Published in final edited form as:

Soc Work Public Health. 2016 October ; 31(6): 481–489. doi:10.1080/19371918.2016.1160340.

Intervention efficacy in engaging Black and White veterans with PTSD into treatment

Tracy Stecker^{1,2}, Leslie Adams, Elizabeth Carpenter-Song¹, Joanne Nicholson¹, Nicholas Streltzov¹, and Haiyi Xie¹

¹Psychiatric Research Center, The Geisel School of Medicine at Dartmouth

²VA Health Services Research and Development, White River Junction Veterans Administration

Abstract

Objectives—This study examined racial differences among Black and White veterans who screened positive for PTSD but were not in PTSD treatment and were participating in an intervention trial.

Methods—Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans with PTSD but not yet engaged in treatment were recruited and randomly assigned to control or intervention conditions. Intervention participants received a cognitive-behavioral engagement intervention by phone. All participants received follow-up calls to assess symptoms and utilization of treatment. Black and White participants were compared to assess differences in treatment utilization. Intervention session notes were analyzed qualitatively for explanatory themes.

Results—Participants of both races who received the intervention had higher PTSD treatment initiation than their respective control groups (Blacks: 85% vs. 58% and Whites: 53% vs. 45%, respectively). However, Blacks completed fewer PTSD treatment sessions compared to Whites overall (mean: 2.06 [2.3] vs. 3.77[9.9], $p<0.05$). Within the intervention condition, Blacks were significantly more likely to initiate treatment (OR: 2.3, $p<0.04$), and had a greater reduction in PTSD symptom compared to Whites (PCL scores: 12.75 vs. 9.68). Based on qualitative analysis of intervention session notes, themes emerged that may suggest cultural differences involving social connection, attitudes towards treatment, and the desire to appear “okay”.

Conclusions—Blacks had a higher initiation rate and greater reduction in PTSD severity, but completed fewer treatment sessions than Whites. These are promising results with respect to other studies which demonstrate that Black veterans are less likely to seek treatment for PTSD.

Introduction

Previous literature on veterans returning from deployment to Iraq and/or Afghanistan has illustrated the effects of combat on mental health, including the prevalence of PTSD symptoms (Richardson, Frueh, & Acierno, 2010). The Center for Military Health Policy Research reported that OEF/OIF warfighters have a 13.8% overall prevalence of PTSD

(Tanielian et al., 2008) a prevalence significantly greater than the estimated 6.8% lifetime prevalence of PTSD among the American population in general (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005).

The accessibility of PTSD services available through the US Department of Veterans Affairs provides a unique opportunity to identify differences in utilization among different demographic populations (Charbonneau et al., 2003; Holden & Xanthos, 2009; Cook, McGuire, & Miranda, 2007). One previous study identified higher inpatient and outpatient medical treatment utilization, compared to civilians, for physical health problems among both male and female Vietnam veterans returning from combat with PTSD (Schlenger, 1992). Despite the availability of mental health services in the overall US population, people of color experience a wide range of disparities regarding mental health access and treatment. A landmark report from the Surgeon General highlighted the disparities in accessing quality mental health care among Blacks and other racial/ethnic groups (Mental Health: Culture, Race, and Ethnicity, 2001). Given that Blacks may be at increased risk of developing PTSD relative to Whites, Asians, and Latinos (Alegria et al., 2013), it is essential to find novel interventions that can address the racial disparities in mental health care.

Studies examining racial differences in treatment-seeking behavior for PTSD in the veteran population have produced mixed results. For instance, a recent study found that Latino and Black veterans had lower retention rates in PTSD treatment relative to Whites, and that a particularly poignant disparity existed between pharmacotherapy retention rates for PTSD between Black and White veterans (Spoont et al., 2015). A similar study of pre-9/11 service members reported that Black veterans had substantially lower rates of service connection for PTSD than non-Black veterans (Murdoch et al., 2003). Black veterans have been found to be significantly less likely to seek treatment for PTSD, in the form of visiting a physician, counselor, or hospital, than White veterans (Roberts, Gilman, J. Breslau, N. Breslau, & Koenen, 2011). Further, past studies have identified that Blacks have a significantly increased likelihood of early PTSD treatment termination compared to Whites (Lester, Artz, Resick, & Young-Xu, 2010). However, racial disparities in PTSD treatment utilization have not been consistently replicated. When looking specifically at newly returning veterans, one recent study found no significant racial or ethnic differences in mental health treatment utilization among OEF and OIF veterans (Seal et al., 2010), and another study found no significant difference between Asian/Pacific Islander and White veteran's health service use (Tsai, Whealin, & Pietrzak, 2014). Although the results are not always consistent between studies, no existing research has found higher rates of VA treatment utilization among racial/ethnic minority veterans compared to Whites.

