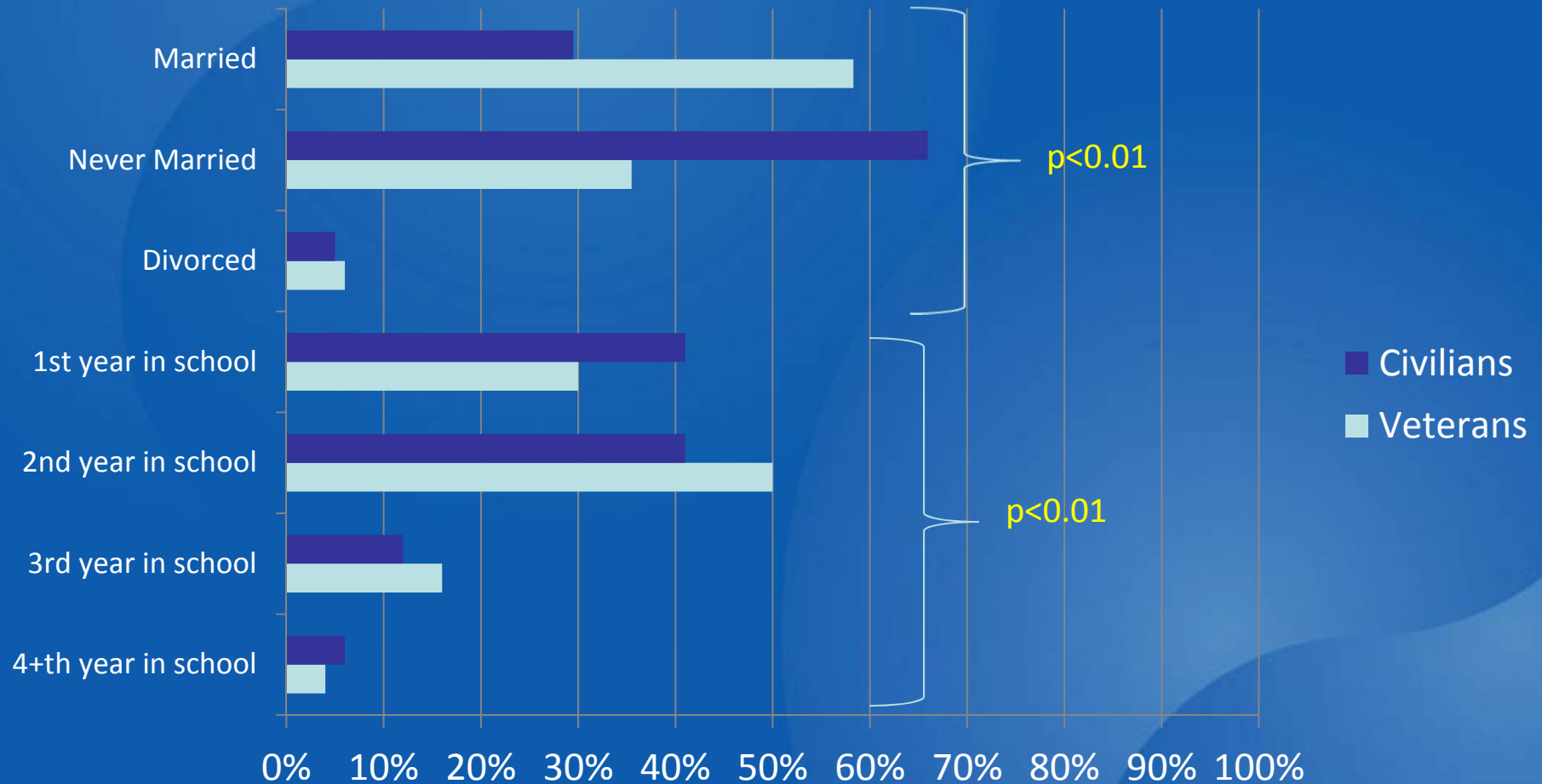
# Qualitative Research (DoD grant only)

- **Semi-structured interviews (n=40)**
  - 25 male Veterans; 15 women Veterans w/positive MH screens
  - Conducted at Veteran's college or another location
- **Recruitment**
  - Veterans w/+ MH screen (list of 143)
- **Open-ended questions explored:**
  - Attitudes and beliefs about MH problems, perceived need for care, barriers to help-seeking, screening and linkage-to-care ideas
- **Grounded theory techniques**

# Demographics

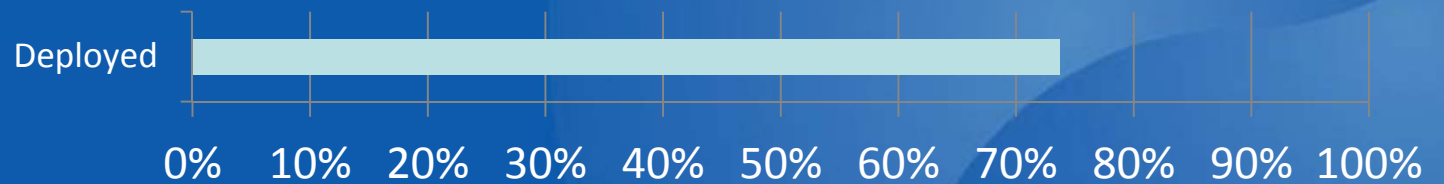
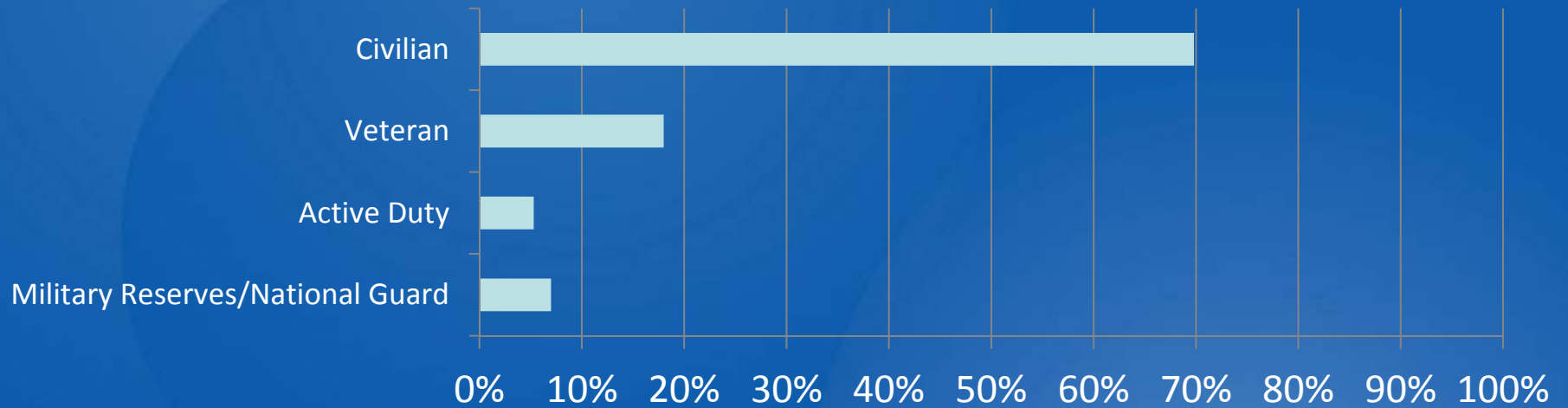


