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Veterans and Non-Veterans with Schizophrenia: A Grounded Theory Comparison of Perceptions of Self, Illness, and Treatment

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VETERANS AND NON-VETERANS WITH SCHIZOPHRENIA:
A GROUNDED THEORY COMPARISON OF PERCEPTIONS OF
SELF, ILLNESS, AND TREATMENT

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ABSTRACT

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This study investigates differences between Veterans and non-Veterans with severe mental illness (SMI) regarding perceptions of their illness, themselves, and treatment. I compare patient interviews (using the Indiana Psychiatric Illness Interview, IPII) of Veterans (N=20) and non-Veterans (N=26). Modified grounded theory and qualitative coding software Atlas-TI were used to develop codebooks for each group, and these were compared for differences. I examined differences in both code frequency and meaning. Statistically, more Veterans were male, employed, married, had higher income, and had higher education. Statistical differences in code frequency included: more Veterans discussing *boredom*, *regret/guilt/loss*, and *wanting to be "normal."* More non-Veterans had codes of *pessimism* and *religion/spirituality*, *wanting a different future*, *bringing up mental health, family, future: no change, life goals*, and *relapse*. Key differences in narrative themes included: (1) Veterans' "military mindset"/discussion of anger as part of mental illness, (2) non-Veterans' focus on mental-illness, (3) differing attitudes regarding stigma, (4) active versus passive attitudes toward treatment, and (5) degree of optimism regarding the future. Differences are described and then potential

relationships and interactions are proposed. Veterans appear to have several protective factors (i.e., finances, employment, marriage). Additionally, Veterans' military-mindset seems to encourage greater stigma-resistance, and thereby also facilitate Veterans being more active and optimistic toward treatment and recovery. By contrast, non-Veteran focus on mental illness may be related to increased self-stigma, passive and pessimistic attitudes. I propose that Veteran identity can serve as an additional protective factor against stigma, pessimism, and passivity. Veteran-identity may also be a useful framework clinically, to help promote active approaches to treatment (e.g., "fighting symptoms"). Further, Veterans emphasized issues relating to anger as important and part of their mental health. It may be that Veterans are more comfortable discussing mental health in the language of "anger," given stigma. Finally, findings suggest that helping individuals in both groups engage in meaningful, non-mental illness-related life activities may help shape self-perception, and thereby responses to stigma, attitudes toward treatment, and hope for the future.

INTRODUCTION

Schizophrenia arguably is *the* most debilitating mental illness and its symptoms often can be barriers to recovery (Kingdon & Turkington, 2005). Because consequences of schizophrenia symptoms can be particularly detrimental (e.g., isolation), a negative, perpetuating cycle of additional symptoms often occurs (Allen, Frantom, Strauss, & van Kammen, 2005). For example, links between schizophrenia and stigma contribute to consequences (e.g., self-stigma or isolation) that hinder recovery (Yanos, Roe, Markus, & Lysaker, 2008). This cycle may be particularly difficult for military Veterans with schizophrenia--who often show resistance to utilizing mental health treatment (Seal, Bertenthal, Miner, Sen, & Marmar, 2006; Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009).

The current study investigates ways in which Veterans with schizophrenia view their illness and recovery differently than individuals who are non-Veterans. This increased understanding could guide development of better treatments and facilitate treatment utilization among Veteran populations. First, I introduce schizophrenia, common treatments, and barriers to treatment utilization among this population. I then then review what is known about Veteran mental-illness-treatment utilization, before discussing the need to explore Veteran perspectives, the current study methods, results, and implications.

Schizophrenia

Schizophrenia, a severe mental illness that affects approximately 1% of the population (Messer & McGurk, 2004), is currently conceptualized as composed of three clusters of symptom domains: positive/negative, cognitive, and social (Liddle, 1987). “Positive” symptoms describe the presence of a condition or unusual experience (commonly delusions or hallucinations) and “negative” symptoms note the absence of a skill or capacity (such as poor social or verbal abilities). A separate identified category of symptoms are cognitive impairments, particularly difficulties with memory and attention, abstract reasoning, and planning ahead (Bellack, Gold, & Buchanan, 1999). The cognitive impairment view of schizophrenia focuses on symptoms from a functional perspective, highlighting how these deficits often hinder work performance, academic abilities, daily living tasks, and many therapy intervention strategies (Bellack, 2002).