The purpose of the larger intervention trial reported in this paper was to test the effectiveness of a single, brief cognitive-behavioral phone intervention designed to improve PTSD treatment engagement among OEF/OIF veterans who screened positive for PTSD and who had not engaged in PTSD treatment. Participants in the main trial who had been randomly assigned to the intervention condition were found to have an accelerated rate of treatment initiation and of symptom reduction over the course of the 6-month follow-up period (Stecker, McHugo, Jones, Whyman, & Xie, in press). The purpose of this study was to compare the effectiveness of the intervention between Black and White participants. We

hypothesized that Black participants would be less likely to initiate PTSD treatment than White participants, regardless of whether they had been assigned to the intervention or control condition. We further hypothesized that Black participants would seek fewer PTSD treatment sessions than White participants over the course of the six month study.

Methods

Participants and recruitment

Eligible participants were service members who screened positive for PTSD after returning from a deployment to Iraq and/or Afghanistan and who had not initiated PTSD treatment. Participants were recruited through visits to armories and through social media advertisements. Initial screenings for PTSD were conducted with the Mini-International Neuropsychiatric Interview-PTSD subscale (MINI). Participants who screened positive for PTSD and were interested in participating went through the consent process. Individuals were excluded from participation if they had already been or were in PTSD treatment. Study procedures were reviewed and approved by the institutional review boards of the investigators' institutions. Overall, 38 Blacks and 190 Whites were enrolled in the study, for a total of 228 participants. The proportion of Blacks in the study (16.6%) is relative to the self-reported proportion of Black Active Duty Members currently serving in the US military (16.9%) ("Population Representation in the Military Services," 2010).

Procedures

Upon enrollment in the study, participants were randomly assigned to either the intervention or control conditions. At baseline, trained study staff assessed beliefs about PTSD treatment and symptom severity. Intervention participants received an additional phone call following this initial survey to go through their one-time intervention phone call. The intervention calls were conducted by psychologists trained in the CBT engagement intervention. The interventionist staff consisted of one Arab American, female psychologist and one White, female psychologist. All participants received follow-up calls from the study staff to assess for service utilization, beliefs about PTSD treatment, and symptoms at months 1, 3, and 6 subsequent to the baseline telephone assessment (Stecker, McHugo, Jones, Whyman, & Xie, in press).

Measures

To determine symptom severity, the PTSD Checklist-Military Version, a reliable and valid assessment of PTSD and the Physicians Health Questionnaire, PHQ-9, a reliable and valid measure of major depressive disorder was used.

The Perceptions about Services Scale (PASS) assessed beliefs about PTSD treatment. The PASS is a 45-item self-report measure with items conforming to the Theory of Planned Behavior (Ajzen, 1991). Responses are rated on a 7-point Likert-type scale with higher numbers reflecting more positive beliefs about treatment (e.g., "1 = strongly disagree" to "7 = strongly agree"). Examples of items on the scale include: "Treatment will reduce symptoms"; "Some of my experiences would be too difficult to talk about in treatment"; and "Going to treatment means I can't handle my problems." Some items are reverse-coded for

scoring. The PASS has adequate test-retest reliability and high internal consistency (Ajzen, 1991; Stecker, Fortney, Hamilton, Sherbourne, Ajzen, 2010).

To assess treatment utilization, all participants received follow-up phone calls at months 1, 3, and 6 after the baseline assessment.