# Demographics (continued)



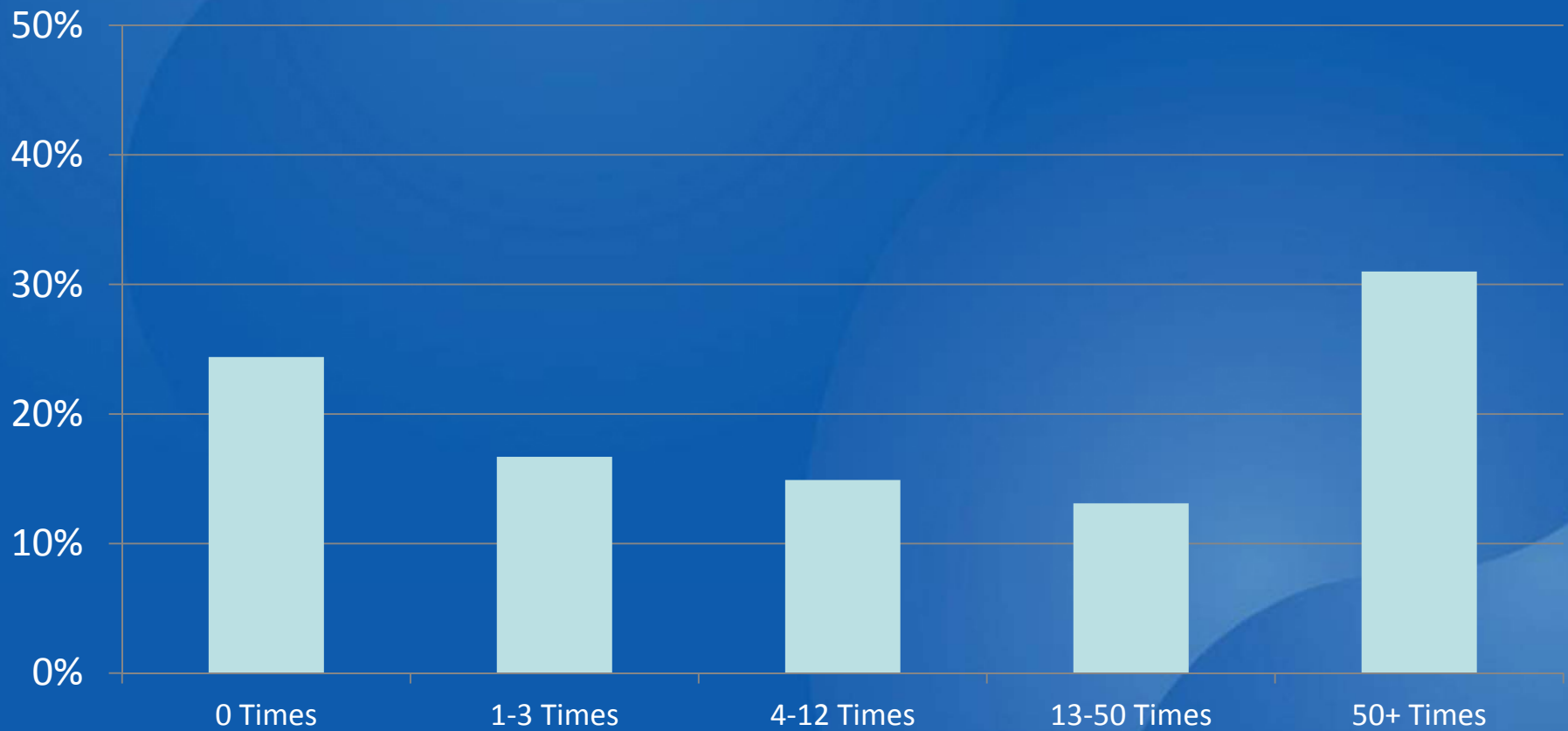
# Military Service

## Veteran Status



# Combat Exposure

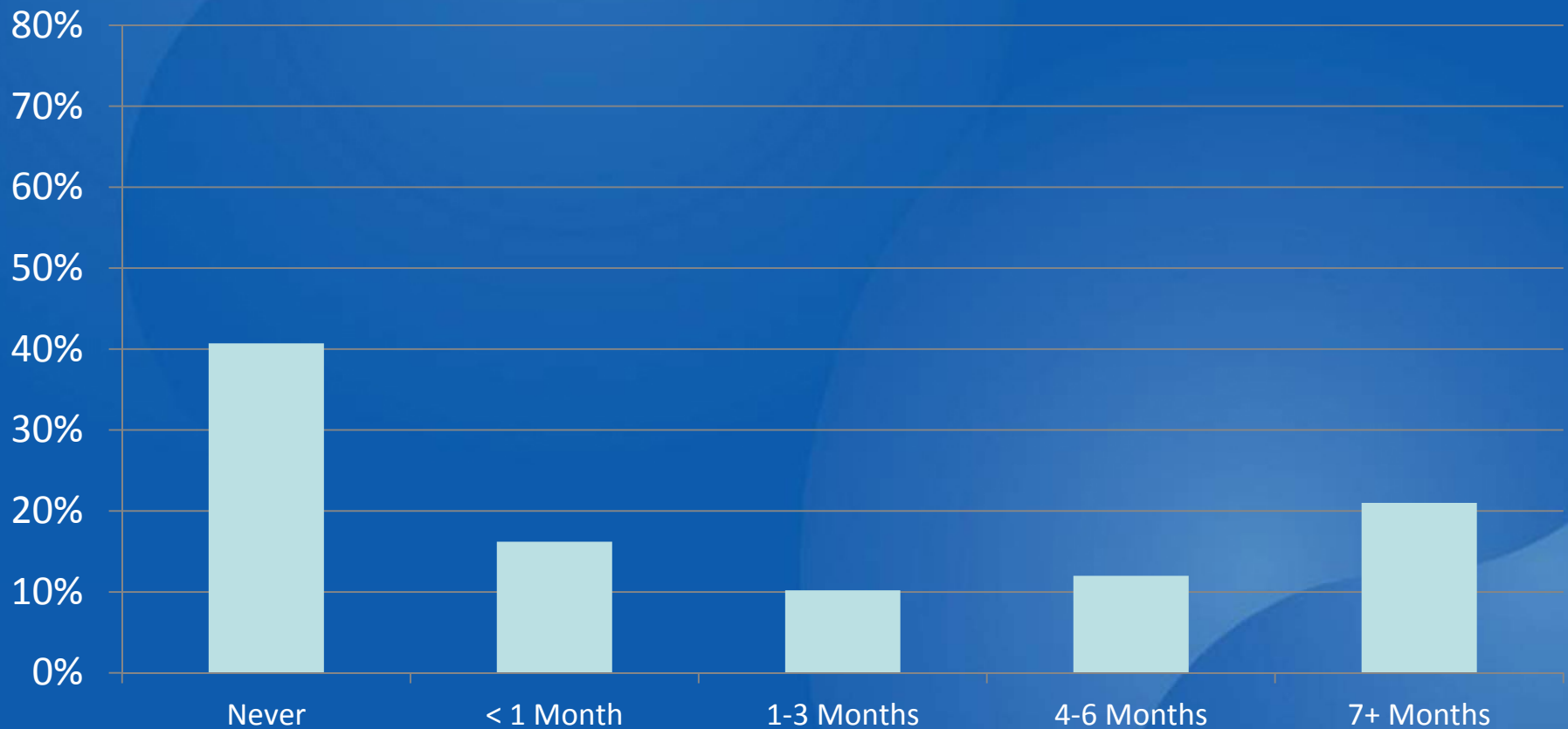
## # Combat Patrols





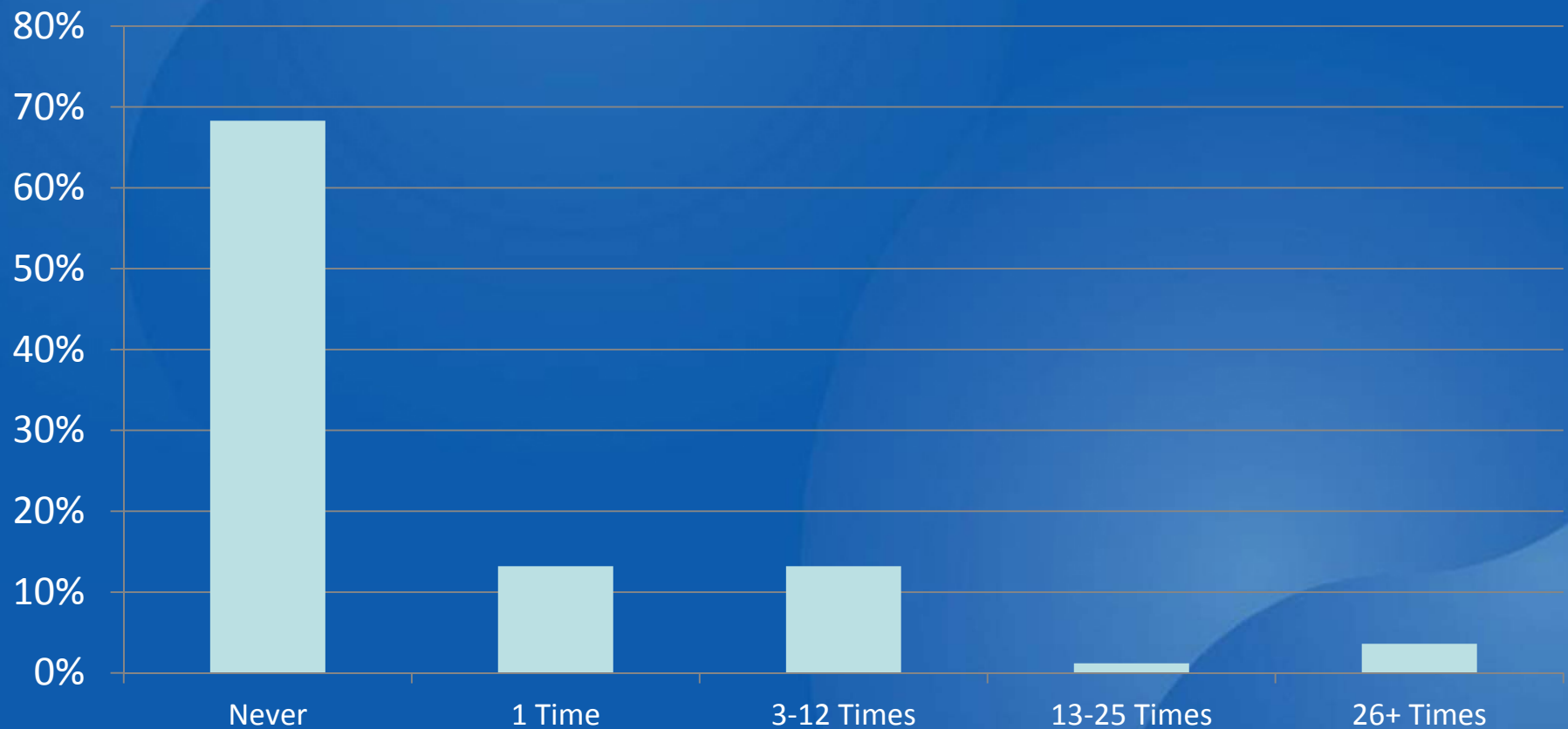