Finally, schizophrenia also is viewed by some through the lens of social abilities and emotional intelligence. People with schizophrenia often have difficulty with interpersonal skills and concrete thinking (Sison, Alpert, Fudge, & Stern, 1996), which negatively impacts daily living and relationships. Individuals with schizophrenia also seem to have difficulty reading emotions in others and expressing verbally and non-verbally what they intend to communicate, which can perpetuate experiences of social isolation (Kingdon & Turkington, 2005).

Effective treatments for schizophrenia

Current research points to several treatment approaches as most effective for individuals with schizophrenia. Medication is common, particularly for addressing positive symptoms (Velligan, et al., 2008). The Texas Medication Algorithm Project (Miller et al., 2003) offered guidelines regarding medication approaches considered most effective for this population. In the year-long study, individuals in the treatment group received a set of interventions including manual based treatment-approaches, consultations, and extensive patient and family psychoeducation along with their medication. Especially early in treatment, participants in the treatment group fared better than receiving treatment as usual, particularly when comparing cognitive functioning. In order to empirically investigate the safety and efficacy of psychotropic medications, the National Institute of Mental Health (NIMH) sponsored the CATIE trial, a large study comparing outcomes of various antipsychotic medications. Trial results found antipsychotic drug treatments were generally effective, but have specific limitations. Particularly, high dropout rates were noted due to side-effects of the medications (Lieberman, 2007).

Psychotropic medications that target reducing positive symptoms are known to have substantial side-effects, which often largely impact medication adherence. A double-blind study by Lieberman et al. (2005) compared 5 common medication treatments for 18 months, finding that 74% (of 1432 participants) discontinued the study medication early. A major reason for discontinuation across medication types were intolerable side effects. Olanzapine, for example, was discontinued most often because of weight gain and perphenazine was most often discontinued due to movement-related

side-effects. In a recent review of the prevalence and risk factors for medication nonadherence in individuals with schizophrenia, Lacro et al. (2002) found an average non-adherence rate of 41.2%, with half of the studies reviewed having nonadherence rates near 49.5%. Factors most frequently associated with nonadherence were poor insight, negative attitude or subjective response toward medication, prior nonadherence, substance abuse, shorter duration of illness, poor discharge planning, and poor therapeutic alliance.

Non-medication treatment approaches also have shown efficacy in addressing schizophrenia symptoms. In 2010, the Schizophrenia Patient Outcomes Research Team (PORT) reviewed current practices and reported 8 psychosocial treatment recommendations that had the greatest research support: assertive community treatment (ACT), supported employment, cognitive behavioral therapy, family-based services, token economy, skills training, psychosocial interventions substance use disorders, and psychosocial interventions for weight management (Dixon et al., 2010). These approaches span from multidisciplinary teams that provide direct services to patients in the community (ACT), to strategies for securing and maintaining competitive employment (supported employment), to approaches that reinforce and teach specific behaviors (skills training and token-economy interventions), to family-based services that use motivational enhancement and coping skills training. Each of these treatment approaches tends to be offered in conjunction with medication. Rates of mental health treatment utilization leave much room for improvement. In a review of treatment gaps,

the proportion of individuals with a disorder compared to the number engaged in treatment was 32.2% for individuals with schizophrenia broadly (Kohn, Saxena, Levav, & Saraceno, 2004).

Finally, views of treatment and recovery for individuals with schizophrenia have changed notably over the past few decades. Previously, schizophrenia was seen as an illness from which individuals did not recover; however, long-term studies have shown that outcomes for individuals with schizophrenia are more hopeful. In Harding et al.'s (1987) longitudinal study, approximately one-half to two-thirds of participants with severe mental illness achieved positive outcomes across a 30-year follow-up. These findings have re-shaped the way recovery is understood. Recovery is now defined on an individual basis, whereby individually tailored recovery goals are developed to match consumers' desires, aims, and the severity of symptoms or level of functioning (Bellack, 2006). In addition to the objective components of recovery, such as symptom reduction or achieving measurable goals like employment or housing, recovery now is understood to also include subjective components, such as hope, personal responsibility, education, support and community integration (Mead et al., 2000; Bond, Salyers, Rollins, Rapp, & Zippel, 2004).

Lysaker and Buck (2008) further suggest two subtypes of subjective recovery: one's appraisal of life circumstances and opportunities, and also one's self-perception. This multifaceted conceptualization of recovery emphasizes that subjective changes in the way in which individuals view and understand themselves are key elements of recovery. Further, positive attitudes toward recovery among individuals with schizophrenia are related to positive outcomes (with negative attitudes having the inverse

effect) (Resnick, Fontanna, Lehman, & Rosenheck, 2005). Consequently, this study aims include better understanding how these individuals view their illness, symptoms, and barriers to recovery.

