

Project Veterans’ Empowerment over Stress Trial

**DOES VETS PREVAIL EMPOWER
VETERANS AND IMPROVE THEIR LIVES?**

Stevan E. Hobfoll, Ph.D., Principal Investigator

Lisa Walt, Ph.D., Project Director

Natalie Stevens, Ph.D. &

Rebecca Blais, Ph.D.

Rush University Medical Center

Richard Gengler, M.B.A.

Principal Project Partner, Prevail Health Solutions

A special initiative funded with the generous support of

the Bristol Meyers Squibb Foundation

Catherine Grimes, Senior Development

EXECUTIVE SUMMARY

Background

Veterans from the Iraq and Afghanistan war theatres are at high risk for developing combat-related stress disorders such as posttraumatic stress disorder (PTSD) and depression, which are associated with significant impairment in functioning. In addition, these Veterans are twice as likely to commit suicide than civilian adults. Still, as many as 77% of Veterans do *not* seek mental health treatment due to perceived stigma associated with mental health services and restricted access to mental health services.

This report details the preliminary results of Project VEST, a 12-week randomized clinical trial of Vets Prevail. Vets Prevail is a dynamic and innovative CBT-based program with assisted peer support and community building message-board interactions that is delivered via the internet. The program allows users to access a total of seven lessons at their own leisure, in the comfort of their own homes, and helps to normalize mental health care while also reducing psychological distress related to combat stress.

Current Study

A total of 309 Veterans participated in Project VEST. Participants received a baseline survey that assessed PTSD and depression symptoms, daily functioning, and stigma related to seeking mental health services. Participants were then randomized into the Vets Prevail group or to the Adjustment-as-Usual control group. PTSD, depression, daily functioning, and stigma were reassessed at 6-weeks and 12-weeks post-enrollment.

Outcomes

Participants who received the Vets Prevail treatment reported clinically and statistically significant reductions in PTSD and depression symptoms. In contrast, those in the Adjustment-as-Usual group generally became more symptomatic over time. There were no significant group differences in daily functioning and reported stigma across the trial. However, the Vets Prevail group displayed a trend toward reduced stigma over the course of the study. Both Vets Prevail and Adjustment-as-Usual participants reported relatively high levels of daily functioning and low levels of stigma prior to treatment, indicating that functioning and stigma did not cause significant problems for individuals in our study. Finally, we found that the Vets Prevail program worked equally well for men and women, non-minorities and minorities, and for those with varying levels of trauma exposure.

Discussion

Vets Prevail reduced PTSD and depression symptoms in our sample compared to a treatment-as-usual group. The Vets Prevail program is a valuable tool for Veterans that can significantly improve mental health outcomes. Vets Prevail is also highly cost-effective given

that it can be delivered at a cost of less than .5% of face-to-face interventions, with costs decreasing with increased scale.

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Preface:

Meet the Study Partners

Three organizations, led by Stevan Hobfoll, PhD and Richard Gengler, MBA, were collaboratively involved in this randomized clinical trial:



The Iraq and Afghanistan Veterans of America (IAVA) Association is the first and largest nonprofit, nonpartisan organization for new Veterans, with

over 200,000 Veterans and supporters nationwide. IAVA strives to build an empowered generation of Veterans who provide sustainable leadership for our country and their

local communities. They work toward this vision by partnering to create and promote programs that assist Veterans and their families in four key impact areas: supporting new Veterans in 1) Health, 2) Education, 3) Employment, and 4) Building a lasting supportive community for Veterans and their families.

Prevail Health Solutions is a Veteran-owned-and-operated health care technology company that builds and delivers systematic online behavioral health programs that fulfill the promise of Anywhere-Based Care™. Prevail's programs bridge the gap between wellness and managed care, improving behavioral health and removing obstacles to engagement with health care, such as heightened health care demand and mental health resource management shortfalls. Dynamically customized at the individual level, these programs are the next generation in digital health coaching, ultimately rooted in the notion that you can't help people unless you can engage them.



Rush University Medical Center is a leading not-for-profit academic

medical center in Chicago, conducting health care, education, and research, and encompassing a 664-bed hospital providing medical care for adults and children. The Department of Behavioral Sciences at Rush is committed to the clinical practice of psychology, advancing psychological science through an active research program, and the advanced training of psychologists and physicians. The Traumatic Stress Center, which led this project, is headed by Dr. Stevan Hobfoll, PhD, whose primary interest is developing an understanding of PTSD and how to best treat the disorder.

Why We Conducted the Study

Veterans from the Iraq and Afghanistan war theatres, termed Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) respectively, are at higher risk for developing combat-related stress disorders such as posttraumatic stress disorder (PTSD) and depression, as well as other daily functioning problems.^{1,2,3}

PTSD is a psychological disorder caused by exposure to an extreme stressor that threatens an individual's life or safety and causes extreme horror.⁴ Examples of such events include war-related activities, accidents, or a horrific personal injury. PTSD is marked by difficulties with re-experiencing symptoms, such as nightmares or becoming upset when reminded of the trauma, difficulties connecting with others or talking about the trauma, negative changes in mood, feeling constantly alert or "on-guard," difficulty relaxing, and difficulty sleeping and concentrating.⁴ Depression is another psychological disorder marked by sad or irritable mood, difficulty experiencing enjoyment and pleasure, loss of energy, problems with sleep and appetite, concentration difficulties, marked change in activity level, feelings of guilt and hopelessness, and even thoughts that the individual would be better off dead.⁴

Rates of PTSD and depression in Veterans are staggering: 17-22% of all returning Veterans experience PTSD or depression after their deployment to Iraq or Afghanistan.⁵ Prevalence of distress is *4.5 times higher* than the distress experienced by their civilian

22 Veterans will take their life each day... This suicide rate is twice that of civilians. The estimated 8,000 Veteran deaths per year is higher than the total number of Veterans lost in direct war conflict since 2004.

counterparts.⁶ Veterans with PTSD or depression also experience drastically more frequent thoughts about ending their lives compared to Veterans without either one of these incapacitating disorders.⁷ In fact, 22 Veterans will take their life *each day*⁷ resulting in over 8,000 Veterans lost to suicide each year. *This suicide rate is twice that of civilians.*⁸ Further, the estimated 8,000 Veteran suicides per year is higher than the total number of

Veterans lost in direct war conflict since 2004.⁸

One only needs to see media coverage of a war-torn Iraq, or hear stories of exploding roadside bombs and machine gun attacks by what soldiers thought were "friendly" forces, to comprehend why the experience of war increases risk of PTSD, depression, and suicide. Veterans also suffer in other ways. Iraq and Afghanistan Veterans often exhibit problems with daily functioning, including having troubled and tumultuous relationships, alcohol and substance abuse problems, employment and work environment problems.⁹⁻¹⁴ For example, compared to non-Veterans, military personnel are four times more likely to be unemployed and are three times more likely to get divorced.⁹

Given that Veterans have such an increased risk for PTSD, depression, suicide and daily functioning problems, we would expect that Veterans would flood into mental health treatment

centers. However, despite these persistent, pervasive, and potentially paralyzing issues, up to 77% of Veterans do *not* seek treatment. In fact, a core feature of PTSD, avoidance of trauma reminders, often prevents Veterans from seeking mental health care.¹⁵

Avoidance is a hallmark symptom of PTSD, thus, it makes sense that Veterans often do not seek mental health services. Studies have suggested that stigma and inability to access mental health resources have a key role in explaining why Veterans remain largely untreated for PTSD, depression, suicide risk, and daily functioning problems. There are, in fact, a number of effective treatments targeted toward PTSD and depression that Veterans would greatly benefit from if we could encourage those who are reluctant to engage in mental health care.¹⁶

Without effective and easy-to-access treatments, these Veterans will continue to struggle long after they leave the war.

Similar to PTSD and depression, stigma creates disruption, disability, and dysfunction in everyday life. Stigma may be a barrier to seeking mental health treatment in formal treatment settings, such as the VA or through the Department of Defense. Stigma is highest in Iraq and Afghanistan Veterans who report greater PTSD symptoms,¹⁷ and

Veterans who perceive higher stigma are less likely to seek treatment due to concerns about being viewed as weak.¹⁸

Stigma is also linked with an avoidant coping style that can damage relationships with loved ones. Veterans who report higher stigma are less likely to seek social support for their psychological pain from their close family or friends.¹⁹ Such pulling away and isolating oneself, coupled with aggressive outbursts and moodiness, often damages close relationships and leads to a cycle of unhealthy coping strategies such as drinking or substance abuse.

In addition to stigma, systemic and geographic barriers may also prevent Veterans interested in obtaining mental health services from doing so. The military medical system is often overburdened with demand for services and consistently faces professional staffing and financial resource shortfalls. Thus, many Veterans may face long delays when trying to schedule an appointment or have to travel significant distances to VA clinics.

In short, Iraq and Afghanistan Veterans experience substantial disruption, disability, and dysfunction after serving in war. For many, structured mental health treatment seems out of reach. Without a way to combat stigma and provide effective and easy access to interventions Veterans will continue to struggle long after they leave the war.

Who We Chose to Study

The travesty of war is indisputable. Social scientists have studied the psychological impact of War since World War I's research on "shell shock."²⁰ Each of America's military conflicts has left thousands of traumatized and broken Veterans who struggle to live happy and fulfilling lives. The Vietnam War era illustrated to our nation the importance of post-military service care for our Veterans, and our country has shown fierce commitment to the ongoing physical and mental health needs of our Veterans today.