Intervention sessions

Intervention sessions were conducted by telephone and lasted approximately 45–60 minutes. Sessions were based on principles of cognitive-behavioral therapy (CBT), a theory suggesting that thoughts, feelings, and behaviors interact with each other and, together, influence behavior. Since thoughts are modifiable, changing thoughts about situations may change behavior in those situations. For example, a thought, “I don’t need treatment” might become “I might need treatment considering how hard it is to sleep and the impact it is having on relationships and job” or “I am drinking a lot to avoid thinking so maybe treatment could help me deal with my memories better”. Sessions addressed a maximum of three beliefs in this manner. Participants identified beliefs most influential in their treatment-seeking behavior. Interventionists addressed participants’ beliefs using CBT principles to modify thoughts to those more consistent with active treatment-seeking behavior. The content of the intervention was recorded by the interventionist’s notes, and the notes were reviewed by the PI during regular supervision meetings.

Analysis

A mixed methods approach to the analysis allows for an understanding of the intervention process and the isolation of key ingredients or factors that may be related to positive change in desired domains with specific populations (Creswell & Clark, 2007; Patton, 2011; Westley, Zimmerman, & Patton, 2009). Quantitative and qualitative analyses were completed sequentially, with quantitative preceding qualitative analyses. Accordingly, qualitative analyses were conducted to provide insight into possible explanations for the main outcomes described herein.

Descriptive statistics were calculated, including means and frequencies, to describe demographic characteristics of participants. Logistic regression was used to compare the two groups for differences in treatment initiation at each follow-up point. Because the number of treatment sessions initiated was a count variable, positively skewed, the negative binomial model assessed group differences in the cumulative number of treatment visits at each follow-up point. Generalized equation models were used for longitudinal analysis of PTSD and depression symptom severity for Blacks and Whites. All statistical analyses were conducted with SAS v.9.3. A p-value of 0.05 was used to indicate statistical significance.

Qualitative analyses augmented the ability to interpret the quantitative findings. Qualitative methods “reach the parts other methods cannot reach” in health research (Pope & Mays, 1995) and are a useful way for getting inside the “black box” of psychosocial interventions (Pope & Mays, 1994). We conducted qualitative analyses of intervention session notes as provided on a standard study form from all Black participants who received the intervention (n=15) and from a random selection of White participants from the sample of 190 who received the intervention (n=15).

The interventionists recorded hand-written notes on standard study forms, and these notes provide documentation of the participants' current status, treatment beliefs, changes in treatment beliefs prompted by interventionists, and plans for follow-up. Session notes are a useful "window" into the experiences and perspectives of the participants as systematically recorded during the intervention.

Provisional themes emerged through a review process in which all of the authors independently read the session notes and made comments regarding the intervention session. Initial impressions of the data were presented and discussed in a group context and to refine and confirm/disconfirm provisional themes, qualitative matrices were constructed (Miles & Huberman, 1994). This form of data display provides "an organized, compressed assembly of information that permits conclusion drawing" (Miles & Huberman, 1994), and facilitates the identification of patterns and relationships. Qualitative matrices were again reviewed and discussed by research team members to achieve consensus on main themes.

Results

Characteristics of study participants are presented in Table 1. Thirty-eight Black veterans (15 randomly assigned to the intervention condition and 23 to the control condition) and one hundred and ninety White veterans (87 randomly assigned to the intervention condition and 103 to the control condition) enrolled in the larger trial. A higher majority of the Black participants were female (31.6% versus 10%, respectively). Black participants were also slightly older than Whites (mean age of 31 years versus 29 years, respectively). The majority of participants reported that they had access to a primary care physician within 30 minutes of their home.

To compare treatment seeking and retention among Black and White participants in both intervention and control conditions, logistic regression models were used. Black participants who received an intervention were significantly more likely to have initiated treatment over the six-month follow-up period than White participants. Almost all of the Black participants (13 of 15) who received an intervention session sought PTSD treatment during the six-month follow-up period, and Blacks overall were found to be more than two times as likely to seek treatment as White participants ($OR = 2.3$, $p < 0.04$) (see Table 2).

