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14. ABSTRACT

This research project, conducted under the auspices of the USC Center for Innovation and Research on Veterans and Military Families (CIR), aims to develop and test methods for rapidly increasing the number of behavioral health professionals who are prepared to effectively treat mental health challenges among service members, veterans, and their families. Project objectives include: 1) Development and delivery of four full online military social work courses and related training modules for experienced mental health clinicians in order to increase trainees' knowledge of military mental health issues compared with standard training; and 2) Development of two virtual patients and a virtual family to approximate "real world" clinical interactions and facilitate more rapid acquisition of practice experience. Strong progress has been made towards meeting both objectives, with course development nearly complete, and initial course testing demonstrating gains in trainee knowledge and receiving positive evaluation on a variety of dimensions. A first matched comparison-group impact study has just been launched. Virtual Patient development continues to progress, with user testing yielding valuable information.

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INTRODUCTION:

The need for behavioral health support during warrior reintegration is clear and compelling: changes in the conditions of warfare and deployment in Iraq and Afghanistan, exacerbating the stresses of war (Belasco, 2007; Bruner, 2006; Serafino, 2003), have combined with large numbers of deployed troops. Unfortunately, there have been too few adequately prepared behavioral health professionals to meet the needs of our nation's warriors and their families. This research project, conducted under the auspices of the USC School of Social Work, Center for Innovation and Research on Veterans and Military Families (CIR), aims to develop and test methods for rapidly increasing the number of behavioral health professionals who are prepared to effectively treat mental health challenges among active duty servicemembers, veterans, and their families. Project objectives include: 1) Development and delivery of four full online graduate military social work courses, currently titled: *Military Culture*, *Clinical Practice with Servicemembers and Veterans*, *Families Impacted by Military Service: Understanding and Intervening*, and *Health Challenges for Wounded Warriors and their Caregivers* - along with several related training modules for experienced mental health clinicians - to increase trainees' knowledge of military mental health issues compared with standard training; and 2) Development of two virtual patients and a virtual family member to approximate "real world" clinical interactions and facilitate more rapid acquisition of practice experience. The educational/training intervention is being developed in an innovative and evidence-based manner, using state-of-the-art knowledge and technologies, including empirically-supported intervention content, and a rigorous process of iterative testing and refinement. Ultimately, its impact on trainee knowledge, skill, and sense of competence – along with ability to engage and retain clients and to develop a strong therapeutic alliance – will be examined in a series of randomized, controlled trials.

BODY:

As described in the project proposal narrative and approved Statement of Work, this project aims to develop and test an education and training intervention designed to rapidly increase the number of behavioral health professionals prepared to effectively treat mental health challenges among servicemembers, veterans, and their families. The intervention comprises two distinct, yet interrelated dimensions: a structured, multidimensional course curriculum and a content-specific, culturally-relevant Virtual Patient Training Environment (VPTE), built using artificially-intelligent virtual human technology. Due to the complexity and extent of effort involved in developing such an intervention, the first year activities of the project focused largely on intervention development, in preparation for full implementation of the intervention and evaluation of its impact later in the project. Following (in grey) is the *Phase II* portion of the original, approved Statement of Work, outlining the objectives to be accomplished during the first 18 months of project funding. The accomplishments for each portion of the SOW, and any related difficulties that were encountered, will be described in turn on the pages that follow.

Approved Statement of Work

Phase II: Development and iterative refinement of the training curriculum and VPTE based on findings from initial trainees and VPTE beta-testers; Pilot Randomized Study Examining Impact of Mil-SW Curriculum on Clinical Outcomes for Service Members with Depression and PTSD

1. Revolutionize curriculum content and delivery
    1.1. Using content experts, develop four online courses (Military Culture, Trauma and PTSD: Evidence Based Treatment, Clinical Practice with Military Families, and Health Challenges for Returning Veterans and Their Families) and accompanying brief curriculum modules, refining as needed based on quantitative and qualitative data from test trainees, including knowledge and skill development, sense of competence, and curriculum coherence
    1.2. Enhance online courses with multimedia and virtual reality online components
    1.3. Conduct a pilot randomized study to examine clinical outcomes in the treatment of service members and veterans with PTSD, using experienced therapists who have completed Mil-SW training modules as compared to those who have not
2. Develop and implement VPTE with specific Virtual Patient (VP) and Virtual Family (VF) scenarios
    2.1. Develop VP, and subsequently a Virtual Family (VF) (extending into Phase III), to address learning needs related to military culture, deployment cycle, PTSD and secondary traumatization
    2.2. Iteratively test and refine VP and VF, based on quantitative and qualitative data from trainees, including sense of realism in communicating with VP/VF, authenticity of VP/VF, and sense of immersion in VP/VF experience (ultimately to include diversity in culture, age and gender)

As described in the *Phase II* summary statement, project activities over the first 18 months are focused on two primary objectives: 1) developing and iteratively refining the training curriculum intervention (both the course curricula and the VPTE) based on findings from initial trainees and VPTE beta-testers; and 2) conducting a pilot randomized study to examine the impact of the training curriculum. The former was the principal focus of Project Year 1, and is the area wherein most of the project accomplishments were

achieved in the first year. (The pilot study was not scheduled to occur in the first 12 months and has not yet been conducted; it will be discussed in a future report.)

Development of Four Online Graduate (MSW) Courses

Substantial gains were made in Year 1, with regard to developing the four online graduate (MSW) courses. Extensive revisions were made to the existing on-ground course syllabi, the on-ground courses were evaluated, and production for online delivery, involving yet further course revision and refinement, was initiated. Subsequently, two of the courses - *Military Culture* and *Clinical Practice with Servicemembers and Veterans* - were rolled-out online, and a large-scale comparison-group study of the MSW course curriculum was launched. Further details related to each of the major activities and accomplishments are provided in the following paragraphs.

Extensive Revision of Existing On-ground Course Syllabi

Early in the project year, personnel completed extensive revisions to four existing on-ground MSW course syllabi, using reviews of current scholarly literature, expert consultants, findings from a CIR-conducted survey of 348 military behavioral health providers, and the Council on Social Work Education's *Advanced Social Work Practice in Military Social Work* guidebook. During the revision process, it was determined that the *Trauma and PTSD: Evidenced Based Treatment* course should be somewhat more broad and inclusive of related issues such as Depression and substance abuse than was originally conceptualized; hence, the course was renamed *Clinical Practice with Servicemembers and Veterans*. At this time, lead course faculty met with the School's curriculum consultant to identify learning outcomes that align with the School's curriculum standards, and to plan for the conversion of each to online courses.

Evaluation of Existing MSW Courses

A questionnaire regarding the MSW program's Military Social Work subconcentration (Appendix A), including the on-ground courses as they were delivered prior to any revisions by the project team, was administered to graduating students in Spring 2011, shortly after they had completed the course sequence. Twenty-two graduates ultimately completed the questionnaire.

In general, the respondents' perceptions of the *Military Culture* course (again, as delivered prior to the project team's syllabus revisions) were mixed. Approximately the same percentage of respondents disagreed that the breadth and depth of the course were appropriate (40-50%) as did agree (40-50%). Similarly, those disagreeing that the course positively impacted their practice or increased their professional competence (35-40%) were very slightly higher than those agreeing (30-35%). The highest percentage of agreement (55%) was reported in response to the course being well organized and flowing logically.

Respondent perceptions of the two practice-focused courses, *Treating Trauma and Post-Traumatic Stress* and *Clinical Practice with Military Families: Understanding and Intervening*, were decidedly more positive, particularly for the former. With regard to *Treating Trauma*, at least 90% of respondents agreed that the course breadth and depth were appropriate, and that the course positively impacted their practice and increased their professional competence. The lowest percentage of agreement, though still a moderately strong 81%, was in response to the course being well-organized and flowing logically. In response to the questions regarding *Clinical Practice with Military Families*, similarly high agreement was found with regard to appropriateness of the course breadth and depth (91% and 87%, respectively).

Agreement that the course had positively impacted the respondents' professional practice and increased their professional competence was somewhat lower than for the *Treating Trauma* course: 77% and 72%, respectively. Finally, similar to the *Treating Trauma* course, 77% of respondents agreed that the course was well-organized and flowed logically.

The *Health Challenges for Wounded Warriors and their Caregivers* course was not offered during Academic Year 2010-2011. Thus, questions regarding this course were not included in the questionnaire.

Considering the nature of the criticisms offered by the respondents in relation to the changes made to the course syllabi (and the rationale for those changes), it appears that many of the reported course weaknesses were likely addressed during the syllabus revision process. For example, substantial changes were made to the 1- academic credit *Military Culture* course, including revision of topics and instructional methods, due to the conclusion that the content would benefit from some topic adjustments and content reorganization. This assertion will be tested in a large-scale comparison-group study of the MSW course curriculum, to be discussed later in this report.

Course Production and Preparations for Online Delivery

Early in the calendar year, in cooperation with project personnel and lead course faculty for the respective courses, *2tor*, the School of Social Work's technology partner responsible for delivery and marketing of the online MSW curriculum, initiated production of the online versions of the MSW courses. Two of the online MSW Military Social Work courses were completed and subsequently launched online on July 18th: *Military Culture as a Workplace Environment*, and *Treating Trauma and Post-Traumatic Stress* (it has since received approval for its new name: *Clinical Practice with Servicemembers and Veterans*). In preparation for the launch, CIR project team members met with seven faculty instructors who would be teaching the *Treating Trauma* course (both on-ground and online), to review the syllabus and prepare the new instructors on the course content and materials. The *Military Culture* course is a one-unit self-directed online course with no live instruction, so CIR did not need to facilitate a meeting with an instructor for that course. The third online MSW course, *Clinical Practice with the Military Family*, is scheduled to launch on December 5, 2011, with *Health Challenges for Wounded Warriors and their Caregivers* scheduled to launch in August 2012. These courses will also be reviewed in detail by the CIR project team.

Though the online graduate courses were designed to mirror their on-ground counterparts, conversion to an online delivery format was a time- and labor- intensive process, involving writing of content for the online modules, finding video media clips to be used in the online classrooms (with the support of Wounded Warriors' film archives), and filming lecture segments to be played online. While large-scale evaluation of the online courses has not yet been completed (and will be discussed later in this report), early anecdotal evidence suggests that the content of the online course versions is presented in a more stimulating and appealing way than has traditionally been available in online courses, and that the on-ground courses will likely be strengthened by the work done for – and lessons learned from – their new, online counterparts.

Ongoing Course Refinement

Throughout the year, project personnel continued to work closely with School of Social Work faculty on revisions to the syllabi for the four on-ground Military Social Work MSW courses. Specific attention was given to the *Health Challenges* course, which underwent relatively greater revision, largely triggered by evaluation feedback from the *Health Challenges* on-ground CEU course. The revisions focused on

eliminating redundancies with the other courses, and honing in on caregiver issues/needs, as well as issues/needs/services as related to persons with physical disabilities. Team members worked closely with the new instructor for the *Health Challenges* course, connecting her with the curriculum consultant to promote collaboration. The revised on-ground courses, based in part on student data collected by the project team, will be implemented in Fall 2011 and Spring 2012. In addition, based on student response to the on-ground course, the school will decide whether to convert this course to online.

After the online courses were launched, CIR project team members reviewed the online content for the *Military Culture* course, and submitted feedback to the course leads and technology leads. This feedback was reviewed, and certain changes were implemented immediately to the online content. A review of the online *Treating Trauma* content is in process, and a more thorough revision of the online courses is scheduled to occur in the coming months.

Testing and Evaluation of MSW Courses

In preparation for a large-scale evaluation of the MSW Military Social Work curriculum, project personnel spent Quarters 2 and 3 solidifying measures for evaluating knowledge, skill, and self-efficacy gains; finalizing recruitment and data collection protocols; and securing the necessary human subjects approvals through the USC Institutional Review Board and USAMRMC's Human Research Protection Office (HRPO).

Development of a specialized clinical skill assessment measure. In addition to development of the other measures, a particularly strong project accomplishment is the development of an original measure of clinical practice skill as related to military populations, as demonstrated clinical skill (aka Procedural Competence; Bogo, Regehr, Logie, Katz, Mylopoulos, & Regehr, 2011) has not commonly been assessed within behavioral health practice, and even more rarely so in social work. CIR's clinical skill assessment tool was developed to assess selected military-relevant clinical skills in a time and cost-efficient way, as the original plan of assessing performance through interviews with the Virtual Patient (VP) was not possible due to the extended timeline for VP development (to be discussed later in this report). Traditionally, standardized patients have been used to measure clinical skill. As part of the Military Social Work curriculum evaluation, the project team needed to assess military-relevant clinical skill in over 100 students at three time points during the academic year. Relying on standardized patients would have been both time and cost prohibitive. The CIR measure is internationally informed; the team relied heavily on the literature of the leaders in social work practice assessment at the University of Toronto as well as that regarding a standardized video measure, developed by a team of researchers in the Netherlands, for use in measuring skill development among medical students. The CIR measure is computer administered and asks trainees to respond to 14 video clips of a veteran/therapist interaction. (Please see http://www.youtube.com/playlist?list=PL07CAF37BCDE5A0D0 for the video clips depicting the clinical interactions.) Responses are scored in the domains of rapport building, appropriate communication and cultural awareness, unique issues relevant to military context, legal and ethical issues relevant to military clients, and culturally-informed client assessment. A validation study of the measure is underway, and responses provided by students as part of the assessment will be used towards further development of the VP.

Large-scale comparison-group test of the military social work curriculum. Documentation for the comparison-group test of the Military Social Work MSW curriculum was submitted to the USC Institutional Review Board (IRB) in July and the project was granted exempt status shortly thereafter. In August, USAMRMC's ORP also issued exempt status approval. Early in Quarter 4, the CIR team finalized the script for its original, video-enhanced Clinical Skill Assessment (CSA) measure of military-

related practice skills. Behavioral health clinicians experienced with military populations and veterans provided feedback to revise both the script and the accompanying prompts built into the measure. In August, a professional film crew shot and edited footage of the veteran client and therapist interaction featured in the CSA. An OIF veteran-actor donated his time to the filming necessary to complete the CSA. In addition, all of the baseline measures for the study were incorporated into the online survey delivery system, Formsite, selected for its capacity to display the video clips embedded in the CSA.

MSW students were recruited for the comparison-group study in late August and early September. Students enrolled in the military subconcentration of the MSW program were recruited at a day-long orientation event held the week before courses began. Students consenting to participate completed the measures in a classroom near the project offices. Sixteen computer stations were set up with headphones that students used to complete the online baseline measures, which included the CSA. Students were also given the option to bring their own laptop to complete the measures. The 33 students who completed the baseline measures at the orientation event received their study incentives (i.e., $30 gift card to Starbucks, iTunes, Target or Amazon) immediately after completing the measures. A total of 43 students were ultimately enrolled into the study as part of the on-ground Military Social Work group.

Students were recruited for the on-ground comparison group (i.e., MSW students who are not enrolled in the military subconcentration) on campus during the first week of classes, during a two-hour "universal break" within the School of Social Work. Consenting students were assigned participant ID numbers and given the web address where to complete the evaluation measures. Students completed the baseline evaluation measures at their convenience during the first two weeks of classes and received their study incentives in the mail. A total of 31 students enrolled in the study as part of the non- Military Social Work comparison group.

Finally, students were recruited for the online comparison group – MSW students enrolled in the in the military subconcentration through the Virtual Academic Center, the School of Social Work's virtual campus for students taking their courses through a web-based interface – via email. Consenting students were assigned participant ID numbers and given the web address where to complete the evaluation measures. As with the on-ground comparison group, students completed the baseline evaluation measures at their convenience during the first two weeks of classes and received their study incentives in the mail. The online Military Social Work student sample consists of seven student enrollees.

In total, 81 students have completed baseline measures for the MSW curriculum evaluation. The dataset is currently being cleaned. Recruitment of PhD student scorers for coding the open-ended responses and CSA responses is underway. As the dataset is being cleaned, a validation study of the CSA is in preparation. Recruitment of advanced behavioral healthcare providers to participate in this study is underway.

Development and Refinement of Brief Continuing Education (CE) Curriculum Modules

Shortly after completing the extensive revisions to the four MSW courses, development of the accompanying brief Continuing Education (CE) curriculum modules for advanced behavioral health providers was initiated. The decision was made to first develop the CE curriculum as a set of four on-ground courses, replicating the titles and overall topics of the MSW courses, with their online counterparts slated for development after a test administration and subsequent refinement of the on-ground courses. The four-course series of on-ground courses was rolled-out at the end of Quarter 2, with the four courses being offered and evaluated in sequence over a 3-month period. After completing a revision of the courses based on the evaluation findings, Year 1 closed with preparations being made for a second

offering of the four on-ground courses, scheduled to begin on October 1. The major project activities and accomplishments related to the SOW objectives for brief curriculum modules will be detailed in the following paragraphs.

CE Course Development and Test Delivery

Development of the brief CE courses was based largely on the results of a national survey of military behavioral health providers conducted by CIR in Summer 2010. The courses, designed for post-graduate level behavioral health providers, were designed to provide more advanced content than do the MSW courses. Rooted in the most current scholarly literature, the CE courses include empirically-supported interventions and evidence-based practice approaches, focused on select topics of most perceived value to advanced behavioral health providers. Approval was secured through the California state licensing board to offer Continuing Education Units (CEUs) for Licensed Clinical Social Workers (LCSWs) and Marriage and Family Therapists (MFTs) who complete the courses; this designation often allows LCSWs and MFTs from other states to receive credit for the courses, as well. Additional continuing education certifications (e.g., for Continuing Medical Education credits [CMEs] for RNs or MDs, or CEUs for Psychologists or Licensed Professional Counselors) will be sought as needed, based on trainee demand.

In Quarter 2, the first two completed CE courses were offered in a classroom setting for testing and evaluation purposes. Syllabi, presentation slides, and participant resource binders were developed and delivered for the *Military Culture* and the *Clinical Practice with Servicemembers and Veterans* courses. Expert veteran, civilian, and military reserve component instructors from the USC School of Social Work faculty, the Department of Veterans Affairs, and the Center for Deployment Psychology were contracted to teach the courses. The third and fourth brief CE courses were completed and delivered in Quarter 3, again primarily for purposes of testing and evaluation. As with the first two courses, syllabi, presentation slides, and participant resource binders were developed and delivered for the *Families Impacted by Military Service: Understanding and Intervening* and *Health Challenges for Wounded Warriors and their Caregivers* courses. Expert veteran and civilian instructors were contracted to teach the courses from the USC School of Social Work faculty, the Department of Veterans Affairs, and the Indiana University/Purdue University Indianapolis School of Social Work faculty. The highlight of the *Health Challenges* course was a special speaker – the first known TBI patient from OIF.

Testing and Evaluation of CE Curriculum Modules

Based on the project team's review of relevant literature, an evaluation measure informed by the Kirkpatrick Model of Training Evaluation (Kirkpatrick, 1996) and the input of expert education evaluation consultants was developed for purposes of evaluating the initial delivery of the CE courses. A multidimensional post-test questionnaire (Appendix B) examined respondents' *affective reaction* (participants' satisfaction and enjoyment of the course) and *utility judgments* (participants' beliefs about how much they learned and how they plan to use what they learn in their practices with veterans and military families). For this purpose, 24 open- and closed-ended questions, consistent across courses except for a single question, were accompanied by items seeking to obtain a brief demographic profile of respondents.

A 20-item pre/post measure of content-specific knowledge was also developed for each course to measure *learning* (knowledge acquired, skills improved, or attitudes changed due to training) (Appendices C through F). USC's IRB was consulted regarding the planned course evaluation, and they confirmed that course evaluation practices are considered Not Human Subjects Research. Thus, no additional Human Subjects approvals were sought for this particular activity.

Each of the four CE courses was subsequently evaluated during its classroom-based delivery during either the second or third quarter, with prospective attendees being offered free enrollment in exchange for participating in the initial, test run of the course (i.e., understanding that they would be expected to provide feedback and to complete a set of pre- and post-test measures). Appendices G through J offer detailed reports of the respective respondent characteristics, evaluation results, and accompanying recommendations for each of the courses. In general, findings from all four course evaluations indicate that providers learned from the courses, were highly satisfied with them, and planned to implement the information they learned in their practice. Brief highlights will be presented below, in turn.

Military Culture. Fifteen, mostly White (73%) and female (91%), participants from the initial, 10-hour *Military Culture* course completed the course evaluation questionnaire. Results indicated that participants were highly satisfied with the *Military Culture* course. The average response to items on the *affective reaction* scale was 4.25 out of a possible 5 (range: 3.62 to 4.77), indicating a high level of satisfaction with the course content, delivery, and overall value. Participants also expressed the belief that knowledge gained in the course will affect how they approach their clinical practice. The average response to items on a *utility judgments* scale was 4.26 out of a possible 5 (range: 3.79 to 4.43), indicating a strong sense of intention to apply course concepts to practice with military clients. Finally, there was evidence of knowledge gains related to military culture, as well. Participants scored significantly higher on the knowledge measure at the conclusion of the course ($M = 13.00$, $SD = 2.16$) than at the beginning of the course ($M = 10.23$, $SD = 2.49$), $t(12) = 4.62$, $p < .05$. No statistically significant differences emerged on these three domains by profession (i.e., MFT or LCSW), years of practice experience, or percentage of practice dedicated to military clients. With regard to course refinement, participants requested that material be presented at a more basic level and that more interactive training modalities be used in instruction. In addition, numerous participants requested additional information on ethical considerations in practice when treating veterans and military families.

Clinical Practice with Servicemembers and Veterans. With regard to the course on *Clinical Practice with Servicemembers and Veterans*, 18 behavioral health provider trainees, mixed with regard to age, sex, and professional discipline, completed the 15 hour course and subsequently completed the course evaluation questionnaire. In terms of satisfaction and enjoyment of the course (*affective reaction*), the average response to the evaluation items was 4.52 out of a possible 5, (range: 3.91 to 4.91), indicating a high level of satisfaction with the course content, delivery, and overall value. The most favorable responses regarded the overall value of the course and the ability of the instructors to engage with class participants. For *utility judgments,* the average response to the scale items was 4.39 out of a possible 5, (range: 4.06 to 4.69), indicating a strong sense of intention to apply course concepts to practice with military clients. In terms of *learning,* participants were found to have scored significantly higher on the knowledge measure at the conclusion of the course ($M = 14.93$, $SD = 2.09$) than at the beginning of the course ($M = 12.93$, $SD = 2.40$), $t(15) = 3.87$, $p < .05$. This suggests that trainees' knowledge base relevant to clinical practice with military populations increased in relation to the 15 hours of course content. No statistically significant differences emerged on the three domains by profession, experience, or amount of practice dedicated to military clients. With regard to refining the course, survey results indicated that instruction methods need to be more balanced (e.g., with use of small group or discussion formats). In addition, participants did not report high confidence in knowing where to turn for further resources on practice with veteran and military family clients.

Families Impacted by Military Service: Understanding and Intervening. Twenty-two course participants, diverse with regard to age, sex, professional discipline, and length of practice, completed the course evaluation questionnaire for *Families Impacted by Military Service: Understanding and*

Intervening. Responses generally indicated that participants were highly satisfied with the course, believed knowledge gained in the course will affect how they approach clinical practice with veterans and military families, and gained content-specific knowledge over the two days of instruction. Participant ratings on the *affective reaction* scale items averaged 4.40 out of a possible 5 (range: 4.19 to 4.76), indicating a high level of satisfaction with the course content, delivery, and overall value. Overall, the average response to the *utility judgments* scale was 4.46 out of a possible 5 (range: 4.32 to 4.68), indicating a strong sense of intention to apply course concepts to practice with military clients. Finally, with regard to *learning,* participants collectively scored significantly higher on the knowledge measure at the conclusion of the course (65% correct; $M = 13.00$, $SD = 2.40$) than at the beginning of the course (58% correct; $M = 11.58$, $SD = 2.43$), $t(19) = 2.48$, $p < .05$. No statistically significant differences emerged on these by profession, experience, or amount of practice dedicated to military clients. With regard to refining the course, participants requested that knowledge be presented at a more basic level and that more interactive training modalities be used in instruction.