We chose to study Veterans who have served since the 9/11 attacks for two reasons. First, compared to pre-9/11 military conflicts, post-9/11 conflicts place our Veterans at greater risk for PTSD, depression, suicide, and daily functioning problems simply due to the ongoing length of the wars, the style of military combatant engagement, and multiple deployments. America's current conflict is the longest wartime engagement in history, lasting more than 11 years so far. Thus, many military service persons have endured not one or two tours of duty in hostile war-torn locations, but often were called upon to endure three, four, and even five deployments to these areas. In addition, America's war today isn't with a country, but rather an ideology. Thus, our Veterans were forced to maintain a constant level of vigilance, since the "enemy" in these war zones is most often not clearly identifiable by uniform or affiliation. These ongoing powerful stressors translate to a Veteran population that continues to struggle off of the battlefield with mental health difficulties, indicating a clear need for high quality, accessible, stigma-reducing mental health care.

Second, our returning Veterans are different than the Veterans of other war conflicts, because these Veterans have matured during the "Information Age" and are comfortable with using the internet and computers. In fact, many of our Veterans may prefer the ease and relative anonymity of an internet program rather than face-to-face counseling. This comfort with technology makes an electronic, web-based treatment an exceptionally viable vehicle for provision of mental health care.

We propose that the increased privacy, accessibility to evidenced-based mental health care and built-in social support network offered to Veterans in the Vets Prevail Program fills major gaps in existing interventions. Veterans do not need to have access to transportation or live nearby a VA clinic to receive services because the intervention is available entirely via the internet. The returning Veteran can access treatment at home, a library, or even an internet café, providing a low-cost, travel-free, convenient treatment option. In addition, as the worst moments of distress often occur at night or during a crisis, web-based interventions provide immediate access that addresses Veteran's psychological issues at a time when their need and motivation for mental health treatment is greatest.

Vets Prevail is unique because it provides a highly interactive, engaging, and entertaining experience that helps Veterans cope with PTSD, depression, and daily functioning problems in a private setting. Today's Veterans want to live their lives fully. They want to function well as students, employees, partners, and parents. Vets Prevail can make optimal function a reality.

This highly cost-effective program aims to ease levels of depression and PTSD to manageable levels, or minimally to reduce symptoms and stigma enough for reluctant care-seekers to seek face-to-face mental health services.

Benefits of the Vets Prevail program were designed to be twofold: To promote positive health outcomes for military service persons by 1) alleviating depression and PTSD symptoms, and 2) successfully reducing stigma and encouraging mental health-seeking behaviors, so that individuals in need of mental health services seek out these services in their own communities.

How We Conducted the Study

Participants

The research study was conducted in two parts: Study Phase I – Initial Recruitment and Screening and Study Phase II – Finalized Screening and (if eligible) Enrollment into Project VEST.

Given that our aim was to test whether the Vets Prevail Program would help Post-OIF/OEF Veterans with psychological problems, we sought to identify individuals who might benefit most from the program. We targeted the following individuals for Project VEST: The Randomized Clinical Trial (RCT) of Vets Prevail:

Inclusion Criteria:

- **OEF/OIF Veterans (not active duty) who served since September 11, 2001**
- **Adult men and women over 18 years old, living in the contiguous US**
- **Presence of PTSD and depression symptom burden appropriate for targeting with a peer-supported intervention: Sub-threshold or greater (above primary care “screening” cut-off levels) but below extremely severe symptom levels. Inclusion ranges will be $8 < \text{CES-D } 10 < 25$ and/ or $24 < \text{PCL-M } < 61$**
- **English-speaking and capable of using a computer**
- **Regular access to broadband internet and cell-phone with SMS (text messaging) capability**
- **Not at risk for suicide as indicated by any of the following self-reported factors: a) past suicide attempt(s); b) psychiatric hospitalization during the past five years; or c) started or altered dose of psychiatric medication within 10 days prior to enrolling in study**

How We Measured Our Outcomes

The purpose of Project VEST was to examine whether the Vets Prevail Program was more efficacious than wait-list control in reducing PTSD, depression, and mental health stigma, and increasing daily functioning. In order to test these group differences across the 13-month trial, we measured the severity of PTSD and depression symptoms and stigma related to mental health care seeking. We also evaluated the extent to which emotional difficulties interfered with daily functioning. Each variable was assessed at pre-treatment, post-treatment, and at a 3-month follow-up. To measure each of our outcomes, we used the following assessments:

- ***Posttraumatic Stress Symptom Severity***: We used the PTSD-Checklist – Military Version (PCL-M).²¹ The PCL-M lists the 17 symptoms of PTSD and asks veterans to indicate how much each symptom has bothered them over the past month, with 5 different answer choices ranging from “Not at All” to “Extremely.” Higher scores signify greater military-related trauma symptom severity. Veterans who scored over 35 on the PCL-M were considered to have clinically significant symptoms of PTSD.
- ***Depression Symptom Severity***: We used the Center for Epidemiologic Studies Depression Scale (CES-D 10).²² This 10-item measure lists 20 symptoms of depression and asks veterans to indicate how much each symptom has bothered them over the previous week, with 4 different answer choices ranging from “Not at All” to “Nearly Every Day.” Veterans who scored over 11 were considered to have clinically significant symptoms of depression.
- ***Daily Functioning***: We used the 7-item Emotional Functioning subscale of the Veterans RAND 12-Item Health Survey (VR-12; Veteran Functioning).²³ The full VR-12 is an abbreviated version of the VF-36. Items included those that assess the extent to which emotional problem interfere with functioning such as, “How much of the time have you accomplished less than you would like as a result of emotional problems?” Higher scores signified better functioning; however, because normed cut-offs are not currently available for this measure, we did not establish a clinical cutoff to delineate “poor daily functioning due to emotional difficulties.”
- ***Stigma Related to Mental Health Care Seeking***: We used the Attitudes Toward Care-Seeking Scale.²⁴ This theory-based scale asks questions that assess feelings toward seeking mental health treatment, such as “I would be embarrassed if my friends knew I was getting professional help for PTSD or depression.” Participants rate their agreement with each of the statements with 5 different answer choices ranging from “Strongly Disagree” to “Strongly Agree.” Higher scores indicate greater perceived stigma related to mental health care seeking. Similar to the VR-12, we did not use cutoff scores to delineate highly stigmatized individuals because of a lack of normed data.

How We Recruited Participants

We approached Veterans for the current trial through a partnership with the Iraq and Afghanistan Veteran Association (IAVA). The IAVA and Rush University Medical Center targeted, screened, and enrolled Veterans in the following three-step process:

Initial Recruitment Via Iraq and Afghanistan Veterans Association (IAVA)

- **The IAVA is a national advocacy organization supporting OEF/ OIF Veterans. IAVA advertised the trial to its “Community of Veterans” through targeted email campaigns and strategically-placed banner ads on other Veteran-friendly sites**

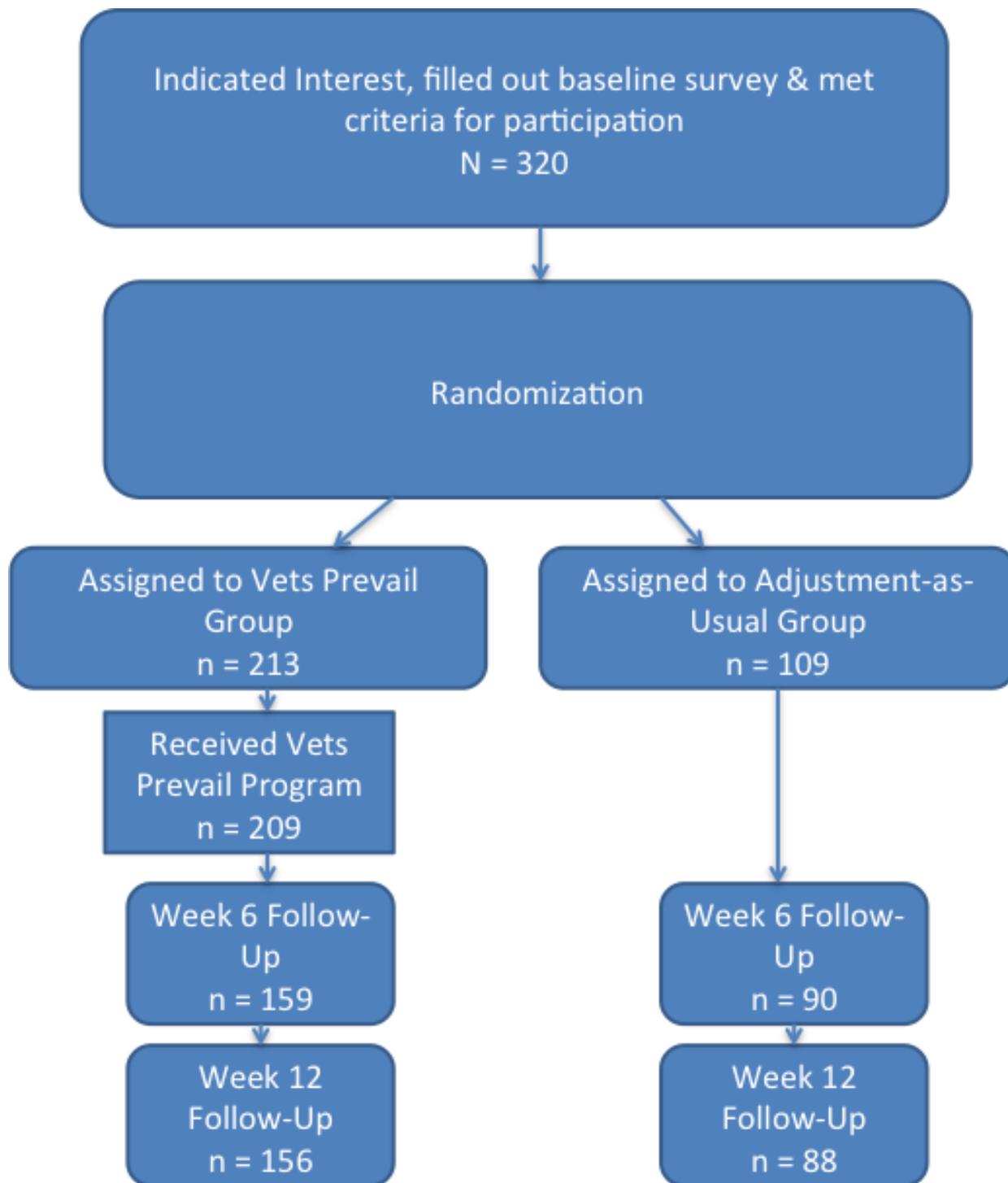
Phase 1: Enrollment into Screening Phase

- **Potential interested participants were routed via hyperlink to an online study “landing page,” where they completed Informed Consent Part I, and then filled out a survey assessing pre-trial levels of depression and PTSD symptoms, as well as other socio-demographic questions (age, education, branch of service, etc.)**

Phase 2: Official Enrollment into Project VEST Trial

- **Participants who met all inclusionary criteria were offered admittance into Study II, underwent a Study II Informed Consent, and were officially enrolled into Project VEST**

Study Flow



What is the Vets Prevail Experience?