Self-perceptions and stigma

One issue that impacts treatment use among those with schizophrenia is stigma toward mental illness. Stigma is comprised of negative beliefs (stereotypes), emotions (prejudice), and actions (discrimination). Examples of stigma include believing that all individuals with mental illness are dangerous (stereotype), or avoiding interactions with those who have mental illness, further isolating this group (discrimination; Kessler et al., 2001). These negative perceptions, attitudes, and actions, or “public stigma,” regarding mental illness also can impact how individuals with mental illness view and pursue treatment—decreasing the likelihood of treatment utilization (Sareen et al., 2007).

Schizophrenia is a highly stigmatized illness, particularly in western cultures (Heins, Gray, & Tennant, 1990), and the media is a major contributor to the stigmatization of schizophrenia (Chopra & Doody, 2007). Norman and colleagues (2012) investigated stigma and the resulting social distance shown toward individuals with schizophrenia by comparing participants’ (college and non-college samples) perceptions of depression with perceptions of schizophrenia. Overall, participants were more likely to associate schizophrenia with poorer prognosis for recovery, increased danger, and view actions of individuals with schizophrenia as less socially appropriate. Further, this

expression of public stigma has been reported as a frequent barrier for individuals with mental illness seeking mental health services (Meltzer et al., 2003).

Public stigma also contributes to self-stigma, where individuals internalize negative attitudes regarding their symptoms, prognosis, and capacity for recovery (Corrigan & O'Shaughnessy, 2007). While not all individuals with schizophrenia respond to public stigma in this way, many do, and the effects can include loss of self-esteem and self-efficacy (Corrigan & Watson, 2002). Factors predictive of stigma resistance (one's ability to counteract the stigma of mental illness) include positive self-esteem, feelings of empowerment, high quality of life, low depression, receiving outpatient treatment, and having social support (Sibitz, Unger, Woppmann, Zidek, & Amering, 2011). When internalized stigma does occur, however, this process has been shown to hinder recovery and lead to poorer outcomes (Lysaker, Roe, Ringer, Gilmore, & Yanos, 2012; Owens, Johnstone, Miller, Macmillan, & Crow, 2010). Further, because consequences for both schizophrenia symptoms and stigma are particularly detrimental (e.g., job loss, social isolation), negative effects often are cyclical (Allen, Frantom, Strauss, & van Kammen, 2005). Stigma surrounding schizophrenia, for example, tends to contribute to low self-esteem and isolation, both of which are associated with poorer recovery outcomes (Yanos, Roe, Markus, & Lysaker, 2008).

Recent efforts are being made to reduce public and self-stigma. Advocacy groups have sought to reduce the derogatory and stigmatizing language often used by media to describe schizophrenia. From 2000 to 2010, there was a significant decrease in crimes reported in the paper that are committed by individuals with schizophrenia; however, no significant change was seen in the type of language used to describe this illness or

population, indicating that public stigma may be difficult to change (Vahabzadeh, Wittenauer, & Car, 2011). At the individual self-stigma level, a randomized controlled trial reported that reduction in self-stigma for individuals with schizophrenia is possible, and that reducing self-stigma can improve treatment adherence; however, effects began to disappear at the 6-month follow-up (Fung, Tsang, & Chenung, 2011). In a quasi-experimental study of participants with schizophrenia enrolled in cognitive therapy and vocational rehabilitation, greater than one in three individuals experienced a 25% decrease in self-stigma (Lysaker, Roe, Ringer, Gilmore, Yanos, 2012). These findings also suggested that when individuals with mental illness are experiencing emotional distress, they may be less likely to experience reduction in self-stigma.

Because of stigma's association with lower levels of treatment utilization and poorer recovery outcomes, better understanding how individuals view their own illness may be key to understanding the types of interventions a population is most likely to engage in. We suspect that stigma may be a salient factor impacting participants that may then have the possibility to emerge in interviews. While interviews did not directly ask about stigma, hearing about life experiences and participant views of their illness may offer insight regarding related treatment barriers or any self-stigma (i.e., perceptions of self). Better understanding these individuals' perceptions of themselves and their illness then may have the potential to guide services and providers in ways that decrease the stigmatization individuals with mental illness perceive and experience.