Health Challenges for Wounded Warriors and their Caregivers. As with the other courses, evaluation results from the *Health Challenges for Wounded Warriors and their Caregivers* course were also promising and informative. The available data on Levels 1 and 2 of the Kirkpatrick Training Evaluation Model suggested that, for this course, too, participants were highly satisfied with the course, believed knowledge gained in the course would affect how they approached their practice with veterans and military families, and demonstrated gains in knowledge over the two days of instruction. Twenty-five course participants – the largest and most diverse group thus far, with regard to their demographic profile - completed the course evaluation questionnaire. In terms of *affective reaction,* the average response to the scale items was 4.56 out of a possible 5 (range: 4.19 to 4.91), indicating a high level of satisfaction with the course content, delivery, and overall value. Items with the most favorable responses inquired about the overall value of the course and the importance of training like this for practitioners working with veterans or military families. Similarly, the average response to the *utility judgments* scale was 4.57 out of a possible 5 (range: 4.26 to 4.74), indicating a strong sense of intention to apply course concepts to practice with military clients. The item with the strongest endorsement inquired about participants' confidence finding additional resources and information on working with military-related clients. Finally, results indicated that overall, participants scored significantly higher on the knowledge measure at the conclusion of the course (78% correct; $M = 15.61$, $SD = 1.94$) than at the beginning of the course (69% correct; $M = 13.72$, $SD = 2.02$), $t(17) = 4.59$, $p < .0001$. No statistically significant differences emerged on these by profession, experience, or amount of practice dedicated to military clients.

Planning for Continuing CE Course Delivery: Further Refinement and Marketing

During the fourth quarter, a course pricing structure was developed, as well as an initial marketing plan for the on-ground CE courses. Project personnel reviewed provider feedback from the previous iteration of courses. Incorporating changes suggested by the evaluation findings and including other updated information, the project team revamped the *Military Culture* CE course curriculum, structure, resource binder, and slides. The project team researched new topics to provide the most relevant and current information in the slides and course binders. The team also held interviews to locate instructors. In order to minimize the cost of course delivery, the project team limited the search to Southern California. Potential instructors from the USC School of Social Work, the Department of Veterans Affairs, and community-based organizations that serve veterans were interviewed. Expert veteran and civilian instructors were selected and contracted, after which time the project team met with them on a weekly basis to plan for the next course offering. A female veteran was also selected to speak in the course about her experience with deployment and being a woman in the military. Project personnel marketed the course to local providers using web-blasts, newspaper ads, online calendars, and networking

capacity. Targeted marketing was directed at community providers serving veterans in various settings. The decision was made to charge a fee in order to partially defray the costs of delivery, and scholarships were offered to a select number of community providers to attend the course at no-charge. As Year 1 came to an end, planning for the next 7-hour, on-ground *Military Culture* CE course was finalized, scheduled to take place in October 2011.

Preparations for Online Course Launch

With each of the on-ground CE courses delivered successfully, project personnel met during Quarter 3 with three potential technology partners - 2tor, Embanet, and ISV/T3 - poised to create the online CEU platform. Both 2tor and Embanet are recognized technology companies who have existing relationships with USC, while ISV/T3 approached CIR in pursuit of a partnership. The project team discussed the project's technology needs, specifications, and timeline, and subsequently gathered proposals and market analyses from all three companies. Ultimately, the decision was made not to pursue a partnership with any of the three candidate organizations. Instead, the project team chose to partner with the USC Department of Continuing Education, which had an existing collaboration with the New York Times Knowledge Network (NYTKN). The partnership agreement was finalized midway through Quarter 4.

Concurrent with the process of selecting a technology partner, the project team used evaluation findings from the on-ground CEU courses to inform revisions and improvements to both the content and structure of the planned online courses.

As Year 1 came to a close, the online CE courses were being built with NYTKN technology staff, and will be hosted on the USC/NYTKN platform. The project team is excited about the potential for growth that is provided by this collaboration. Given the wide marketing scope of both the university and New York Times, we feel that the CIR courses will reach a much wider and more diverse audience than was originally anticipated.

Thinking toward the future – and the sustainability of CIR's CE course offerings – the team is considering feedback from attendees of our on-ground CEU courses, as well as from past surveys of community providers, and is focusing on building a series of courses that meets the needs of working professionals in regards to the amount of time available for continuing education, the preference for self-directed learning, the geographic location of the potential participants, price concerns, etc. Project personnel are also exploring ways through which to create a stimulating, interactive learning environment that improves upon currently available online education models. As a result, the slate of online course offerings will diverge slightly from the on-ground, 4-course sequence modeled after the MSW curriculum. The first course, *Military Culture*, will be launched on December 5, 2011. Following this course, a clinical skill-building series, comprised of live online seminars with content experts, focused on specific evidence-based treatment modalities, will be launched. In addition to the courses, participants will have access to CIR-led forums, professional peer groups, webcast events, and other features through the online NYTKN platform. We believe this reformatting of the *accompanying brief curriculum modules* remains consistent with the approved SOW, but is more responsive to behavioral health providers' needs and stands to make a greater impact on provider readiness (in terms of the quantity of trained providers) than would have been possible with longer and less-focused courses.

Ongoing Course Evaluation Activities

After completing the initial pre-post evaluation of the four on-ground CE courses, project personnel continued to review scholarly literature on best practices in evaluating professional education and training outcomes and follow-up measures were developed to assess how providers were using the training in their practice. A questionnaire was subsequently sent to each CE course participant, three months after their course participation. Unfortunately, the response rate was not sufficient to render the results representative of the course participant population; however, the information provided was meaningful for purposes of further refining the course content and delivery.

Also, in preparation for the second offering of the on-ground CE courses, evaluation measures used in the Spring 2011 CE course evaluations were refined. The revised measures will also be incorporated into the online CE course delivery platforms, in order to conduct continuous evaluation of those courses.

Enhancement of Online Courses with Multimedia Components

An integral objective outlined in the approved SOW is that of enhancing online courses with multimedia and virtual reality online components. While the virtual reality-related functions will not be embedded for online training use for some time (to be discussed later in this report), numerous multimedia components and functions have been – and continue to be – built into the online courses at both the MSW and CE course levels. The online MSW courses are delivered in a synchronous live classroom, complete with breakout group capability. Thus, students see and interact with one another – and with the course instructor – continuously, much in the way that students in more traditional, on-ground settings would. Multimedia features included in the online MSW courses include video lectures by instructors (accompanied by PowerPoint presentations), video clips of case examples, discussion boards, and links to outside resources. For the online CE courses under development, all of the multimedia features just mentioned (i.e., video lectures and case example clips, discussion boards, and links) are being incorporated, along with incorporation of New York Times news archive into the courses, and guest contributors to discussion boards and groups (e.g., a New York Times journalist who reported in the *A Year at War* series).

Development and Implementation of the Virtual Patient Training Environment (VPTE) with Specific Virtual Patient (VP) and Virtual Family (VF) Scenarios

The core SOW objectives related to the Virtual Patient Training Environment (VPTE) during the first 18 months of the project (Phase II) pertain to: 1) Virtual Patient (VP) development in order to address learning needs related to military culture, deployment cycle, PTSD and secondary traumatization; and 2) iterative testing and refinement of the virtual patient.

Virtual Patient Development

In Quarter 1, in consultation with the Institute for Creative Technologies (ICT) VP development subcontractor team, a basic character profile for the first VP was developed. Planning was finalized for an initial videotaped role-playing session - to include therapist and client characters – allowing for beginning dialogue creation for the VP corpus. Developers began designing various aspects of the VPTE, including new controllers designed to allow VPs to display emotion (i.e., cry, blush, and change

breathing patterns) and have memory (i.e., to remember the contents of previous clinical interview discussions and respond accordingly).

In an effort to develop a VP training scenario that offers maximum real-world applicability for students and trainees, it was determined during the second quarter that the first VP would represent a young Latino enlisted member of the Marine Corps. Hence, a detailed case vignette representing the life of "Alamar Castilla," a fictitious Marine, was developed for use in building the first VP scenario. To begin building the content for the VP, a series of case clinical interview role-plays was launched. ICT worked with CIR project personnel to film approximately six hour-long role-playing sessions involving clinical interviews between therapists (played by social work graduate students) and Mr. Castilla (played by OEF/OIF veteran students). Footage from these sessions was transcribed and used by ICT to capture dialogue to further develop the VP's corpus of language. ICT personnel began transitioning the various game assets to a new (Unity 3D) game engine, designed for smoother systems operation, and a new Wizard of Oz (i.e., Woz2) character control system was developed to allow users to control various aspects of the VP during training sessions. Simultaneously, student learning objectives for use of the VP were developed in order to guide the specific content required to be embedded within the VP corpus.

During the third quarter, student and trainee skill development objectives were further refined to guide the specific dialogue and content needed for effective training using the VP. The objectives were been linked to the course content, and aligned with course faculty's learning objectives as well as with the CSWE guidelines for Military Social Work Practice. As planned, MSW student volunteers assisted with early VP testing in April, and attention was subsequently focused largely on expansion of the dialogue corpus and specification of the emotions to be associated with particular dialogue. Because of the complexity of the skill development objectives, CIR project personnel anticipated that the VP will ultimately need breadth and depth of relevant dialogue sufficient for repeated, hour-long clinical interviews with trainees. Thus, CIR project personnel became extensively involved in the generation and refinement of VP dialogue.

Collaborators at technology partner ICT made several strides with regard to the technical, backend aspects of the VP technology this past quarter. They continued to transition all game assets to the Unity 3D game engine, and among other ongoing development activities, developed Screen Mockups for user interaction to the Training environment, continued to refine the character graphics, and performed initial motion capture with the art group at ICT to capture a set of animations that will be used by the characters. They also worked with CIR project personnel to determine the list of character animation requirements, oversaw the initial user testing by MSW students, and developed a dialog testing tool to assist CIR project personnel with developing the language corpus.

Late in the third quarter, a technology project manager, responsible for CIR oversight of VP development and related functions, joined the project team. The new project manager brought to the team a software development background, which none of the existing CIR project team members had, and with better understanding of the necessary technology-development tasks and timelines, urged the team to immediately begin informal testing of the VP dialogue in preparation for September classroom implementation. After a series of test interviews conducted by CIR project team members and MSW student volunteers, it was determined that the VP lacked sufficient dialogue, and that the current Question-Answer dialogue engine would not likely be able to deliver the dialogue complexity necessary for effectively training military behavioral health providers. As a result, efforts in the fourth quarter were focused on the exploration of alternative dialogue-generation systems, and on understanding the feasibility and timeline for development of the VP as it is required to function for training purposes.

After a series of meetings with ICT personnel, the project team determined that the VP dialogue complexity needs could be met with the assistance of some additional personnel from the Natural Language Dialogue Group at ICT (see http://projects.ict.usc.edu/nld/group/ for detailed information about the group and its projects). The Natural Language Dialogue Group, led by Dr. David Traum, has developed and extensively tested characters based on a specialized software architecture known as Dialogue ACT, with the science behind character interactions rooted in cognitive psychology, personality theory, and linguistics, among other disciplines. Of particular appeal to the CIR project team is the relevance of an Army-funded project that uses a Tactical Questioning system (TACQ; Gandhe, DeVault, Roque, et al., 2008; Roque & Traum, 2007; Rushforth, Gandhe, Artstein, et al., 2009; Traum, Leuski, Roque, et al., 2008). The system shows promise as an architecture sophisticated enough to address the multifaceted and complex modes of communication essential for the project's VP dialogue needs, as it allows for character personality, conditional interactions, an affective model, and social (versus transactional) interaction (Rushforth, Gandhe, Artstein, et al., 2009).

While the CIR team worked to resolve the potential VP-readiness barriers in Quarter 4, project personnel at ICT continued to move forward with other dimensions of VP development. Among other project accomplishments, ICT worked towards system-readiness in the following areas: finalized the VPTE to allow for user login to the system and recording of user data; created new speech recognition system language models from CIR project team data; and integrated speech components into the Unity engine. They also performed motion capture to capture a set of animations that will be used by the VP characters, and created facial (FACS) animations for the Castilla character.

VP Testing and Refinement

VP testing and subsequent refinements are integral aspects of the development of the project VP (and eventually, the Virtual Family [VF]). An early testing session was conducted with 12 MSW student volunteers over two days at the start of Quarter 3. User feedback was used by ICT to further develop the character dialogue.

As mentioned in the previous section, a second, more informal, round of testing was conducted to assess the system's readiness for classroom implementation. It was in response to that testing that the project team decided a new dialogue system would be necessary in order to fulfill the VP portion of the project SOW.

As the project year came to a close, ICT personnel were making plans for additional developmental testing with MSW student volunteers at CIR, scheduled for mid-October 2011. As the new software architecture is employed and the dialogue approaches readiness for classroom use, additional waves of user testing will be conducted in order to provide the strongest possible training tool (i.e., the most realistic military client-type interaction with trainees).

Preparations for Implementing VP as a Training Tool

In addition to the technological and training-focused conceptual development necessary for VP implementation, logistical preparations were also necessary. During the first half of Year 1, the necessary equipment specifications for the two proposed virtual clinics (i.e., the Virtual Patient testing and training sites) were determined, and equipment was purchased for the first. Subsequently, the equipment was installed at the USC City Center location, where CIR and the project team are located. Equipment and space availability for the Virtual Clinic at the USC San Diego Academic center was under negotiation

early in the project year, but a decision was subsequently made to hold off on purchasing that equipment until such time as VP-based training would be implemented at that site.

Barriers to Completion of Targeted SOW Accomplishments

Throughout Year 1, we believe that the targeted project activities and incremental SOW accomplishments have largely proceeded according to timeline. The notable exception to this is the ongoing development of our first VP, slated for classroom implementation in September 2011. With the dialogue testing completed by project personnel in July 2011 and the resulting realization that the existing VP dialogue engine would not allow for the necessary complexity, the project team immediately took steps to resolve this important barrier. As a result, a revised plan is now in place, employing the knowledge and technology of ICT's Natural Language Dialogue Group, showing promise for successful completion of the first VP and classroom/training implementation targeted for mid- Year 2.

Anticipating the targeted SOW accomplishments for project Year 2, we foresee some additional barriers, impacting the timely and effective implementation of the first pilot study (examining the training curriculum with behavioral health providers), originally scheduled for completion by the end of Phase II (March 2012). One contributing factor is the online CE course development. In the original plan, the online CE courses would have been developed concurrently with the on-ground courses, implementing course delivery through both methods around the same time. Given the resource- and time-intensive nature of developing online courses (and revising them), the project team decided to first develop, implement and evaluate the sequence of on-ground courses so that necessary revisions could be made prior to developing the online versions. While allowing for higher-quality online courses, the decision resulted in the tradeoff of a delayed timeline for online course rollout. Further, as described previously, another contributing factor is the delay in VP development due to the need for stronger dialogue architecture. Because the pilot study is designed to examine the impact of the complete training curriculum (courses + VP), it will not be possible to execute the pilot study until the VP is ready for training implementation. A proposed solution, ensuring the ability to complete a rigorous, high-quality pilot test, will be discussed in the following section of this report.

Recommended Changes to Project Timeline and/or Targeted Accomplishments

Considering together the approved SOW and project plan, project-related successes and accomplishments-to-date, barriers, and lessons learned, there are a few key areas where changes to the project plan would serve to strengthen the quality of the intervention or its evaluation, or to otherwise support achievement of the project's overarching aims.

Consolidation of the First and Second Pilot Studies

Original project plan. The original project plan involved conducting two distinct pilot studies of the (CE) training curriculum with advanced behavioral health providers. The first pilot study, slated to occur in the first half of Year 2, was to examine the impact of the first two courses (*Military Culture* and *Clinical Practice with Servicemembers and Veterans*) along with training via the Virtual Patient, among providers working with individual clients (servicemembers or veterans); the second pilot study, scheduled for later in *Phase III*, would examine the impact of the other two courses (*Families Impacted by Military Service: Understanding and Intervening* and *Health Challenges for Wounded Warriors and their Caregivers*) along with training via the Virtual Family, among providers working with military families.

Both studies would examine the relative impact across three randomized groups: those being trained on-ground; those being trained online; and those not receiving the training.

Current situation. As mentioned previously, the online CE courses have not yet rolled-out, due to the decision to develop them in sequence *after* the on-ground CE courses. Further, the VP is not yet ready for training implementation. Moving forward with the first pilot study at this time would render a comparison of on-ground vs. online CE training impossible, and would not allow for examination of the impact of training via the VP.

Recommended change. The recommended solution in this case, allowing for a rigorous, controlled examination of the full training curriculum, is to consolidate the first and second pilot tests, conducting them together at the time the second pilot is slated to occur in *Phase III*. The two pilot studies would essentially be combined, allowing for a larger sample size than either pilot separately, and an examination of the training curriculum's impact on clinicians and their work with military-related clients – either individual servicemembers or veterans – or military families. No benefit would be lost by this consolidation, which was originally planned as two separate pilots mostly because the courses were slated to be phased-in rather than being released together.

Maintenance of PI's Current Time Allocation into Years 2 and 3

Original project plan. Per the Cooperative Agreement budget and justification documents, Dr. Hassan, Principal Investigator, would devote 50% effort to the project in year one, 60% in year two, and 80% in year three. Thus, there would be an increase in effort over time.

Current situation. During the course of Year 1, Dr. Jeffrey Wilkins, a CIR Scientific Advisory Group member and former VA psychiatrist with expertise in substance abuse and mental health, and with a lengthy and impressive record of both scholarship and leadership, began working as a consultant to CIR. (Please refer to Appendix K for Dr. Wilkins' curriculum vitae.) As Dr. Hassan began to realize the constraints on his own time, and Dr. Nissly needed to ease her leadership role on the project due to a geographic relocation, it became apparent that Dr. Wilkins would be uniquely posed to work closely with Dr. Hassan and assume operational leadership of the project.

Recommended change. The recommendation in this case is to *not* make the planned effort increase for Dr. Hassan, but rather to maintain his Year 1 effort level through the duration of the project.

KEY RESEARCH ACCOMPLISHMENTS:

- Development and production of four full academic online military social work MSW student courses
- Rollout of first two online military social work MSW student courses, complete with multimedia content
- Development and rollout of four brief, on-ground continuing education courses for advanced behavioral health providers
- Completion of the initial evaluation of continuing education course sequence
- Development of a culturally-relevant clinical skill assessment system utilizing an objective, structured video examination
- Implementation of a large-scale, comparison-group study of the MSW-level military social work curriculum
- Solidification of first Virtual Patient training character, with accompanying skill development objectives, character background and clinical presentation, emotional dimensions,
- Development of multiple technological dimensions of first VP training character, including graphics of physical appearance and clinical setting, gestures and movements, enhanced speech recognition, and ability to record user data.
- Identification of software architecture with capacity to deliver the complexity of dialogue necessary for training behavioral health providers in non-linear clinical interactions

REPORTABLE OUTCOMES:

Courses Developed

- *Military Culture* (1 academic credit, online MSW course)
- *Clinical Practice with Servicemembers and Veterans* (3 academic credits, online MSW course)
- *Military Culture* (7 hour, on-ground CE course)
- *Clinical Practice with Servicemembers and Veterans* (15 hour, on-ground CE course)
- *Families Impacted by Military Service: Understanding and Intervening* (15 hour, on-ground CE course)
- *Health Challenges for Wounded Warriors and Their Caregivers* (15 hour, on-ground CE course)

Courses under Development

- *Families Impacted by Military Service: Understanding and Intervening* (3 academic credits, online MSW course)
- *Health Challenges for Wounded Warriors and Their Families* (3 academic credits, online MSW course)
- *Military Culture* (6 hour, online CE course)
- *Clinical Practice with Servicemembers, Veterans, and Military Families* (6 hour, online CE course)
- *Clinical Skill Building Series* (6 hour, online CE courses) - Intensive clinical skill courses that provide in-depth training on a range of specific therapeutic models. Topics include:
    - Prolonged Exposure Therapy (PE): PTSD
    - Cognitive Processing Therapy (CPT): PTSD
    - Cognitive Behavioral Therapy (CBT): Depression/anxiety
    - Problem Solving Therapy (PST)
    - Solution Focused Therapy (SFT)
    - Motivational interviewing (MI)

Behavioral Health Providers Trained

- 26 online MSW students in courses beginning July 2011
- 59 on-ground MSW students in Fall 2011 courses
- 50 unique behavioral health providers trained (10 having completed 45+ hours of training)

Manuscripts in Preparation

- Needs assessment of civilian behavioral healthcare providers serving veterans and military families.
- Application of Kirkpatrick's four-level model of training on continuing education for professional behavioral health providers.

Presentations

- Hassan, A. (2011, Sept). Virtual Patient. TATRC Telemedicine Conference, Anchorage, AK.
- Hassan, A. (2011, June). Veteran Unemployment Special Interest Working Group. Clinton Global Initiative, Chicago, IL.
- Hassan, A. (2011, June). Reintegration Partnership Project. Kings College, London, U.K.

- Hassan, A. (2011, May). Military Families. Canadian Embassy Health Research Forum, Washington, D.C.
- Hassan, A. (2011, May). Center for Innovation and Research on Veterans and Military Families. Canadian Embassy Health Research Forum, Washington, D.C.
- Nissly, J., Williams, J., & Mor-Barak, T. (2011, May). What's Next? Avatars for Clinical Training and Interventions. 41st National Council Conference on Mental Health and Addictions. San Diego, CA.
- CIR Project Team. (2011, April). VP demo presentation for Congresswoman Grace Napolitano's staffers.
- Hassan, A. (2011, April). Evidence-based Practice Implementation: A Toolkit for Managers. Network for Social Work Managers, Baltimore, MD.
- ICT Virtual Patient Team. (2011, March). Game Tech, Orlando, FL.
- ICT Virtual Patient Team. (2011, February). Game Developer's Conference, San Francisco, CA.
- Hassan, A. (2011, February). Creating a Social Work Response to Veterans: An Urgent Challenge in the Classroom. Bachelors Program Directors Conference, Cincinnati, OH.
- ICT Virtual Patient Team. (2011, January). Consumer Electronics Show, Las Vegas, NV.
- Hassan, A. (2011, January). Chair: Intervention Science and Military Family Support. Society for Social Work Research Annual Conference, Tampa, FL
- Hassan, A. (2011, January). Panel Symposium: So you're Interested in Doing Research with Service Members, Veterans, or Military Families? Society for Social Work Research Annual Conference, Tampa, FL.
- Nissly, J. and Hassan, A. (2010, November). The Virtual Patient Training Environment: A Revolutionary Approach to Preparing Social Workers. Uniformed Services Social Worker Conference, Phoenix, AZ.
- Hassan, A. (2010, November). What is a military social worker? Uniformed Services Social Worker Conference, Phoenix, AZ.
- Hassan, A., Wooten, N., Smith-Osborne, A., & Sable, M. (2010, October). Social Work Education Initiatives for Practice with Military Personnel and their Families. Council on Social Work Education Annual Program Meeting, Portland, Oregon.
- Hassan, A., Nissly, J., & Kim, A. (2010, October). Virtual Patient Training Environment: A Revolutionary Approach to Preparing Military Social Workers. Council on Social Work Education Annual Program Meeting, Portland, Oregon.
- Hassan, A., Black, P., Matthieu, M., & Daley, J. (2010, October). Advanced Social Work Practice with Military, Veterans, and their Families. Council on Social Work Education Annual Program Meeting, Portland, Oregon.
- Hassan, A. (2010, October). A rapid and revolutionary response to training behavioral health providers. University of Missouri Summit, Columbia, MO.
- Institute of Medicine (IOM) Panel Member; Substance Use Disorders: Military Service Members and Veterans (2011)
- Institute of Medicine (IOM) Panel Member; Quality Assurance Program for Mental Health Providers and Other Health Providers (2010)

Marketing and Publicity

- VP Progress Video, for use in presentations and to create awareness of the VPTE and its applications. Viewable at http://www.youtube.com/watch?v=2OIE7PeAYoc.

CONCLUSION:

Substantial progress was made in Year 1 with regard to fulfilling the Phase II SOW. Two of the online graduate (MSW) courses were produced and launched, with the remaining courses well into the production phase. Four brief on-ground CE courses were developed, delivered and evaluated, demonstrating very positive findings in the realms of trainee satisfaction, learning, and intent to apply the course content in clinical practice. The online brief CE courses are also being produced, with the first course in a series slated for online launch later this calendar year. A quasi-experimental comparison group test of the MSW curriculum was begun in Quarter 4, with 81 students enrolled into the study. With student knowledge, skill, sense of competence and curriculum coherence as the outcomes of interest, the study will provide data towards answering whether the curriculum is effective in producing knowledgeable, skilled military social workers, and whether virtual curriculum delivery is as effective as the on-ground method.