While Blacks were more likely to seek PTSD treatment, particularly those who had received an intervention session, they reported attending fewer PTSD treatment sessions than Whites during the six-months (mean = 2.06, $SD = 2.3$ versus mean = 3.77, $SD = 9.9$ sessions, $t = -1.98$, $df = 192.5$, $p < 0.05$). Among intervention participants in both groups, Blacks attended only 2.9 ($SD = 2.8$) sessions on average during the six-months versus 4.7 ($SD = 13.4$) sessions among White intervention participants ($t = -1.04$, $df = 85.9$, $p < 0.3$). This demonstrates that while Blacks were more likely to seek PTSD treatment, the vast majority of participants attended fewer than 5 PTSD treatment sessions in the six-months.

Symptoms of PTSD and depression diminished over the six-month trial. Black participants had slightly lower PTSD and depression symptom scores at baseline than White participants (PCL: 56.7 versus 59.8 and PHQ9: 15.6 versus 16.5, respectively), but both groups saw

similar reductions in symptomatology over the six-months (see Table 2). Generalized equation models were used to assess reductions in PTSD and depression symptoms, assessing for time, group X time, and race effects. Symptoms of PTSD (coefficient = -5.4 , $p < 0.0001$) and depression (coefficient = -3.2 , $p < 0.001$) reduced significantly over time, but there were no group differences. Statistically and clinically significant reductions in PCL were seen among all groups.

Both Black and White participants had significant changes in their beliefs about PTSD treatment toward more positive beliefs about treatment. White participants, between groups and over time, had significant changes in beliefs on items pertaining to treatment improving their symptoms ($F = 4.42$, $df = 3$, $p < 0.005$); that specialists would understand their symptoms ($F = 4.24$, $df = 3$, $p < 0.006$); that treatment means that they can't handle their problems on their own ($F = 3.05$, $df = 3$, $p < 0.03$); that therapy is a waste of time ($F = 2.94$, $df = 3$, $p < 0.04$); that mental health specialists would be able to help them ($F = 3.72$, $df = 3$, $p < 0.01$); and that treatment would be beneficial ($F = 2.64$, $df = 3$, $p < 0.05$). Black participants had significant changes between groups and over time on items pertaining to symptom improvement ($F = 4.28$, $df = 3$, $p < 0.006$); that mental health specialists would be able to help them ($F = 2.81$, $df = 3$, $p < 0.04$); and that treatment would be beneficial ($F = 3.85$, $df = 3$, $p < 0.01$).

Qualitative results

We identified three themes to describe participants' experiences of PTSD, treatment-seeking behavior, and efforts toward symptom reduction: (1) Social Connectedness; (2) Attitudes and Expectations towards Treatment; and (3) the Desire to Appear "Okay."

Social Connectedness

The majority of Black participants receiving the intervention mentioned the influence of family, friends, or religion in their daily lives. Some participants described how being connected to others helped them to manage symptoms. One veteran noted this was important as he was able to call someone to talk when he was having a "bad day". Family, in particular, was mentioned as a key motivator to seeking treatment. One participant discussed how his family thinks he is brave and would "be supportive of him seeking treatment". One Black participant discussed her strained relationship with her daughter as a primary reason for seeking treatment; another stated how his "daughter helps me cope"; while another cited her mother as being the one to encourage her transition towards reducing her PTSD symptoms. In some instances, the family members were reported to provide additional insight towards the participant's condition, which prompted their decision to seek treatment. Additionally, a number of Black participants discussed the desire to have a family. Overall, the social network was perceived as supportive.

White participants, on the other hand, discussed an aspiration for additional social support in coping with PTSD. Descriptions of relationships with family and friends carried a less positive tone. One veteran noted that her "sister stops by to make her do stuff but her Mom wants her to snap out of it". Most White participants discussed their spouses rather than other family members. For many this was a source of tension. One described how he and his

wife tried counseling, but she “gets mad and argues”. Another said his “wife seemed more distant, cold, uncaring”. Overall, the level of involvement in family and social structure was discussed less frequently, if at all, and was seemed to be less of a factor involved in seeking treatment.