Veterans with schizophrenia

The need for Veterans with schizophrenia to engage in care is critical. For example, this group experiences particularly high suicide rates and higher prevalence of suicidality (including previous suicide attempts) in later life when compared to non-Veteran peers (Cohen, Abdallah, & Diwan, 2010). Further, even after controlling for suicide rates, Veterans also experience high mortality rates. Chwastiak, Rosenheck, Desai, and Kazis (2010) tracked all-cause mortality over the course of 9 years among a representative sample of VA service recipients, and during this time 27% of these individuals died. Comorbid psychiatric diagnoses were associated with increased risk for mortality after adjusting for age, race, and gender. Overall, schizophrenia and alcohol and drug disorders were the highest risk factors associated with elevated risk of both suicide and all-cause mortality.

Many Veterans receive services from the Veterans Health Administration (VA), which annually serves approximately 100,000 individuals with schizophrenia, many of whom are on antipsychotic medication (Copeland et al., 2010). Veterans who have schizophrenia often have additional health risks, including higher risk of developing diabetes, poor nutrition, and sedentary lifestyles (Lambert, Velakoulis, & Pantelis, 2003), in addition to the health related side effects of antipsychotic medications, such as developing type-2 diabetes (Lambert et al., 2006). Further, although primary care visits are associated with higher longevity, Veterans with schizophrenia were less likely to regularly receive primary care than Veterans without schizophrenia (Copeland, Zeber, & Wang, 2009).

Another dynamic related to Veteran resource utilization is that Veterans with the greatest need for high-frequency outpatient visits are those who have comorbid mental illnesses and lack social support. Young Veterans also were among those least likely to utilize treatment (Zeber, Copeland, & Grazier, 2006). Harpaz-Rotem and Rosenheck (2011) reported growing concerns regarding low rates of health care utilization among new returning Veterans with PTSD. Specifically, Operation Iraqi Freedom-Operation Enduring Freedom (OIF-OEF) Veterans showed lower retention and numbers of visits than previous-cohorts of Veterans. Further, in a survey of Veterans returning from Afghanistan and Iraq, approximately 11-17% of these individuals met criteria for a mental disorder, yet 60-77% of those who met criteria were not interested in treatment (Hoge, Castro, Messer, McGurk, Cotting, & Koffman, 2004). Harpaz-Rotem and Rosenheck (2011) further highlight the need to target interventions for returning Veterans with mental health needs toward the barriers that keep them from engaging in mental health care, as well as the need to better understand these barriers.

One potential reason for the declining use of mental health care among Veterans may be stigma. In a study comparing active duty soldiers to National Guard soldiers, Kim et al. (2010) found that while active duty soldiers were more likely than National Guard soldiers to have at least one type of mental health problem 12 months after returning from active combat, active duty soldiers were significantly *less* likely to utilize mental health care. Further, among all active duty Veterans (both those with and without mental health care needs), perceptions of utilizing mental health services was viewed with higher stigma for this group than for those in the National Guard. Further research is needed to better understand why these differences in perception exist between active and non-active

duty military personnel and also to better understand how stigma associated with resource utilization might be reduced. Vogt (2011) reviewed existing literature regarding public stigma and personal beliefs regarding mental illness and mental health treatment as potential barriers to service utilization among military and Veteran populations. Fifteen empirical studies were identified and mental health beliefs were considered an important predictor of service use among military and Veteran populations. However, existing literature failed to focus on relationships between beliefs regarding mental health and service use, and very few studies focused on the personal beliefs of military personnel and Veterans. Vogt stressed the need for future research in this area and also that better understanding how military and Veteran populations view barriers and seeking treatment should guide how services are offered.

Among Veterans generally, service utilization rates are low. VA hospitals and clinics serve approximately 5 million unique Veterans each year (Basham et al., 2011), but only approximately one in four Veterans access care at these locations (Department of Veterans Affairs, 2001). Individuals who do not receive care at VA facilities may receive care at community mental health centers (CMHC) or not at all. Agha et al (2000) compared patient health outcomes of VA medical centers with patients receiving care elsewhere, reporting that VA patients had higher rates of medical resource use, poorer current health, and poorer health outcomes. These researchers noted that controlling for age and sociodemographic variables lessened health and other outcome differences. Further, VAs may have stricter criteria for service eligibility, meaning this population may have more severe initial impairment when compared to those who meet eligibility at a community mental health center.