Though development of the VP did not proceed as quickly in Year 1 as had been anticipated, valuable lessons were learned that resulted in some adjustments in personnel and approach to development. Character graphics, movements, voice recognition, and other core functions were completed and are undergoing testing. With a new system architecture being employed, the potential for creating complex and meaningful character dialogue will be realized in a way that it could not have been previously.

Even after the considerable time needed for development of the military social work/behavioral health curriculum, 135 MSW students and advanced behavioral health providers completed the courses during the first year of the project. With the launch of the online courses and the implementation of the VP for training purposes, the reach of the training curriculum will be extended dramatically in Year 2. Once the online curriculum and VP have been fully implemented, a randomized study will be needed to examine the relative outcomes of CIR military behavioral health training, and of virtual training more specifically. For this reason, the initial pilot study planned for the early portion of Year 2 should be postponed and consolidated with the second planned pilot study, slated for late 2012.

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APPENDICES:

Appendix A: Military Social Work Subconcentration Evaluation Questionnaire

Appendix B: CEU Course Participant Feedback Questionnaire (Military Culture Version)

Appendix C: Military Culture Knowledge Pretest

Appendix D: Clinical Practice with Servicemembers and Veterans Knowledge Pretest

Appendix E: Families Impacted by Military Service: Understanding and Intervening Knowledge Pretest

Appendix F: Health Challenges for Wounded Warriors and Their Caregivers Knowledge Pretest

Appendix G: Evaluation Findings from the Military Culture Continuing Education Course

Appendix H: Evaluation Findings from the Clinical Practice with Servicemembers and Veterans Continuing Education Course

Appendix I: Evaluation Findings from the Families Impacted by Military Service: Understanding and Intervening Continuing Education Course

Appendix J: Evaluation Findings from the Health Challenges for Wounded Warriors and Their Caregivers Course

Appendix K: Curriculum Vitae for Dr. Jeffery Wilkins

Appendix A

Military Social Work Subconcentration Evaluation Questionnaire

ID:

Distribution Limited to U.S. Government Agencies Only

USC SCHOOL OF SOCIAL WORK
Center for Innovation and Research on Veterans & Military Families

Military Social Work Subconcentration Questionnaire

As a new graduate of the School's *Military Social Work Subconcentration*, we would greatly appreciate your feedback regarding the military social work curriculum and its value to you as a social worker. As a token of our appreciation for your taking the time to complete this questionnaire, it will be our pleasure to send an iTunes gift card to you.

Please keep the following description of the MSW program subconcentration in *Military Social Work and Veterans Services* in mind as you respond to the subsequent questions:

> ***Military Social Work and Veterans Services***
> This specialized area of study prepares individuals to provide a full range of human services to the nation's military personnel, veterans and their families, helping them cope with the stresses of military life, including managing prolonged deployments and transitioning back into a home environment.

***** We would be grateful for any specific comments you provide, particularly regarding items marked as strongly disagree or strongly agree. ***** *Please feel free to write in the margins.*

SOWK 642: Military Culture as a Workplace Environment **(*Please check here ☐ if you did not take the Military Culture course, and skip to the following section.)***

1. The breadth of the material covered in the *Military Culture* course was appropriate.

   ☐1 Strongly disagree ☐2 Disagree ☐3 Neither agree nor disagree ☐4 Agree ☐5 Strongly agree

   If you selected *Strongly disagree* or *disagree,* how so (i.e., too broad, not broad enough)?

   _____

   _____

2. The depth of material covered in the *Military Culture* course was appropriate.

   ☐1 Strongly disagree ☐2 Disagree ☐3 Neither agree nor disagree ☐4 Agree ☐5 Strongly agree

   If you selected *Strongly disagree* or *disagree,* how so (i.e., too deep, not deep enough)?

   _____

   _____

3. The *Military Culture* curriculum was poorly organized and did not flow in a logical sequence.

   ☐1 Strongly disagree ☐2 Disagree ☐3 Neither agree nor disagree ☐4 Agree ☐5 Strongly agree

4. My approach to practice with military-related clients was impacted by taking the *Military Culture* course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

In what way(s)?

_____

_____

5. My level of professional competence was improved as a result of my participation in the *Military Culture* course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

SOWK 641: Treating Trauma and Post Traumatic Stress **(*Please check here ☐ if you did not take the Treating Trauma course, and skip to the following section.)***

6. The breadth of the material covered in the *Treating Trauma* course was appropriate.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

If you selected *Strongly disagree* or *disagree,* how so (i.e., too broad, not broad enough)?

_____

_____

7. The depth of material covered in the *Treating Trauma* course was appropriate.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

If you selected *Strongly disagree* or *disagree,* how so (i.e., too deep, not deep enough)?

_____

_____

8. The *Treating Trauma* curriculum was poorly organized and did not flow in a logical sequence.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

9. My approach to practice with military-related clients was impacted by taking the *Treating Trauma* course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

In what way(s)?

_____

_____

10. My level of professional competence was improved as a result of my participation in the *Treating Trauma* course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

SOWK 640: Clinical Practice with the Military Family **(*Please check here ☐ if you did not take the Military Family course, and skip to the following section.)***

11. The breadth of the material covered in the *Military Family* course was appropriate.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

If you selected *Strongly disagree* or *disagree,* how so (i.e., too broad, not broad enough)?

_____

_____

12. The depth of material covered in the *Military Family* course was appropriate.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

If you selected *Strongly disagree* or *disagree,* how so (i.e., too deep, not deep enough)?

_____

_____

13. The *Military Family* curriculum was poorly organized and did not flow in a logical sequence.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

14. My approach to practice with military-related clients was impacted by taking the *Military Family* course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

In what way(s)?

_____

_____

15. My level of professional competence was improved as a result of my participation in the *Military Family* course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

Field Placement

16. My approach to practice with military-related clients was impacted by having a military-focused field experience.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

In what way(s)?

_____

_____

17. My level of professional competence was improved as a result of my military social work field experience.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

What sources of information lead you to this conclusion (i.e., how do you know)?:

_____

_____

Military Social Work and Veterans Services Subconcentration

18. Considered in its entirety, the subconcentration curriculum provided the right focus and level of education/training necessary for preparing a new social worker to work effectively with military-related populations.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

19. The individual course content was overly redundant and/or not well-coordinated.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

In what way(s)?

_____

_____

20. In retrospect, what topics would you like to have seen covered, that weren't? (…or weren't covered in sufficient depth)?

_____

_____

21. As a result of my involvement in the subconcentration, I will be confident in seeking work opportunities with servicemembers, veterans and military families.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

22. In one sentence or phrase, what is the single most important thing you gained through your involvement in the subconcentration?

_____

_____

23. I would recommend the subconcentration to a friend or student colleague interested in working with veterans and military families.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

So that we might better understand the context of the feedback we receive, please respond to the following demographic items.

Service History:

Do you presently, or have you in the past, served in one or more of the U.S. Uniformed Services?

☐1 No ☐2 Yes..... ☐1 Air Force ☐2 Army ☐3 Coast Guard
☐4 Marine Corps ☐5 Navy ☐6 Other: _____

Age: ☐1 20-29 ☐2 30-39 ☐3 40-49 ☐4 50+

Gender: ☐1 Female ☐2 Male

Ethnicity: ☐1 Asian/Pacific Islander ☐2 Black/African-American ☐3 Hispanic/Latino(a)
☐4 Native American ☐5 Anglo/White ☐6 Other _____

Concentration: ☐1 Children & Families ☐2 COPA ☐3 Health
☐4 Mental Health ☐5 Work and Life

Thank you for taking the time to respond to our questions. The information you provided will be invaluable in further enhancing the content and quality of the subconcentration and its curriculum. We value your commitment to serving our nation's servicemembers and their families, and wish you the best in your career!

Appendix B

CEU Course Participant Feedback Questionnaire (Military Culture Version)

ID:

Distribution Limited to U.S. Government Agencies Only

USC SCHOOL OF SOCIAL WORK
Center for Innovation and Research on Veterans & Military Families

CEU Course Participant Feedback Questionnaire

In order to provide the highest possible quality of professional military behavioral health training, we would value your perspectives on the following. Please respond to each using the following rating system:

1 = Strongly disagree / 2 = Disagree / 3 = Neither agree nor disagree / 4 = Agree / 5 = Strongly agree

We would be grateful for any specific comments you provide, particularly regarding items marked as strongly disagree or strongly agree. *(Please feel free to write in the margins.)*

1. The instructors were interesting and kept my attention throughout the training.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

2. The material was clearly presented.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

3. The balance of instruction methods (lecture, discussion, small group work) was about right.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

4. The activities and exercises aided in my learning.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

5. The <u>breadth</u> of the material covered was appropriate.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

6. The <u>depth</u> of material covered was appropriate.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

7. This course was delivered at an appropriate level for practitioners with my level of experience.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

8. It felt like there was a disconnect between the instructors' perspectives (having served) and mine, as a civilian provider.

☐1	☐2	☐3	☐4	☐5	☐9
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	N/A (I served, too)

9. This course made me aware of the differences in civilian and military culture with regard to behavioral health practice issues.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

10. As a result of what I learned in this course, I can think of two concrete strategies I can use in my practice with veteran clients.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

11. Participation in this course will impact how I interact with my military-related clients.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

12. As a result of this training, I will be more confident in seeking out opportunities to work with veterans and military families in my practice.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

13. Today's training made me feel *less* equipped to practice effectively with veterans and military families.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

14. After this course, I am confident about where to look for additional resources and information on working with veteran and military family clients.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

15. In a sentence or two, what, if any, barriers do you anticipate could prevent you from using the knowledge you acquired today in your practice?

16. In one sentence or phrase, what is the single most important thing you learned in this training?

17. The course covered the right amount of information for the length of the training.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

18. The topics covered were what I was hoping to see in this course.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

19. Please describe any topics that you expected to be covered, but weren't.

20. Please describe any areas in which you felt more attention should have been provided to the material (within the course time constraints).

21. Overall, the course was valuable.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

22. A course like this should be compulsory for practitioners working with veterans and military families.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

23. I would recommend this course to a friend or colleague interested in working with veterans and military families.

☐1	☐2	☐3	☐4	☐5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

24. I would consider $_____-_____ to be a suitable cost for this course as a Continuing Education course.

So that we might better understand the context of the feedback we receive, please respond to the following demographic items.

Do you presently, or have you in the past, served in one or more of the U.S. Uniformed Services?
☐$_1$ No ☐$_2$ Yes [Which branch(es)?: _____]

Age: ☐$_1$ Under 25 ☐$_2$ 25-34 ☐$_3$ 35-44 ☐$_4$ 45-54 ☐$_5$ 55-64 ☐$_6$ 65 +

Gender: ☐$_1$ Female ☐$_2$ Male ☐$_3$ Transgender

Ethnicity: ☐$_1$ Asian/Pacific Islander ☐$_2$ Black/African-American ☐$_3$ Hispanic/Latino(a)
☐$_4$ Native American ☐$_5$ Anglo/White ☐$_6$ Other _____

Professional discipline: ☐$_1$ Marriage & Family Therapist ☐$_2$ Nurse ☐$_3$ Psychologist
☐$_4$ Social Worker ☐$_5$ Other _____

Licensed as a behavioral health provider: ☐$_1$ Yes ☐$_2$ In process (registered) ☐$_3$ No

Years post-graduate practice: ☐$_1$ <5 ☐$_2$ 5-9 ☐$_3$ 10-14 ☐$_4$ 15-19 ☐$_5$ 20+

Current employment status: ☐$_1$ Full-time behavioral health ☐$_2$ Part-time behavioral health
☐$_3$ Employed, non-behavioral health ☐$_4$ Not currently employed

Current practice setting(s): ☐$_1$ Aging ☐$_2$ Child Welfare ☐$_3$ Health
☐$_4$ Mental Health ☐$_5$ Substance Abuse ☐$_6$ Other _____

What portion of your work is spent in direct practice with individuals, families or small groups?
☐$_1$ All or nearly all ☐$_2$ Most (51-90%) ☐$_3$ Some (11-50%) ☐$_4$ Little (<10%)

What portion of your work is with military-related populations (i.e., servicemembers, veterans or military families)?
☐$_1$ All or nearly all ☐$_2$ Most (51-90%) ☐$_3$ Some (11-50%) ☐$_4$ Little (<10%)

Thank you for taking the time to respond to our questions. The information you provided will be invaluable in further enhancing the content and quality of this course. We value your commitment to serving our nation's servicemembers and their families, and hope that you have gained valuable information that you will apply in their service.

Appendix C

Military Culture Knowledge Pretest

ID:

Military Culture Knowledge Pretest

Please select the best answer for each of the following questions.

1. What do Army servicemembers shout as a display of their camaraderie and pride?
    a. Ooh-Rah!
    b. Semper Fi!
    c. Hooah!
    d. Army Strong!

2. What does MOS stand for?
    a. Military Occupational Specialty
    b. Mission Operational Strategy
    c. Munitions Operating Sergeant
    d. Marine Officer School

3. Which of the following is **NOT** a description of most National Guard and Reserve Component members?
    a. Unless activated, they typically serve one weekend each month at an installation near their homes
    b. They're frequently deployed individually, and not necessarily as an entire unit
    c. Their communities are largely comprised of other military families
    d. By law, their "day jobs" must be held for them during active duty service periods

4. "Soldier" is a term used to describe…
    a. an infantry unit member
    b. a member of the Marine Corps
    c. a member of the Army
    d. any member of the U.S. armed forces

5. Which of the following is **NOT** an issue likely to be encountered by children in military families?
    a. Dealing with long-term separation from one or both parents
    b. Attending school with classmates who don't understand military family life
    c. PCSing
    d. Lacking social or recreational activities

6. Please select the response that lists servicemembers from lowest to highest rank:
    a. Enlistee, Commissioned Officer, Warrant Officer
    b. Warrant Officer, Non-Commissioned Officer, Commissioned Officer
    c. Enlistee, Recruit, Officer
    d. Enlistee, Warrant Officer, Commissioned Officer

7. Rate is a term used to describe the servicemembers' job specialty in which branch of service:
    a. Army
    b. Marine Corps
    c. Navy
    d. Air Force

8. Which health insurance company serves Military Families with health benefits options?
    a. Humana
    b. Blue Cross
    c. TRICARE
    d. Liberty Mutual

9. Which branch of service falls under the US Navy?
    a. Army
    b. Coast Guard
    c. Marine Corps
    d. Air Force

10. All service members are required to live in on-base housing for their first year of active duty service.
    a. True
    b. False

11. ACUs are worn every day at formation to show respect for the American flag.
    a. True
    b. False

12. DEERS stands for:
    a. Defense Enlisted Engineering Register System
    b. Defense Enrollment Eligibility Reporting System
    c. Dental Enlisted Enrollment Reserve Selection
    d. Defense Enlisted Eligibility Reporting System

13. Can an active duty service member seek mental health services off-post/off-base without prior authorization?
    a. True
    b. False

14. Domestic violence is not a mandatory report for all service members.
    a. True
    b. False

15. What organization within the military is responsible for addressing child maltreatment?
    a. NCIS
    b. Family Advocacy
    c. Family Readiness Services
    d. BX

16. A service member can refer to his or her _____ regarding information about pay, vacation days and allotments.
    a. PEYS
    b. LES
    c. LPS
    d. DDF

17. Active duty service members train at a separate boot camp than the reserve service members.
    a. True
    b. False

18. The EFMP is a mandatory enrollment program that works with other military and civilian agencies to provide comprehensive and coordinated community support, housing, educational, medical, and personnel services to families with special needs. It stands for:
    a. Emergency Family Mitigation Program
    b. Exceptional Family Member Program
    c. Enlisted Family Member Program
    d. Express Family Military Program

19. Who determines the uniform of the day?
    a. President of the United States
    b. Joint Chief of Staff
    c. Base/Post Commander
    d. Unit Commander

20. As a civilian driving on post/base, you notice cars pulled over to the side, the national anthem playing and everyone in uniform is saluting. What do you do?
    a. Call 911 on your cell phone
    b. Pull over and wait for normal activity to resume
    c. Hurry up and get off the post/base
    d. Find a parking lot to pull over and find shelter

How extensive would you say is your overall knowledge of military culture and the life of a servicemember or military family?

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Very Little						Very Extensive

Appendix D

Clinical Practice with Servicemembers and Veterans Knowledge Pretest

ID:

Clinical Practice with Servicemembers & Veterans
Knowledge Pretest

Please select the best answer for each of the following questions.

1. "Dwell" time refers to:
   a. The transition between serving in a combat zone and returning home.
   b. The period after a significant life stressor, but before the psychological sequelae manifest.
   c. The time after a servicemember experiences a traumatic event but before she seeks treatment from a professional.
   d. The period a servicemember spends at home or on a military base between deployments.

2. A majority of servicemembers returning from deployment to OEF or OIF experience symptoms of PTSD or TBI.
   a. True
   b. False

3. Instead of fear, patients experiencing PTSD often display this emotion as an alternative.
   a. Remorse
   b. Guilt
   c. Grief
   d. Anger

4. Differential diagnosis of PTSD can be more difficult than with many other diagnoses.
   a. True
   b. False

5. Which part of the brain is involved in attaching emotions to incoming stimuli and responding to fear?
   a. parietal lobe
   b. hippocampus
   c. amygdala
   d. corpus collosum

6. Energy drinks such as Red Bull and Five Hour Energy can increase symptoms of TBI or PTSD.
   a. True
   b. False

7. Which of the following is the "essential ingredient" of PTSD?
   a. flashbacks
   b. disordered thinking
   c. traumatic stressor
   d. memory disruption

8. Per VA treatment guidelines, which of the following is an evidence-based treatment for PTSD?
    a. Stress Inoculation Training (SIT)
    b. Pharmacotherapy via use of SSRIs (Zoloft & Paxil)
    c. Exposure Therapy
    d. All of the above

9. What does EMDR stand for?
    a. Eye Movement Desensitization & Reprocessing
    b. Early Military Defense Response
    c. Earleblum Military Depression index - Revised
    d. Extrasensory Motor Development Resilience

10. Which of the following treatments is often used to treat recurring nightmares?
    a. Battlemind
    b. SSRIs
    c. Imagery Rehearsal Therapy
    d. Prolonged Exposure therapy

11. There are at least two evidence-based therapies that have been demonstrated to be effective in eliminating the presence of significant PTSD symptoms.
    a. True
    b. False

12. Which of the following is least commonly seen in veterans with PTSD?
    a. Major Depressive Disorder
    b. Thought disorder
    c. Substance abuse
    d. Parasuicidal behavior

13. Which of the following is often a very stressful situation?
    a. Going through a BRAC
    b. Being PCSed
    c. Serving as an individual augmentee
    d. All of the above

14. Which of the following might be likely to trigger a flashback among a combat veteran with PTSD?
    a. Hearing firecrackers on Chinese New Year
    b. Stepping outside on an extremely hot day
    c. Both a and b
    d. None of the above

15. Which of the following is <u>not</u> a phase of the deployment cycle?
    a. Deployment
    b. Return from Deployment/Redeployment
    c. Discharge
    d. Predeployment

16. According to military research (MHAT-VI), which of the following is the most commonly-reported combat-related stressful/traumatic event?
    a. Receiving artillery, rocket or mortar fire
    b. Seeing an ill/injured woman or child one couldn't help
    c. Having a close call/taking a hit but being saved by one's gear
    d. Handling or uncovering human remains

17. Which of the following Battlemind skills is highly valuable down range but likely problematic in civilian life?
    a. Targeted Aggression
    b. Tactical Awareness
    c. Non-Defensive Driving
    d. All of the above

18. What distinguishes an Acute Stress Reaction from Acute Stress Disorder (ASD)?
    a. The elapsed time from stressor/traumatic event to onset of symptoms
    b. The duration of the symptoms
    c. The severity of the symptoms
    d. The nature of the symptoms

19. Which of the following signs or symptoms is shared by PTSD and TBI?
    a. Dizziness
    b. Flashbacks
    c. Headaches
    d. Irritability

20. Per VA treatment guidelines, which of the following is not a first-line treatment for Major Depressive Disorder?
    a. Cognitive Behavioral Therapy (CBT)
    b. Interpersonal Psychotherapy (IPT)
    c. Acceptance and Commitment Therapy (ACT)
    d. Problem-Solving Therapy (PST)

How extensive would you say is your overall knowledge of military culture and the life of a servicemember or military family?

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Very Little						Very Extensive

Appendix E

Families Impacted by Military Service: Understanding and Intervening Knowledge Pretest

ID:

Families Impacted by Military Service: Understanding and Intervening
Knowledge Pretest

Please select the best answer for each of the following questions.

1. The Exceptional Family Member Program is associated with:
    a. Gifted children of service personnel
    b. "Special needs" dependents of service personnel
    c. Determining servicemember duty station
    d. Both b & c

2. Comparing military culture and veteran culture, which of the following is accurate?
    a. Military culture emphasizes mission readiness and veteran culture emphasizes benefit eligibility
    b. Veteran culture prioritizes fitness for duty whereas military culture accepts all ranges of fitness for duty
    c. Military culture and veteran culture have historically had a superb and seamless transition process for newly released military personnel.
    d. All of the above

3. Due to their developmental stage, adolescent clients may be more likely to reveal episodes of family violence at assessment than adult clients.
    a. True
    b. False

4. According to Walsh, key processes in family resilience include:
    a. Belief systems
    b. Organizational patterns
    c. Communication
    d. All of the above

5. During the sustainment phase of the deployment cycle, the deployed servicemember's spouse:
    a. Is anticipating servicemember's departure
    b. Develops new routines during servicemember's absence
    c. Is in shock
    d. All of the above

6. Family Care Plans are essential for:
    a. Military single parent households
    b. Dual-military couple families
    c. Private contractors
    d. Both a & b

7. Sherman et al.'s 14-session curriculum of monthly workshops for caregivers of veterans known as the Support and Family Education (SAFE) Program, does all of the following EXCEPT:
    a. Teach caregivers about PTSD and other mental disorders
    b. Reduce stigma associated with mental illness
    c. Provide linkage with community resources
    d. Provide individual psychotherapy for family caregivers

8. TAPS stands for:
    a. Transitional Accountability Program and Stress
    b. Temporary Assistance Protection Services
    c. Tragedy Assistance Program for Survivors
    d. None of the above

9. The FOCUS program (Families Overcoming Under Stress) provides Navy and Marine families with:
    a. Family support for deployment and resilience building
    b. Cognitive behavioral interventions for stressed families
    c. A comprehensive soldier fitness program
    d. None of the above

10. According to the Integrated Behavioral Couple Therapy (IBCT) model, in addition to partners' actions, which of the following is an additional source of relationship problems:
    a. Conversational tone
    b. Emotional reactivity to actions
    c. Family stressors
    d. Intrusive thoughts

11. Bowen's model of community support suggests which key factor influences military family adaptation?
    a. Financial resources
    b. Sense of community
    c. Family motivation to stay in the military
    d. Cognitive coping skills

12. Huebner's community capacity-building model suggests which factor can impact military family outcomes?
    a. Deployment frequency
    b. View of extended family on military service
    c. Social capital
    d. Branch of service

13. According to Figley, family trauma treatment should include:
    a. Rebuilding family safety
    b. Exposure techniques for family members
    c. Re-establishing family structure
    d. Both a & d

14. In McCubbin's Family Stress Model (Double ABC-X Model), the A stands for:
    a. Accumulation of stressful events
    b. Activating events
    c. Autonomous response
    d. Adaptation
15. Which of the following is a stage in the military life cycle?
    a. Trajectory events unique to the individual
    b. Military culture adaptation
    c. Family reaction to military career decisions
    d. Career identity reintegration

16. Daley's view of military ethnicity emphasizes what key features?
    a. Mission is first priority
    b. Flexibility is important in social conventions
    c. Military prioritizes civilian resources to take care of military families rather than a sense of taking care of their own
    d. All of the above

17. Which of the following accurately reflects Pat Conroy's experience growing up in a military family?
    a. The military is a very visible, organized tribe
    b. He believed his father would one day kill him
    c. He struggled with adapting to new social situations
    d. None of the above

18. Hiring discrimination toward military spouses is legally sanctioned in several states.
    a. True
    b. False

19. In the military, what entity is responsible for responding to episodes of military family violence?
    a. Family Support Centers
    b. Family Readiness Groups
    c. Family Advocacy Program
    d. None of the above, it is referred to local law enforcement officials

20. When a servicemember dies, how should a parent respond to a young child?
    a. Keep silent about the death until the child is older and able to deal with the issue
    b. Share the information as soon as possible in an age-appropriate manner
    c. Request that a social worker explain the death to the child
    d. Share the information with all surviving family members as a group

How extensive would you say is your overall knowledge of military culture and the life of a servicemember or military family?