Vets Prevail is an online program for Veterans that is designed to help Veterans reduce psychological distress and adjust to civilian life. Vets Prevail uses innovative technology that:

- ***Creates a dynamic and interactive interface*** using state of the art graphics and one-on-one Veteran support guides, encouraging full participation in the program
- ***Protects the safety of its users*** because it assesses mental health symptoms using clinically validated tools, and *Links* those with higher symptom burdens or special needs to valuable *community resources* – serving as a bridge to traditional face-to-face treatment
- ***Uses individually-tailored avatars, messages, and learning vignettes*** to build rapport and make the program relevant to each individual depending on their own unique personal situation, daily stressors, and lifestyle
- ***Delivers scientifically-proven CBT-based programming in 7 modules*** that teach users skills aimed at reducing PTSD and depression, reducing stigma, and improving daily functioning
- ***Creates a supportive environment*** using community message boarding and one-on-one peer chat modules. This interactive support *builds informational and emotional social support reserves.*

1) Uses Dynamic and Innovative Interfaces

The Vets Prevail Program is modeled on the Game-Based Environment that many internet users naturally gravitate toward using dynamic graphics, customized interfaces, and rewarding participation (or “play”) with points that can be redeemed for prizes.

The screenshot displays the Vets Prevail program interface. At the top, there is a navigation bar with options: My Rewards, My Calendar, My Tools, My Support, and My Profile. The user's name 'ppgengler' and '1751 pts' are visible in the top right corner. On the left side, there is a 'My Progress' section with a question mark icon. Below this, there is a 'My Prevail' section with a list of activities and their associated points:

Activity	Points
Veteran Transition Basic Training (Level: 1 2 3 4 5 G)	505 pts
Vet Transition (Level: 1 2 3 4 5 G)	370 pts
+75 Lesson (Interactive Lesson)	
+200 Support (Schedule Appointment)	
+125 Survey (Progress Survey)	
+95 Community (Community Question)	
+70 IM Chat (Peer Chat)	
+50 FB Connect (Facebook Connect)	
+30 Schedule Lesson (Schedule Next Lesson)	
See All To Do Items	
McCormick Foundation (Level: 1 2 3 4 5 G)	230 pts
Community	145 pts

The main content area features an 'Unlocked To Do' section with a survey task:

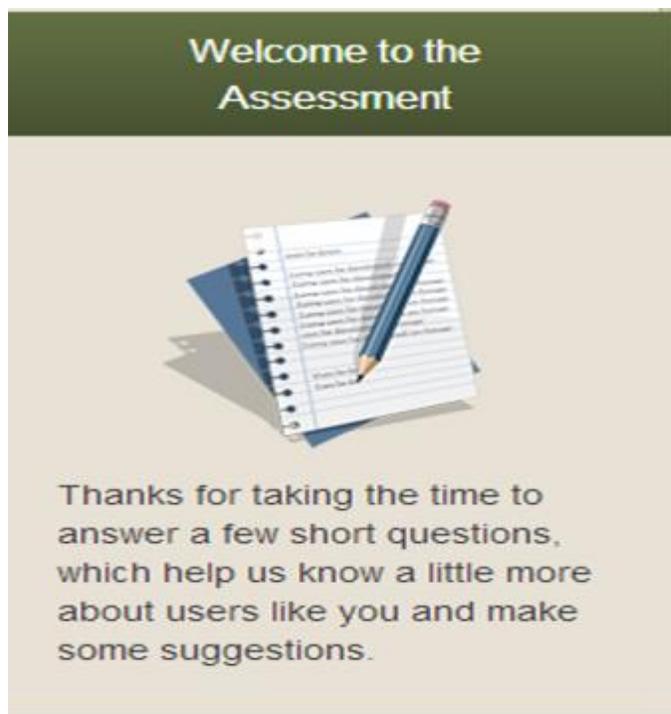
- Survey:** Progress Assessment Survey
- Status:** Not Started
- Earn:** 125 pts
- Program:** Vet Transition

Below the survey task, there is a text box that reads: "Here at Vets Prevail, we like to stay tapped in to how you're doing. This survey will ask you a few questions about your well-being and mood. You will see it a few times during the program so we can track your progress."

An orange callout box is overlaid on the bottom right of the screenshot, containing the following text:

This slide illustrates the ease of navigating through the Vets Prevail Program. Users have several options at their fingertips: Opportunities to Chat with Peers, take Surveys, go through Lessons, & even Post to Community Message Boards. They can also see how many Rewards Points they have accumulated.

2) Protects the Safety of its Users



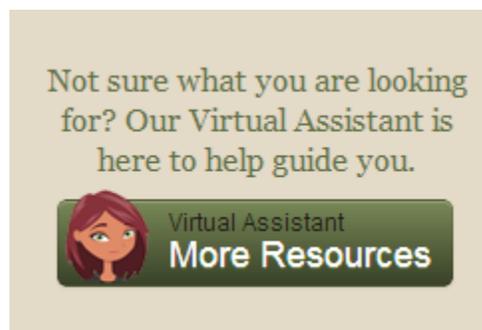
Similar to any mental health program, the primary goal of Vets Prevail is to protect and promote good mental health. Thus, the program's first endeavor is to assess the current mental health status of each of its users.

We use clinically validated tests to measure user's levels of PTSD and depression and to determine how they are functioning in their everyday life when they first come into the program.

This information helps the program place users into specific program routes and also lets us know if we should link users with additional mental health resources in their own communities.

For individuals who are more severely distressed or have major problems with daily functioning, we suggest and offer a "soft handoff" to local mental health resources, such as local therapists that volunteer for the Give an Hour Foundation. Users can take advantage of these resources while they continue to participate in our program. Users can also choose to seek community resources on their own at any time during their Vets Prevail experience by clicking on the button illustrated below:

We continue to assess users' levels of PTSD, depression, and daily functioning as they progress through the program, referring users to community resources as needed.



3) Creates Relevance Through Individually-Tailored Content

There are several hundreds of online ehealth interventions aimed at promoting positive mental health outcomes to the average person. However, most of these programs do not contain programming targeted at an individual level. This individual targeting allows the content to be extremely relevant to the user, allowing the program to build rapport with each user, and encouraging full participation and maximizing mental health benefits.

Vets Prevail begins the program by asking very general questions including each users' age, gender, ethnicity, marital status, level of education, and employment status. Using these answers, along with scores on the baseline mental health measures, the program tailors the individual experience in several ways:



Customized, Relatable Avatars
The program creates a “personal” avatar for each user based on demographic information collected in the first assessment, matching for gender, ethnicity, and marital status

Customized storylines and vignettes that frame psychological content within topics and issues that are personally relevant to each user. For example, the program ascertains the level of distress or relevance each user has concerning a variety of life stressors and situations, including:

- **Romantic Relationships**
- **Friendships**
- **Educational Needs or Concerns**
- **Unemployment or Work Stresses**
- **Financial Struggles or Problems with Credit**
- **Potential Alcohol or Substance Abuse Issues**

4) Uses Evidence-Based Programming and Content

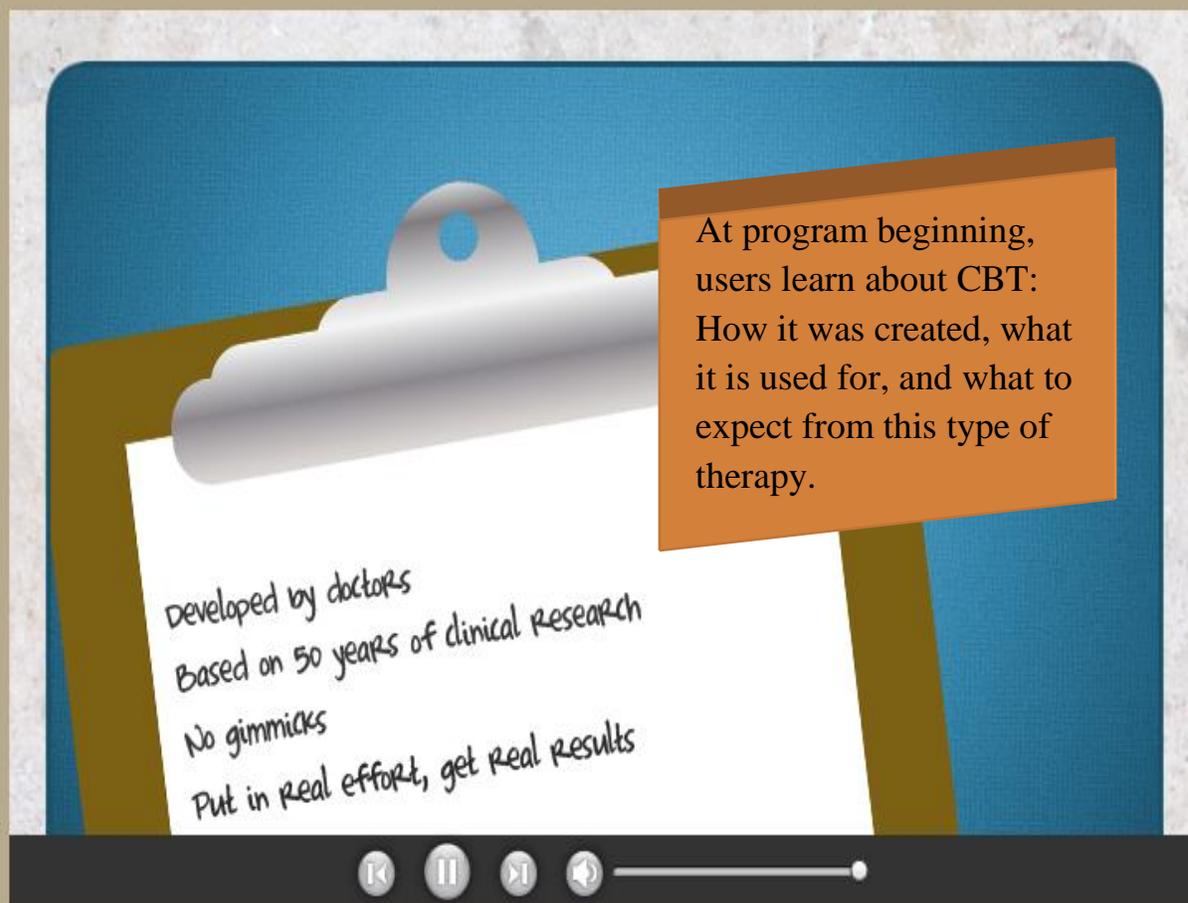
The Vets Prevail Program uses Cognitive Behavioral Therapy (CBT), a well-researched and empirically-supported form of therapy commonly used to treat PTSD and disorders, as well as adjustment-related problems. The Vets Prevail program includes 7 self-administered lesson modules that Veterans can access from their own homes and at their own leisure.