# Trauma Exposure

## Under Enemy Fire



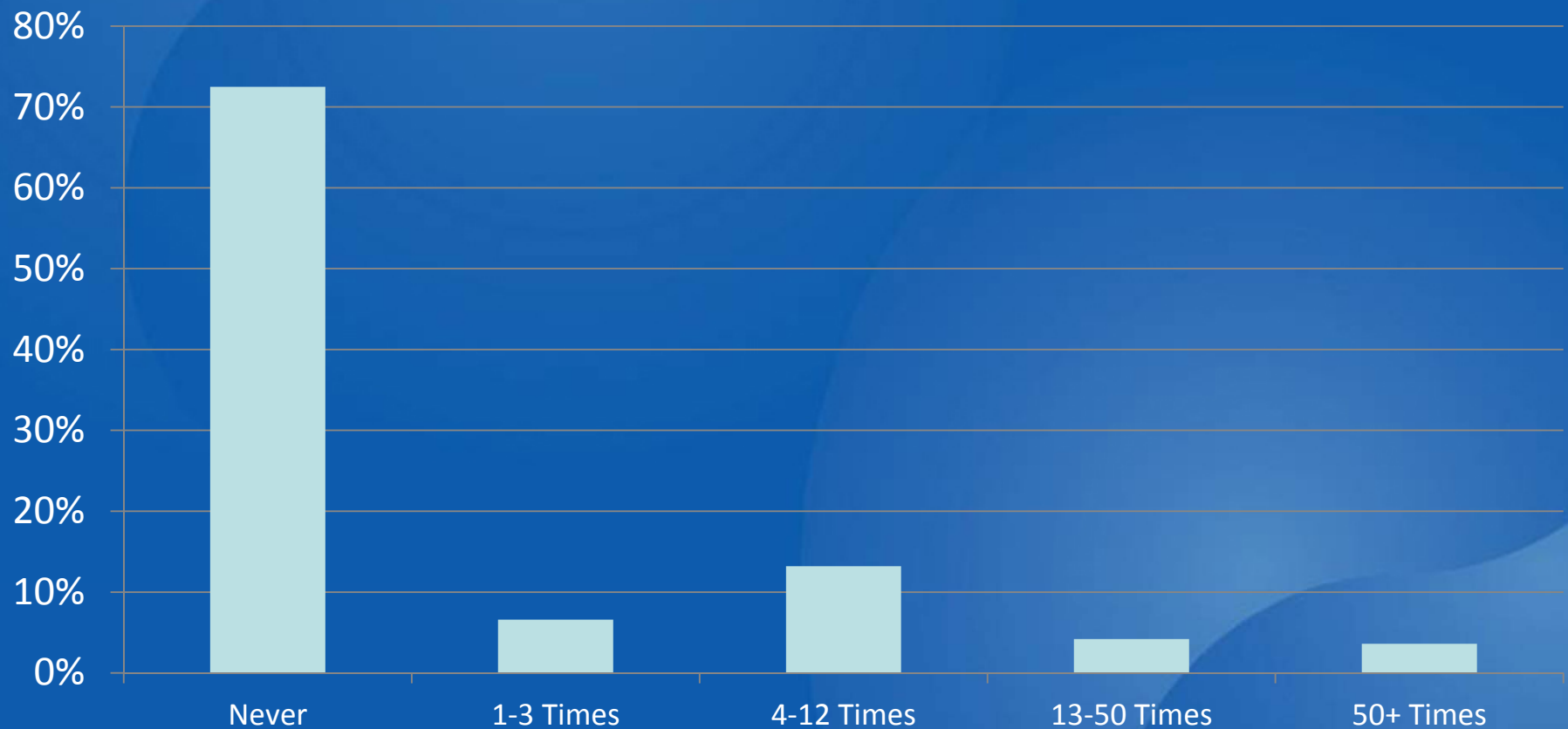
# Trauma Exposure (continued)

## Surrounded By Enemy



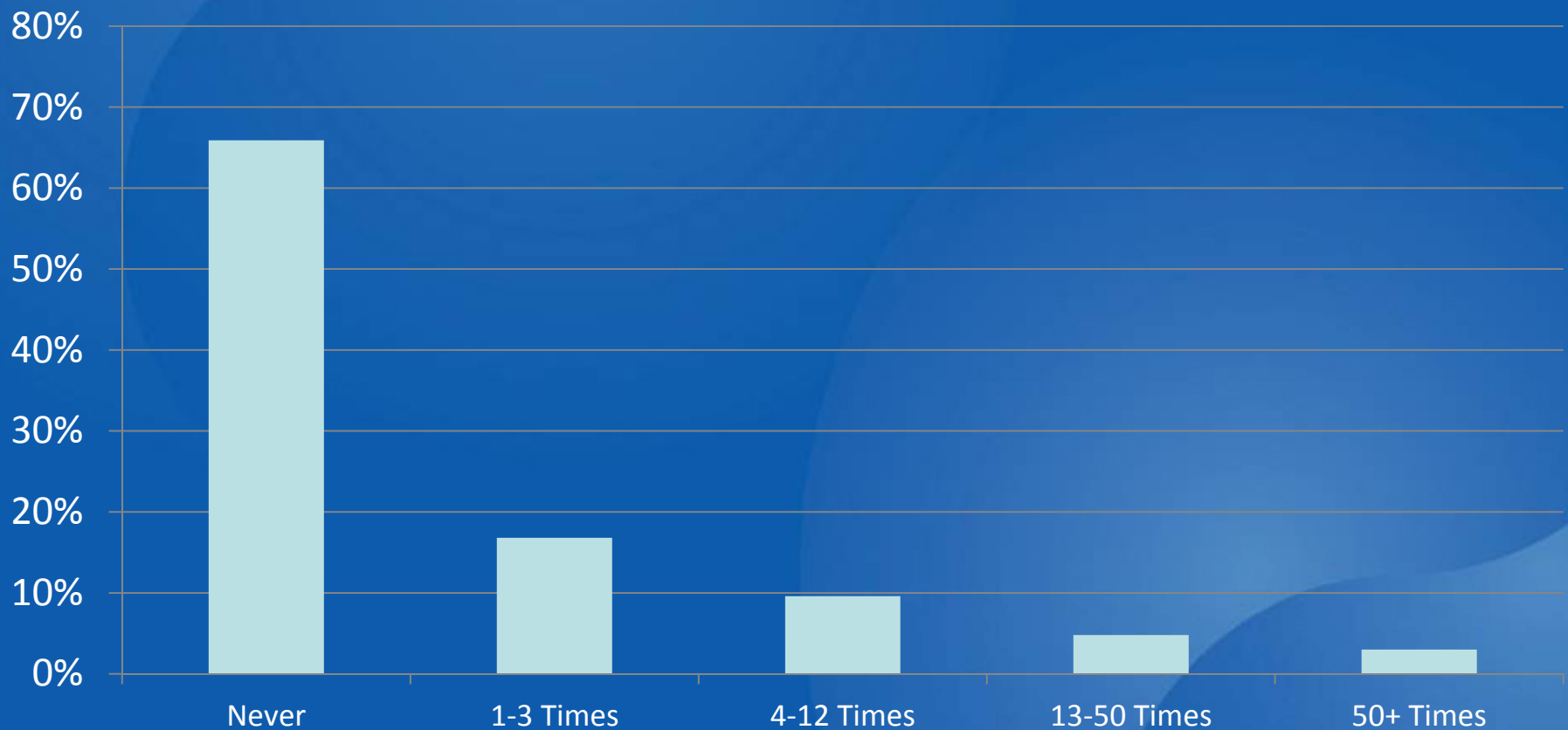
# Trauma Exposure (continued)