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Very Little						Very Extensive

Appendix F

Health Challenges for Wounded Warriors and Their Caregivers Knowledge Pretest

ID:

Health Challenges for Wounded Warriors and their Caregivers
Knowledge Pretest

Please select the best answer for each of the following questions.

1. Which of the following is a characteristic of complicated grief, but not major depression or PTSD?
   a) Ruminations about past failures
   b) Fear
   c) Diffuse sadness
   d) Separation distress

2. Research indicates that the involvement of partners and close family members in treatment for PTSD is beneficial.
   a) True
   b) False

3. The acronym VA stands for:
   a) Veterans Health Administration
   b) Veterans Administration
   c) Department of Veterans Affairs
   d) None of the above

4. Rapport is best achieved by avoiding direct questions about an obvious wound/injury until the person initiates the conversation.
   a) True
   b) False

5. Who is not eligible for most VA benefits?
   a) Veteran with a dishonorable discharge
   b) Surviving spouse, child or parent of a deceased Veteran
   c) Uniformed service member
   d) Present or former reservist or National Guard member

6. What is DD Form 214?
   a) Certificate of Release or Discharge from Active Duty
   b) Verification of Military Experience and Training
   c) Pre-separation Counseling Checklist
   d) The DoD's Disability Determination form

7. Tertiary Blast Injuries:
   a) Are injuries from fragments and other missiles
   b) Result from displacement of the whole body by combined pressure shock wave and dynamic overpressure
   c) Are injuries that most commonly result in damage to parts of the eye
   d) Are rare in present-day war environments

8. Which of the following is a community-based program of the VA that provides a broad range of counseling, outreach, and referral services throughout the country to help veterans reintegrate into civilian life after combat?
   a) Soldiers' Project
   b) Give-An-Hour
   c) Vet Centers
   d) U.S. VETS

9. Assessments of the impact of a disability should consider the stage of identity of the person in question.
   a) True
   b) False

10. The Glasgow Coma Scale:
   a) Measures blood loss in coma patients after blast injury.
   b) Uses a bubble chamber to assess patient discomfort while unconscious.
   c) Aims to give a reliable, objective way of recording the conscious state of a person for initial as well as subsequent assessment.
   d) Is not used to diagnose symptoms of combat-related TBI because it has not yet been vetted by the Department of Defense and the VA.

11. Which of the following strengths may inhibit servicemembers from quickly seeking assistance from injury-related concerns?
   a) Self-reliance
   b) Deference to authority
   c) Following a well-developed protocol for a variety of situations
   d) Hyperviligance in dangerous situations

12. Which of the following is <u>not</u> a goal of the DoD and VA's Integrated Disability Evaluation System (IDES)?
   a) Provide a single rating for DoD and VA benefits
   b) Reduce the severity of disability ratings system-wide
   c) Prevent gaps between active duty and veteran benefits
   d) Ensure disability claims are already filed with the VA when the servicemember transitions from active duty to veteran status

13. Injury-related chronic pain is a significant factor to consider when assessing suicide risk.
    a) True
    b) False

14. How many Polytrauma Rehabilitation Centers are there in the VA Polytrauma System of Care?
    a) 8
    b) 24
    c) 4
    d) None, patients are referred to private Polytrauma centers outside the VA

15. An Anaplastologist:
    a) Deals with the prosthetic rehabilitation of an absent, disfigured, or malformed anatomically critical location of the face or body.
    b) Works with patients who have suffered a traumatic brain injury to help them rebuild their cognitive functioning.
    c) Is a physical therapist who focuses specifically on helping patient strengthen the muscles around the lumbar spine.
    d) Is generally not covered by TRICARE.

16. Which area of the brain is involved in planning complex cognitive behaviors and in the expression of personality and appropriate social behavior?
    a) Parietal lobe
    b) Corpus callosum
    c) Occipital lobe
    d) Prefrontal cortex

17. Servicemembers with newly acquired disabilities are best served by providers who have some type of disability.
    a) True
    b) False

18. Which of the following are forms of power and control used by batterers?
    a) Controlling access to military I.D. card of spouses and children
    b) Threatening, playing with, or cleaning weapons around intimate partners and children
    c) Not sharing military pay or financial records
    d) Blaming intimate partner violence and abuse on job stress or alcohol
    e) All of the above

19. Brain-injured servicemembers should rest for at least three months before beginning therapies.
    a) True
    b) False

20. What percentage of hospitalizations/ER visits for Traumatic Brain Injury does MILD Traumatic Brain Injury account for?
    a) 10%
    b) 80%
    c) 40%
    d) None – Traumatic Brain Injury is not a diagnosis recognized by most civilian hospitals

How extensive would you say is your overall knowledge of military culture and the life of a servicemember or military family?

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7
Very Little						Very Extensive

Appendix G

Evaluation Findings from the Military Culture Continuing Education Course

Evaluation Findings from the Military Culture Continuing Education Course

Fifteen course participants were surveyed through a multidimensional questionnaire that addressed satisfaction, perceptions of course content and delivery, and implications for professional self efficacy and clinical practice. Twenty-four open- and closed-ended questions were accompanied by items seeking to obtain a brief demographic profile of respondents. Following is a summary of the main findings.

Participant Characteristics

Table 1 displays demographic breakdowns of the individuals completing the questionnaire[1]. Participants were relatively equally distributed with regard to age, though predominantly female (91%). Nearly three-quarters (73%) identified as White. *Marriage and Family Therapy* and *Social Work* were about evenly represented (55% & 45%, respectively), with no individuals representing other professional disciplines.

With regard to professional qualifications, almost half (46%) are currently licensed, with another 36% registered as *Social Work Associates* or *Marriage and Family Therapy Interns*. About half (46%) are relatively new clinicians, reporting less than five years of postgraduate-level clinical practice, though 27% reported having at least 15 years experience. Approximately two-thirds (64%) work full-time in behavioral health, representing the fields of aging, child welfare, disabilities, health, mental health, and substance abuse. Though these individuals are generally focused on direct practice (64% indicated all or nearly all of their time is spent here), 46% indicated that little (i.e., less than 10%) of their time is spent working with military-related populations.

Table 1. Characteristics of course evaluation participants (n=11)

Characteristic	N	Percentage
Age		
25-34	2	18%
35-44	3	27%
45-54	3	27%
55-64	3	27%
Gender		
Female	10	91%
Male	1	9%
Race and Ethnicity		
Black/African-American	1	9%
Hispanic/Latino(a)	2	18%

[1] It should be noted that n=11 respondents for the demographic section, as four individuals did not complete the demographic items. This might have been an inadvertent oversight, as the items were located on the reverse side of the questionnaire's final page.

White	8	73%
Professional Discipline		
Marriage & Family Therapist	6	55%
Social Worker	5	46%
Licensure Status		
Licensed	5	46%
In process (registered)	4	36%
Not licensed	2	18%
Years of Postgraduate Practice		
Less than 5	5	46%
5-9	1	9%
10-14	2	18%
15-19	1	9%
20 or more	2	18%
Employment Status		
Full-time behavioral health	7	64%
Employed, non- behavioral health	3	27%
Not currently employed	1	9%
Practice Setting(s)*		
Academia	1	10%
Aging	1	10%
Child Welfare	1	10%
Disabilities	1	10%
Health	1	10%
Mental Health	7	70%
Substance Abuse	2	20%
Percentage of Time Spent in Direct Practice		
All or nearly all (>90%)	7	64%
Most (51-90%)	0	0%
Some (11-50%)	2	18%
Little (<10%)	2	18%
Percentage of Time with Military Populations		
All or nearly all (>90%)	4	36%
Most (51-90%)	0	0%
Some (11-50%)	2	18%
Little (<10%)	5	46%

* Adds to greater than 100%, as selection of multiple categories was permitted

Evaluation Model

Literature within the behavioral health sciences notes challenges in effectively measuring clinician training outcomes. Training issues surround the appropriate method of training (Herschell, et al., 2010) and transfer of skill to actual practice (Clarke, et al., 2002). Academic researchers across an array of domains from psychology, human services, and higher education programming often cite the 4-level Kirkpatrick Training Evaluation Model in examining the effects of training and continuing education (e.g., Praslova, 2010, Clarke 2002). The Kirkpatrick model's dominance in the training field leaves it ideally suited as a framework in which to consider CIR's CE training series as it will be familiar to a variety of potential partners within the higher education, government, and business communities.

The levels of the Kirkpatrick Model are described below in Table 2. Briefly, the model posits 4 levels of evaluation: reaction criteria, learning criteria, behavior criteria, and results criteria (Kirkpatrick, 1996; Praslova, 2010). Reaction and learning criteria are considered internal criteria, as they focus on changes that occur within the training program itself. Behavioral and results criteria are considered external criteria and occur after the training; behavioral and results criteria are influenced by factors beyond the scope of the training (e.g., organizational context, opportunity/support to use and develop skills).

Table 2. Kirkpatrick's 4 Levels of Training Evaluation.

Level	Criteria	Locus of Change	Variable measured	Timepoint measured
1	Reaction	Internal to training	Affective (satisfaction) & Utility (plans to implement) judgments	At training
2	Learning	Internal to training	Knowledge & skill gains	At training
3	Behavioral	External to training	On-the-job performance	Follow-up
4	Results	External to training	Productivity gains, organizational change	Follow-up

Level 1: Reaction Criteria

Reaction criteria consist of two elements internal to the training itself: *affective reaction* and *utility judgments*. Affective reaction refers to participants' satisfaction and enjoyment of the course. Utility judgments refer to participants' beliefs about how much they learned and how they plan to use what they learn in their practices with veterans and military families.

Reaction criteria were assessed via eighteen Likert-type items regarding perceptions of course content and delivery and participants' intentions to use knowledge learned during the course in clinical practice. Each item was rated on a scale of 1 (*Strongly agree*) to 5 (*Strongly disagree*). Two items were reversed scored, as indicated below.

Items were analyzed in the context of two scales – one assessing participants' *affective reaction* to the course, that is how the course met with their expectations in terms of quality of instruction, breadth and depth of material, and general satisfaction, and the other assessing participants' *utility judgments* about the course – that is, participants' beliefs that they will use what they learned in clinical practice with military-related populations and that they gained agency in working effectively with military populations.

Affective Reaction: Perceptions of Course Content and Delivery

Thirteen items assessing satisfaction with the course content, delivery, and overall value of the course were combined (via averaging) into a scale, which demonstrated reliability above the acceptable level (Cronbach's α= .83). Overall, the average response to the affective reaction scale was 4.25, out of a possible 5, (range: 3.62 to 4.77), indicating a high level of satisfaction with the course content, delivery, and overall value. Mean response by item, as well as response frequency by item are presented in Table 3.

Table 3. Perceptions of course content and delivery (n=15 unless otherwise noted)

Item (Mean Response)	N	Percent
The instructors were interesting & kept my attention throughout the training. (4.46)		
Strongly agree	7	46.7
Agree	8	53.3
Neither agree nor disagree	-	-
Disagree	-	-
Strongly disagree	-	-
The material was clearly presented. (4.23)		
Strongly agree	6	40.0
Agree	8	53.3
Neither agree nor disagree	-	-
Disagree	1	6.7

Strongly disagree	-	-
The balance of instruction methods (lecture, discussion, small group work) was about right. (3.85)		
Strongly agree	2	13.3
Agree	9	60.0
Neither agree nor disagree	2	13.3
Disagree	2	13.3
Strongly disagree		-
The activities and exercises aided in my learning. (4.54)		
Strongly agree	7	46.7
Agree	8	53.3
Neither agree nor disagree		-
Disagree		-
Strongly disagree		-
The breadth of material covered was appropriate. (4.15)		
Strongly agree	6	40.0
Agree	7	46.7
Neither agree nor disagree	1	6.7
Disagree	1	6.7
Strongly disagree		-
The depth of the material covered was appropriate. (3.69)		
Strongly agree	4	26.7
Agree	7	46.7
Neither agree nor disagree	1	6.7
Disagree	3	20.0
Strongly disagree		-
This course was delivered at an appropriate level for practitioners with my level of experience. (4.31)		
Strongly agree	6	40.0
Agree	7	46.7
Neither agree nor disagree	2	13.3
Disagree		-
Strongly disagree		-
It felt like there was a disconnect between the instructors' perspectives (having served) and mine, as a civilian provider (R).* (3.85)		
Strongly agree	3	20.0
Agree	8	53.3
Neither agree nor disagree	1	6.7
Disagree	2	13.3
Strongly disagree	1	6.7

The course covered the right amount of information for the length of the training. (3.62)	(n = 13)	
Strongly agree	3	23.1
Agree	6	46.2
Neither agree nor disagree		
Disagree	4	30.8
Strongly disagree		-
The topics covered were what I was hoping to see in this course. (4.31)	(n = 13)	
Strongly agree	5	38.5
Agree	7	53.8
Neither agree nor disagree	1	7.7
Disagree		-
Strongly Disagree		-
Overall, the course was valuable. (4.77)	(n = 13)	
Strongly agree	10	76.9
Agree	3	23.1
Neither agree nor disagree		
Disagree		-
Strongly Disagree		-
A course on military culture should be compulsory for practitioners working with veterans and military families. (4.69)	(n = 13)	
Strongly agree	10	76.9
Agree	2	15.4
Neither agree nor disagree	1	7.7
Disagree		-
Strongly Disagree		-
I would recommend this course to a friend or colleague interested in working with veterans and military families. (4.77)	(n = 13)	
Strongly agree	10	76.9
Agree	3	23.1
Neither agree nor disagree		
Disagree		-
Strongly Disagree		-

As shown above, items with the most favorable responses regarded the overall value of the course and the need for a course like this to be compulsory for practitioners working with veterans and military families. This sentiment is consistent with results from a survey from several hundred behavioral health providers working with veterans and military families (Nissly, 2011 – personal communication). In addition, when asked to supply the single most important thing learned in training, several responses indicated a distinct appreciation for the military as a culture crucial to consider as a treating clinician. For example, some respondents indicated:

treat individuals individually; not everyone's experience is the same; culture is somewhat individually determined

my own biases about the military & how they can impact my work

take each case individually; impact on the families; military as its own culture

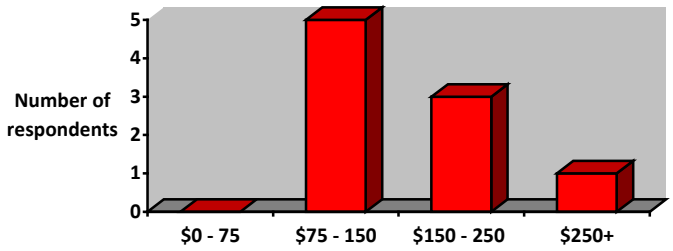
Items with less favorable, but nonetheless positive, responses addressed the depth of information presented, the amount of information presented, the balance of methods used in the course, and participants' ability to relate to veteran and active duty course instructors. Responses to open ended items shed more light on this feedback – several participants felt additional time was needed to cover the amount of material in the appropriate depth – especially regarding professional ethics around treating servicemembers, veterans, and their families. Participants also expressed an interest in learning more about women in the military and gay and lesbian servicemembers. Further, participants indicated a desire for more time spent on military rank and promotion. These responses were consistent with responses from the focus group held immediately following the course. For example one respondent in the focus group indicated:

I didn't have any military knowledge – lost track during Val's presentation. Need more info on how military works and how ranks work – instead of jumping into how the training works. I'm still confused by some of the logistics of the military.

Regarding balance of instruction methods, participants expressed a desire for more time spent in small group work and interactive learning experiences.

As another indicator of perceived value of the course, participants were asked to indicate the appropriate cost for the course. Of the 9 respondents who completed this question, most responded that the appropriate fee for the 10 hour course would be between $75 – 150. See Chart 1:

Chart 1. Responses to "I would consider $____ to be a suitable cost for this course as a Continuing Education course."



Utility Judgments: Implications for Clinical Practice

Six items assessing participants' beliefs and intentions regarding applying course concepts to practice were examined for internal reliability. Results indicated that the first five items were appropriate to combine (via averaging) into a scale, which demonstrated reliability above the acceptable level (Cronbach's α= .83). The item, "After this course, I am confident about where to look for additional resources and information on working with veteran and military family clients," was not included in the utility scale. Overall, the average response to the utility judgments scale was 4.26, out of a possible 5, (range: 3.79 to 4.43), indicating a strong sense of intention to apply course concepts to practice with military clients. Mean response by item, as well as response frequency by item are presented in Table 4.

Table 4. Perceived influence of *Military* Cultures course on clinical practice (n = 15 unless otherwise noted).

Item (Mean response)	N	Percent
This course made me aware of the differences in civilian and military culture with regard to behavioral health practice issues. (4.36)		
Strongly agree	6	40
Agree	9	60
Neither agree nor disagree		
Disagree		
Strongly disagree		
As a result of what I learned in this course, I can think of two concrete strategies I can use in my practice with veteran clients. (3.79)		
Strongly agree	4	26.7
Agree	8	53.3
Neither agree nor disagree	1	6.7
Disagree	1	6.7
Strongly disagree	1	6.7
Participation in this course will impact how I interact with my military-related clients.(4.43)		
Strongly agree	8	53.3
Agree	6	40
Neither agree nor disagree	1	6.7
Disagree		-
Strongly disagree		-
As a result of this training, I will be more confident in seeking out opportunities to work with veterans and military families. (4.29)		
Strongly agree	7	46.7
Agree	7	46.7

Neither agree nor disagree		-
Disagree	1	6.7
Strongly disagree		-
Today's training made me feel *less* equipped to practice effectively with veterans and military families (R).* (4.43)	(n = 14)	
Strongly agree	7	50
Agree	6	42.9
Neither agree nor disagree	1	7.1
Disagree		
Strongly disagree		
After this course, I am confident about where to look for additional resources and information on working with veteran and military family clients. (4.20)		
Strongly agree	3	20
Agree	12	80
Neither agree nor disagree		-
Disagree		-
Strongly disagree		-

Level 2: Learning

Level 2, Learning criteria, of the Kirkpatrick Model refers to the knowledge acquired, skills improved, or attitudes changed due to training (Kirkpatrick, 1996). Learning criteria are internal to the training and are typically measured immediately after the training occurs. Because the Military Cultures CEU course sought to introduce participants to the military lifestyle as a culture in which a successful practitioner will gain competence in order to practice effectively, a pre/post test of military-related knowledge was used as a measure of learning.

Pre/Post Knowledge Gains

A 20-item multiple choice & true/false measure assessed participant gains in knowledge of military culture as a result of the 10-hour course. Results indicated that overall, participants scored higher on the knowledge measure at the conclusion of the course (M = 13.00, SD = 2.16) than at the beginning of the course (M = 10.23, SD = 2.49), $t(12)$ = 4.62, $p < .05$.

Because the items were developed independently of the course presentations, two independent raters marked which items were covered in the course presentations. A third rater acted as a tie-breaker, ultimately arriving at a list of 9 "valid" items. Comparing participants' pre/post scores on the valid items, results again indicated that participants scored higher on the knowledge measure at the end of

the course (M = 6.15, SD = 1.21) than at the beginning of the course (M = 4.46, SD = 1.21), $t(12) = 3.94$, $p < .05$.

Between Group Comparisons

In accordance with the Non Human Subjects Research (NHSR) classification of evaluating the CEU courses, we are permitted to analyze the data for feedback regarding course content, rather than for purposes of making generalizations about course participants. Nonetheless, between group comparisons were cursorily explored using a series of independent sample t-tests. Dependent variables of interest included: responses to affective measures, responses to utility measures, and pre/posttest knowledge gains. No significant differences emerged for these outcomes based on: professional discipline (i.e., MFT, Social Worker), years practicing (i.e., more than 10, less than 10), or amount of practice spent with military-related clients (i.e., most practice with military-clients, very little practice with military clients). See Table 5 for means and standard deviations.

Table 5. Group means and standard deviations for Affect, Utility, and Knowledge Measures.

	N	Affect Mean (SD)	Utility Mean (SD)	Pre/post knowledge Mean (SD)
Professional Discipline				
Social Worker	5	4.15 (.40)	4.30 (.35)	4.25 (1.5)
MFT	6	4.29 (.51)	4.07 (.83)	1.80 (2.59)
Years Practicing				
< 10	6	4.12 (.41)	4.00 (.81)	3.00 (3.56)
>10	5	4.36 (.47)	4.45 (.32)	2.67 (1.50)
Practice with Military Clients				
Most	4	4.00 (.27)	4.10 (.26)	3.50 (2.12)
Very little	7	4.36 (.49)	4.20 (.86)	2.71 (2.63)

Summary

In conclusion, results from the first, on-ground pre-pilot CEU course on Military Culture are promising. Available data on Levels 1 and 2 of the Kirkpatrick Training Evaluation Model suggest that participants were highly satisfied with the course, participants believe knowledge gained in the course will affect how they approach clinical practice with veterans and military families, and participants demonstrated gains in knowledge regarding military culture over the 10 hours of instruction. No statistically significant differences emerged on these three main domains by profession, experience, or amount of practice dedicated to military clients. With regard to refining the course, participants requested that knowledge be presented at a more basic level and that more interactive training modalities be used in instruction. In addition, numerous participants requested additional information on ethical considerations in practice when treating veterans or military families.

Next Steps

Level 3: Behavior

The third level of the Kirkpatrick Evaluation Model measures the extent participants change their on-the-job behavior as a result of the training (Kirkpatrick, 1996). The use of training knowledge and skills is commonly referred to as *transfer* of training. Transfer is considered an external criteria and is frequently influenced by opportunities within one's work setting to practice new skills (Clarke, 2002).

As transfer is conceptualized to occur after the training, it is best measured at follow-up.

To assess the extent to which participants in the Military Cultures CEU course transfer new knowledge and skills to their clinical practices, it is recommended that participants be queried via internet survey at 3 and 6 months post course participation (i.e., early June 2011, early September 2011 respectively). Following Clarke (2002), domains on which transfer may be assessed are:

- participants' beliefs about the benefits gained as a result of the course
- evidence of using the training in practice with military-related clients
- barriers to implementing knowledge and skills learned in the training
- factors that facilitated transfer to practice with military-clients

At follow-up, participants could also be asked to review their records for the last year to provide typical attrition rates for military-related clients for the 6 months prior to, and the 6 months following, their participation in the Military Cultures CEU course.

Level 4: Results

Results criteria refer to the final results that occur due to training (Kirkpatrick, 1996) and extend beyond the individual participant in training to broader organizational change (e.g., productivity gains, increased

employee morale) (Praslova, 2010). Results criteria are used less frequently than the other levels of the Kirkpatrick model as they are difficult to evaluate (Praslova, 2010).

In the current evaluation, results criteria can be measured in a number of ways. At the 3 and 6 month follow-up, participants can be queried regarding:

- the extent to which they have changed the way they train other clinicians in their practice who work with military-related clients
- changes in training requirements for clinicians in their organization who work with military-related clients
- attrition rates for military-related clients for the 6 months prior to, and the 6 months following, their participation in the Military Cultures CEU course
- client-to-client referral rates for military-related clients have changed for the 6 months prior to, and the 6 months following, their participation in the Military Cultures CEU course

Results criteria can be measured in more depth in the Randomized Control Trial (RCT) planned for 2012.

Recommendations

- The RCT pilot scheduled for 2012 may benefit by incorporating suggestions from the Advisory Board meetings held in March 2011, as well as findings from clinical training literature indicating that a coaching competent included in training improves adoption of innovation, skill retention, and client outcomes, compared to workshops alone (Herschell, et al., 2010).

- Future CEU courses in the series may benefit by incorporating more pictures and video footage from combat zones. This feedback was incorporated into the second CEU course, *Clinical Practice with Servicemembers and Veterans*.

- Future introductory courses on military culture should spend additional time on ethical considerations for treatment, as well as ensure veteran and/or active duty instructors be cautious of the use of acronyms or military jargon in their presentations.

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Appendix H

Evaluation Findings from the Clinical Practice with Servicemembers and Veterans Continuing Education Course

Evaluation Findings: *Clinical Practice* Continuing Education Course

Eighteen behavioral health providers participated in the second continuing education course offered by CIR*: Clinical Practice with Servicemembers and Veterans.* Participants were surveyed through a multidimensional questionnaire that addressed satisfaction, perceptions of course content and delivery, and implications for professional self efficacy and clinical practice. Twenty-four open- and closed-ended questions, as well as items measuring the demographic profile of respondents, comprised the evaluation measure. Following is a summary of the main findings.