Since 1997, there has been an increase in the number of individuals utilizing VA mental health services, growing at an average rate of 7% each year (Rosenheck & Fontana, 2007). This suggests that the need for mental health services is increasing, potentially due to increasing rates of post-traumatic stress disorder (PTSD; Fasoli & Glickman & Eisen, 2010). At the same time, however, Rosenheck and Fontana (2007) also reported that resource utilization at the individual level is decreasing by 37% on average. This means that although a greater number of individuals are visiting VA-based mental health services each year, each Veteran is less likely to return for continued services. Further research is needed to understand why individual resource utilization is declining, despite the increased need for mental health services among Veterans.

Research is lacking regarding differences between Veterans and non-Veterans with schizophrenia. One study compared males with schizophrenia who received long-term inpatient care at a VA facility match-paired with those staying in state hospitals (Harvey et al., 2000). Veterans had higher education and later age of onset, as well as fewer negative and cognitive symptoms and fewer functional deficits. In their analyses, group differences were not explained by differences in education levels. When relationships between background variables and level of functioning/impairment was examined among Veterans and non-Veterans separately, patterns were similar between groups. Length of inpatient stay was found the most important factor differentiating overall functioning and was determined more discriminating than Veteran status.

At the out-patient level, a more recent study of older males with schizophrenia investigated the impact of Veteran-status and found that Veterans were older, were more likely to be previously or currently married, were less likely to be living in nursing-care

facilities, and had later age of symptom onset (Thorp et al., 2012). Veterans in this study reported poorer physical health but had higher cognitive performance and every-day functioning. No symptom-severity differences were found. Veterans reported poorer perceived quality of life (largely due to greater physical health concerns). Interestingly, level of functioning prior to symptom onset was not different between Veterans and non-Veterans, which lead the authors to conclude that the timing of schizophrenia onset was the primary factor driving group differences.

Need to understand perspectives of veterans with schizophrenia

In sum, being a Veteran with schizophrenia seems to increase one's risk factors, particularly given the frequency of detrimental comorbidities such as PTSD and substance use disorders. Further, all of these factors are also highly associated with poor treatment utilization and adherence, which in turn often lead to poorer outcomes toward recovery (including increased hospitalizations, ER visits, suicide, and mortality). The need to understand differences between Veterans and non-Veterans remains. Particularly, existing studies have focused exclusively on men and use elderly or inpatient samples. Further, both studies focus on differences at a symptom and functioning level, but did not investigate differences like illness-perception, self-stigma, or self-perception that can impact service utilization.

Research exploring differences in the way Veterans and non-Veterans with schizophrenia view themselves, their illness, symptoms, recovery, and engaging in treatment has the potential to help inform strategies to most effectively serve targeted

populations. Particularly given the compounded risks associated with schizophrenia and Veteran status, understanding these differences (and similarities) in perceptions will better guide care providers in engaging these individuals, designing effective interventions, and maintaining treatment involvement. In the present study, I explored differences in the ways Veteran and non-Veteran populations with schizophrenia view their illness and treatment using a qualitative, grounded theory approach.

METHODS

Study design

Given the exploratory context of the research aims and the little research comparing Veterans and non-Veterans with mental illness, I employ qualitative methodology in order to build a framework upon which later theories may be tested using quantitative methods (Walsh, 2012). I used a modified grounded theory approach, which involved examining the data inductively (without an a-priori hypothesis) and allowing a theory to emerge from the data and participant narratives. In choosing this approach, I hoped to generate themes and findings that can be used by future researchers to guide theory in future quantitative studies (Billings, 2004; Johnson, McGowman, & Turner, 2010). I chose grounded theory, rather than other qualitative methods, because it both approaches analyses inductively and generates findings that can be used to build and test hypothesis in future studies.

Setting and participants

This study involved a secondary data analysis from a randomized control trial (RCT) of the effectiveness of Illness Management and Recovery (IMR), a curriculum-based approach to recovery (Whitley, Gingerich, Lutz, & Mueser, 2009). A subset of these participants completed a narrative interview prior to intervention, and these

participants were the focus of the current study. Participants were recruited from either a VA facility or a community mental health center in Indianapolis, IN. To participate, individuals had to be at least 18, had to have a formal diagnosis of schizophrenia or schizoaffective disorder (as defined by the psychotic modules of the Structured Clinical Interview for DSM-IV), could not have severe cognitive dysfunction (as identified by a cognitive screen, Callahan et al., 2002), and could not have a health condition that would prohibit participation in an 18 month study.