## Fired Rounds at Enemy



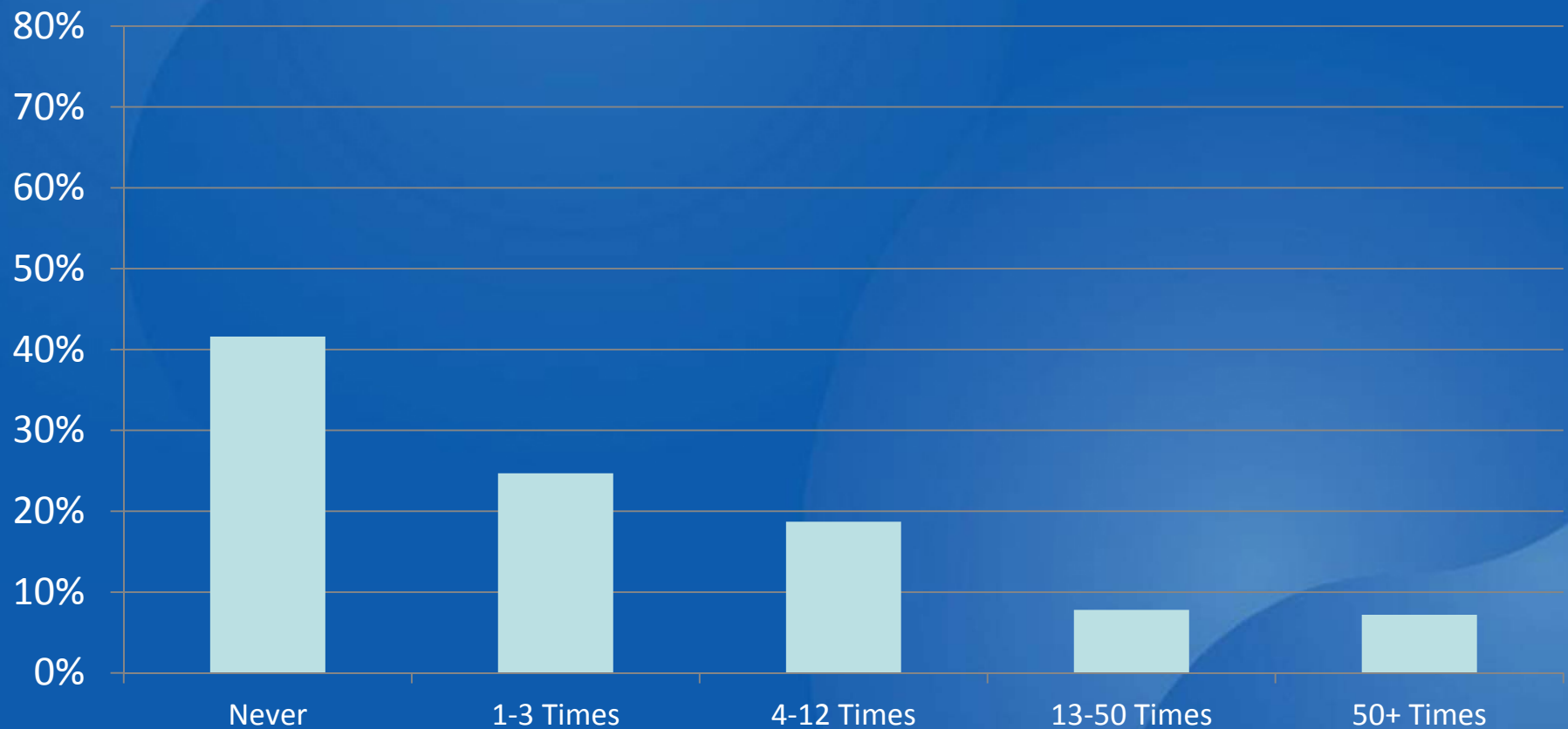
# Trauma Exposure (continued)