 To Do / Interactive Lesson

Learn about the core concepts we want you to understand in this Level.

Intro (Part 1): Better Living One Day at a Time



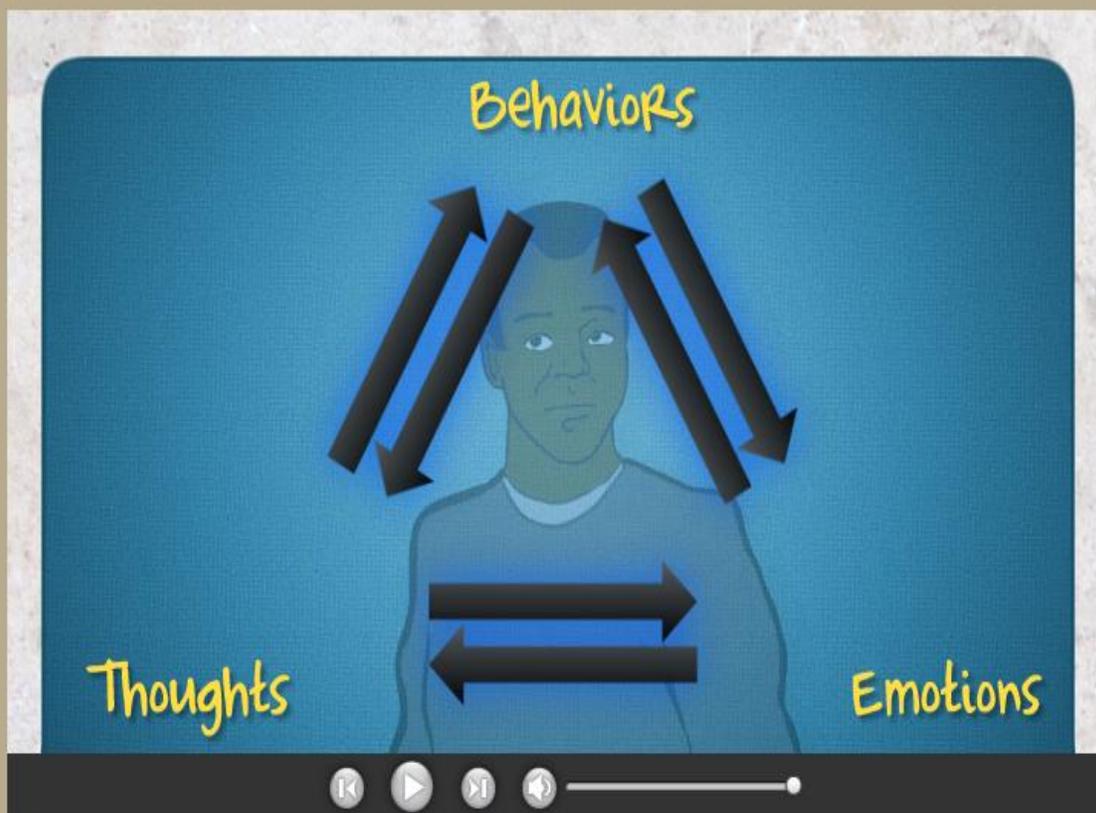


To Do / Interactive Lesson

Learn about the core concepts we want you to understand in this Level.

Behaviors (Part 1): A Closer Look at Your Actions

Complete »



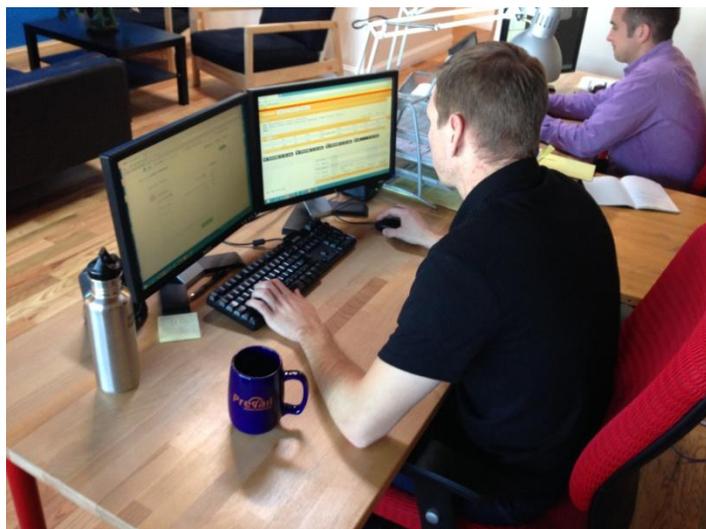
- **Cognitive Behavioral Therapy (CBT) emphasizes how our thoughts, behaviors, and emotions interact and influence our mental health and everyday functioning.**
- **This programming is combined with the information previously gathered about each user's key characteristics (age, gender, ethnicity, marital, educational, and employment status) and current depression and PTSD levels to custom tailor personally relevant paths through all 7 self-directed lessons.**

5) One-On-One Veteran Peer Coaches **Guide and Build Rapport**

Personalized attention provided through one-on-one peer coaches is a key component of Vets Prevail. The Peer Coach serves as both a Guide and a Peer Coach during the program.

First, the Veteran Peer Coach serves as a guide to the basic ins and outs of the program, and answers questions about how to do things like logging on, cashing in points, and how to accomplish certain To Do's (or homework). Having a real person answering questions in real time can help to facilitate rapport-building, and can address any technological barriers that might arise.

Second, the Veteran Peer Coach serves as a gentle process and adherence checker. Vets Prevail prompts the user to log in to the Chat Window three different times so that the Veteran Peer Coach can engage with the user. During this interaction, the Peer Coach can establish



initial rapport by introducing themselves and engaging in conversation, checking for understanding of the CBT-based material within the program, and assessing acute mental health care needs and provide a link to resources if the user appears to be in distress.

Third, users may also initiate a chat at any time during the program (during times when the chat rooms are staffed). These user-initiated chats can provide valuable informational and emotional support to users.

6) Uses Community-Driven Social Support to Create Lasting Connections

In addition to one-on-one peer support, the Vets Prevail Program facilitates the development of community support networks by giving current and former “graduates” a space to interact. Users and Graduates can post and answer community board questions, comment on one another’s posts, and garner social support from those with similar military experiences.

This activity can provide the necessary continuing informational and social support that Graduates of the program may need. In fact, Graduates who post particularly motivational or helpful comments are often asked to serve more active roles in this community space and serve as “mentors” for currently enrolled members.

The screenshot displays the Vets Prevail Community website interface. At the top, there is a navigation bar with a 'Community' dropdown menu, links for 'What's New', 'Browse', 'My Q & A', 'Ask', and 'Answer', and a user profile for 'ppgengler, 2051 pts'. The main content area is divided into several sections:

- My Progress:** A sidebar on the left showing progress for 'My Prevail' (175 pts), 'Vet Transition' (370 pts), and 'McCormick Foundation' (230 pts). It lists activities like 'Lesson' (+100), 'Guided Learning' (+75), and 'Community' (+150).
- What's New:** A central section with a search bar and a welcome message: 'Welcome to Prevail, where you will find the largest bank of questions and answers from other vets like you. The Vets Prevail Community is a new way to find and share information, ask questions on any topic, get answers from similar people with the same experiences and issues, and even share your insights and thoughts. Try a search now to see if your topic is already being discussed, or take a look below to see what's new or popular.'
- IAVA Fact Sheet:** A post by Jason, dated 17 Sep, with a 'Recommend' button (0) and a 'Send' button. It includes a 'Read More' button and a 'Comment' button.
- Questions Popular and New:** A section with tabs for 'Most Popular' and 'Most Recent'. A question is visible: 'How do I propose new categories to be able to post questions in? Improvements'.
- Find us on Facebook:** A sidebar at the bottom left showing a Facebook link for 'Vets Prevail' with a 'Like' button and a note that 'You and 9,593 others like Vets Prevail.'

What is the Adjustment-as-Usual Control Group Experience?