Attitudes and Expectations towards Treatment

A number of Black participants described their attitude toward treatment as having “nothing else to lose” or “welcoming”, while others expressed hesitation. One Black female discussed her hesitation to seek treatment: “I don’t want to tell my story and I don’t want to hear anyone else’s”. For this individual, the prospect of discussing her experiences in group settings with other military personnel did not motivate her to pursue treatment.

Overall, the intervention notes reflected a less accepting attitude toward PTSD treatment among Whites. Some felt that treatment was unnecessary, noting simply, “I don’t need it.” Others expressed doubts about the efficacy of PTSD treatments, stating, “I don’t know if it would help” and “Can’t fix it just seeing a therapist.” In some cases, White participants expected that their PTSD symptoms would improve “once I get a job” or “once I transition from active duty.” Individuals in this sample also cited previous negative interactions with therapists or counselors, which influenced their attitude towards resuming undesirable communications with health professionals for PTSD treatment. Among Whites who were open to seeking PTSD treatment, speaking to other Veterans and the opportunity to “talk to someone who’s been there” was viewed positively.

The Desire to Appear “Okay”

Both the White and Black groups discussed the concept of masking their symptoms in order to be perceived as fully functional. Some participants characterized this mindset as a “fake it until I make it” mentality. Other participants discussed the “fear of failure” in acknowledging their condition to others. Black participants mentioned their fear of appearing weak. One Black female participant described her experiences as making her a “weak Christian”. For White participants, masking involved an effort to appear positive all the time. One man noted, “I fake happiness, I fake love; I’m not able to tell anyone who I am or what I did”. Although there was dialogue regarding this theme among most study participants, Black participants cited masking symptoms more often in their intervention discussions.

One Black female described this masking as “outside everything looks normal, but inside, I am confused and miserable”. Another Black female discussed more tangible definitions of masking, such as wearing makeup to increase her self-confidence. These efforts to mask symptoms have a precarious feel to them, as exemplified by a Black woman who carries around a mug filled with wine in order to “get through the day.”

Discussion

Black participants in the intervention group were significantly more likely to initiate PTSD treatment than White participants. Our hypothesis was that Black participants, regardless of condition, would be less likely to initiate treatment, thus this was an unexpected finding.

These are promising results with respect to other studies which demonstrate that Black veterans are less likely to seek treatment for PTSD. However, despite being more likely to initiate PTSD treatment, Black participants completed fewer PTSD treatment sessions over the course of the six-month study.

White participants had higher symptom severity scores at baseline and attended more PTSD treatment sessions than Black participants over the course of the six-month trial. The higher symptom severity scores may explain why White participants attended more PTSD treatment sessions, but does not explain why they were less likely to initiate treatment than Black participants. Recent studies illustrate that OEF/OIF veterans with more severe PTSD scores or greater depression severity may be more likely to access treatment services than those with milder forms of PTSD (Elbogen, 2013).

Qualitative themes suggest potential explanations for our findings. For many Black participants, social support appeared to motivate them to seek treatment. Blacks were strongly embedded in familial and social networks and were willing to seek help in order to maintain those bonds. When individuals fail to fulfill social obligations, others in their network may recognize their need to seek help. However, strong community ties may also be a burden when individuals feel the need to mask their symptoms or feelings in order to fulfill their responsibilities to family, and this may prevent many people from initially seeking help.

For White participants, negative perceptions of existing PTSD treatment services dominated the intervention session notes. In this group, previous interactions with therapists, counselors, or VA medical service providers in general were portrayed as creating barriers in seeking treatment for PTSD. Many individuals in this group discussed a need to interact with people who have had similar experiences, such as fellow veterans or counselors with combat experience in order to understand the context of their traumatic experiences.

Among both intervention and control conditions, Black and White participants were found to have significant reductions in PTSD and depressive symptoms, regardless of treatment utilization. Recent data support the use of VA treatment services to reduce the severity of posttraumatic stress symptoms (Goodson, Lefkowitz, Helstrom, & Gawrysiak, 2013). As a result, effective psychotherapeutic strategies should continue to be utilized within the VA, with an added emphasis on encouraging initial access to treatment within the veteran population.