## Saw Someone Shot

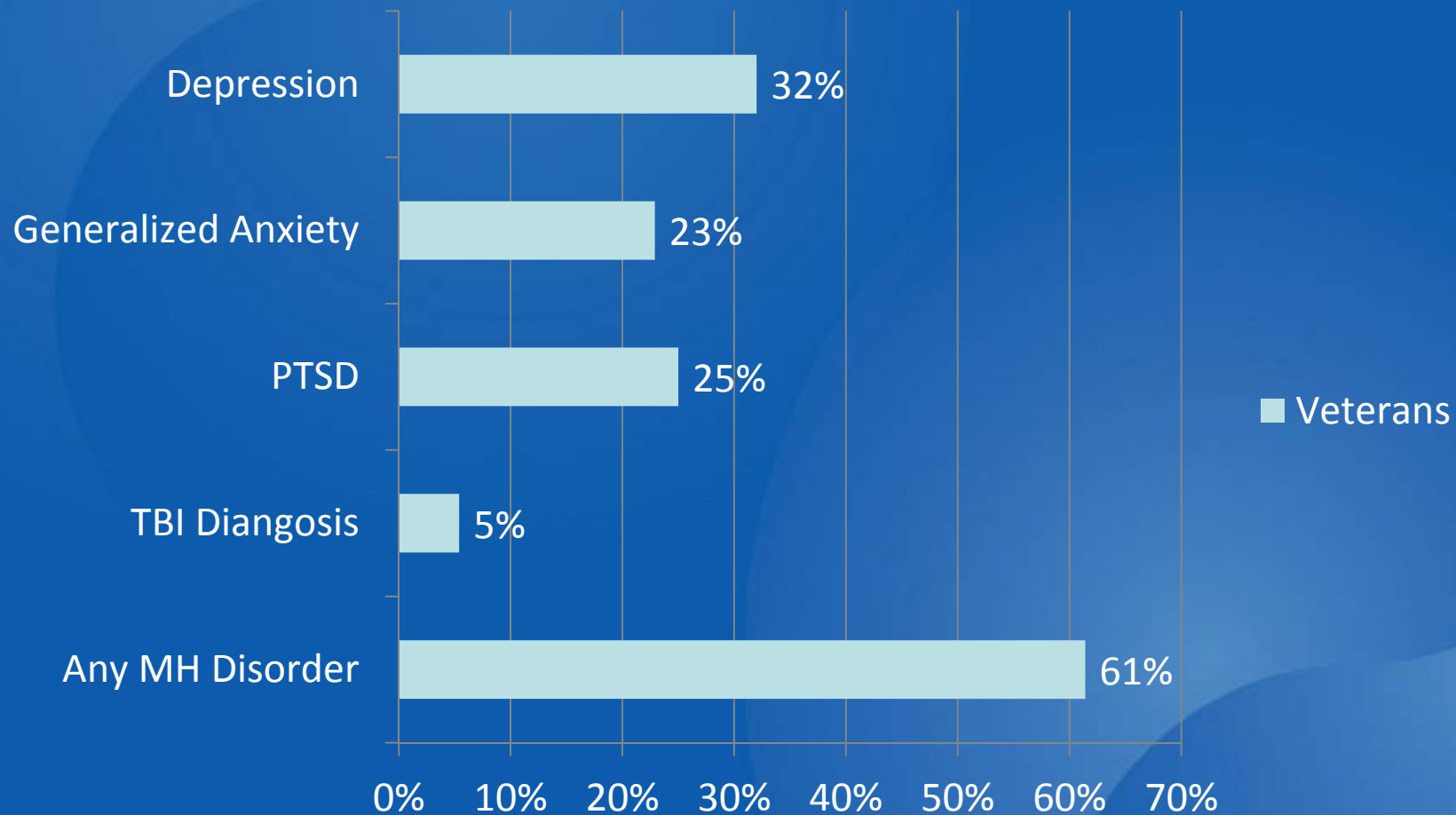


# Trauma Exposure (continued)

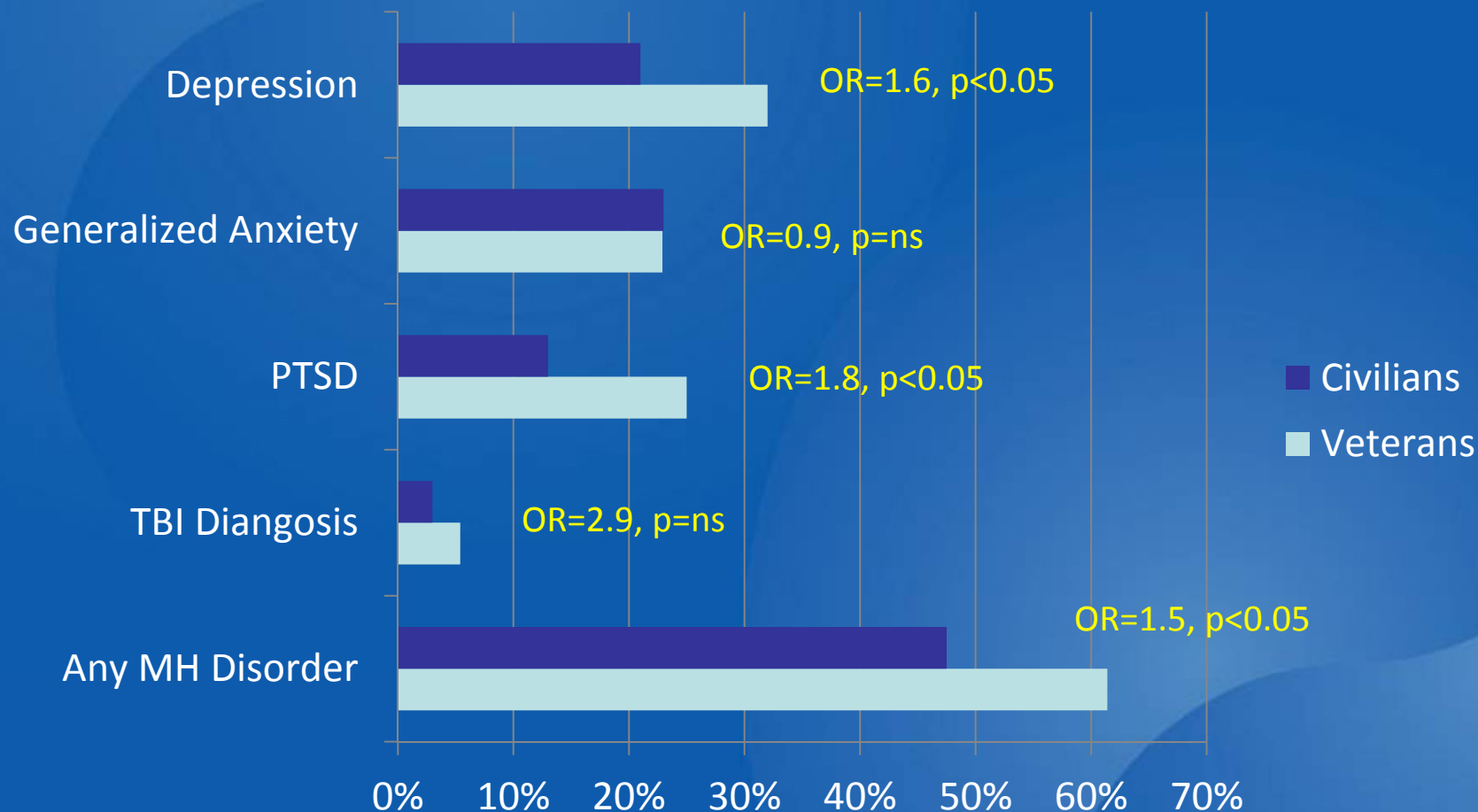
## Felt You Were In Danger Of Being Killed/Injured



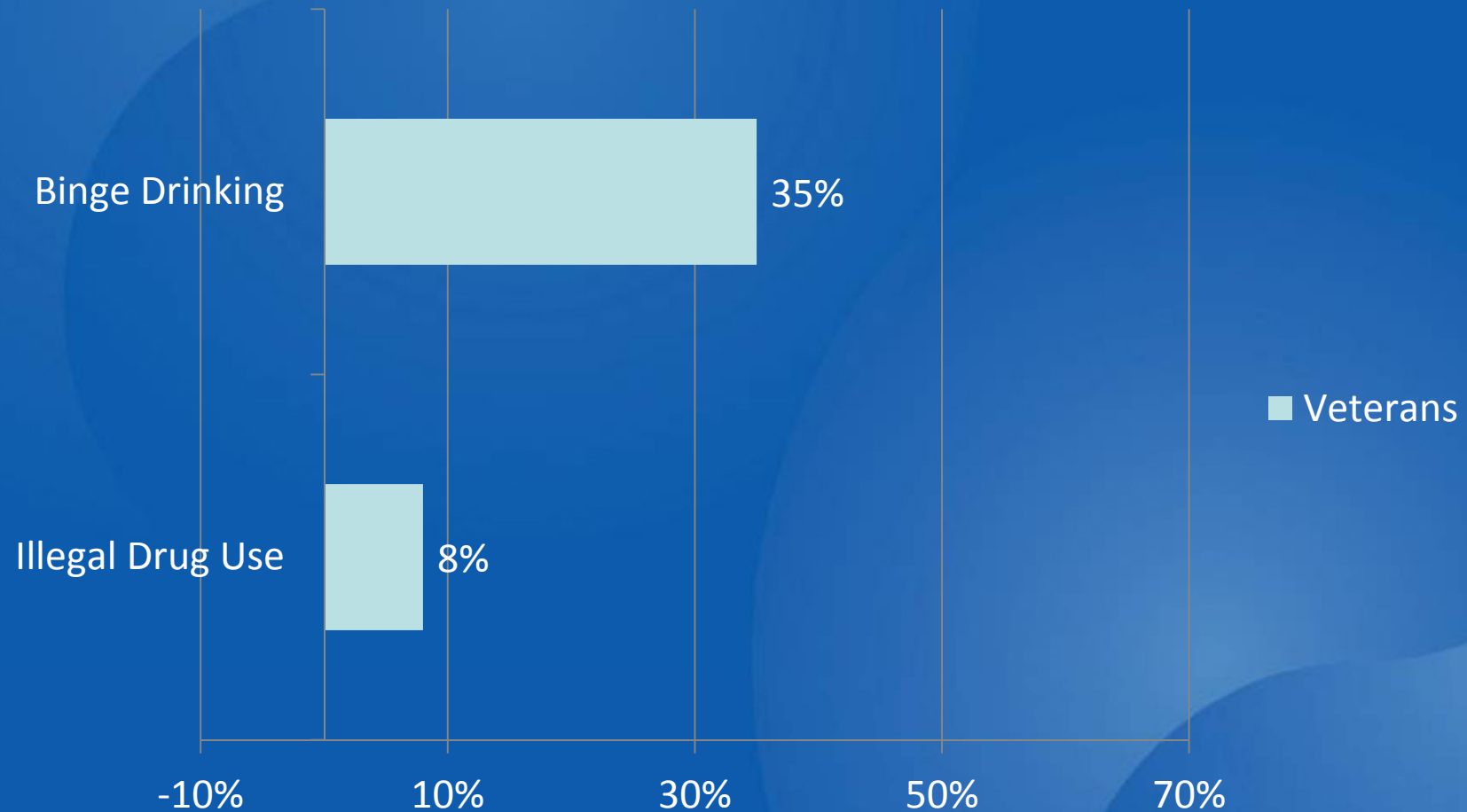
# Prevalence of MH Disorders Among Veterans