Participant Characteristics

Table 1 displays demographic breakdowns of the individuals in attendance[1]. Participants were relatively equally distributed with regard to age and gender (61% female). Nearly three-quarters (72%) self-identified as White. *Marriage and Family Therapy* and *Social Work* were about evenly represented (44% & 39%, respectively), with individuals identifying themselves as psychologists, psychiatrists, and nurse practitioners as well.

With regard to professional qualifications, two-thirds (67%) are currently licensed, with nearly another third (28%) registered as *Social Work Associates* or *Marriage and Family Therapy Interns*. About one-third (33%) are relatively new clinicians, reporting less than five years of postgraduate-level clinical practice, with half (50%) reporting over 20 years experience. Most participants (83%) work full-time in behavioral health, representing the fields of academia, aging, child welfare, health, mental health, and substance abuse. Though these individuals are generally focused on direct practice (83% indicated all or nearly all of their time is spent here), 44% indicated that little (i.e., less than 10%) of their time is spent working with military-related populations.

Table 1. Characteristics of course evaluation participants (n=18)

Characteristic	N	Percentage
Age		
25-34	5	27.8
35-44	1	5.6
45-54	5	27.8
55-64	5	27.8
65+	2	11.1
Gender		
Female	11	61.1
Male	7	38.9
Race and Ethnicity		
Asian/Pacific Islander	1	5.6

[1] N =18 respondents for the demographic section reflects the 18 participants who registered and attended the course on Day 1. However, n = 16 for the survey questionnaires as two individuals present on Day 1 were not able to remain for Day 2 due to personal conflicts.

Black/African-American	1	5.6
Hispanic/Latino(a)	2	11.1
Anglo/White	13	72.2
Other	1	5.6
Professional Discipline		
Marriage & Family Therapist	8	44.4
Psychologist	1	5.6
Social Worker	7	38.9
Other (Psychiatrist, Nurse Practitioner)	2	11.1
Licensure Status		
Licensed	12	66.7
In process (registered)	5	27.8
Not licensed	1	5.6
Years of Postgraduate Practice		
Less than 5	6	33.3
5-9	1	5.6
10-14	1	5.6
15-19	1	5.6
20 or more	9	50.0
Employment Status		
Full-time behavioral health	15	83.3
Part-time behavioral health	2	11.1
Employed, non- behavioral health	1	5.6
Practice Setting(s)*		
Academia	2	-
Aging	1	-
Child Welfare	2	-
Disabilities	-	-
Health	3	-
Mental Health	11	-
Substance Abuse	4	-
Percentage of Time Spent in Direct Practice		
All or nearly all (>90%)	8	44.4
Most (51-90%)	7	38.9
Some (11-50%)	1	5.6
Little (<10%)	2	11.1
Percentage of Time with Military Populations		
All	5	27.8
Some (11-50%)	5	27.8
Little (<10%)	8	44.4

* Adds to more than 18 cases, as selection of multiple practice settings was permitted

Evaluation Model

The 4-level Kirkpatrick Training Evaluation Model is used as a framework with which to consider CIR's CE training series. The levels of the Kirkpatrick Model are described below in Table 2. The model posits 4 levels of evaluation: reaction criteria, learning criteria, behavior criteria, and results criteria (Kirkpatrick, 1996; Praslova, 2010). Reaction and learning criteria are considered internal criteria, as they focus on changes that occur within the training program itself. Behavioral and results criteria are considered external criteria and occur after the training; behavioral and results criteria are influenced by factors beyond the scope of the training (e.g., organizational context, opportunity/support to use and develop skills). For a more complete description of the Kirkpatrick model, please see the Evaluation Report 1 on the Military Culture Course.

Table 2. Kirkpatrick's 4 Levels of Training Evaluation.

Level	Criteria	Locus of Change	Variable measured	Timepoint measured
1	Reaction	Internal to training	Affective (satisfaction) & Utility (plans to implement) judgments	At training
2	Learning	Internal to training	Knowledge & skill gains	At training
3	Behavioral	External to training	On-the-job performance	Follow-up
4	Results	External to training	Productivity gains, organizational change	Follow-up

Level 1: Reaction Criteria

Reaction criteria consist of two elements internal to the training itself: *affective reaction* and *utility judgments*. Affective reaction refers to participants' satisfaction and enjoyment of the course. Utility judgments refer to participants' beliefs about how much they learned and how they plan to use what they learn in their practices with veterans and military families.

Reaction criteria were assessed via seventeen Likert-type items regarding perceptions of course content and delivery and participants' intentions to use knowledge learned during the course in clinical practice. Each item was rated on a scale of 1 (*Strongly agree*) to 5 (*Strongly disagree*).

Items were analyzed in the context of two scales – one assessing participants' *affective reaction* to the course, that is how the course met with their expectations in terms of quality of instruction, breadth and depth of material, and general satisfaction, and the other assessing participants' *utility judgments* about the course – that is, participants' beliefs that they will use what they learned in clinical practice with military-related populations and that they gained agency in working effectively with military populations.

Affective Reaction: Perceptions of Course Content and Delivery

Twelve items assessing satisfaction with the course content, delivery, and overall value of the course were combined (via averaging) into a scale, which demonstrated reliability at the acceptable level (Cronbach's α= .69). Overall, the average response to the affective reaction scale was 4.52, out of a possible 5, (range: 3.91 to 4.91), indicating a high level of satisfaction with the course content, delivery, and overall value. Mean response by item, as well as response frequency by item are presented in Table 3.

Table 3. Perceptions of course content and delivery (n=16 unless otherwise noted)

Item (Mean Response)	N	Percent
Q1. The instructors were interesting & kept my attention throughout the training. (4.82)		
Agree	4	25.0
Strongly Agree	12	75.0
Q2. The material was clearly presented. (4.73)		
Agree	5	31.3
Strongly Agree	11	68.8
Q3. The balance of instruction methods (lecture, discussion, small group work) was about right. (3.91)		
Disagree	1	6.3
Neither agree nor disagree	2	12.5
Agree	8	50.0
Strongly Agree	5	31.3
Q4. The activities and exercises aided in my learning. (4.00)		
Neither agree nor disagree	5	31.3
Agree	4	25.0
Strongly Agree	7	43.8

Q5. The breadth of material covered was appropriate. (4.63)		
Agree	5	33.3
Strongly agree	10	66.7
Q6. The depth of the material covered was appropriate. (4.73)		
Agree	6	40.0
Strongly agree	9	60.0
Q7. This course was delivered at an appropriate level for practitioners with my level of experience. (4.64)		
Neither agree nor disagree	1	6.7
Agree	6	40.0
Strongly agree	8	53.3
Q17. The course covered the right amount of information for the length of the training. (4.36)		
Disagree	1	8.3
Agree	5	41.7
Strongly disagree	6	50.0
Q18. The topics covered were what I was hoping to see in this course. (4.45)		
Neither agree nor disagree	1	8.3
Agree	4	33.3
Strongly agree	7	58.3
Q21. Overall, the course was valuable. (4.55)		
Strongly disagree	1	8.3
Agree	1	8.3
Strongly agree	10	83.3
Q22. A course on military culture should be compulsory for practitioners working with veterans and military families. (4.55)		
Strongly disagree	1	9.1
Agree	4	9.1
Strongly agree	5	81.8
Q23. I would recommend this course to a friend or colleague interested in working with veterans and military families. (4.91)		
Agree	1	8.3
Strongly agree	11	91.7

As shown above, items with the most favorable responses regarded the overall value of the course and the ability of the instructors to engage with class participants. Although still favorable, items with the

least strong endorsements inquired about the balance of instruction methods and the extent to which course activities and exercises contributed to learning. Additional information about satisfaction and expectation was obtained through participants' responses to 2 open-ended questions. Responses to those items are presented below:

Please describe any topics that you expected to be covered, but weren't.

- *I missed the 1st training and so I was looking for info on all those initials!*
- *More about stigma/homeless*
- *Course descriptions and objectives were clear. There was a comment regarding "compassion fatigue" which seemed appropriate given the content and application.*
- *Any additional training in different modalities of therapy?*
- *Student vets, vet to vet, staff and non-military education, and welcome home.*
- *Some more direct info re: more hands-on skills for tx with vets related to prob-solving, decision making and goal setting as well as "self" dev.*
- *Bio-feedback work and use in management of PTSD symptoms. MST Military served* [sic] *trauma issues - anything (?)*

Please describe any areas in which you felt more attention should have been provided to the material (within the course time constraints).

- *Little more time going more in-depth with clinical applications.*
- *Working with stigma and resistance*
- *Since I am a civilian, some of the more mundane concepts, e.g., rank and hierarchy, specific protocols in relation to discipline for cause and "vernacular" - rank for each branch could be a "org chart" and list of acronyms would be helpful*
- *Use all service members taught about the symptoms of mental health of all kind and call on them to observe each other?*
- *Clinical diagnostics, i.e., Hx for psych testing.*
- *MST issues as they relate to PTSD. Research findings on treatment modalities effective and treatments. Results of outline research finding for treatment of PTSD.*

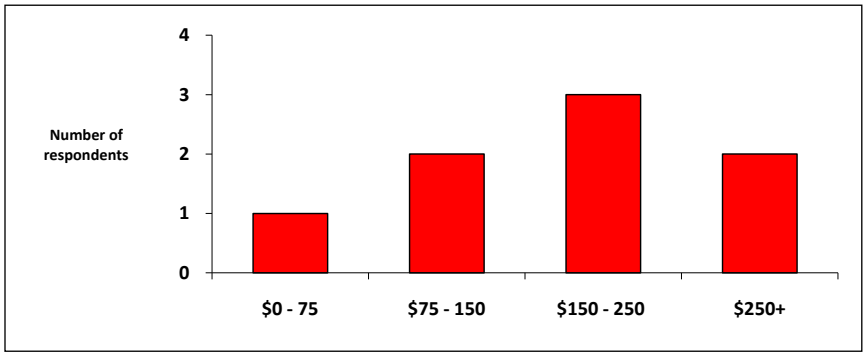
In one sentence or phrase, what is the single most important thing you learned in this training?

- *There are some important differences in working with PTS military and other population - speak the language.*
- *Specifics of treatments for PTSD*
- *To not be afraid of the Vet's experience*
- *Clinical techniques working with anger and anxiety.*
- *Able to readily and directly apply concepts in dealing with student veterans as an advisor (Please see comments for examples)*
- *Viewing PTSD as broken-heartedness*
- *review and reinforce knowledge and {illegible}*
- *Updated knowledge and technology, tx modalities.*

- *The overall understanding of PTSD, its correlation with depression and introduction to possible tx models.*
- *It was a lot of great information.*
- *Interrelated social/variables that co-exist with PTSD dx. Multi layer symptoms of PTSD with depression, relationship issue etc.*

As another indicator of perceived value of the course, participants were asked to indicate the appropriate cost for the course. Of the 9 respondents who completed this question, most responded that the appropriate fee for the 15 hour course would be between $150- 200.

Chart 1. Responses to "I would consider $____ to be a suitable cost for this course as a Continuing Education course."



Utility Judgments: Implications for Clinical Practice

Six items assessing participants' beliefs and intentions regarding applying course concepts to practice were examined for internal reliability. Results indicated that five of the six items were appropriate to combine (via averaging) into a scale, which demonstrated reliability around the acceptable level (Cronbach's α= .64). The item, "Today's training made me feel *less* equipped to practice effectively with veterans and military families (Reverse scored)," was not included in the utility scale. Overall, the average response to the utility judgments scale was 4.39, out of a possible 5, (range: 4.06 to 4.69), indicating a strong sense of intention to apply course concepts to practice with military clients. Mean response by item, as well as response frequency by item are presented in Table 4.

Table 4. Perceived influence of *Clinical Practices with Servicemembers and Veterans* course on clinical practice (n = 16 unless otherwise noted).

Item (Mean response)	N	Percent
Q9. This course made me aware of the differences in civilian and military culture with regard to behavioral health practice issues. (4.44)		
Neither agree nor disagree	1	6.3
Agree	7	43.8
Strongly agree	8	50.0
Q10. As a result of what I learned in this course, I can think of two concrete strategies I can use in my practice with veteran clients. (4.25)		
Strongly disagree	1	6.3
Neither agree nor disagree	1	6.3
Agree	6	37.5
Strongly agree	8	50.0
Q11. Participation in this course will impact how I interact with my military-related clients. (4.69)		
Agree	5	31.3
Strongly agree	11	68.8
Q12. As a result of this training, I will be more confident in seeking out opportunities to work with veterans and military families. (4.50)		
Neither agree nor disagree	2	12.5
Agree	4	25.0
Strongly agree	10	62.5
Q13. Today's training made me feel *less* equipped to practice effectively with veterans and military families (R).* (4.75)		
Neither agree nor disagree	1	6.3
Agree	2	12.5
Strongly agree	13	81.3
Q 14. After this course, I am confident about where to look for additional resources and information on working with veteran and military family clients. (4.06)		
Strongly disagree	1	6.3
Agree	11	68.8
Strongly agree	4	25.0

Overall, responses to utility items indicate that participants indicated that the course would influence how they interacted with military clients and left them feeling more equipped to practice effectively with veterans and military families. The item in this section receiving the least strong endorsement inquired about participants' confidence finding additional resources and information on working with veterans and military families. Frequently noted in the training literature is the importance of a trainee's opportunity to use techniques learned in the practice setting. Thus, an open-ended question asked participants about any potential barriers to applying what they learned in their own practice. Taken together, responses suggest a desire to gain more knowledge about military culture as well as to develop skills in appropriate treatment methods. See below for participants' responses.

In a sentence or two, what, if any, barriers do you anticipate could prevent you from using the knowledge you acquired today in your practice?

- *My own blindness to and on failure to ask re military service.*
- *Working with co-occurring, homeless, OIF/OEF vets, there is a lot of stigma we have to dig through to implement some of what was taught.*
- *Being on the resource as a professional - to get appropriate referrals.*
- *There was some info that lacked depth and clarity that would have seemed more useful to me. It seemed it may have had to do with lack of time allotted.*
- *I think I need more training to get to know the culture here in order to prepare to work with this population.*
- *Finding certification/learning to be skilled in various treatment modalities to incorporate in treatment.*

Level 2: Learning

Level 2 of the Kirkpatrick Model, Learning criteria, refers to the knowledge acquired, skills improved, or attitudes changed due to training (Kirkpatrick, 1996). Learning criteria are internal to the training and are typically measured immediately after the training occurs. Because the Clinical Practices with Servicemembers and Veterans CEU course sought to introduce participants to military life experiences and related stress reactions that practitioners need to know about in order to practice effectively, a pre/post test of course content knowledge was used as a measure of learning.

Pre/Post Knowledge Gains

A 20-item multiple choice & true/false measure assessed participant gains in knowledge regarding clinical practice with servicemembers and veterans as a result of the 15-hour course. Results indicated that overall, participants scored higher on the knowledge measure at the conclusion of the course (M = 14.93, SD = 2.09) than at the beginning of the course (M = 12.93, SD = 2.40), $t(15)$ = 3.87, $p < .05$.

Between Group Comparisons

Between group comparisons were explored using a series of independent sample t-tests. Dependent variables of interest included: responses to affective measures, responses to utility measures, and pre/posttest knowledge gains. No significant differences emerged for these outcomes based on: professional discipline (i.e., MFT, Social Worker), years practicing (i.e., more than 10, less than 10), or amount of practice spent with military-related clients (i.e., most practice with military-clients, very little practice with military clients), *all* $p > .05$. See Table 5 for means and standard deviations.

Table 5. Group means and standard deviations for Affect, Utility, and Knowledge Measures.

	Affect Mean (SD)	Utility Mean (SD)	Pre/post knowledge gain (SD)
Discipline			
Social Work	4.32 (.39)	4.32 (.41)	1.00 (1.41)
MFT	4.69 (.24)	4.40 (.45)	2.25 (2.49)
Years Practicing			
< 10	4.58 (.23)	4.37 (.53)	2.83 (2.14)
>10	4.48 (.44)	4.44 (.52)	1.44 (1.81)
Practice with Military Clients			
Most	4.56 (.27)	4.25 (.60)	1.00 (1.00)
Very little	4.50 (.42)	4.43 (.50)	2.25 (2.14)

Summary

Available data on Levels 1 and 2 of the Kirkpatrick Training Evaluation Model suggest that participants were highly satisfied with the course, believed knowledge gained in the course will affect how they approach clinical practice with veterans and military families, and demonstrated gains in knowledge regarding clinical practice with servicemembers and veterans over the 15 hours of instruction. No statistically significant differences emerged on these three domains by profession, experience, or amount of practice dedicated to military clients. With regard to refining the course, survey results indicated that course instruction should be more balanced across modalities (e.g., small group activities,

discussion). In addition, participants do not report high confidence in knowing where to turn for further resources on practice with veteran and military family clients.

Next Steps

Level 3: Behavior, Level 4: Results

The third and fourth levels of the Kirkpatrick Evaluation Model relate to behavior changes in the individual and ultimately, the organization, as a result of training. Outcomes in this level are measured at follow-up. Please see Evaluation Report 1 for a full discussion.

Recommendations

- Urge instructors to plan a variety of instruction methods (small groups, interactive activities & exercises) within the 2 course days.
- Inform course participants of resources they can turn to for further information on the topics covered throughout instruction, in addition to the resource binder provided to them.
- To the extent possible, provide basic handouts on military culture (e.g., common acronyms) at each course. Some participants who did not participate in the Military Culture course assumed they had missed a key glossary of military acronyms from that course. This was not the case, but providing this information to all students may help them feel more comfortable that they have all the information available to all students.

Appendix I

Evaluation Findings from the Families Impacted by Military Service:
Understanding and Intervening Continuing Education Course

Evaluation Findings: Continuing Education Course 3
Families Impacted by Military Service: Understanding and Intervening

Twenty-two behavioral health providers participated in the third continuing education course offered by CIR*: Families Impacted By Military Service: Understanding and Intervening.* Participants were surveyed through a multidimensional questionnaire, which addressed satisfaction, perceptions of course content and delivery, and implications for professional self efficacy and clinical practice. Twenty-four open- and closed-ended questions, as well as items measuring the demographic profile of respondents, comprised the evaluation measure.

Participant Characteristics

Table 1 displays demographic breakdowns of the participants. Participants were relatively equally distributed with regard to gender (59% female) and over half (55%) were over age 55. Nearly three-quarters (73%) identified as White. Approximately half of participants (46%) were *Marriage and Family Therapists* with a third (27%) identifying as *Social Workers*. Other individuals identified themselves as psychologists, psychiatrists, nurses and nurse practitioners.

With regard to professional qualifications, two-thirds (68%) are currently licensed with another fifth (18%) registered as *Social Work Associates* or *Marriage and Family Therapy Interns*. Of the course participants over one-third (35%) are relatively new clinicians, reporting less than five years of postgraduate-level clinical practice, with an equal amount (35%) reporting over 20 years experience. Most participants (70%) work full-time in behavioral health, representing the fields of academia, aging, child welfare, health, mental health, developmental disabilities, and substance abuse. Most participants focus all or most of their time on direct practice (59%) and spend at least some of their time working with military-related populations (69%).

Table 1. Characteristics of participants (n=22)

Characteristic	N	Percentage
Age		
25-34	1	4.5
35-44	5	22.7
45-54	4	18.2
55-64	10	45.5
65+	2	9.1
Gender		
Female	13	59.1
Male	9	40.9
Race and Ethnicity		
Asian/Pacific Islander	2	9.1
Black/African-American	1	4.5
Hispanic/Latino(a)	2	9.1
Anglo/White	16	72.7
Other	1	4.5

Professional Discipline		
Marriage & Family Therapist	10	45.5
Psychologist	1	4.5
Social Worker	6	27.3
Other (Psychiatrist, Nurse Practitioner)	3	13.6
Veteran Status		
Veteran	7	31.8
Non-veteran	15	68.2
Licensure Status		
Licensed	15	68.2
In process (registered)	4	18.2
Not licensed	3	13.6
Years of Postgraduate Practice		
Less than 5	7	35.0
5-9	1	5.0
10-14	3	15.0
15-19	2	10.0
20 or more	7	35.0
Employment Status		
Full-time behavioral health	14	70.0
Part-time behavioral health	3	15.0
Employed, non- behavioral health	3	15.0
Practice Setting(s)*		
Academia	1	-
Aging	1	-
Child Welfare	2	-
Health	1	-
Mental Health	16	-
Substance Abuse	3	-
Percentage of Time Spent in Direct Practice		
All or nearly all (>90%)	10	45.5
Most (51-90%)	3	13.6
Some (11-50%)	6	27.3
Little (<10%)	3	13.6
Percentage of Time with Military Populations		
All	5	23.8
Most (51-90%)	1	4.8
Some (11-50%)	8	38.1
Little (<10%)	7	33.3

* Adds to more than 22 cases, as selection of multiple practice settings was permitted

Evaluation Model

The 4-level Kirkpatrick Training Evaluation Model is used as a framework in which to consider CIR's CEU training series. The levels of the Kirkpatrick Model are described below in Table 2. Briefly, the model posits 4 levels of evaluation: reaction criteria, learning criteria, behavior criteria, and results criteria (Kirkpatrick, 1996; Praslova, 2010). Reaction and learning criteria are considered internal criteria, as they focus on changes that occur within the training program itself. Behavioral and results criteria are considered external criteria and occur after the training; behavioral and results criteria are influenced by factors beyond the scope of the training (e.g., organizational context, opportunity/support to use and develop skills). For a more complete description of the Kirkpatrick model, please see the Evaluation Report 1: Military Culture Course.

Table 2. Kirkpatrick's 4 Levels of Training Evaluation.

Level	Criteria	Locus of Change	Variable Measured	Timepoint Measured
1	Reaction	Internal to training	Affective (satisfaction) & Utility (plans to implement) judgments	At training
2	Learning	Internal to training	Knowledge & skill gains	At training
3	Behavioral	External to training	On-the-job performance	Follow-up
4	Results	External to training	Productivity gains, organizational change	Follow-up

Level 1: Reaction Criteria

Reaction criteria consist of two elements internal to the training itself: *affective reaction* and *utility judgments*. Affective reaction refers to participants' satisfaction and enjoyment of the course. Utility judgments refer to participants' beliefs about how much they learned and how they plan to use what they learned in their practices with veterans and military families.

Reaction criteria were assessed via nine Likert-type items regarding perceptions of course content and delivery and participants' intentions to use knowledge learned during the course in clinical practice. Each item was rated on a scale of 1 (*Strongly disagree*) to 5 (*Strongly agree*). One item was reverse scored, as indicated below.

Items were analyzed in the context of two scales – one assessing participants' *affective reaction* to the course, that is how the course met with their expectations in terms of quality of instruction, breadth and depth of material, and general satisfaction, and the other assessing participants' *utility judgments* about the course – that is, participants' beliefs that they will use what they learned in clinical practice with military-related populations and that they gained agency in working effectively with military populations.

Affective Reaction: Perceptions of Course Content and Delivery

Thirteen items assessing satisfaction with the course content, delivery, and overall value of the course were combined (via averaging) into a scale, which demonstrated good reliability above the acceptable level (Cronbach's α= .98). Overall, the average response to the affective reaction scale was 4.40, out of a possible 5, (range: 4.19 to 4.76), indicating a high level of satisfaction with the course content, delivery, and overall value. Mean response by item, as well as response frequency by item are presented in Table 3.