Our findings were limited by various aspects of our study design. First, there were significantly more White veterans participating in the trial than Blacks, which inhibited a more equal comparison of groups but may provide further insight towards the demographic profile of the United States military population. Other racial/ethnic groups were not included in the sample due to limits with the sample. The qualitative findings were solely based on responses from individuals within the intervention arm of the study. While formal unstructured or semi-structured research interviews were not conducted, intervention session notes provide at least modest characterizations of the veteran experience with PTSD.

Conclusion

A brief intervention designed to improve PTSD treatment seeking is effective at improving treatment initiation, particularly among Black participants. Interventions aimed at diverse veteran profiles in the U.S. military will be a new challenge for health care providers charged with caring for these individuals. Maintaining an understanding of racial obstacles and facilitators in seeking support and continuing follow-up care will be increasingly essential as the military population continues to experience posttraumatic stress related to combat experiences.

References

- Ajzen I. The theory of planned behavior. *Organizational behavior and human decision processes*. 1991; 50(2):179–211.
- Alegria M, Fortuna LR, Lin JY, Norris LF, Gao S, Takeuchi DT, Valentine A. Prevalence, Risk, and Correlates of Posttraumatic Stress Disorder across Ethnic and Racial Minority Groups in the US. *Medical care*. 2013; 51(12):1114. [PubMed: 24226308]
- Carpenter-Song E, Chu E, Drake RE, Ritsema M, Smith B, Alverson H. Ethno-cultural variations in the experience and meaning of mental illness and treatment: Implications for access and utilization. *Transcultural Psychiatry*. 2010; 47(2):224–251. [PubMed: 20603387]
- Charbonneau A, Rosen AK, Ash AS, Owen RR, Kader B, Spiro A III, Berlowitz DR. Measuring the quality of depression care in a large integrated health system. *Medical care*. 2003; 41(5):669–680. [PubMed: 12719691]
- Cook B, McGuire T, Miranda J. Measuring trends in mental health care disparities, 2000–2004. *Psychiatric Services*. 2007; 58(12):1533–1540. [PubMed: 18048553]
- Creswell, JW.; Clark, VL Plano. *Designing and conducting mixed methods research*. Thousand Oaks, CA [etc.]: SAGE Publications; 2007.
- Elbogen EB, Wagner HR, Johnson SC, Kinneer P, Kang H, Vasterling JJ, Beckham JC. Are Iraq and Afghanistan veterans using mental health services? New data from a national random-sample survey. *Psychiatric Services*. 2013; 64(2):134–141. [PubMed: 23475498]
- Goodson JT, Lefkowitz CM, Helstrom AW, Gawrysiak MJ. Outcomes of Prolonged Exposure Therapy for Veterans With Posttraumatic Stress Disorder. *Journal of traumatic stress*. 2013; 26(4):419–425. [PubMed: 23934939]
- Holden KB, Xanthos C. Disadvantages in mental health care among African Americans. *Journal of health care for the poor and underserved*. 2009; 20(2A):17–23. [PubMed: 19711490]
- Lester K, Artz C, Resick PA, Young-Xu Y. Impact of race on early treatment termination and outcomes in posttraumatic stress disorder treatment. *Journal of consulting and clinical psychology*. 2010; 78(4):480. [PubMed: 20658805]
- Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*. 2005; 62(6):593–602. [PubMed: 15939837]
- Miles, MB.; Huberman, AM. *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd. Sage Publications, Inc.; 1994.
- Murdoch M, Hodges J, Cowper D, Fortier L, van Ryn M. Racial disparities in VA service connection for posttraumatic stress disorder disability. *Medical care*. 2003; 41(4):536–549. [PubMed: 12665717]
- Patton, MQ. *Developmental evaluation: Applying complexity concepts to enhance innovation and use*. New York, NY: The Guilford Press; 2011.
- Pope C, Mays N. Qualitative research: reaching the parts other methods cannot reach: an introduction to qualitative methods in health and health services research. *Bmj*. 1995; 311(6996):42–45. [PubMed: 7613329]