# Relative Risk of MH Disorders: Veterans Compared to Civilians

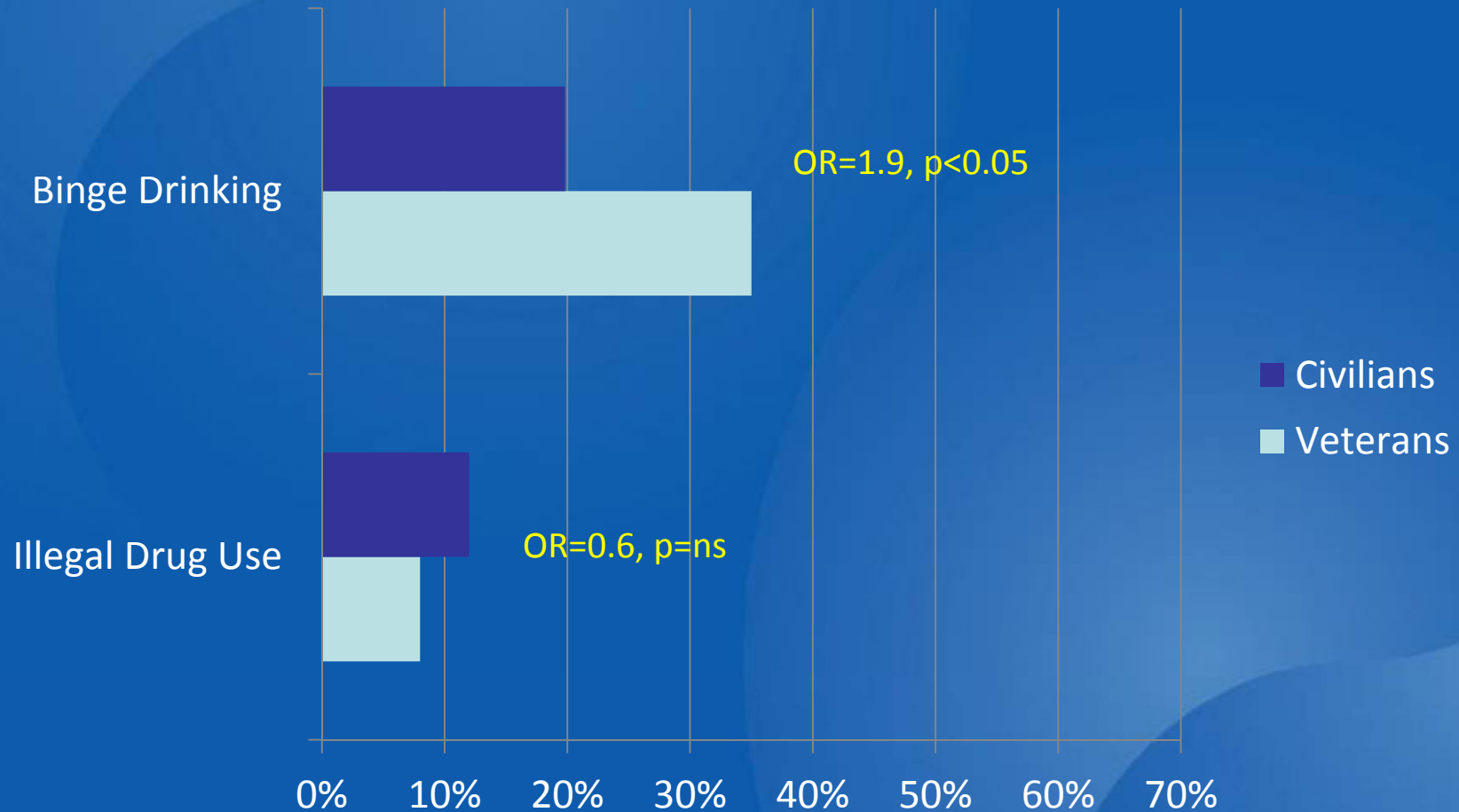


# Prevalence of SUD Disorders Among Veterans

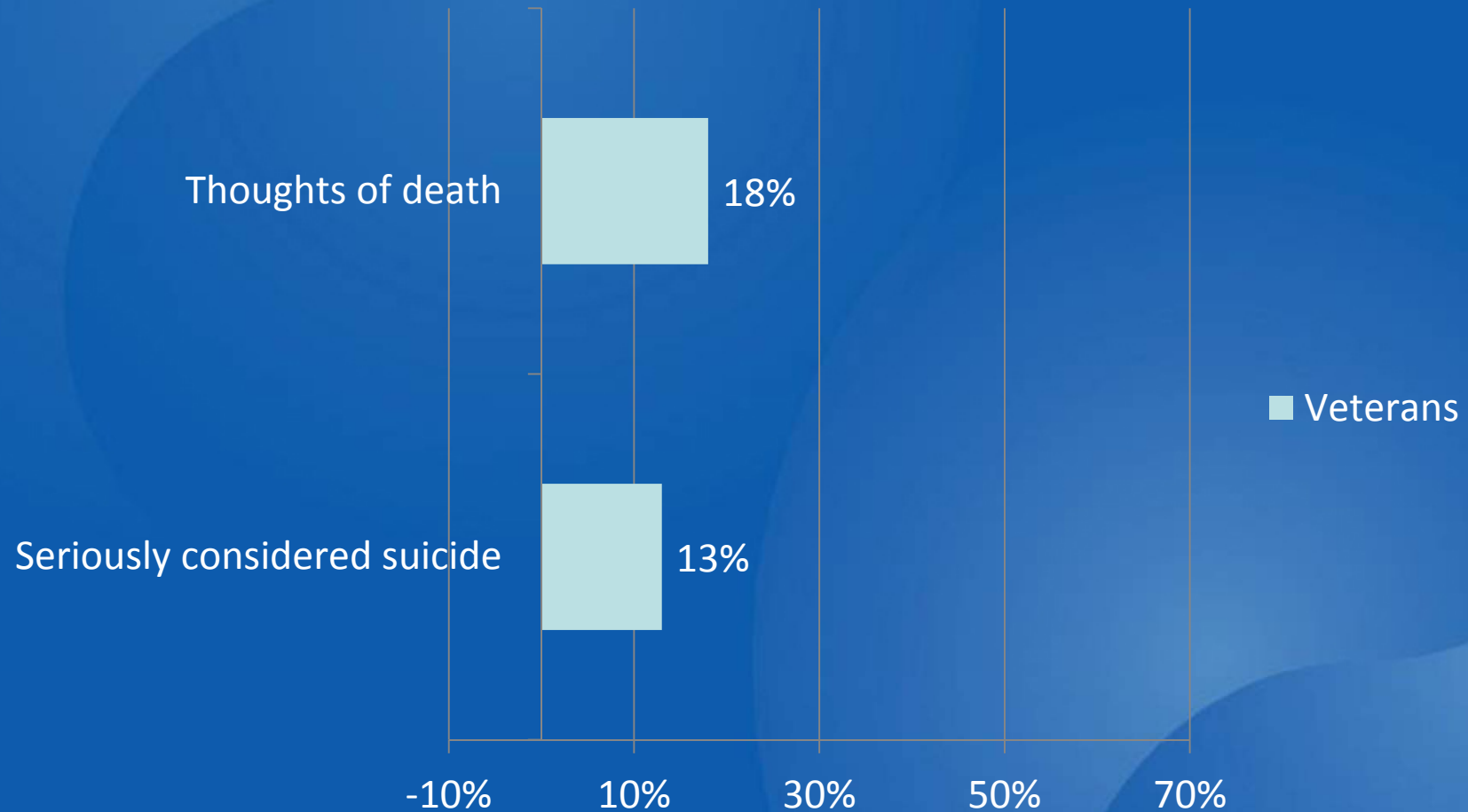




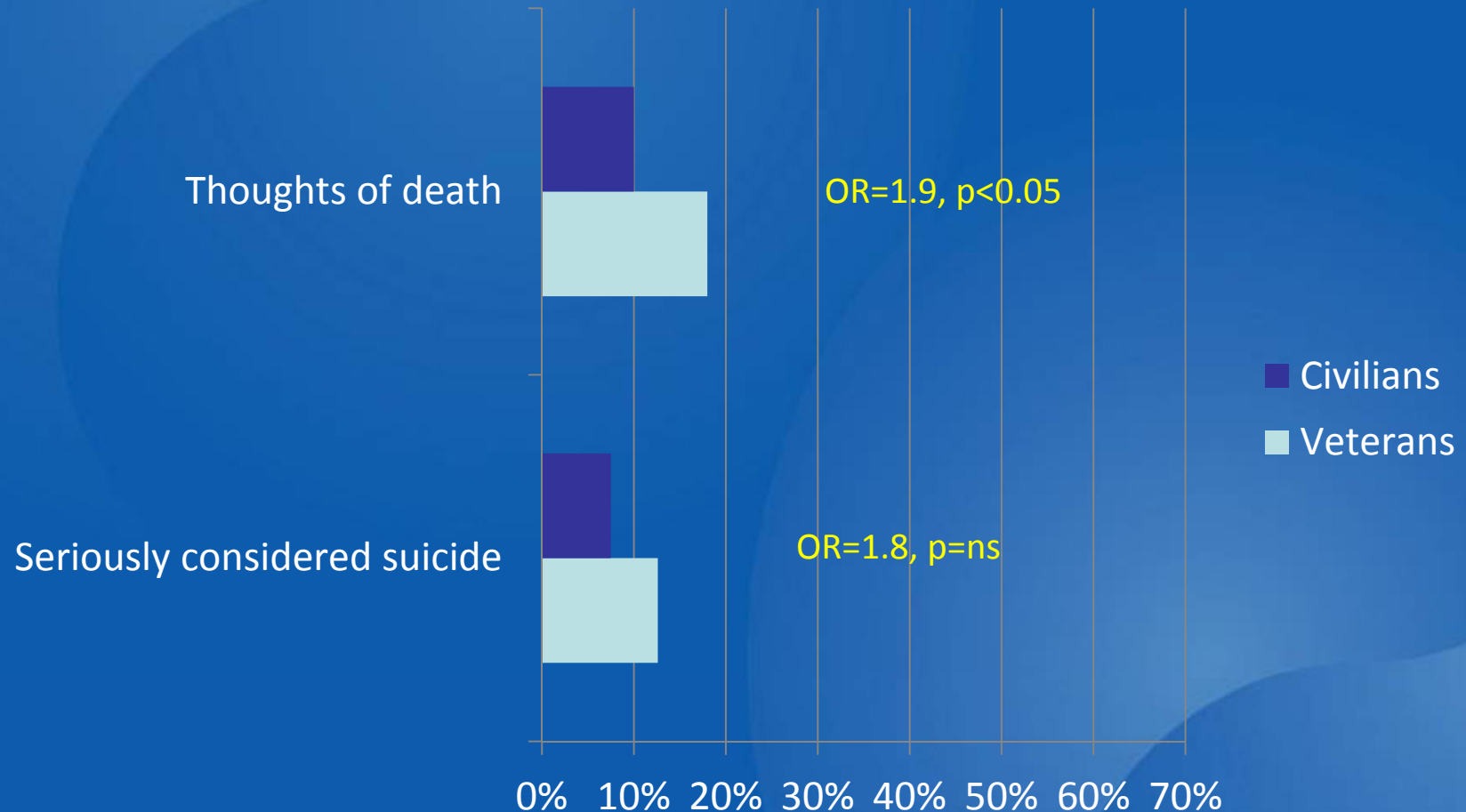