Participants randomized to the Adjustment as Usual Control Group served as the “wait list control” and did not experience the Vets Prevail Program or the Veteran Peer Chats. This group functions as a comparison group because they receive the same assessment tools on the same time schedule, but do not receive any of the Vets Prevail intervention.

Instead, after the initial screening and baseline assessment, Adjustment-as-Usual participants were instructed to “go about their lives as they normally do over the next 3 months.” Then, the Project Director sent a uniquely identifiable Survey Monkey Link via email to each participant at the two follow-up time points (weeks 6 and 12). These two surveys were sent out at the same time that those individuals assigned to the Vets Prevail group completed the follow-up surveys. The surveys asked the same questions that the Vets Prevail Condition were asked. These questions assessed our outcomes of interest: PTSD, depression, stigma, and daily functioning levels.

Upon completion of the 3-month assessment, participants were thanked for their participation and offered the chance to enroll into the non-RCT version of the Vets Prevail Program.

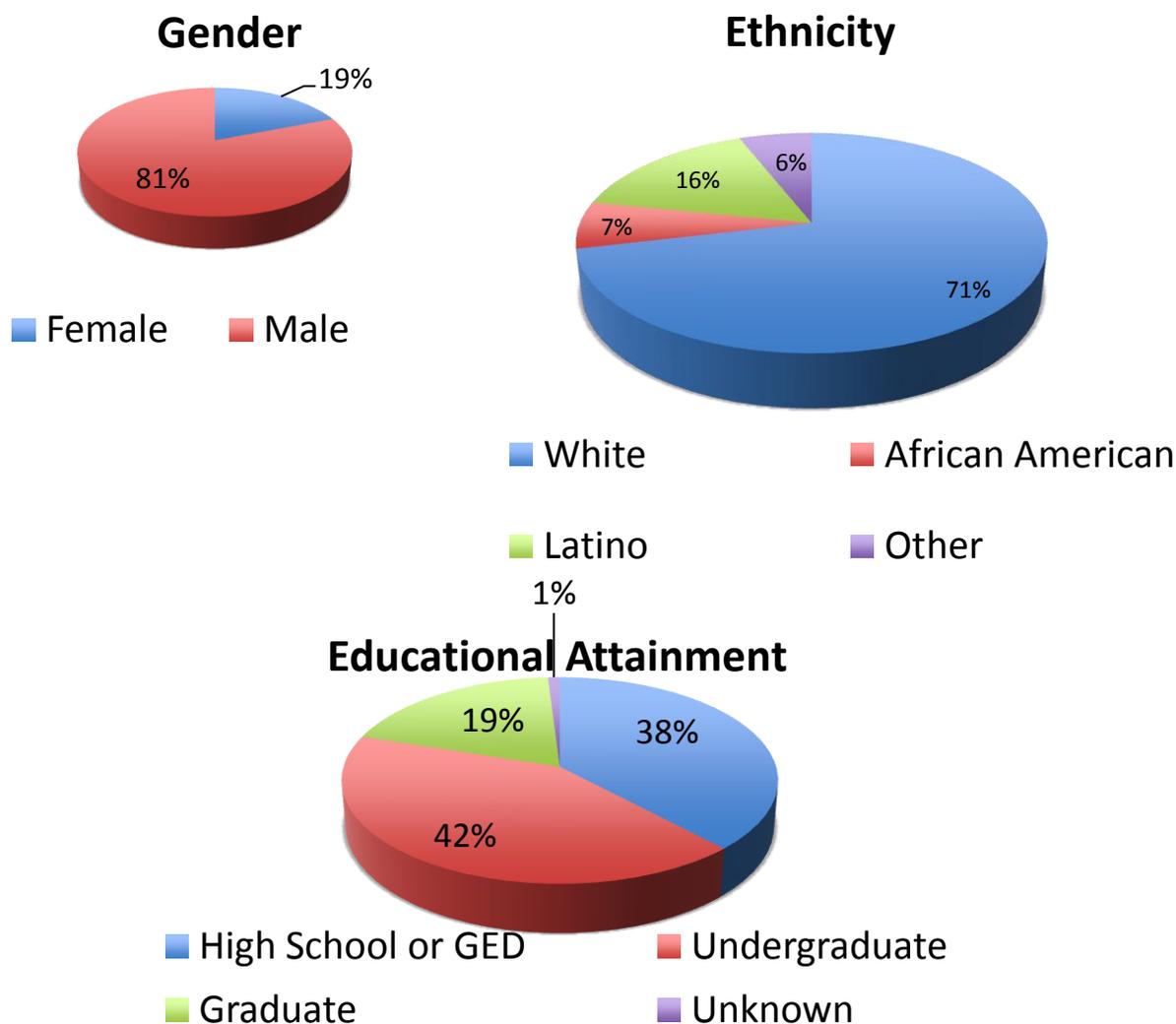
How We Accounted for Incomplete Data

Missing or incomplete responses are common in treatment studies such as ours. Fortunately, advanced quantitative methods make it possible to retain full use of important information from the study users, without excluding users who have incomplete assessment data. Using an intent-to-treat approach, we analyzed all users' data, even if the user did not complete the entire Vets Prevail program or did not complete follow-up assessments. We used a method of imputing missing information, called Multiple Imputation (MI) that is conservative, advanced, and highly recommended in social and behavioral science research. We determined that the percentage of missing data in our trial met criteria for MI according to current scientific research.²⁵ Thus, missing information from the post-treatment and 3-month follow-up assessments was imputed using the MI program, Stata.²⁶ This program imputed missing data by generating 20 imputed datasets that were then averaged into one final dataset. We used this dataset to run all analyses discussed in the remainder of the report.

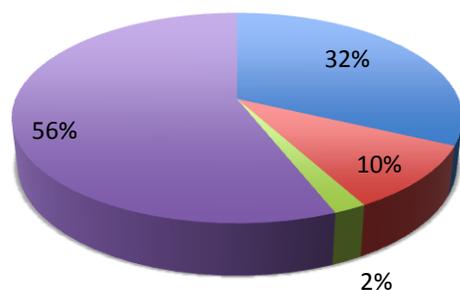
Who Participated in Project VEST?

Our first step was to investigate the basic characteristics of our sample to examine whether the sample was representative of the broader population of U.S. Veterans. We examined gender, ethnicity, education, branch of service, employment status, educational attainment, and marital status.

Our sample appeared to represent the socio-demographic profile of the entire population of military Veterans. Specifically, our sample is primarily male, White, and has at least a high school education. Our users primarily consisted of those who were partnered, indicating that they were either married or living with a partner. Also reflecting the characteristics of the broader military force, our sample primarily consisted of users who served in the Army and Air Force. Finally, most of our users reported either being employed full-time or being a student in college.

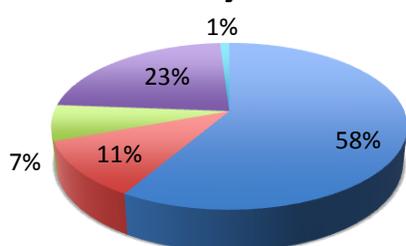


Marital Status

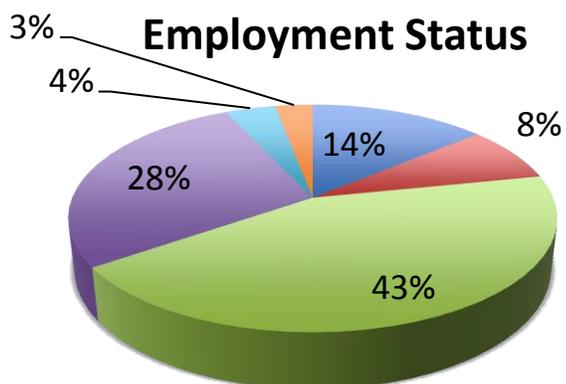


■ Single ■ Divorced ■ Separated ■ Married or Living Together

Military Branch



■ Army ■ Marines ■ Navy
 ■ Air Force ■ Coast Guard



■ Not employed ■ Part time ■ Full time
 ■ Student ■ Retired ■ Stay-at-home

Reliability & Validity of Outcome Measures

Reliability and validity of self-report questionnaires is important when evaluating treatment outcomes. We examined the reliability of our outcome measures of PTSD, depression, functioning, and stigma over the three assessment time points using alpha coefficients. Alpha coefficients are commonly used as an estimate of the reliability of a questionnaire for a group of respondents. Coefficients range from 0 to 1, where 0 indicates no correlation among items on the questionnaire and 1 indicates perfect correlation among all items on the questionnaire.

Generally speaking, alpha coefficients of .80 or higher indicate that questionnaire items are highly related to one another. A high level of correlation among items is important for questionnaires that assess clinical symptoms in order to make reliable comparisons between groups. The

Reliability and Validity of Outcome Measures				
	Pre-Treatment Assessment			
	Depression	PTSD	Functioning	Stigma
Depression	1.00 (.82)	.66*	-.64*	.01
PTSD		1.00 (.90)	-.52*	-.01
Functioning			1.00 (.72)	-.08
Stigma				1.00 (.74)
	Post-Treatment Assessment			
	Depression	PTSD	Functioning	Stigma
Depression	1.00 (.82)	.66*	-.64*	.03
PTSD		1.00 (.92)	-.48*	.12*
Functioning			1.00 (.56)	-.03
Stigma				1.00 (.60)
	3-Month Follow-Up Assessment			
	Depression	PTSD	Functioning	Stigma
Depression	1.00 (.83)	.73*	-.51*	.03
PTSD		1.00 (.92)	-.70*	.07
Functioning			1.00 (.82)	.00
Stigma				1.00 (.76)

Note. Depression was assessed using the CESD-10: Center for Epidemiological Studies Depression Scale – 10 Item Version; PTSD symptoms were assessed using the PCL-M: PTSD Symptom Checklist – Military Version; Functioning was assessed using the VR-12: Veteran’s RAND 12 item Health Survey. Internal consistency coefficients (Cronbach’s Alpha) for each measure appear in parentheses along the diagonal.