Table 3. Perceptions of course content and delivery

Item (Mean Response)	N	Percent
Q1. The instructors were interesting & kept my attention throughout the training. (4.43)		
Strongly disagree	1	4.5
Agree	9	40.9
Strongly agree	12	54.5
Q2. The material was clearly presented. (4.38)		
Strongly disagree	1	4.5
Agree	9	40.9
Strongly agree	12	54.5
Q3. The balance of instruction methods (lecture, discussion, small group work) was about right. (4.19)		
Strongly disagree	1	4.5
Agree	14	63.6
Strongly agree	7	31.8
Q4. The activities and exercises aided in my learning. (4.33)		
Strongly disagree	1	4.5
Neither agree nor disagree	1	4.5
Agree	8	36.4
Strongly agree	12	54.5
Q5. The breadth of material covered was appropriate. (4.38)		
Strongly disagree	1	4.5
Agree	9	40.9
Strongly agree	12	54.5
Q6. The depth of the material covered was appropriate. (4.19)		
Strongly disagree	1	4.5

Disagree	1	4.5
Agree	11	50.0
Strongly agree	9	40.9
Q7. This course was delivered at an appropriate level for practitioners with my level of experience. (4.29)		
Strongly disagree	1	4.5
Neither agree nor disagree	1	4.5
Agree	10	45.5
Strongly agree	10	45.5
Q8. As a behavioral health provider, I was able to relate to the instructors' perspectives. (4.48)		
Strongly disagree	1	4.5
Agree	8	36.4
Strongly agree	13	59.1
Q17. The course covered the right amount of information for the length of the training. (4.24)		
Strongly disagree	1	4.8
Neither agree nor disagree	2	9.5
Agree	8	38.1
Strongly disagree	10	47.6
Q18. The topics covered were what I was hoping to see in this course. (4.29)		
Strongly disagree	1	4.8
Neither agree nor disagree	1	4.8
Agree	9	42.9
Strongly agree	10	47.6
Q21. Overall, the course was valuable. (4.52)		
Strongly disagree	1	4.8
Agree	6	28.6
Strongly agree	14	66.7
Q22. A course on military culture should be compulsory for practitioners working with veterans and military families. (4.76)		
Strongly disagree	1	4.8
Agree	1	4.8
Strongly agree	19	90.5
Q23. I would recommend this course to a friend or colleague interested in working with veterans and military families. (4.67)		
Strongly disagree	1	4.8
Agree	3	14.3
Strongly agree	17	81.0

As shown above, items with the *most favorable responses* queried about recommending the course to a friend or colleague and the importance of training like this for practitioners working with veterans or military families. Although still favorable, the item with the *least strong endorsement* was related to the depth of material presented. Additional information about participant satisfaction and expectation was obtained through participants' responses to 2 open-ended questions. Responses to those items are presented below:

Please describe any topics that you expected to be covered, but weren't.

- *More theory and more full representation of the most central ESTs. I also wish that some of the existing intervention models were presented more cautiously/critically.*
- *Was great except that if the 1st class on culture is a pre-req for this one, there was duplicative culture info in this one. If it's w/o pre-req, there was perfect to include.*
- *Cognitive Behavior Conjoint Therapy*
- *DX checklist & follow-up data*

Please describe any areas in which you felt more attention should have been provided to the material (within the course time constraints).

- *A little more time on some subjects could have been helpful-some seemed rushed through due to lack of time*
- *A diagram of the soldier's experience i.e. recruiter-basic training-?*
- *Case vignettes-assessment & approach to treatment*
- *This course was well-balanced.*
- *More in depth needed on intervention/therapeutic techniques*
- *Theory! As both researcher & practitioner I would have appreciated discussion of cases from a hypothesis testing perspective.*
- *More on spouse issues perhaps & kids issues perhaps*
- *I thought it would have been better to have chose a few family tx methods are gone deeper, rather than a broad brush on many theories.*
- *All great*
- *Sugar coated- I think the info was to delivered in a very "appropriate" manner. Appropriate is not always key to building relationships within military, mostly vets.*
- *Treatment tools*
- *Breath [sic]*
- *Perhaps some networking. I missed 1st day-so maybe done fine.*

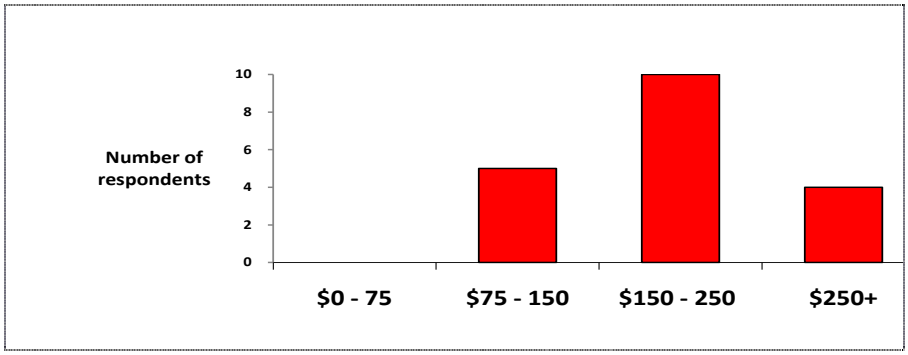
In one sentence or phrase, what is the single most important thing you learned in this training?

- *The small group work was GREAT for application of principles and theory. Often adult learners are hesitant but it always "enlivened" the group. Wonderful dynamic.*
- *Interventional processes*
- *The communication facilitation sheet that Eugenia gave us will be used for couples.*
- *Treatment models and their effectiveness*

- *The military has come a long way in working with SVS members, then families and recovery is possible.*
- *Look at veterans as healthy- don't assume PTSD or other pathologies.*
- *Someone cares about the veterans*
- *As I'm not trained as a social worker, some of the social work theories were interesting to me, particularly those associated with grief/loss. Is anyone else disturbed that the comprehensive Soldier Fitness program is MANDATORY for all personnel? Or that it hasn't been piloted?*
- *About the differences in experiences and thought processes of military personnel*
- *In depth about mil culture & support*
- *I learned a lot about active-duty issues that I was not aware of, including violence in families.*
- *PTSD different interventions*
- *The family models/modalities for conceptualization and intervention.*
- *Just about learning about military families as a whole…the culture & families what approaches are being done to address basically everything.*
- *I am in the right field*
- *To understand the military culture and be able to treat and apply techniques that were provided to me.*
- *Better grasp of military as an individual culture/ethnicity*
- *Other modalities of tx*
- *All was good*
- *It is surprising that school kid of military families have such poor to negligible support from school community*

As another indicator of perceived value of the course, participants were asked to indicate the appropriate cost for the course. Of the 19 respondents who completed this question, most responded that the appropriate fee for the 15 hour course would be between $150- 200. See Chart 1.

Chart 1. Responses to "I would consider $____ to be a suitable cost for this course as a Continuing Education course."



Utility Judgments: Implications for Clinical Practice

Six items assessing participants' beliefs and intentions regarding applying course concepts to practice were examined for internal reliability. Results indicated that the six items were appropriate to combine (via averaging) into a scale, which demonstrated reliability above the acceptable level (Cronbach's α= .85). Overall, the average response to the utility judgments scale was 4.46, out of a possible 5 (range: 4.32 to 4.68), indicating a strong sense of intention to apply course concepts to practice with military clients. Mean response by item, as well as response frequency by item are presented in Table 4.

Table 4. Perceived influence of course on clinical practice

Item (Mean response)	N	Percent
Q9. This course made me aware of the differences in civilian and military culture with regard to behavioral health practice issues. (4.45)		
Strongly disagree	1	4.5
Neither agree nor disagree	1	4.5
Agree	6	27.3
Strongly agree	14	63.6
Q10. As a result of what I learned in this course, I can think of two concrete strategies I can use in my practice with veteran clients. (4.45)		
Strongly disagree	1	4.5
Agree	8	36.4
Strongly agree	13	59.1
Q11. Participation in this course will impact how I interact with my military-related clients. (4.45)		
Strongly disagree	1	4.5
Neither agree nor disagree	1	4.5
Agree	6	27.3
Strongly agree	14	63.6
Q12. As a result of this training, I will be more confident in seeking out opportunities to work with veterans and military families. (4.32)		
Strongly disagree	1	4.5
Neither agree nor disagree	2	9.1
Agree	7	31.8
Strongly agree	12	54.5
Q13. Today's training made me feel *less* equipped to practice effectively with veterans and military families (R). (4.68)		
Strongly disagree	19	86.4
Disagree	1	4.5
Neither agree nor disagree	1	4.5
Strongly agree	1	4.5

Q 14. After this course, I am confident about where to look for additional resources and information on working with veteran and military family clients. (4.41)		
Strongly disagree	1	4.5
Neither agree nor disagree	1	4.5
Agree	7	31.8
Strongly agree	13	59.1

Overall, responses to utility items indicate that participants felt that the course would influence how they interacted with military clients and left them feeling more equipped to practice effectively with veterans and military families. The item in this section receiving the *least strong endorsement* inquired about participants' confidence finding additional resources and information on working with veterans and military families.

Frequently noted in the training literature is the importance a trainee's opportunity to use techniques learned in the actual practice setting. Thus, an open-ended question asked about any potential barriers to applying what participants learned in their own practice. Responses indicate that several course participants anticipated structural barriers (below, in bold) within their practice setting, such as policy regulations and services offered by their organization that may prevent them from applying what they learned in training.

In a sentence or two, what, if any, barriers do you anticipate could prevent you from using the knowledge you acquired today in your practice?

- *include a little more explanation of the concept of "fortress" up front-early in overview- provider a very concrete, contextual example of family/environment dynamic. Were there some overall objective by 'day'? I may have missed them but they might be pasted [sic]. A soldier's family ethnicity/culture important to include when discussing tradition re: to loss, death, rituals, customs.*
- *I do not think that there are any barriers. I learned a lot here that will help me be more effective in the future.*
- ***lack of opportunity** to work with vets hinders development of my newly acquired skill/knowledge*
- *none. I would highly recommend this training to colleagues. Everyone is so well organized, prepared, and provide practical information and experience.*
- ***Lack of funding for re type of service** (home-based) that my agency provides.*
- *excellent class*
- *I am uncertain about the extent to which each of the strategies shared are evidence-based, and I have a commitment to providing EBTs to my clients whenever possible, and without adaptation that have not been subjected to empirical scrutiny.*
- *As a physician psychiatrist, **insurances prevent** me from seeing patients frequently as required. No time for therapy besides medications.*
- *Client's own defenses*
- *client avoidance is a major problem with our young vets. Also, a **lack of a solid family program will limit my exposure** to couple/family.*
- *if I wanted further training in a particular model; its availability to attend a course.*

- *lack of resources*
- *I am limited to providing housing to vets & case management services & must refer to MH for that TX services.* ***Not allowed to provided PTSD TX****.*
- *My geographic location is* ***45 min plus drive from the nearest base -re families.***

Level 2: Learning

Level 2, Learning criteria, of the Kirkpatrick Model refers to the knowledge acquired, skills improved, or attitudes changed due to training (Kirkpatrick, 1996). Learning criteria are internal to the training and are typically measured immediately after the training occurs. Because the *Families Impacted by Military Service: Understanding and Intervening* CEU course sought to introduce participants to the military lifestyle as a culture in which a successful practitioner will gain competence in order to practice effectively, a pre/post test of military-related knowledge was used as a measure of learning.

Pre/Post Knowledge Gains

A 20-item multiple choice & true/false measure assessed participant gains in knowledge as a result of the 15-hour course. Results indicated that overall, participants scored higher on the knowledge measure at the conclusion of the course (65% correct; M = 13.00, SD = 2.40) than at the beginning of the course (58% correct; M = 11.58, SD = 2.43), $t(19)$ = 2.48, $p < .05$. These differences are statistically significant, but the extent to which they are practically meaningful remains an open questions. However, it should be noted that considered across the entire series, knowledge scores at pretest have increased across the 3 courses. Although each course is designed to stand alone, the series of courses are complementary and build upon one another. In other words, someone attending all the courses would be expected to have an increased knowledge of military culture and practice issues, which would increase pretest knowledge scores. Seventeen of the twenty-two participants had attended one or two of the other CIR courses offered in the CEU series previous to attending the Military Families course.

Between Group Comparisons

Between group comparisons were explored using a series of independent sample *t*-tests. Dependent variables of interest included: responses to affective measures, responses to utility measures, and pre/posttest knowledge gains. No significant differences emerged for these outcomes based on: professional discipline (i.e., MFT, Social Worker), years practicing (i.e., more than 10, less than 10), or amount of practice spent with military-related clients[1] (i.e., most practice with military-clients, very little practice with military clients). Although not statistically significant, some trends emerged such that social workers demonstrated larger gains in knowledge compared to MFT participants and participants with at least ten years' experience reported greater satisfaction with the course than participants with less than 10 years' experience. See Table 5 for means and standard deviations.

Table 5. Group means and standard deviations for Knowledge, Affect, and Utility Measures.

	Pre/post Knowledge Gain (SD)	Affect Mean (SD)	Utility Mean (SD)
Discipline			
Social Work	3.00 (2.55)	4.03 (1.49)	4.22 (1.26)
MFT	0.38 (2.26)	4.48 (0.36)	4.52 (0.32)
Years Practicing			
Less than 10 years	1.17 (2.93)	3.96 (1.49)	4.14 (1.16)
10 + years	1.20 (2.66)	4.63 (0.21)	4.70 (0.30)
Practice with Military Clients			
All or most (51% +)	1.50 (2.38)	3.92 (1.66)	4.08 (1.25)
Some (11-50%)	1.38 (2.72)	4.53 (0.35)	4.65 (0.30)
Little	0.83 (2.40)	4.53 (0.46)	4.50 (0.41)
Veteran Status			
Veteran	1.17 (2.11)	4.71 (0.20)	4.73 (0.27)
Non-veteran	1.54 (3.43)	4.24 (1.01)	4.34 (0.83)

[1] Because participants were approximately evenly distributed into 3 groups, a one-way ANOVA was used to examine differences.

Summary

In conclusion, results from the first, on-ground pre-pilot CEU course on Families Impacted by Military Service are promising. Available data on Levels 1 and 2 of the Kirkpatrick Training Evaluation Model suggest that participants were highly satisfied with the course, participants believe knowledge gained in the course will affect how they approach clinical practice with veterans and military families, and participants demonstrated gains in knowledge over the 2 days of instruction. No statistically significant differences emerged on these by profession, experience, or amount of practice dedicated to military clients. With regard to refining the course, participants requested that knowledge be presented at a more basic level and that more interactive training modalities be used in instruction.

Next Steps

Level 3: Behavior

The third level of the Kirkpatrick Evaluation Model measures the extent participants change their on-the-job behavior as a result of the training (Kirkpatrick, 1996). The use of training knowledge and skills is commonly referred to as *transfer* of training. Transfer is considered an external criteria and is frequently influenced by opportunities within one's work setting to practice new skills (Clarke, 2002).

As transfer is conceptualized to occur after the training, it is best measured at follow-up.

To assess the extent to which participants in the Families Impacted by Military Service: Understanding and Intervening CEU course transfer new knowledge and skills to their clinical practices, it is recommended that participants be queried via internet survey at 3 and 6 months post course participation (i.e., early June 2011, early September 2011 respectively). Following Clarke (2002), domains on which transfer may be assessed are:

- participants' beliefs about the benefits gained as a result of the course
- evidence of using the training in practice with military-related clients
- barriers to implementing knowledge and skills learned in the training
- factors that facilitated transfer to practice with military-clients

At follow-up, participants could also be asked to review their records for the last year to provide typical attrition rates for military-related clients for the 6 months prior to, and the 6 months following, their participation in the Families Impacted by Military Service: Understanding and Intervening CEU course.

Level 4: Results

Results criteria refer to the final results that occur due to training (Kirkpatrick, 1996) and extend beyond the individual participant in training to broader organizational change (e.g., productivity gains, increased employee morale) (Praslova, 2010). Results criteria are used less frequently than the other levels of the Kirkpatrick model as they are difficult to evaluate (Praslova, 2010).

In the current evaluation, results criteria can be measured in a number of ways. At the 3 and 6 month follow-up, participants can be queried the extent to which:

- they have changed the way they train other clinicians in their practice who work with military-related clients
- training requirements for clinicians in their organization who work with military-related clients have changed
- information provided in the course (e.g., binder resources) facilitates transfer in their practice

- attrition rates have changed for military-related clients for the 6 months prior to, and the 6 months following, their participation in the Families Impacted by Military Service: Understanding and Intervening CEU course
- client-to-client referral rates for military-related clients have changed for the 6 months prior to, and the 6 months following, their participation in the Families Impacted by Military Service: Understanding and Intervening CEU course

Results criteria can be measured in more depth in the Randomized Controlled Trial (RCT) planned for 2012.

Recommendations

- From a community-capacity building and workforce-development perspective, instructors should consider devoting time in the course to coaching participants on how to find resources relevant to military family clients, perhaps as an interactive or small group activity.

- From an evaluation perspective, a useful item on the survey would be how many courses they have previously taken in the series. Currently, it is possible to determine what overall portion of participants have attended a previous course in the series (based on course sign-in sheets), but this cannot be linked with their survey responses. Linking previous participation with knowledge scores would allow us to better characterize knowledge gains on the pre test over the entire course series.

Works Cited

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Appendix J

Evaluation Findings from the Health Challenges for Wounded Warriors and Their Caregivers Course

Evaluation Findings: Continuing Education Course 4
Health Challenges for Wounded Warriors and their Caregivers

Twenty-five behavioral health providers participated in the fourth continuing education course offered by CIR*: Health Challenges for Wounded Warriors and their Caregivers.* Participants were surveyed through a multidimensional questionnaire, addressing satisfaction, perceptions of course content and delivery, and implications for clinical practice. The evaluation measure consisted of 19 Likert-type items, 5 open-ended items, and 12 demographic items.

Participant Characteristics

As shown in Table 1, participants were predominantly female (70%) and relatively evenly distributed with regard to age. In fact, over half (58%) were age 55 and over. Just over half of the course participants (57%) identified as White. Participants were predominantly *Marriage and Family Therapists* (39.1%) and *Social Workers* (47.8%). Nearly one-fifth (17%) of participants identified as a current or former servicemember, with nearly half (40%) reporting having a servicemember in their family.

With regard to professional qualifications, most (70%) were currently licensed, with the remainder (30%) currently working toward licensure (i.e., registered as *Social Work Associates* or *Marriage and Family Therapy Interns*). One-quarter (26%) of participants were relatively new clinicians, reporting less than five years of postgraduate-level clinical practice, with nearly half (48%) reporting over 20 years experience. Most participants (75%) worked full-time in behavioral health. Three-quarters of participants reported (76%) spending most of their time in direct practice. The majority of participants (59%) indicated spending 10% or more of their time working with military-related populations.

Table 1. Characteristics of participants (n=23, who completed demographic measures)

Characteristic	N	Percent
Age		
<25	1	4.3
25-34	5	21.7
35-44	1	4.3
45-54	6	21.7
55-64	8	34.8
65+	3	13.0
Gender		
Female	16	69.6
Male	7	30.4
Race and Ethnicity		
Asian/Pacific Islander	2	8.7
Black/African-American	3	13.0
Hispanic/Latino(a)	5	21.7
Anglo/White	13	56.5

Professional Discipline		
Marriage & Family Therapist	9	39.1
Psychologist	1	4.3
Social Worker	11	47.8
Other (Psychiatrist, Nurse Practitioner)	2	8.7
Veteran Status		
Veteran	4	17.4
Non-veteran	19	82.6
Family Service Status		
Servicemember in family	9	40.9
No servicemembers in family	14	59.1
Relationship to Servicemember		
Spouse	2	8.7
Child	1	4.3
Sibling	4	17.4
Other (e.g., parent, niece/nephew)	4	17.4
Licensure Status		
Licensed	16	69.6
In process (registered)	7	30.4
Years of Postgraduate Practice		
Less than 5	6	26.1
5-9	3	13.0
10-14	2	8.7
15-19	1	4.3
20 or more	11	47.8
Employment Status		
Full-time behavioral health	15	75
Part-time behavioral health	2	10
Employed, non- behavioral health	2	10
Not currently employed	1	5
Practice Setting(s)*		
Academia	3	-
Aging	4	-
Child Welfare	2	-
Health	3	-
Mental Health	14	-
Substance Abuse	4	-
Percentage of Time Spent in Direct Practice		
All or nearly all (>90%)	8	38.1
Most (51-90%)	8	38.1
Some (11-50%)	5	23.8
Percentage of Time with Military Populations		
All	4	18.2
Most (51-90%)	3	13.6
Some (11-50%)	6	27.3
Little (<10%)	9	40.9

* Adds to more than 23 cases, as selection of multiple practice settings was permitted

Evaluation Model

The 4-level Kirkpatrick Training Evaluation Model is used as a framework in which to consider CIR's Continuing Education (CE) training series. The levels of the Kirkpatrick Model are described below in Table 2. Briefly, the model posits 4 levels of evaluation: reaction criteria, learning criteria, behavior criteria, and results criteria (Kirkpatrick, 1996; Praslova, 2010). Reaction and learning criteria are considered internal criteria, as they focus on changes that occur within the training program itself. Behavioral and results criteria are considered external criteria and occur after the training; behavioral and results criteria are influenced by factors beyond the scope of the training (e.g., organizational context, opportunity/support to use and develop skills). For a more complete description of the Kirkpatrick model, please see Evaluation Report 1: *Military Culture*.

Table 2. Kirkpatrick's 4 Levels of Training Evaluation.

Level	Criteria	Locus of Change	Variable Measured	Timepoint Measured
1	Reaction	Internal to training	Affective (satisfaction) & Utility (plans to implement) judgments	At training
2	Learning	Internal to training	Knowledge & skill gains	At training
3	Behavioral	External to training	On-the-job performance	Follow-up
4	Results	External to training	Productivity gains, organizational change	Follow-up

Level 1: Reaction Criteria

Reaction criteria consist of two elements internal to the training itself: *affective reaction* and *utility judgments*. Affective reaction refers to participants' satisfaction and enjoyment of the course. Utility judgments refer to participants' beliefs about how much they learned and how they plan to use what they learned in their practice with veterans and military families.

Reaction criteria were assessed through nineteen Likert-type items regarding perceptions of course content and delivery and participants' intentions to use knowledge learned during the course in clinical

practice. Each item was rated on a scale of 1 (*Strongly disagree*) to 5 (*Strongly agree*). One item was reverse scored, as indicated below.

Items were analyzed in the context of two scales. One assessed participants' *affective reaction* to the course - that is, how the course met with their expectations in terms of quality of instruction, breadth and depth of material, and general satisfaction. The other examined participants' *utility judgments* about the course – that is, participants' beliefs that they would use what they learned in clinical practice with military-related populations and that they gained agency in working effectively with military populations.

Affective Reaction: Perceptions of Course Content and Delivery

Thirteen items assessing satisfaction with the course content, delivery, and overall value of the course were combined (via averaging) into a scale, which demonstrated high reliability (Cronbach's α= .90). Overall, the average response to the affective reaction scale was 4.56 out of a possible 5 (range: 4.19 to 4.91), indicating a high level of satisfaction with the course content, delivery, and overall value. Mean response by item, as well as response frequency by item, are presented in Table 3.

Table 3. Perceptions of course content and delivery

Item (Mean Response)	Frequency	Percent
Q1. The instructors were interesting & kept my attention throughout the training. (4.46)		
Agree	13	54.2
Strongly agree	11	45.8
Q2. The material was clearly presented. (4.46)		
Agree	13	54.2
Strongly agree	11	45.8
Q3. The balance of instruction methods (lecture, discussion, small group work) was about right. (4.33)		
Neither agree nor disagree	1	4.2
Agree	12	58.3
Strongly agree	12	37.5
Q4. The activities and exercises aided in my learning. (4.38)		
Agree	15	62.5
Strongly agree	9	37.5
Q5. The breadth of material covered was appropriate. (4.50)		
Agree	12	50.0
Strongly agree	12	50.0

Q6. The depth of the material covered was appropriate. (4.50)		
Neither agree nor disagree	1	4.2
Agree	10	41.7
Strongly agree	13	54.2
Q7. This course was delivered at an appropriate level for practitioners with my level of experience. (4.54)		
Neither agree nor disagree	1	4.2
Agree	9	37.5
Strongly agree	14	58.3
Q8. As a behavioral health provider, I was able to relate to the instructors' perspectives. (4.88)		
Agree	7	30.4
Strongly agree	16	69.6
Q17. The course covered the right amount of information for the length of the training. (4.18)		
Disagree	1	4.5
Neither agree nor disagree	1	4.5
Agree	13	59.1
Strongly disagree	7	31.8
Q18. The topics covered were what I was hoping to see in this course. (4.32)		
Neither agree nor disagree	1	4.5
Agree	13	59.1
Strongly agree	8	36.4
Q21. Overall, the course was valuable. (4.91)		
Agree	2	9.1
Strongly agree	20	90.9
Q22. A course on military culture should be compulsory for practitioners working with veterans and military families. (4.91)		
Agree	2	9.1
Strongly agree	22	90.9
Q23. I would recommend this course to a friend or colleague interested in working with veterans and military families. (4.82)		
Agree	4	18.2
Strongly agree	18	81.8

As shown above, items with the *most favorable responses* inquired about the overall value of the course and the importance of training like this for practitioners working with veterans or military families.