# Relative Risk of SUD Disorders: Among Veterans



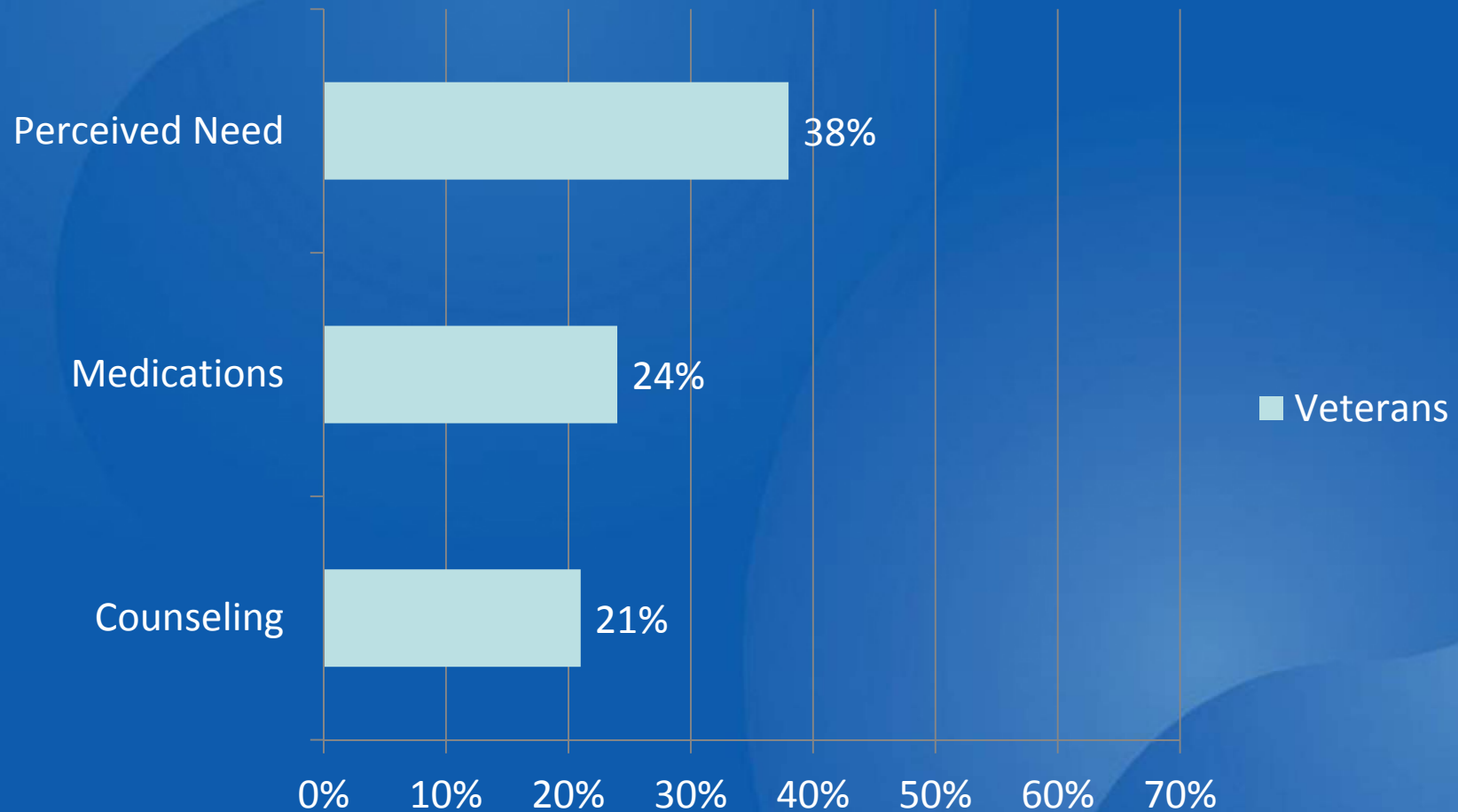
# Prevalence of Suicide Ideation Among Veterans



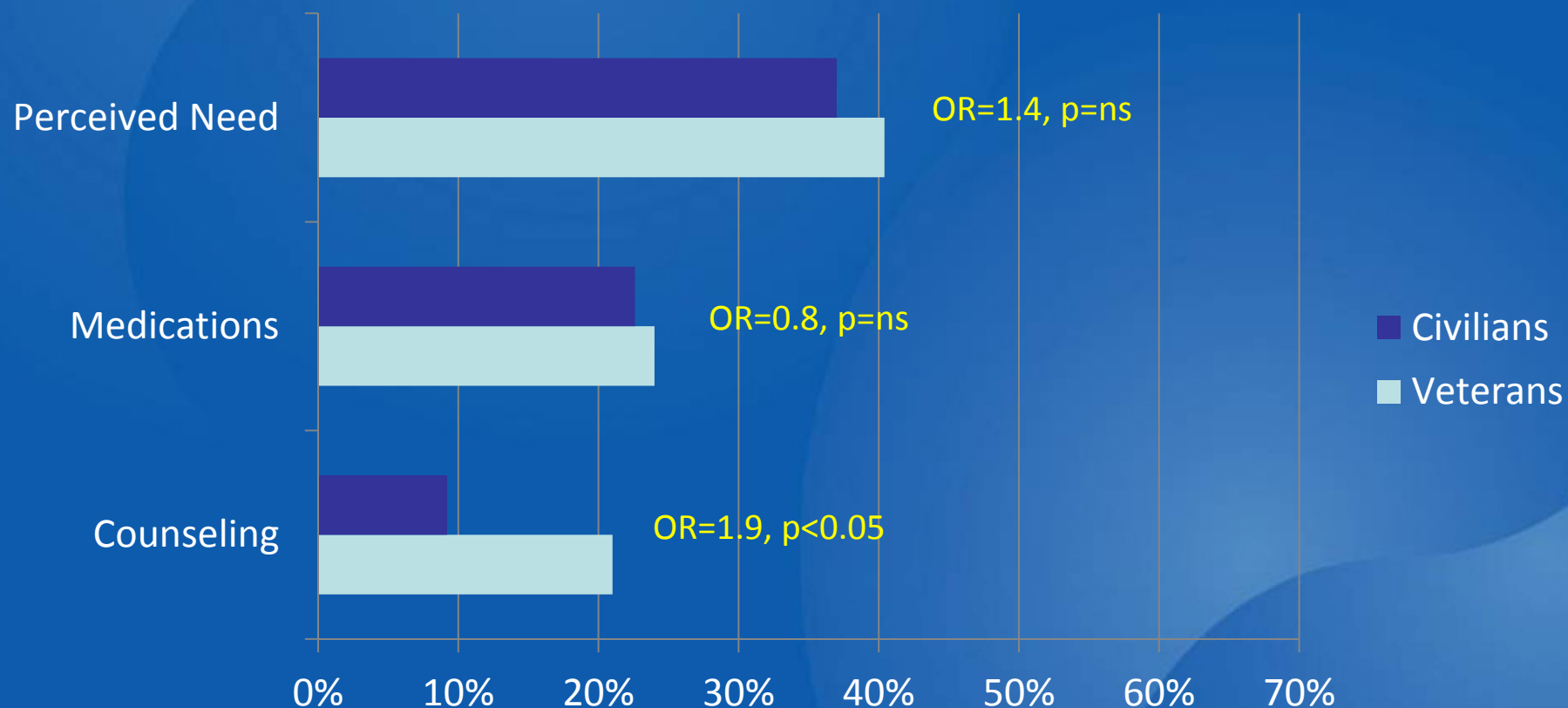
# Relative Risk of Suicide Ideation: Among Veterans