* indicates that the correlation coefficient was statistically significant at $p < .05$.

accompanying table indicates alpha correlations in parentheses. As shown, the questionnaires assessing PTSD and depression were highly reliable with alphas of .90 and .82, respectively.

In addition, we assessed validity by examining how strongly our variables, PTSD, depression, functioning, and stigma were related to one another. We used a correlation coefficient to evaluate the degree of relationship between our outcome measures. Correlation coefficients range from -1 to +1 where -1 indicates a total inverse relationship, 0 indicates absolutely no relationship between the two variables, and +1 indicates a perfect relationship between the two variables. Outcomes were correlated with one another in the expected ways. Most importantly, PTSD and depression were strongly correlated with one another at each of the three time points (.66, .66, .73), which suggests a great deal of overlap between these two groups of symptoms.

How Our Participants Differed Prior to Treatment

We examined whether certain factors, such as the participant's gender, minority status, or exposure to different types of traumas were related to mental health at the beginning of the study. As illustrated in the table below, female participants were significantly more depressed and reported significantly more impaired functioning due to emotional problems compared to male Veterans. Not surprisingly, participants who were frequently in danger of being hurt or injured, who sustained an injury, or who caused the death or injury of a combatant reported worse PTSD symptoms compared with participants who did not experience these traumas. Participants who sustained an injury while deployed were also more depressed at the beginning of the study compared to those who had never been injured. Contrary to our expectations, participants who had been deployed multiple times did *not* report more PTSD, depression, impaired functioning due to emotional problems, or mental health stigma than Veterans who had been deployed fewer times. Finally, racial or ethnic minority participants did not differ from non-minority participants in reported levels of PTSD, depression, functional impairment, or mental health stigma. Results of these findings are presented in the following table.

Outcome Variable	Men	Women	Minority	Non-Minority
CES-D	M = 12.11 (5.28)	M = 13.86 (5.48) $\chi^2 = 40.10^*$	M = 12.63 (4.95)	M = 12.38 (5.47) $\chi^2 = 22.95$
PCL-M	M = 39.20 (11.47)	M = 39.86 (5.48) $\chi^2 = 37.68$	M = 39.18 (5.47)	M = 39.28 (11.43) $\chi^2 = 35.65$
VR-12	M = 24.46 (4.72)	M = 23.20 (4.23) $\chi^2 = 56.62$	M = 21.28 (3.64)	M = 21.24 (3.53) $\chi^2 = 65.25$
Stigma	M = 21.29 (3.64)	M = 21.11 (1.32) $\chi^2 = 17.75$	M = 23.91 (4.15)	M = 24.30 $\chi^2 = 28.59$
Total Trauma Score	M = 4.80 (1.91)	M = 3.23 (1.32) $\chi^2 = 35.62$	M = 4.61 (1.90)	M = 4.47 (1.92) $\chi^2 = 7.40$

Note. CESD-10: Center for Epidemiological Studies Depression Scale - 10 Item Version; PCL-M: PTSD Symptom Checklist - Military Version; VR-12: Veteran's RAND 12 Item Health Survey. M: Mean. Standard Deviations appear in parentheses. χ^2 : Chi-square test of statistical test of significant differences across either gender or minority status.

* Indicates statistically significant χ^2 at $p < .05$.

Vets Prevail Significantly Improved Mental Health Outcomes

We conducted the Project VEST randomized clinical trial to determine whether Vets Prevail significantly improved mental health and functioning, and reduced stigma compared to the control condition, Adjustment-As-Usual. In order to test the differences between the individuals in these two groups over time, we conducted a series of *mixed effects regression models*, also known as *hierarchical linear regression*. Mixed effects regression simultaneously takes into account both *within group* effects and *between group* effects. In order to determine the efficacy of an intervention, we have to investigate both within group and between group effects. *Within group* effects examine whether participants' scores on the outcome variables changed across time, and if these changes were sustained at 3-month follow-up.

As you remember, each Veteran in our study was asked to fill out surveys at three different times: once at baseline before randomization, once at six weeks, and finally at 3 month follow-up. Thus, three observations of outcome variables (PTSD, depression, functioning, stigma) are nested within each person. The *between group* effects portion of the analysis allows us to determine if these changes across the three time points differed according to group assignment, Vets Prevail and Adjustment-as-Usual. We hypothesized that participants assigned to the Vets Prevail group would evidence greater improvements in mental health and functioning and less reported stigma over the 3-month study than those assigned to the Adjustment-as-Usual group.

We conducted mixed effects regression models using the statistical software package, STATA. Mixed effects models allowed us to obtain a coefficient estimate (*Coeff*) and a standard error (*SE*) to illustrate the difference in outcomes between Vets Prevail and Adjustment-as-Usual groups, and a *p*-value to determine the statistical significance of any group differences. Statistical significance is a level of assurance that our findings are due to the actual intervention effects and not merely due to chance. The criterion for statistical significance was set at a *p*-value of less than .05, or five percent, indicating that the probability that the results were obtained by chance was less than five percent. Finally, we calculated an estimate of the magnitude of treatment effects, or *effect size*. Effect sizes were calculated using Cohen's *d*, or the difference between the group means of outcome variables divided by their standard deviation. Effect sizes ranging from .2 - .5 are considered small-to-moderate treatment effects and those ranging from .5-.8 are considered moderate-to-large treatment effects.

PTSD

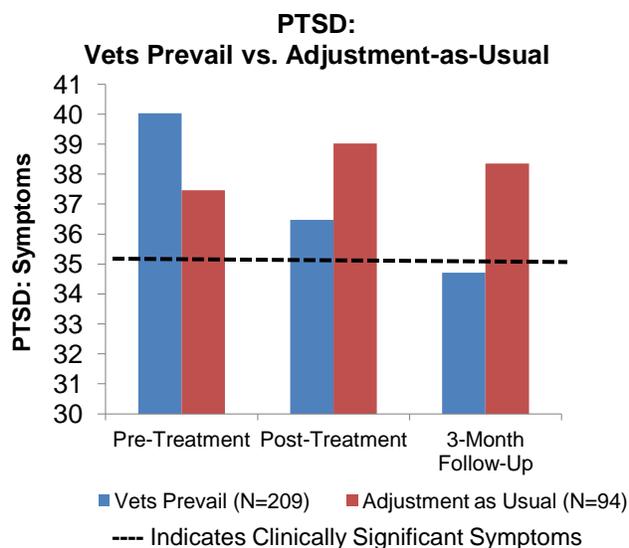
Veterans who served in Iraq and Afghanistan have endured traumas that are staggering both in terms of frequency and horror. PTSD is a common and debilitating consequence of trauma exposure and was our key outcome target for Vets Prevail. Our analyses indicated that participants who received Vets Prevail reported statistically significant reductions in PTSD compared with participants in the Adjustment-as-Usual condition, $Coeff = -6.22$, $SE=1.15$, $p < .001$.

In fact, participants in the Adjustment-as-Usual condition actually reported slightly worse symptoms of PTSD over the course of the study. Notably, participants who received Vets Prevail no longer met clinical criteria for PTSD three months after completing treatment. This first finding indicates that Vets Prevail is an effective intervention for diminishing PTSD distress. Further, the treatment effect size (Cohen's $d = .39$) is a powerful signal that Vets Prevail can break PTSD's grip on Veterans' lives.

Veterans return from war haunted by memories, nightmares, and flashbacks that provoke a physical reaction as if the horror were happening again. Their reactions are not surprising given that war demands an ability to withstand relentless threat. In war, stoicism is a survival strategy. At home, it opens the door for poor mental health. When Veterans develop PTSD, they are numb rather than sensitive, hypervigilant rather than calm, and isolated rather than connected.

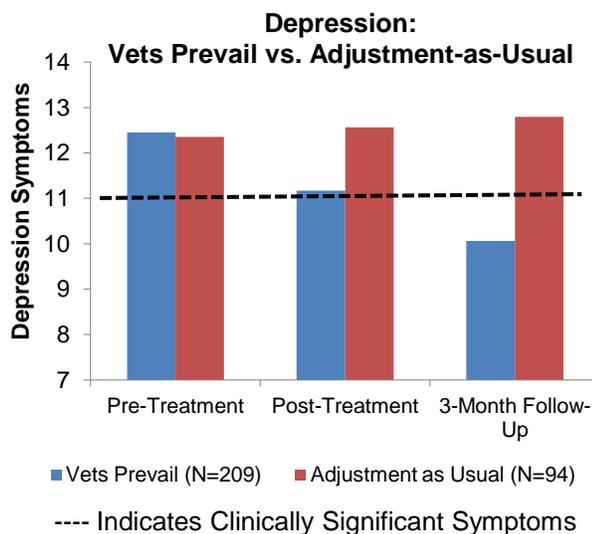
Participants who completed Vets Prevail no longer met clinical criteria for PTSD three months after treatment.

completed all assessments (i.e., had no missing data) and found that Vets Prevail was especially effective at helping participants feel less alert or on-guard (Cohen's $d = 1.21$), less distant and cut off from people (Cohen's $d = .48$), less emotionally numb (Cohen's $d = .35$), and had fewer disturbing thoughts and memories of their experiences (Cohen's $d = .37$). Said another way, Vets Prevail helped these individuals feel more connected with their families, feel calmer, and feel safer from repeated traumatic memories. They felt they could finally stop fighting a war that had already ended for them.



Depression

Moving next to depression, a second key outcome variable, we examined the impact of participating in the Vets Prevail program versus the Adjustment-as-Usual control condition. Identical to our findings with PTSD, Vets Prevail participants reported statistically significant reductions in depression, $Coeff = -2.80$, $SE = .68$, $p < .001$, whereas participants in the Adjustment-as-Usual reported slight worsening of depressive symptoms. Even more importantly, participants who received Vets Prevail no longer met clinical criteria for depression three months after completing treatment. This is further evidence that Vets Prevail is an effective intervention for weakening depressive symptoms. The effect size was .30, another powerful indicator of Vets Prevail's efficacy for mitigating war's effect on personal, relational, and familial happiness.