Although still favorable, the item with the *least strong endorsement* was related to the match between practitioners' experience and the level of delivery of course material. Additional information about participant satisfaction and expectation was obtained through participants' responses to 2 open-ended questions. Responses to those items are presented below:

Please describe any topics that you expected to be covered, but weren't.

- *Medications*
- *Secondary Traumatic Stress Syndrome*
- *Different cultural challenges*
- *Military Sexual Trauma & its relationship to PTSD, and what can be done.*
- *More information addressing female VETS- specific issues affecting female vets - distinguished from men.*
- *The handouts are a bit disorganized-maybe have materials on a website & allow us to follow on own computers.*
- *More direct practice examples*
- *Person's sexual trauma*
- *Prolonged PTSD*

Please describe any areas in which you felt more attention should have been provided to the material (within the course time constraints).

- *Therapies related to psychiatric problems*
- *Monica's presentation on Friday was very good and it would have been nice to have more time for that and expand on some topics.*
- *Providers dealing with emotional impact working with the population, what support is available to the providers.*
- *The material was more than adequate*
- *Military Sexual Trauma & its relationship to PTSD, and what can be done.*
- *Having all handouts ready for us before lecture.*
- *Change speech therapist to 1st day so we can better understand cognitive issues earlier on.*
- *Therapeutic Interventions & role play*

- *Excellent comprehensive coverage of subject- looking forward to becoming more familiar with resource identified.*
- *Women in military; diagnostic evaluations*

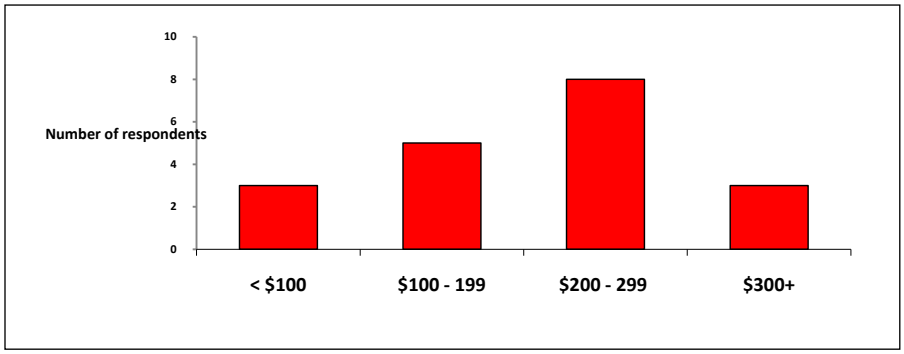
In one sentence or phrase, what is the single most important thing you learned in this training?

- *Resource website information*
- *Roles or providers in TBI clinic*
- *Resources available*
- *More resources available.*
- *Web resources*
- *All the resource information*
- *More effect/attention is needed to get the info out to the clinicians.*
- *Online resources-where to go for VA/DOD info*
- *That I have a lot more to learn.*
- *Resources = really ALL of it*
- *The value of this training for me is in the including information about military members & their families in my teaching. Additionally, this information will be helpful in better preparing out students for placement at the VA.*
- *Resources*
- *Warriors*
- *Most of the general info validated concepts previously learned*
- *Increased understanding of some of the common health challenges of our wounded warriors.*
- *Resource DOD, VA etc. sites*
- *A lot of resources*
- *Directory resources*
- *Support and know where to look for*

- *David Yi Darla- The war does not end when you come home.*
- *How to get the information on the web.*

As another indicator of the perceived value of the course, participants were asked to indicate the appropriate cost for the course. Of the 19 respondents who completed this open-ended question, the mode response was between $200 – 299 (42%). See Chart 1 below.

Chart 1. Responses to "I would consider $____ to be a suitable cost for this course as a Continuing Education course."



Utility Judgments: Implications for Clinical Practice

Six items assessing participants' beliefs and intentions regarding applying course concepts to practice were examined for internal reliability. Results indicated that five of the six items were appropriate to combine (via averaging) into a scale, which demonstrated adequate reliability (Cronbach's α= .73). Overall, the average response to the utility judgments scale was 4.57 out of a possible 5 (range: 4.26 to 4.74), indicating a strong sense of intention to apply course concepts to practice with military clients. Mean response by item, as well as response frequency by item, are presented in Table 4.

Table 4. Perceived influence of course on clinical practice

Item (Mean response)	N	Percent
Q9. This course made me aware of the differences in civilian and military culture with regard to behavioral health practice issues. (4.25)		
Neither agree nor disagree	3	12.5
Agree	12	50.0
Strongly agree	9	37.5
Q10. As a result of what I learned in this course, I can think of two concrete strategies I can use in my practice with veteran clients. (4.50)		
Agree	12	50.0
Strongly agree	12	50.0
Q11. Participation in this course will impact how I interact with my military-related clients. (4.65)		
Agree	8	34.8
Strongly agree	15	65.2
Q12. As a result of this training, I will be more confident in seeking out opportunities to work with veterans and military families. (4.70)		
Neither agree nor disagree	1	4.3
Agree	5	21.7
Strongly agree	17	73.9
Q13. Today's training made me feel *less* equipped to practice effectively with veterans and military families (R).* (4.54)		
Strongly disagree	16	66.7
Disagree	7	29.2
Strongly agree	1	4.0
Q 14. After this course, I am confident about where to look for additional resources and information on working with veteran and military family clients. (4.75)		
Agree	6	25.0
Strongly agree	18	75.0

*Item reverse scored for analyses so that all items are coded in the same positive/negative direction.

Overall, responses to utility items indicate that participants felt that the course would influence their practice with military-related clients. The item with the *strongest endorsement* inquired about participants' confidence finding additional resources and information on working with military-related clients. This indicates an improvement over reactions to previous courses in the training series. As noted in Evaluation Reports 1 – 3, participants were not always as strong on this item. One instructor for

the current course incorporated a significant amount of interactive activities focused on finding additional resources online. Although still favorable, the item in this section receiving the *least strong endorsement* asked whether participants felt more aware of differences between civilian and military culture with regard to behavioral health practice as a result of the course.

Frequently noted in the training literature is the importance a trainee's opportunity to make use of newly-learned techniques in the actual practice setting. Thus, an open-ended question asked about potential barriers to applying what participants learned in their own practice. Two respondents mentioned time being a factor to implement the knowledge gained in the course to their practice.

In a sentence or two, what, if any, barriers do you anticipate could prevent you from using the knowledge you acquired today in your practice?

- *None known*
- *Difficulty staying focused during presentation due to medium or presentation for an extended period of time.*
- *Great class. Want more classes.*
- *Access to copies of each instructor's PP presentations*
- *None. Excellent course over all. I would shorten the days to end around 3:00-instead of 4:30*
- *There could have been much more training in which therapies (mental) work in PTSD/TBI & some examples (videos) of actual therapy sessions.*
- *Limited contact w/ Vets and/or VA- I do periodic yellow ribbon event have Tricare, is referral, but no daily contact [sic]*
- *Time*
- *Oversight of persons sexual abuse-women vets in the shadows. Folders should have all the slides and presentations.*
- *I don't work with severely physically disabled veterans and I am in the process of slowly incorporating family/caregiver support in my program. Lack of family caregiver participation.*
- *Time!*

Level 2: Learning

Level 2 of the Kirkpatrick Model, Learning criteria, refers to the knowledge acquired, skills improved, or attitudes changed due to training (Kirkpatrick, 1996). Learning criteria are internal to the training and

are typically measured immediately after the training occurs. Consistent with the previous 3 CE courses in the series, a pre/post test of military-related knowledge was used as a measure of learning.

Pre/Post Knowledge Gains

A 20-item multiple choice & true/false measure assessed participant gains in knowledge as a result of the 15-hour course. Results indicated that overall, participants scored higher on the knowledge measure at the conclusion of the course (78% correct; $M = 15.61$, $SD = 1.94$) than at the beginning of the course (69% correct; $M = 13.72$, $SD = 2.02$), $t(17) = 4.59$, $p < .0001$.

Considered across the entire series, knowledge scores at pretest have increased throughout the 4 courses. Although each course is designed to stand alone, the series of courses are complementary and build upon one another. Put another way, someone attending all the courses would be expected to have an increased knowledge of military culture and practice issues, which would increase pretest knowledge scores. Twelve of the participants had attended at least one of the other CIR courses offered in the CE series prior to attending the Health Challenges course.

Between Group Comparisons

Between-group differences were explored for the three dependent variables of interest: responses to affective items, responses to utility items, and pre/posttest knowledge gains. Independent samples *t*-tests were used to examine between-group differences for professional discipline (i.e., MFT, Social Worker) and years practicing (i.e., more than 10, less than 10). No statistically significant differences emerged for these outcomes based on professional discipline or years practicing.

Because participants were approximately evenly distributed into three groups, a one-way ANOVA was used to examine differences on the three dependent variables with regard to practice time spent with military clients. No statistically significant differences emerged for pre/posttest knowledge gains or utility items. However, there was a significant effect regarding the portion of practice time spent with military clients on affective reactions to the course ($F(2, 17) = 5.27$, $p < .05$). Specifically, Tukey post-hoc comparisons indicate that more positive affective reactions were found among participants who spent either (a) all or most of their time with military clients ($M = 4.68$, $SD = .29$) or (b) some of their time with military clients ($M = 4.71$, $SD = .27$) than among participants who spend < 10% of their time with military clients, ($M = 4.24$, $SD = .32$). Taken together, these results suggest that although there was no difference in how much participants learned or how satisfied participants were with the course, practitioners who spend very little time with military clients did not anticipate the course being as useful to their practice as those who spend more time with military clients. See Table 5 for means and standard deviations.

Table 5. Group means and standard deviations for Knowledge, Affect, and Utility Measures.

	Pre/post Knowledge Gain (SD)	Affect Mean (SD)	Utility Mean (SD)
Discipline			
Social Work	1.50 (1.07)	4.33 (.35)	4.62 (.40)
MFT	2.13 (2.42)	4.57 (.36)	4.45 (.38)
Years Practicing			
Less than 10 years	2.43 (2.23)	4.61(.39)	4.45 (.38)
10 + years	1.40 (1.35)	4.47(.33)	4.62 (.40)
Practice with Military Clients			
All or most (51% +)	1.20 (1.48)	4.68 (.29)	4.60 (.30)
Some (11-50%)	3.25 (2.06)	4.71 (.27)	4.40 (.51)
Little	1.43 (1.72)	4.24 (.32)	4.63 (.38)

Summary

In conclusion, evaluation results from the first, on-ground pre-pilot CE course on *Health Challenges for Wounded Warriors and their Caregivers* are promising and informative. Available data on Levels 1 and 2 of the Kirkpatrick Training Evaluation Model suggest that participants were highly satisfied with the course, believed knowledge gained in the course would affect how they approach clinical practice with veterans and military families, and demonstrated gains in knowledge over the 2 days of instruction. No statistically significant differences emerged on these by profession, experience, or amount of practice dedicated to military clients.

Next Steps

Level 3: Behavior

The third level of the Kirkpatrick Evaluation Model measures the extent that participants change their on-the-job behavior as a result of the training (Kirkpatrick, 1996). The use of training knowledge and skills is commonly referred to as *transfer* of training. Transfer is considered an external criterion and is frequently influenced by opportunities to practice new skills within one's work setting (Clarke, 2002). As transfer is conceptualized to occur after the training, it is best measured at follow-up.

To assess the extent to which participants in the Health Challenges CE course transfer new knowledge and skills to their clinical practice, it is recommended that participants be queried via internet survey at

3 and 6 months post course participation (i.e., early June 2011, early September 2011 respectively). Following Clarke (2002), domains on which transfer may be assessed are:

- participants' beliefs about the benefits gained as a result of the course
- evidence of using the training in practice with military-related clients
- barriers to implementing knowledge and skills learned in the training
- factors that facilitated transfer to practice with military-clients, including which elements from the course were most helpful – such as resource binder materials, etc.

At follow-up, participants could also be asked to review their records for the last year to provide typical attrition rates for military-related clients for the six months prior to, and the six months following, their participation in the Health Challenges CE course.

Level 4: Results

Results criteria refer to the final results that occur due to training (Kirkpatrick, 1996) and extend beyond the individual participant in training to broader organizational change (e.g., productivity gains, increased employee morale) (Praslova, 2010). Results criteria are used less frequently than the other levels of the Kirkpatrick model, as they are difficult to evaluate (Praslova, 2010).

In the current evaluation, results criteria can be measured in a number of ways. At the 3- and 6-month follow-up, participants can be queried regarding the extent to which:

- they have changed the way they train other clinicians in their practice who work with military-related clients
- training requirements for clinicians in their organization who work with military-related clients have changed
- attrition rates have changed for military-related clients for the 6 months prior to, and the 6 months following, their participation in the Health Challenges CE course
- client-to-client referral rates for military-related clients have changed for the 6 months prior to, and the 6 months following, their participation in the Health Challenges CE course

Results criteria will be measured in more depth in the Randomized Controlled Trial (RCT) planned for 2012.

Recommendations

With regard to course *content*, several participants indicated wanting to learn more about women in the military, military sexual trauma, and compassion fatigue. CIR is currently working to eliminate redundancies between courses in the series. These topics should be considered either as additions to

the courses once current redundancies are eliminated or as potential topics for an additional CE offering.

For course *delivery*, a few logistical changes may streamline participants' experience as well as provide more rich data for evaluation. Several participants mentioned their desire to receive handouts corresponding to the presentation upon arrival to the course. One challenge in course delivery was receiving final Power Point presentations from instructors in advance of the course. In response, CIR has assumed responsibility for creating course content and will prepare all slides for presentation for future iterations of the CE courses. This will allow CIR to distribute handouts at the beginning of each course.

Changes to evaluation procedure are recommended to acquire more rich feedback from participants and to reduce participant fatigue:

- Rather than have participants generate their own ID code, assign each participant a unique identifier at the beginning of the CE series. This identifier will be used throughout the CE series and allow for assessment at the individual level.

- Revise questions to indicate directionality. For example, some of the affect questions ask participants to indicate their satisfaction with the depth, breadth, and appropriate delivery level of the course. In cases where participants indicate that they disagree, it is not clear whether their disagreement indicates that the courses went in too much/not enough depth, where too broad or too narrow, or delivered at a too basic or too advanced level.

- When asked to indicate their current practice setting (i.e., aging, child welfare, health, mental health, substance abuse), most providers indicate at least two, if not several, practice areas, rendering this item not particularly informative. For evaluation purposes, it might be preferable to ask participants to indicate their place of behavioral health employment and then code their responses during data analysis.

- Several participants have indicated being too tired after two full days of courses to respond to evaluation measures with sufficient energy. The following adjustments are proposed:

    - Have participants complete demographic items only once – prior to the beginning of the first CE course they take in the series. This will eliminate the need for participants who have taken more than one course to provide redundant information. For all participants, this will reduce the time needed to complete measures at the end of the two days of courses.

    - Instead of asking participants to complete one long measure at the end of the course, allow participants to provide open-ended reactions on a form throughout both days. Participants will still provide feedback at the completion of the course, but this will allow them to provide more in-depth feedback when they are so compelled, rather than attempting to recall thoughts on specific content areas for 15 hours of instruction at the very end.

Appendix K

Curriculum Vitae for Dr. Jeffery Wilkins

Curriculum Vitae
JEFFERY N. WILKINS, M.D.

Mailing Address: Jeffery N. Wilkins, M.D., D.F.A.P.A.
LINCY/Heyward-Moynihan Chair in Addiction Medicine
Vice Chair, Department of Psychiatry
Cedars-Sinai Medical Center
8730 Alden Drive, Room E-130
Los Angeles, CA 90048

EDUCATION

1968	Bachelor of Science (Cum Laude), University of Notre Dame, South Bend IN
1972	M.D., University of California San Diego School of Medicine, La Jolla CA
1972	Neurology, Queen's Square and St. Pancras Hospitals, London, England
1972-1973	Medicine Internship, Univ. of Calif. San Diego School of Medicine, La Jolla CA
1974-1977	Psychiatry Residency, UCLA Neuropsychiatric Institute, Los Angeles CA

LICENSURE AND DIPLOMATE STATUS

State of California, No. G 25901
1979 Diplomate, American Board of Psychiatry and Neurology
1994 Added Qualification in Addiction Psychiatry (American Board of Psychiatry and Neurology)
2004 Certification by Exam from American Society of Addiction Medicine
2005 Recertification: Added Qualification in Addiction Psychiatry (American Board of Psychiatry and Neurology)

HONORS AND AWARDS

1. March of Dimes Fellowship in Medicine: 1969-1970; 1970-1971; 1971-1972
2. Pharmaceutical Manufacturers Assn. Foundation Fellowship in Clinical Pharmacology: 1970-1971; 1971-1972
3. Veterans Administration Career Development Award (Research Associate): 1978-1981
4. Inducted as Fellow, American Psychiatric Association Fellow, May 2002, Philadelphia, PA.
5. Inducted as Distinguished Fellow, American Psychiatric Association, January, 2003
6. Inducted as Fellow, American Society of Addiction Medicine, 2007
7. Elected Member, Medical Executive Committee, Cedars-Sinai Medical Center: 2007-2010
8. Member, Board of Directors, Psychological Trauma Center: 2006-Ongoing
9. Member, Board of Directors, Brent Shapiro Foundation: 2007-Ongoing
10. Member, Board of Directors, The Lincy Foundation: 2008-Ongoing
11. President-Elect, California Society of Addiction Medicine: 2010

POSITIONS

2007-Present	Director, Health and Human Services Policy, The Lincy Foundation
2006-Present	LINCY/Heyward-Moynihan Endowed Chair in Addiction Medicine
2003-Present	Vice Chairman, Dept. of Psychiatry, Cedars-Sinai Medical Center
2000-Present	Director, Addiction Medicine, Dept. of Psychiatry, Cedars-Sinai Medical Center
2000-Present	Director, Addiction Studies, Clinical Trials Unit, Department of Psychiatry, CSMC

2000- 2001	Interim Director, Residency Education, Dept. of Psychiatry, Cedars-Sinai Medical Ctr.
1994-Present	Adjunct Professor of Psychiatry and Biobehavioral Sciences, UCLA School of Medicine
1977-Present	Director, Clinical Psychopharmacology Unit, Greater Los Angeles VA Healthcare Ctr.
1999-Present	Research Director, U.S. VETS, a national organization specializing in providing housing and other services to homeless veterans
1994-1999	Medical Director, Comprehensive Homeless Ctr. of Excellence, GLAVA Healthcare Ctr.
1991-1994	Associate Chief of Psychiatry for Substance Abuse Programs, WLA V.A. Medical Center
1985-1994	Adjunct Assoc. Professor of Psychiatry & Biobehavioral Sciences, UCLA School of Medicine
1985-1990	Program Chief, Treatment Refractory Unit, West LA V.A. Medical Center
1981-1985	Program Chief, Forensic Unit (Crisis Oriented Psychiatric Evaluation and Stabilization Unit, C.O.P.E.S.), West LA V.A. Medical Center
1978-1985	Assistant Professor, Dept. of Psychiatry, UCLA School of Medicine
1978-1981	Research Associate, Veterans Administration Division of Medicine Career Development Program
1977-1978	Program Chief, Combined Alcohol and Drug Inpatient Treatment, VAMC, West LA

RESEARCH INTERESTS

Resilience and Prevention of Substance Abuse in Children and Adolescents
Treatment/Pharmacotherapy, of adults, adolescents and children with substance abuse problems or substance abuse and mental illness
Pharmacokinetics of substances of abuse
Pharmacokinetics of psychotropic medication
Identification and utilization of biological markers in the diagnosis and treatment of substance abuse and mental health disorders

ACTIVE CLINICAL TRIALS and OTHER GRANT/CONTRACT ACTIVITIES

ACTIVE STUDIES

Alcoholism, Genes and Hormones. Tissue Repository Pro00019076 (Co-Investigator; Principal Investigator, Magdalena Uhart.) STATUS: Human Subjects Actively Involved in Study

Cocaine and Sympathetic Nerve Activity in Humans Pro00019549 (Co-Principal Investigator; Principal Investigator, Ron Victor, M.D.) STATUS: Human Subjects Completed; Data under analysis

Evaluation of Prometa Treatment Protocol for Treatment of Alcohol Dependence Pro00006764
STATUS: Human Subjects Completed; Data under analysis

PENDING GRANTS

1R01DA021249-01A2 (Pechnick) 12/01/07 – 11/30/12 0.60 calendar
National Institute on Drug Abuse
Nicotine Addiction: Influence of Prenatal and Adolescent Exposure
The goal of this study is to understand the relationships between nicotine-induced changes in behavior and changes in brain function, by studying the effects of prenatal exposure to nicotine, specifically the nicotinic cholinergic receptor, on mRNA expression in adulthood.
Role: Co-Investigator. Dr. Wilkins will oversee the laboratory analysis of nicotine and nicotine metabolites in body fluids from study animals

(Shoptaw) 7/1/08 - 6/30/12 1.80 calendar
Regents of the UC (NIDA)
Antipsychotic Treatment of Methamphetamine-Induced Psychosis
The major goal of this project is to examine the efficacy of using ongoing atypical antipsychotic medication (aripiprazole) compared to placebo in the presence of cognitive behavioral drug abuse counseling in individuals with methamphetamine-induced psychosis after acute stabilization.
Role: Site- Principal Investigator Dr. Wilkins will direct the evaluation and treatment of methamphetamine-induced psychosis in the study participants of this study, as well as oversee the collection and analysis of laboratory and clinical assessment inventories for the study.

ACTIVE GRANTS
CSR200892 (Wilkins) ` 8/01/05 – 02/29/09 0.60 calendar
Hythiam, Inc.
Evaluation of HANDS (PROMETA) Protocol for Treatment of Alcohol Dependence
The purpose of this study is to evaluate the clinical efficacy of Prometa, a medication-based intervention for treatment of alcohol dependence, and to decrease alcohol use and increase abstinence from alcohol.
Role: Principal Investigator

PRIOR GRANTS
Principal Investigator and co-Investigator on 10 clinical trials and 10 additional grants/contracts, at least two of which have resulted in FDA filing of two New Drug Applications (NDA). Activities have included protocol development, RFA development, subject recruitment, medical oversight, and supervisor of core laboratory for dependent and independent laboratory variables. NDA's were for LAAM (l-alpha-acetyl methadol), a long acting opioid agonist used for opioid maintenance, and buprenorphine and buprenorphine + naloxone, shorter acting opioid maintenance medications.

CLINICAL TRIALS GRANTS and CONTRACTS

1. PRINCIPAL INVESTIGATOR, Sponsor: Alkermes. Project: Vivitrol Naltrexone in combination with psychosocial treatment for treatment of alcohol dependent adults. June, 2002-July, 2007
2. CO-INVESTIGATOR (10%) on NIDA Contract from the Medication Development Division "DHEA TREATMENT OF COCAINE DEPENDENCE" (Walter Ling, M.D., Principal Investigator, Steven Shoptaw, Ph.D., Co-Principal Investigator). Duration 10/1/98-9/30/00. The goal of this protocol is to assess the ability of orally administered DHEA to alter the relapse rate and study retention of patients with cocaine dependence. Dr. Wilkins laboratory is responsible for laboratory analysis of circulating DHEA, DHEAS, cortisol, CRF levels as well as quantitative urine substance abuse testing.
3. CO-INVESTIGATOR (10%) on NIDA Contract from the Medication Development Division "RAPID ASSESSMENT OF PHARMACOTHERAPY OF COCAINE DEPENDENCE" (Walter Ling, M.D., Principal Investigator). Duration 10/1/96-9/30/99. The goal of this protocol is to assess new potential pharmacotherapeutic agents for the treatment of cocaine abuse/dependence. The first medication studied was amantadine. Results from this study were positive for reduction of cocaine abuse and increased stays in treatment.
4. CO-INVESTIGATOR (10%) on NIDA Contract from the Medication Development Division "KINETICS OF LAAM FOR TREATMENT OF OPIOID DEPENDENCE" (Walter Ling, M.D., Principal Investigator). Duration 10/1/96-9/30/99. The goal of this protocol is to assess LAAM kinetics in opioid-dependent individuals who receive LAAM in the context of a psychosocial treatment program. Urine

determinations are also performed for quantitative determinations of morphine and other substances of abuse as well as methadone kinetics during washout transition to LAAM administration.