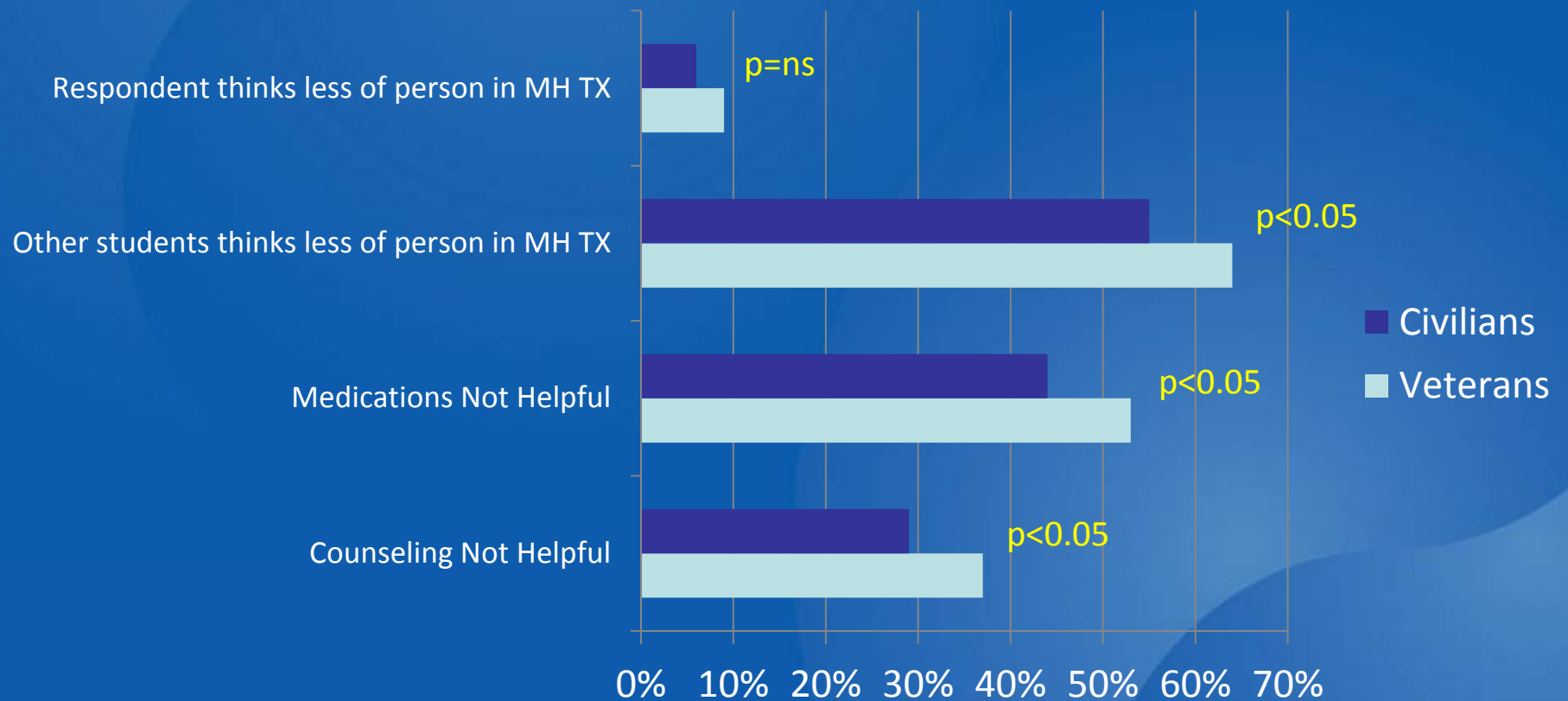
# Help Seeking Among Veterans



# Relative “Risk” of Help Seeking: Veterans Compared to Civilians



# Help seeking perspectives



# Qualitative Sample

## Participants' characteristics

- Range of ages
  - Early 20s to middle age
- Gender
  - 8 Men
  - 2 Women
- Married, divorced, single
- Branch of military
  - Active duty Army, Airforce, Navy
  - Army National Guard, Reserves
- Marital problems
- Financial struggles

## MH conditions

### Current Symptoms

- Depression
- PTSD
- Anxiety

### Past diagnoses

- Non-combat related TBI
- Bi-polar

## MH Burden and Perceived Need for Care: An Exemplary Case

### Middle-age, white male

- Father of two, handyman
- 2<sup>nd</sup> year in college

### Military background:

- Army Reserves, staff sergeant
- Deployed twice

### MH history

- Non-deployment diagnosis of TBI
- Anxiety
- PTSD symptoms
  - Anger issues, insomnia after OIF/OEF deployments

### Perceived Need for Care

“My wife knew, my kids knew, but I didn’t know I was being angry, I just thought I was being me.”

### Help-seeking:

“My wife said, ‘We need to go to the VA, so they can talk to you about this [anger issues].’”



### Non-military specific

- Lack of perceived need
- Unaware of services
- **Skepticism in treatment efficacy**
- Stigmatizing attitudes about mental illness

### Military-specific

- Seeking treatment could harm military career
- Only the “weak” seek care
- Duty to suffer

### Campus-specific

- Lack of available services
- Penalized for missing classes

## Barriers to Care

“The last time I ever talked to a therapist I was still active duty when my problem really kicked in. . . . It just seemed like they’re wanting to give you pills and send you on your way. ‘Ah, you’re cured, you’ll be fine.’ It’s more aggravating than what it’s worth. *That’s why I said it’s more therapeutic to talk to my buddies.* Everybody always thinks that alcohol is bad—if you start drinking to drown your problems away that’s bad—I’ve never seen it as bad, especially when you get around your buddies. You start drinking and talking; have a good ‘ol time. And, that’s therapeutic.” [x-year-old student veteran with symptoms of PTSD, depression]

# Underlying Theme: Vet-to-Vet Connections

## Build relationships

“You would have to know him first. Get their background and find out what they’ve seen and done . . . You’ve got to build a good relationship, but eventually you’re gonna go there.”

Via non-health related activities: hunting, fishing, volunteering

## Vet-to-Vet screening and linkage-to-care

“If you had a buddy system where you know that I’m a veteran or a service member . . . Have somebody already set up to say ‘Hey we need to talk to this guy.’ . . . Not a structured sit-in with a group.”

Student veteran w/prior MH problems and treatment-seeking experiences screens & connects them with services

# Next Steps

- Examine predictors of help-seeking
  - E.g., social support  $\longrightarrow$  help-seeking
- Qualitatively explore:
  - Critical factors that influence help-seeking
  - Feasibility of vet-to-vet approach to screening and linkage to care
- Focus groups and intervention development
- Apply for extramural funding from to test the screening & linkage-to-care intervention

# Questions & Comments

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