These positive gains are *life-saving* because they help Veterans see a future in which they feel good about themselves, their relationships, and their futures.

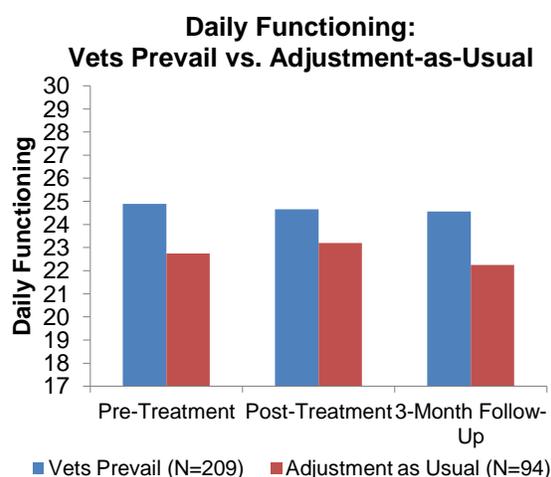
Veterans who are clinically depressed suffer from persistent loneliness, insomnia, and an inability to focus on important tasks. Getting through the day not only feels like a struggle with little purpose, but also hurts family and loved ones. Ending one's life often seems like the only relief.

Recall that each day in the U.S. more than 20 Veterans commit suicide. Not only is Vets Prevail available to Veterans 24 hours a day, the program is most effective (had the largest effect sizes) in helping Veteran's overcome specific problems caused by depression, including helping them feel happier (Cohen's $d = .43$), be less bothered by negative thoughts (Cohen's $d = .35$), and be better able to concentrate (Cohen's $d = .39$). These positive gains are life-saving because they help Veteran's see a future in which they can feel good about themselves, their relationships, and their futures.

Daily Functioning

People care not only about how they feel but also how they function in their daily lives. How well we partner, parent, and provide for our families is a key question for the self and society. We next examined the impact of Vets Prevail on daily functioning, specifically the degree to which emotional problems made it difficult for Veterans to engage in routine activities

of family, work, and social life. Our analyses revealed no statistically significant differences in daily functioning over the course of the study when comparing participants who were assigned to Vets Prevail and those assigned to Adjustment-as-Usual ($Coeff = .15$, $SE = .54$, $p = .79$). In fact, as shown in the accompanying graph, functioning scores remained relatively unchanged for both groups over the course of the study. Several factors are important to consider when interpreting these results.



First, our data suggest that Veterans in both groups did not report significant impairment in functioning at the baseline assessment. The average functioning scores for both groups prior to treatment were 24.98 (Vets Prevail) and 22.74 (Adjustment-as-Usual). For reference, we used a 7-item scale with possible scores ranging from 7-35. In other words, average functioning scores ranged from 65-70% of the maximum possible level of functioning before treatment. Although these Veterans reported clinically significant PTSD and depression symptoms, our data suggest that their emotional pain was primarily internal rather than exerting an external effect on their family, work, and social lives.

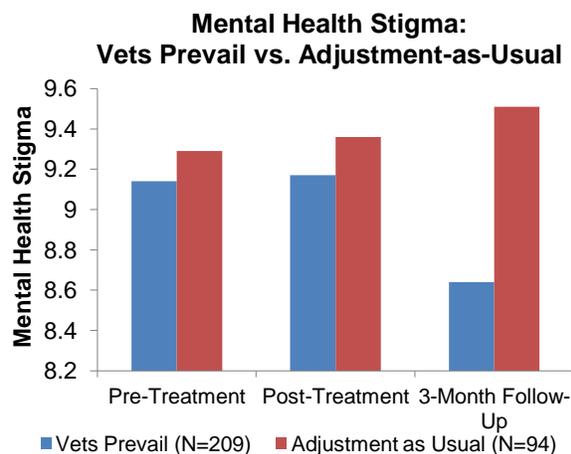
Veterans in both groups had relatively high functioning prior to treatment and maintained these levels throughout the course of the study.

Second, analyses of pre-treatment group differences revealed statistically significant higher functioning among Veterans assigned to the Vets Prevail group compared to those assigned to the Adjustment-as-Usual group. It is important to acknowledge that, in this study, randomization did not result in entirely equal groups prior to intervention, which may have impacted the results.

Still, bolstering energy, calmness, and engagement is critical to maintaining health and positive adjustment, in addition to maintaining remission of PTSD and depression symptoms. Our analyses suggest findings that are best generalized to Veteran populations with relatively high levels of energy and engagement, despite presence of significant psychological distress. Future studies may examine Vets Prevail among Veterans with greater impairment in functioning in order to better illustrate its efficacy in improving this aspect of Veteran's lives. Future studies may also focus on enhancing the *quality* of Veteran's family, work, and social lives, given that internal emotional pain can significantly impact these areas even while functional capacity remains intact.

Stigma

As we have discussed, we believed it was important for Veterans to feel less stigmatized by their disorder and more willing to approach mental health care in the future. To that end, we next examined whether participation in Vets Prevail impacted levels of reported stigma for seeking mental health treatment before and after our intervention. Our analyses revealed no statistically significant differences in stigma over the course of the study when comparing Veterans who received Vets Prevail (pre-treatment average: 9.14, 3-month follow-up average: 8.69) to Veterans in the Adjustment-as-Usual condition (pre-treatment average: 9.29, 3-month follow-up average: 9.49), $Coeff = -.77$, $SE = .48$, $p = .11$.



Though there were no significant differences between Veterans in the Vets Prevail and the Adjustment-as-Usual groups, as can be seen on the graph above, Veterans in the Vets Prevail group showed a slight decrease in their stigma scores from pre-treatment to 3-month follow-up. Veterans in the Adjustment-as-Usual group showed a slight increase in their stigma scores from pre-treatment to the 3-month follow up.

There are several reasons why our findings might not have reached statistical significance

Veterans in the Vets Prevail group showed a slight decrease in their stigma from pre-treatment to 3-month follow-up whereas Veterans in the Adjustment-as-Usual showed a slight increase in their stigma.

and these reasons should be considered when interpreting our findings. Similar to trends observed in daily functioning abilities, our data show that Veterans in both groups reported that they “neither agreed nor disagreed” with statements regarding stigma and mental health care during the initial assessment. Because Veterans in both conditions did not report that stigma was a barrier to care, it makes sense that we did not detect significant reductions in stigma after Veterans completed Vets Prevail. It is possible that Vets Prevail may effectively reduce stigma in Veterans who perceive stigma for seeking mental health treatment. Further, our study was limited to Veterans reporting mild-to-moderate

PTSD symptoms. Higher stigma scores are typically found in Veterans with more severe distress. As such, it is possible that we did not have the range of distress to effectively detect reductions in stigma. Future studies may focus on the impact of Vets Prevail in Veterans who report greater stigma prior to treatment and for Veterans reporting higher levels of distress.

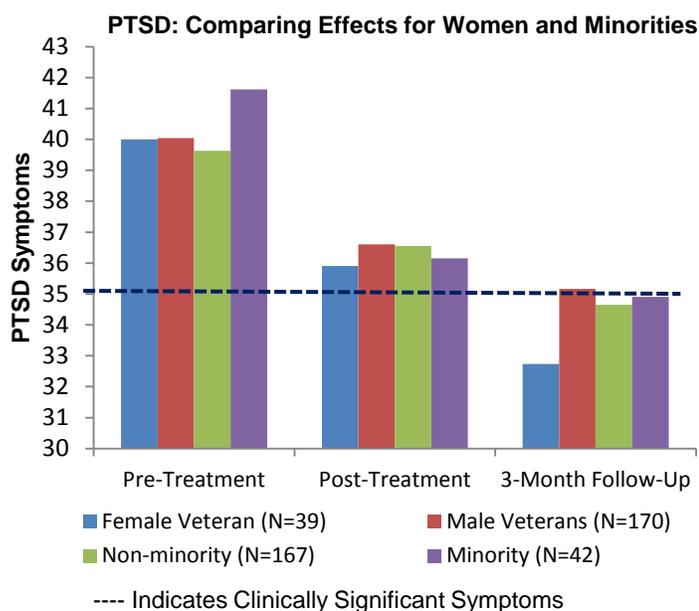
Efficacy of Vets Prevail for Women & Minorities

The United States military is comprised of a diverse fighting force. A goal of the Vets Prevail program was to provide a quality intervention for distress and dysfunction among a diverse group of Veterans, including men and women Veterans, and minority and non-minority Veterans. Creating a program that benefits members of all groups is a very important feature of quality health interventions. A program's ability to illustrate that it is effective for different subpopulations is called *generalizability*. It is extremely important to make sure that the Vets Prevail program is generalizable to the entire military force including women and minorities. To determine whether Vets Prevail worked equally well across gender and race, we conducted a series of statistical analyses comparing reductions in distress among men and women Veterans and minority and non-minority Veterans.

We first examined changes in PTSD scores across men and women Veterans. Results revealed that PTSD symptoms did not decline at different rates for men and women Veterans, $Coeff = -2.38$, $SE = 1.70$, $p = .16$. As can be seen in the accompanying graph, changes in PTSD scores across gender were approximately equal from pre-treatment to 3 months after study participation. These results suggest that Vets Prevail worked equally well at reducing PTSD symptoms in men and women Veterans. We next examined changes in PTSD across minority and non-minority

Veterans. Similar to findings regarding gender and PTSD symptoms, results revealed that PTSD symptoms did not decline at different rates for minority and non-minority Veterans, $Coeff = -1.30$, $SE = .83$, $p = .12$. The similar declines in PTSD scores for minority and non-minority Veterans can also be seen in the graph above.