- Pope, C.; Mays, N. *Nursing Research*. Springer US; 1994. Opening the black box: an encounter in the corridors of health services research; p. 145-161.
- Richardson LK, Frueh BC, Acierno R. Prevalence estimates of combat-related post-traumatic stress disorder: critical review. *Australian and New Zealand Journal of Psychiatry*. 2010; 44(1):4-19. [PubMed: 20073563]
- Roberts AL, Gilman SE, Breslau J, Breslau N, Koenen KC. Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychological medicine*. 2011; 41(01):71-83. [PubMed: 20346193]
- Roberts AL, Gilman SE, Breslau J, Breslau N, Koenen KC. Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychological medicine*. 2011; 41(01):71-83. [PubMed: 20346193]
- Seal KH, Maguen S, Cohen B, Gima KS, Metzler TJ, Ren L, Marmar CR. VA mental health services utilization in Iraq and Afghanistan veterans in the first year of receiving new mental health diagnoses. *Journal of Traumatic Stress*. 2010; 23(1):5-16. [PubMed: 20146392]
- Schlenger WE, Kulka RA, Fairbank JA, Hough RL, Kathleen Jordan B, Marmar CR, Weiss DS. The prevalence of post-traumatic stress disorder in the Vietnam generation: A multimethod, multisource assessment of psychiatric disorder. *Journal of Traumatic Stress*. 1992; 5(3):333-363.
- Spoont MR, Nelson DB, Murdoch M, Sayer NA, Nugent S, Rector T, Westermeyer J. Are there racial/ethnic disparities in VA PTSD treatment retention? *Depress. Anxiety*. 2015; 32:415-425. [PubMed: 25421265]
- Stecker T, Fortney J, Hamilton F, Sherbourne CD, Ajzen I. Engagement in mental health treatment among veterans returning from Iraq. *Patient preference and adherence*. 2010; 4:45. [PubMed: 20390058]
- Stecker T, McHugo G, Jones M, Whyman K, Xie H. A randomized controlled trial of a phone-based cognitive-behavioral intervention to improve PTSD treatment utilization among returning service members. *Psychiatric Services*. (in press).
- Tanielian, T.; Haycox, LH.; Schell, TL.; Marshall, GN.; Burnam, MA.; Eibner, C.; Vaiana, ME. *Invisible Wounds of War. Summary and Recommendations for Addressing Psychological and Cognitive Injuries*. Santa Monica, CA: RAND Corp.; 2008.
- Tsai J, Whealin JM, Pietrzak RH. Asian American and Pacific Islander military veterans in the United States: health service use and perceived barriers to mental health services. *American journal of public health*. 2014; 104(S4):S538-S547. [PubMed: 25100419]
- U.S. Department of Health and Human Services. *Mental Health: Culture, Race, and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services; 2001.
- U.S. Department of Defense. *Population Representation in the Military Services*. Office of the Deputy Assistant Secretary of Defense (Military Community and Family Policy); 2010.
- Westley, F.; Zimmerman, B.; Patton, M. *Getting to maybe: How the world is changed*. Toronto: Random House of Canada Limited; 2007.
- Zimmerman MA, Ramirez-Valles J, Maton KI. Resilience among urban African American male adolescents: A study of the protective effects of sociopolitical control on their mental health. *American Journal of Community Psychology*. 1999; 27(6):733-751. [PubMed: 10723533]

Table 1

	Black	White
% Female gender	31.6%	10%
Mean age	31.05	28.99
Travel distance:		
0–30 miles	74%	65%
30–60 miles	8%	10%
60+ miles	6%	3%

Table 2

	Black (n=38)			White (n=190)		
	Overall	Intv	Control	Overall	Intv	Control
Initiated PTSD Tx	69%	85%	58%	49%	53%	45%
Number of Sessions (SD)	2.06 (2.3)	2.92 (2.8)	1.47 (1.7)	3.77 (9.9)	4.68 (13.4)	2.97 (5.2)
% Reporting Suicidality at Baseline	29%	27%	30%	33%	26%	39%
PCL change scores: Baseline – 6 months (SD)	11.36 (16.5)	12.75 (20.7)	10.47 (13.9)	14.42 (10.5)	9.68 (13.7)	11.21 (15.1)