5. PRINCIPAL-INVESTIGATOR (25% time, no salary) of NIDA grant #1 R01 DA06551 "DESIPRAMINE TREATMENT OF SCHIZOPHRENIC COCAINE ADDICTS" funded 04/01/89 through 08/31/94 with annual direct costs of .
6. PRINCIPAL INVESTIGATOR (25% time, no salary) of NIDA grant #1 R01 DA05685-01, "BROMOCRIPTINE IN THE TREATMENT OF COCAINE ABUSE,": funded 01/01/89 through 06/30/93
7. Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for all sites NIDA multicenter trial of SELEGILINE IN THE TREATMENT OF COCAINE DEPENDENCE (centers are VAMC Washington DC, VAMC Philadelphia, Univ. of Calif., San Francisco, and VAMC West Los Angeles)
8. SITE PRINCIPAL INVESTIGATOR and Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for West LA site for NIDA multicenter trial of BUPROPRION IN THE TREATMENT OF COCAINE DEPENDENCE (centers were Yale University, VAMC, VAMC Philadelphia, and VAMC West Los Angeles).
9. Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for the Los Angeles Treatment Research Unit site as part of a NIDA multicenter trial of BUPRENORPHINE IN THE TREATMENT OF OPIOID DEPENDENCE
10. Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for the Los Angeles Treatment Research Unit site as part of a NIDA multicenter trial of BUPRENORPHINE PLUS NALOXONE IN THE TREATMENT OF OPIOID DEPENDENCE

OTHER GRANTS and CONTRACTS

11. PRINCIPAL INVESTIGATOR (10% time, no salary) of "NEUROPSYCHOLOGICAL AND BIOMEDICAL ASSESSMENT OF COCAINE ABUSERS" (W. van Gorp, Co-Principal Investigator). VA Merit Review funded 10/01/92 to 09/30/97
    . The study assessed neuropsychological function in 100 cocaine abusing patients without alcohol dependence with corresponding 100 "substance-free" controls assessed at the same intervals of 72 hours and 21 days following inpatient admission, 6, 12, 18, and 24 months post discharge. An additional nested control group of 30 subjects are being assessed to determine the impact of repeated test administration. All subjects, including controls, were screened throughout the study for the presence of cocaine metabolite and other substances of abuse. The neuropsychological results are being compared to circulating prolactin and additional neuroendocrines.
12. CO-INVESTIGATOR (5% time, no salary) of NIDA grant RO1 DA 09436 "SKILLS TRAINING FOR SUBSTANCE ABUSING SCHIZOPHRENICS" (A. Shaner, M.D., Principal Investigator), a NIDA Phase I development project funded 9/30/94 through 8/31/97
    . The protocol is structured as a prospective, two-year longitudinal follow-up of 6 cohorts of 5 subjects. The patients received specialized cognitive skills training through the UCLA Schizophrenia Clinical Research Center (R. Liberman, M.D., Principal Investigator) following the relapse prevention model of Marlatt et al. In the role as Director of the Clinical Psychopharmacology Unit, Dr. Wilkins was responsible for laboratory determination of parent compounds and metabolites of cocaine, methamphetamine, and other substances of abuse. The substance abuse measures will serve as primary outcome variables for the study.
13. CO-INVESTIGATOR (5%) in MRI Studies in VA Merit Review "BIPOLAR DISORDER AND ALCOHOL DEPENDENCE" (Lori Altshuler, M.D., Principal Investigator). This protocol had two primary goals: 1) to perform MRI scans on bipolar patients with particular focus on the temporal lobe and hippocampus, and 2) to follow bipolar patients with and without alcohol dependence to assess if the

comorbid disorder is predictive of a worse prognosis, that is, whether alcohol comorbidity is a vulnerability marker for a worse course outcome (measures include affective instability, dropout from treatment or study, rates of rehospitalization and social/occupational function).

14. CO-INVESTIGATOR (10% time, no salary) of "TREATMENT OF SCHIZOPHRENIA AND SUBSTANCE ABUSE" (A. Shaner, M.D., Principal Investigator), funded 4/01/91 to 08/31/95 with annual total costs of
15. CO-INVESTIGATOR (10% time, no salary) on NIMH protocol "Treatment of the Stimulant-Abusing Schizophrenic" (MH48081, A. Shaner, M.D., Principal Investigator), approved for funding 10/01/90 to 9/30/94, .
16. CO-INVESTIGATOR (10% time, no salary) of "TREATMENT OF SCHIZOPHRENIA AND SUBSTANCE ABUSE" (A. Shaner, M.D., Principal Investigator), HSR&D VA Research Grant (IIR #90-03) funded 04/01/91 to 04/01/95
    .
17. CO-INVESTIGATOR (10% time, no salary) on NIDA application "CARDIOVASCULAR EFFECTS AND TOXICITY'S OF COCAINE (long-term) (K. Nademanee, M.D., Principal Investigator), approved for funding 4/01/90 to 3/31/92,.
18. CO-INVESTIGATOR (2.5% time, no salary) on NIDA application "NEUROENDOCRINE EFFECTS OF PHENCYCLIDINE IN THE RAT" (R. George, Ph.D., Principal Investigator) approved for funding 4/1/90 to 3/31/93.
19. CO-INVESTIGATOR (5%) Norman Cousins Foundation for Immunological Research on IMMUNOLOGICAL FUNCTION IN CAREGIVERS (Stacy Wilkins, Ph.D., Principal Investigator). Duration 10/1/97-9/30/99. The study provides a comparison of immune function in depressed spouse caregivers of demented spouses and sex and age matched elderly controls. Dr. Wilkins' laboratory performs assessments of the hypothalamic-pituitary-adrenal axis for the protocol. Both caregivers and controls are subjected to brief human laboratory stressors with serial assessment of HPA and immune function.
20. CO-INVESTIGATOR (5%) on NIDA application "CONTINGENCY MANAGEMENT- TOBACCO SMOKING IN OPIATE ADDICTS" (Steven. Shoptaw, Ph.D., Principal Investigator).). Duration 10/1/96-9/30/99.

MEMBERSHIP: SCIENTIFIC ADVISORY BOARDS

Alkermes, Inc. (2005 – 2009)
Cephalon, Inc. (2005 – 2009)
DIC Entertainment (2004 – 2009)
Hythiam, Inc. (2004 – 2008)

COMMITTEES

2004-Present	SAE Review Committee, Cedars-Sinai Medical Center
2002-Present	HIPAA Advisory Task Force, Cedars-Sinai Medical Center
2002-Present	Well Being Commitee, Cedars-Sinai Medical Center
2002-Present	IRB, Cedars-Sinai Medical Center
1999-2001	Member, California Dept. of Mental Health AB 34 Advisory Committee
1992-1997	VAMC WLA Research and Development Committee,
1993-1994	UCLA School of Medicine Dean's Committee on Neuroscience Education
1987-1989	Human Subject Protection Committee, W. Los Angeles V.A. Medical Center, Brentwood Division
1986-1989	Pharmacy and Therapeutics Committee, W. Los Angeles V.A. Medical Center

1983-1985	Academic Appointments and Advancements Committee, U.C.L.A. Division of Adult Psychiatry/Biobehavioral Sciences
1984-1993	Consulting Committee, Psychopharmacology Course, UCLA/VA, Brentwood Psychiatry Residency
1981-1982	Academic Appointments and Advancements Committee, U.C.L.A. Division of Adult Psychiatry/Biobehavioral Sciences (alternate)
1981-1985	Residency Education, Inpatient Psychiatry
1980-1993	Research Safety Subcommittee, Los Angeles VA Medical Center, Brentwood Divn.
1979-1982	Research and Development Committee, Los Angeles VA Medical Center-Brentwood Division
1971-1972	Admissions Committee, School of Medicine, University of California, San Diego

EXPERIENCE IN ADMINISTRATION

Administration of VA Substance Abuse Programs (1991-1994)

a) Passage of JCAHO review of Substance Abuse Programs in August, 1993
b) Establishment of Psychiatry Residency and UCLA Medical Student Teaching Program within VAMC WLA Substance Abuse Programs
c) Establishment of Staff Training Program leading to State of California Certificate in Addiction Counseling
d) Supervision of VAMC WLA Medication Development Unit clinical research staff
e) Introduction of computerized treatment planning system in Substance Abuse Programs (example database of 352 consecutive patients)
f) Introduction of computerized patient tracking system for the VAMC WLA Homeless Center

Administratration of Analytical Laboratory for National Institute on Drug ttAbuse Multicenter Trials

a) Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for all sites NIDA multicenter trial of selegiline in the treatment of cocaine dependence (centers are VAMC Washington DC, VAMC Philadelphia, Univ. of Calif., San Francisco, and VAMC West Los Angeles)
b) Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for West LA site for NIDA multicenter trial of buproprion in the treatment of cocaine dependence (centers were Yale University, VAMC, VAMC Philadelphia, and VAMC West Los Angeles)
c) Director of VAMC WLA Clinical Psychopharmacology Unit performing urine toxicological analysis for the Los Angeles Treatment Research Unit site as part of a NIDA multicenter trial of buprenorphine in the treatment of opioid dependence

Provision of laboratory services

In parallel with the VA's goal to increase service while decreasing costs, the CPU Laboratory targeted increasing analytical efficiency as well as increasing available methods. For example, as clinical and research programs have had to exist on reduced budgets, the CPU had to meet market-driven reductions in per sample costs combined with demand for development of new assays. Cost reductions were produced through changes in procedures of the analytical process, including the development of new modes of sample extraction, employment of automatic pipetting systems and improved detection systems.

The ability of the CPU to cut costs allowed it to provide urine analysis for the Comprehensive Homeless Center of Excellence Programs. Substance abuse urine results as well as other outcome measures taken by our group were cited in HR3031, a House of Representatives Bill supporting the use of VA funds for large-scale residential programs for homeless veterans.

Teaching based administrative contributions

a) Introducing residents and medical students to prevention and treatment of aggression and violence. Extension of this training to nurses and social workers.
b) Establishment of residence training in substance abuse at the VA for UCLA-based residents as well as Martin-Luther King psychiatry residents
c) Establishing administrative links and financial support that allowed VA counselors to enter training at Cal State Dominguez Hills where they were able to receive licenses in State of California Accreditation in Drug and Alcohol Counseling

FOREIGN LANGUAGE
Use of Written and Spoken Spanish in the Evaluation and Treatment of Patients

TEACHING: Information Regarding Academic and Community Teaching Available on Request

REVIEWER
Experimental Clinical Psychopharmacology (2006)
Pharmacology, Biochemistry and Behavior (2006)
Schizophrenia Bulletin (1999)
Journal of Neuropsychoimmunology (1999)
Archives of General Psychiatry (1987, 1989, 1990, 1994)
Psychoneuroendocrinology (1988)
Journal of Clinical Pharmacology and Therapeutics (1988)
American Journal of Public Health (1988, 1989, 1994, 1996)
Hospital and Community Psychiatry (1988, 1989)
Psychopharmacology (1990)

VA STUDY SECTION REVIEW
Health Services, Research and Development Service, Department of Veterans Affairs, Veterans Health Administration: October 96; April 97, October 97, April 98, October 98, April 99, October 99, April 2000
VA Merit Review: September, 2000.

NIDA STUDY SECTION REVIEW
March, 1999: Center review
March 1997, October 1997: Pharmacotherapy of Stimulant Dependence

TEACHING

a) UCLA School of Medicine Neuroscience Education Committee (Chaired by Dept. of Neurology and Pharmacology, 1993-94)
b) Prevention and Treatment of Aggression and Violence (UCLA Medical Students, VA Nursing, VA Social Work, 1981-1994)

c) Diagnosis and Treatment of Substance Abuse (Psychiatry Residents, Medical Students, VA Nursing, VA Social Work, 1981-1994)
d) UCLA 98F – Substance abuse in the 90's (Undergraduate honor's course, 1994, 1995)
e) UCLA Individual laboratory projects (Psychiatry 199, 1981-95)
f) UCLA Student Research Projects (SRP program, 1985-1995)
g) UCLA Medical Students (Series on Substance Abuse in General Psychiatry Series, B. Guze, M.D., Coordinator, 1991-1998)
h) Substance Abuse for Psychologists (Steven Sideroff, Ph.D., Coordinator, 1991-Ongoing)
i) Training seminars and supervision to Social work interns, Americorps volunteers in the homeless programs, and provided speakers and educational programs to the staff of the VA's Comprehensive Homeless Center (1994-2000)
j) Development of UCLA Medical Student Curriculum for psychiatry at Cedars-Sinai Medical Center (2000- ongoing)
k) Course Chair, UCLA School of Medicine Course PS250.04, Advanced Clinical Clerkship in Psychiatry (2000- ongoing)
l) Course Coordinator, "Biological Perspective on Dual Diagnosis" (UCLA Extension 10-week, 30 hour course for Los Angeles County Department of Mental Health and Division of Drug and Alcohol Counselors) (2001- ongoing)
m) Coordinator, Training in Substance Abuse for Psychiatry Residents and UCLA Medical Students at Cedars-Sinai Medical Center (2000- ongoing)

In addition to the above activities, our group has supported career advancement for 12 staff into professional fields. Coming to the CPU staff from UCLA, the California State Colleges, and USC, we have had staff ultimately leave the CPU to enter the following graduate training:

Medical School:	UCLA (1), UCSD (1), Stanford (1), USC (1) Medical College of Pennsylvania (1), S.U.N.Y. (1),
Doctoral Programs:	Pharmacology, UCLA (1), Neuroscience, Berkeley (1), Clinical Psychology, UCLA (3), Clinical Psychology, UCSF (1)

PUBLICATIONS

1. Sinha, Y.N., Wilkins, J.N., Selby, F. and VanderLaan, W.P. Pituitary and serum growth hormone during under-nutrition and catch-up growth in young rats. Endocrinology 92(6):1768-1771, 1973.

2. Wilkins, J.N., Mayer, S.E. and VanderLaan, W.P. The effects of hyperthyroidism and 2,4-dinitrophenol on growth hormone synthesis. Endocrinology 95(5):1259-1267, 1974.

3. Wilkins, J.N. Humors, Humans and Behavior. Contemporary Psychology 22(11):819-821, 1977.

4. Jarvik, L.F. and Wilkins, J.N. Aging, hormones and mental function. In: Neuropsychopharmacology. P. Deniker, C. Radoco-Thomas and A. Villaneuve (eds.), New York, Pergamon Press, Ltd., Oxford, pp. 49-57, 1978.

5. Wilkins, J.N. Endocrines and Depression. In: Contemporary Models in Consultation-Liaison Psychiatry. R.O. Pasnau, et al. (eds.), New York, Spectrum Publications, pp 173-184, 1978.

6. Wilkins, J.N. Neuroendocrinology and Clinical Psychiatry. In: Psychiatric Research. in Practice, E.A. Serafetinides (ed.), M. Greenblatt (Series ed.), New York. Grune and Stratton, pp. 101-111, 1981.

7. Van Putten, T., May, P.R.A. and Wilkins, J.N. Importance of akinesia: plasma chlorpromazine and prolactin levels. American Journal of Psychiatry 137(11):1446-1448, 1980.

8. Van Putten, T., May, P.R.A., Marder, S.R. and Wilkins, J.N. Plasma levels of thiothixene by radioreceptor assay and clinical outcome. Psychopharmacology Bulletin 18(1):99-101, 1982.

9. Cohen, L.S., Gosenfeld, L., Wilkins, J.N., Kammerer, R.C., and Tachiki, K. Demonstration of an amino acid metabolite of phencyclidine (Letter to the Editor). New England Journal of Medicine, 306(23):1427-1428, 1982.

10. Wilkins, J.N., Carlson, H.E., Van Vunakis, H., Hill, M.A., Gritz, E. and Jarvik, M.E. Nicotine from cigarette smoking increases circulating levels of cortisol, growth hormone and prolactin in male chronic smokers. Psychopharmacology 78(4):305-308, 1982.

11. Gerner, R.H. and Wilkins, J.N. CSF Cortisol in patients with depression, mania or anorexia nervosa and in normal subjects. American Journal of Psychiatry 140(1):92-94, 1983.

12. Carlson, H.E., Wasser, H.L., Levin, S.R., and Wilkins, J.N. Prolactin stimulation by meals is related to protein content. Journal of Clinical Endocrinology and Metabolism, 57(2):334-338, 1983.

13. Marder, S.R., Swann, E., Winslade, W.J., Van Putten, T., Chien, C.P. and Wilkins, J.N. A study of medication refusal by involuntary psychiatric patients. Hospital and Community Psychiatry, 35(7):724-726, 1984.

14. Kook, K.A., Stimmel, G.L., Wilkins, J.N., and Sprangher, G.G. Accuracy and safety of a priori lithium loading. J of Clin Psychiatry, 46(2):49-51, 1985.

15. Escobar, J.I., Mann, J.J., Keller, J., Wilkins, J.N., Mason, B. and Mills, M.J. Comparison of Injectable Molindone and Haloperidol Followed by Oral Dosage Forms in Acutely Ill Schizophrenics. Journal. of Clinical Psychiatry, 46(8):15-19, 1985.

16. Gerner, R.H., and Wilkins, J.N. CSF cortisol in affective illness, Psychiatric Medicine, 3(1): 33-40, 1985.

17. Gorelick, D.A., and Wilkins, J.N. Special aspects of human alcohol withdrawal. In: Recent Developments in Alcoholism, Volume IV, Ch. 13, pp. 283-305, (ed., M. Galanter), Plenum Publishing Corp., 1986.

18. Wilkins, J.N., and Gorelick, D.A. Clinical Neuroendocrinology and Neuropharmacology of Alcohol Withdrawal. In: Recent Developments in Alcoholism, Volume IV, Ch. 11, pp 241-263, (ed., M. Galanter), Plenum Publisher Corp., 1986.

19. Gorelick, D.A., Wilkins, J.N., and Wong, C. Diagnosis and treatment of chronic phencyclidine (PCP) abuse. Phencyclidine: An Update, NIDA Research Monograph 64 (ed., D. H. Clouet), pp 218-228, 1986.

20. Wilkins, J.N. Hallucinogens: Neurochemical, Behavioral, and Clinical Perspectives. The Quarterly Review of Biology, 61(1): 146, 1986.

21. Baxter, L.R., Wilkins, J.N., and Smith, G.B. A possible diurnal variation in trazodone metabolism. Journal of Clinical Psychopharmacology 6(4):223-226, 1986.

22. Baxter, L.R. Jr., Liston, E.H., Schwartz, J.M., Altshuler, L.L., Wilkins, J.N., Richeimer, S., and Guze, B.H. Prolongation of the antidepressant response to partial sleep deprivation by lithium. Psychiatry Research 19:17-23, 1986.

23. Altshuler, L.L., Kagan, B.L., Baxter, L.R. Jr., Smith, G.B., and Wilkins, J.N. Effect of interrupted sleep patterns and partial sleep deprivation on DST and mood in psychiatric house officers. *ACTA Psychiatric Scandinavica*, 75:614-618, 1987

24. Wilkins, J.N., Marder, S.R., Van Putten, T., Midha, K.K., Mintz, J., Setoda, D., and May, P.R.A. Circulating prolactin predicts risk of exacerbation in patients on depot fluphenazine. *Psychopharm Bulletin* 23(3):522-525, 1987.

25. Haracz, J.L., Minor, T., Wilkins, J.N. and Zimermann, E.G. Learned helplessness: An experimental model of the DST in rats. Biological Psychiatry 23:388-396,1988.

26. Haracz, J.L., Minor, T., Wilkins, J.N. and Zimermann, E.G. Animal models: Promise and pitfalls - Response. *Biol Psychiatry* 26:432-433, 1989 (Letter)

27. Gorelick, D.A., and Wilkins, J.N. Inpatient treatment of phencyclidine (PCP) abusers and users. *American Journal of Drug and Alcohol Abuse* 15(1):1-12, 1989.

28. Hartman, N., Jarvik, M.E., and Wilkins, J.N. Reduction of Cigarette smoking by use of a nicotine patch. (Letter to the Editor) *Arch Gen Psych* 46:289, 1989.

29. Wilkins, J.N., Spar, J.E., and Carlson, H.E. Desipramine increases circulating growth hormone in elderly depressed patients: a pilot study. *Psychoneuroendocrinology* 14(3):195-202, 1989.

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A62 Wilkins, JN, M.D., Kuo, J., M.D., Stewart, S., M.D., Zakari, H., M.D. : Online Videogames: Risks and Potential Benefits. Presented at the American Psychiatric Association Workshop, New York City, NY May, 2004

A63 Wilkins, JN, Hinkin, CH, Wilkins, S, vanGorp, WG. Decrements in Procedural Learning in Chronic Smokers. Presented at the International Neuropsychological Association Meeting, St. Louis, Mo., February, 2005.

A64 Videogames and Virtual Reality in Mental Health: An Evidence-Based Review of Cybertherapy Presented at the American Psychiatric Association Workshop, Atlanta, GA May, 2005

A65 Gallofin, L., Wilkins, JN, Ruiz-Mellott, K., Martin, J. Substance Abuse in the Prison Setting. Presented at the American Psychiatric Association Workshop, Atlanta, GA May, 2005

A66 Kuo, J., Wilkins, JN, Huang, W. Exploring the Diagnosis and Treatment on Online Gaming Addiction. Games, Learning & Society, University of Wisconsin-Madison School of Education. June, 2005.

A67 Wilkins, JN. Resilience and Prevention of Substance Abuse in Children and Adolescents, California Society of Addiction Medicine/American Society of Addiction Medicine State of the Art Conference, October 19-22, 2005, Long Beach, CA.

A68 Wilkins, JN. Co-Occurring Substance Abuse and Mental Health Disorders: from Neurobiology to Treatment Strategies, California Society of Addiction Medicine/American Society of Addiction Medicine State of the Art Conference, October 19-22, 2005, Long Beach, CA.

A 69. Wilkins, JN and Hrymoc, M. American Society of Adolescent Psychiatry, March 10, 2007: "Prevention Methodologies for Child and Adolescent Cigarette Smoking, Alcohol and Drug Abuse"

A 70. Wilkins, JN. American Society of Adolescent Psychiatry, March 10, 2007: "Psychopharmacological Treatment of Adolescent Substance Abusers

A71 Wilkins, JN, Hrymoc, M., Cornner, R., Quiring, A."Cognitive performance of subjects undergoing flumazenil, hydroxyzine, and gabapentin treatment of alcohol dependence" Presented at the Annual Meeting for the Research Society on Alcoholism in July 2007

A72 Wilkins, JN, Hrymoc, M., Cornner, R., Quiring, A. "Neuropsychological Findings and Work Function in Alcohol Dependent Subjects" Presented at the mid-year meeting for the International Neuropsychological Society in July 2007

A73 Lee, E., Ishak, W., JN Wilkins "Gay Men and Crystal Methamphetamine: A Review" American Psychiatric Association, Activity: Issue and Media Workshops, May, 2007.

A74 Kuo, J., Huang, W., JN Wilkins "Treatment of Co-Occurring Disorders Within Correctional Settings"Presented at the National Meeting of the American Academy of Addiction Psychiatry, November, 2007.

A75 Wilkins, J., Kuo, J., Pimstone, D. Overview of Internet Addiction: An Evidence-Based Review. Presented as a Workshop at the American Psychiatric Association, Washington, D.C., May, 2008

A76 Kuo, J., Wilkins, JN. Exploring the Diagnosis and Treatment on Online Gaming Addiction. Games for Health Annual Conference, Baltimore Maryland, May, 2008.

A77 Workshop at American Academy of Addiction Psychiatry. "Mindfulness in Treatment of Co-Occurring Disorders", December 4, 2009
Jack Kuo, M.D.
Jeffery N. Wilkins, M.D.
William Huang, M.D.
Richard Burr

A78 Workshop at American Academy of Addiction Psychiatry. "Non Chemical Addictions", December, 2009 "Nonchemical Addictions: New Classification, Psychopathology and Therapeutic Strategies"
A.Y. Egorov, MD, PhD, Doct.Sci.(habil.), Department of Psychiatry and Addictive Disorders, Medical Faculty, St.Petersburg State University, Russia
Jeffery N. Wilkins, MD, Cedars-Sinai Medical Center, Los Angeles, CA, USA
W. Huang, MD, Southern California Drug and Alcohol Programs, Cedars-Sinai Medical Center, Los Angeles, CA, USA

A79 ASAP National Conference: Prevention of Alcohol and Drug Abuse in Children and Adolescents March, 2010; American Society for Adolescent Psychiatry (Oral Presentation)

Jeffery N. Wilkins, M.D.
David Goldbloom, M.D.

A80 New Directions California: Prevention of Substance Abuse: A Review July, 2010 CSAM & DPA Jointly Sponsored Conference at California Endowment (Oral Presentation)
Jeffery N. Wilkins, M.D.