We then examined changes in depression scores across men and women Veterans. Results revealed a steeper decline in depression symptoms for woman Veterans compared to men, $Coeff = -2.24$, $SE = .99$, $p = < .05$. These results suggest that while Vets Prevail is effective at reducing depressive symptoms in both men and women Veterans, it was *more* effective at reducing depression in women Veterans. In fact, it is quite notable that women's scores dropped on average 4.22 points on the depression scale, which is 2.25 points more than the symptom drop in men.



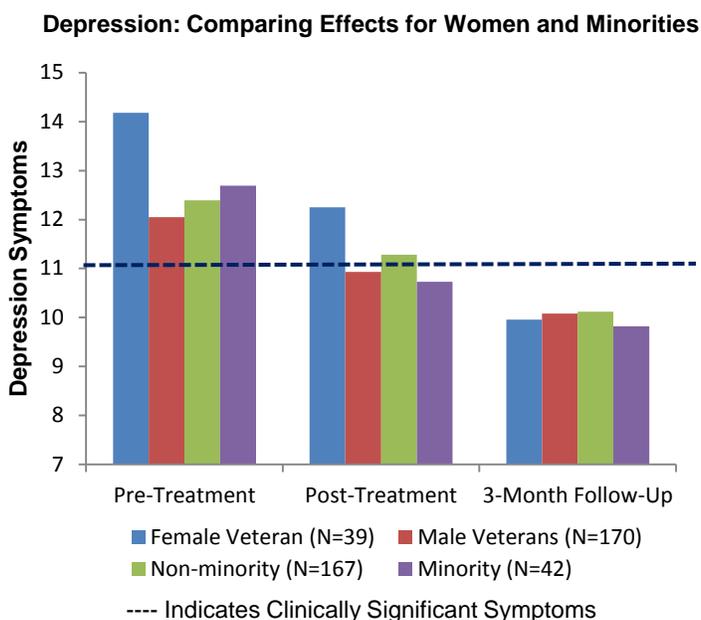
Given that we have discussed women's increasing role in the military, these results indicate that the Vets Prevail program may be an especially valuable resource for women Veterans. Women experience a number of challenges when returning from war. For some, these challenges might include transitioning from soldier to mother. Mental health treatment can often decrease the challenges associated with role transitions. Unfortunately, research suggests that women Veterans experience many difficulties when trying to access VA mental health care. For example, women Veterans have said that it is difficult to commit to face-to-face therapy due to child-rearing responsibilities, difficulties scheduling appointments during business hours,^{27,28} and prior

unpleasant experiences receiving care in a male-dominated medical facility. In particular, female Veterans described VA providers as "not being sensitive" to their unique needs and feeling that they are "not being believed" when they share their distress in a male-dominated medical facility.²⁸ These access difficulties may prolong women's suffering and potentially turn low levels of distress and dysfunction into high levels of stress and dysfunction. In order to thrive after war, women Veterans need accessible and flexible treatment.

Vets Prevail was *more* effective at reducing depression in women Veterans. In order to thrive after war, women Veterans need accessible and flexible treatment. Vets Prevail may be the perfect answer for them.

greater financial and structural barriers to receiving health care and may even suffer from greater stigma surrounding mental health care.²⁹

The fact that Vets Prevail worked equally well for women and minorities may be directly tied to the individually-tailored programming that allows users to experience customized content that is matched to an individual's socio-demographic characteristics and life experiences. Such



Finally, we examined changes in depression scores across minority and non-minority Veterans. Results revealed that depression symptoms did not decline differently for minority and non-minority Veterans, $Coeff = -1.30$, $SE = .83$, $p = .12$. We were particularly committed to making sure that minority members reap the benefits of Vets Prevail because minority service members make up a substantial proportion of the entire military force, and because research has clearly indicated that minority groups often have

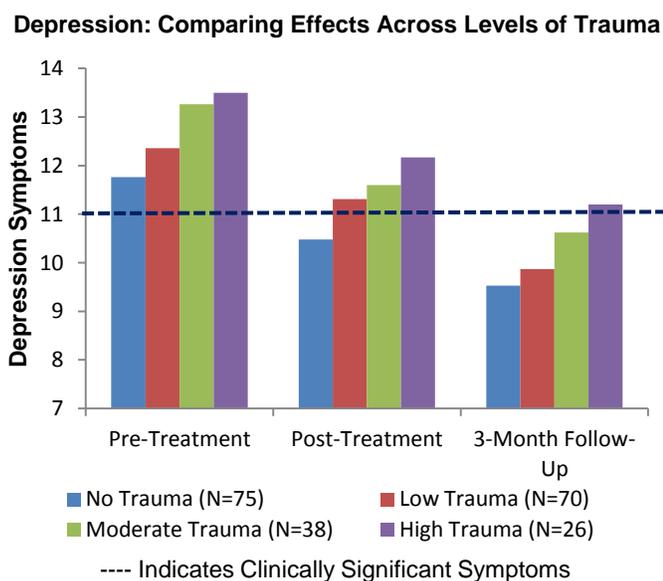
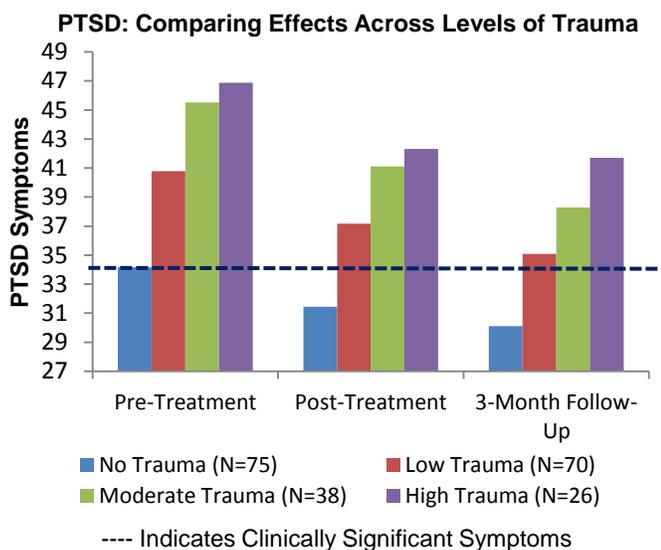
treatment tailoring may help users better apply CBT principles and tools to their lives, similar to what a patient might experience in face-to-face therapy.

Efficacy of Vets Prevail Across Differing Levels of Trauma Exposure

Each Veteran's war experience is unique and each deployment may differ on how much an individual may be exposed to trauma. Because trauma level exposure is directly related to post-deployment well-being, we sought to determine whether Vets Prevail works equally well at reducing distress, dysfunction, and disability in Veterans who reported various levels of trauma exposure.

We investigated whether the level of trauma exposure predicted outcomes on our target variables of PTSD and depression. Trauma exposures during deployment included 1) being in danger of being killed or injured "many times," 2) causing injury to another person, or 3) suffering an injury during service. We categorized Veterans into "high," "moderate," and "low" levels of trauma exposure if they endorsed having three, two, or one of these trauma incidents, respectively. In our sample, 26 Veterans reported high trauma exposure, 38 Veterans reported moderate trauma exposure, 70 Veterans reported low trauma exposure, and 75 Veterans reported no trauma exposure.

We conducted two mixed effects models examining PTSD and depression symptom changes over time as a function of the four levels of trauma exposure. Results from the first model revealed that improvement in PTSD symptoms did not significantly differ as a function of trauma severity ("high" $Coeff = -$



1.11, $SE = 2.18$, $p = .61$; “moderate” $Coeff = 3.18$, $SE = 2.08$, $p = .13$; “low” $Coeff = -1.64$, $SE = 1.58$; $p = .78$).

Results from the second model revealed that improvement in depression symptoms also did not differ significantly by level of trauma exposure (“high” $Coeff = .01$, $SE = 1.23$, $p = .99$; “moderate” $Coeff = -.41$, $SE = 1.14$, $p = .72$; “low” $Coeff = -.26$, $SE = .93$, $p = .78$).

Whether a Veteran reported more severe trauma exposure or less severe trauma exposure, Vets Prevail was equally effective at helping Veterans reclaim their ability to feel emotion, reclaim their sense of safety, enhance their emotional connectedness, and to see a future in which they can feel good about themselves and their relationships after war.

Summary Of Mental Health Effects

Project VEST revealed that Veterans can achieve clinically meaningful gains in mental health. PTSD and depression carry significant risk for harm and devastation for returning Veterans, their partners, their families, and their children. Effect sizes for the impact of Vets Prevail on PTSD and depression ranged from .30-.39, comparable to those found in face-to-face CBT interventions for Veterans. It is also important to note that existing data supporting face-to-face treatments for combat Veterans are limited.^{30, 31} Clinical researchers commonly acknowledge that combat Veterans' symptoms are often refractory to treatment, and compared to non-Veteran patients, achieving clinically significant benefit is extremely challenging.³⁰⁻³⁵ Thus, Vets Prevail represents a powerful new tool for Veterans because when it comes to reducing emotional numbness, loneliness, and feeling cut off from others, Vets Prevail achieves outcomes commensurate with established CBT-based, face-to-face mental health treatments. These findings become even more powerful when one considers that Vets Prevail can be delivered at ½ of 1% of the cost of face-to-face psychosocial treatment.

When it comes to reducing Veterans' emotional numbness, loneliness, and feeling cut off from others, Vets Prevail achieves outcomes commensurate with established CBT-based, face-to-face mental health treatments.

When Veterans return from war, war often returns with them. They are injured, guarded, depressed, and feel poorly equipped to resume the roles they once held. Perhaps more tragically, Veterans feel as if they are not actually part of the society that welcomes them home. Social isolation is a

prominent feature of mental health and Vets Prevail was effective at healing participants' sense of social isolation and strengthening their social connectedness. Remarkably, Vets Prevail achieved these results with a magnitude of effect that meets or surpasses face-to-face mental health treatment.

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