Recruitment for the narrative portion of the study began 12 months into recruitment for the parent study, and out of the 52 individuals approached, 48 agreed to participate. One participant declined to be audio-recorded and another participant's interview was not recorded due to a recorder malfunction during the interview, leaving 46 recorded interviews for our analysis. Over half of our participants used services at the community mental health center (CHMC: N=29, 64%; VA: N=17, 36%). Most of our participants were male (36, 77%) and a majority were African American (26, 55%), with a mean age of 48.5 (SD=3.7 years).

Procedures

The narrative interview

The semi-structured interview was conducted using the Indiana Psychiatric Illness Interview (IPII) (Lysaker, Clements, Plascak-Halberg, Knipscheer, & Wright, 2002), a tool developed to assess illness narratives, comprised of five sections. First, rapport with the participant was developed and participants were asked to tell their life story in as

much detail as they could. Second, participants were asked whether they think they have a mental illness, and if so, how they understand it. Here their responses were probed regarding what is affected (and not affected) by their condition relative to their interpersonal and psychological life. The third section asked participants whether (and if so, how) their condition “controls” their life, and how they “control” their condition. Fourth, participants were asked how others in their life affect their condition and how these individuals might be affected by their condition. Finally, participants were asked what they expect to stay the same and what will change in the future relative to their interpersonal and psychological functioning. A unique component of the IPII is that no questions specifically address symptoms and the format intentionally is open-ended, allowing participants to answer the questions in ways which are meaningful and important to them. Congruent with the nature of semi-structured interviews, which allow the participant to tell their own story (Hayman, Wilkes, Jackson, & Halcomb, 2012), interviewers gave prompts and responsive cues as necessary, but strived to be as reflective as possible, not introducing their own content or perceptions. In using the IPII, participants were not asked to fill in missing information in their stories or address chronological gaps as they initially told their stories. The aim of the interview process was to provide a setting in which a client’s narrative (as it currently exists) is able to emerge.

Interviews were conducted by a trained research assistant and/or project manager and ranged from 20 minutes to 4 hours (one participant wanted to tell many details of his life and took several breaks), with most lasting under an hour. Individuals who participated in the interview were compensated \$20. Participants’ narratives were

audiotaped, transcribed, de-identified, and checked for accuracy. Study procedures were approved by the Institutional Review Boards at the Roudebush VA and IUPUI.

Grounded theory analyses

Transcripts were analyzed using a grounded-theory methodological approach (Charmaz, 2006; Glaser & Strauss, 1967). Given the exploratory nature of the research area, I chose to employ an emergent, phenomenological approach to analyzing the data that incorporates the basic elements of grounded theory.

First, I applied a process of open coding (Leiva, Rios, & Martinez, 2006). The transcripts were divided into two groups: interviews of Veterans and interviews of non-Veterans. Transcripts were entered into qualitative coding software Atlas-TI, from which interviews were read, labels made, and analyses and memos stored. I systematically read transcripts from one group (Veterans), highlighting key portions of text, labeling these observations. During coding and supervision meetings, I created provisional themes and identified questions to further pursue. As I continued the process of coding, identifying themes, and meeting with my advisor to discuss emerging themes, a tentative set of codes began to emerge.

When I finalized a codebook for the group of Veteran transcripts, I turned to the non-Veteran transcripts and repeated the process of open coding to create a separate code-book for this group. When finalized, I compared differences and returned to transcripts to double-check the presence or absence of codes that appeared in the second round of coding. That is, I checked whether codes that appeared in the non-Veteran

codebook (but that were not originally in the Veteran codebook) were in fact absent in Veteran interviews or whether they also were found among this group.

During coding, I employed steps designed to enhance both the internal and external validity of findings, including constant comparison methods and regular meetings with my advisor, who served as an independent researcher with an expertise in qualitative research methodology (Flick, 2006). While she did not analyze transcripts directly, the supervision over steps taken in analyses helped enhance the validity of analyses conducted through conducting data audits and providing feedback regarding how themes, results, and transcripts have been linked. Originally, I had proposed to employ member checking (Merriam, 2002), a step designed to increase the internal validity of proposed themes. Ideally, when themes are identified, researchers return to the original sample (or similar samples), present findings, and obtain feedback regarding whether analyses match what participants intended to communicate. Given the comparative nature of the present results, and the types of comparisons made, participants would likely not be able to provide the originally intended input regarding the accuracy of conclusions made about group differences and so this step was removed.

Finally, the validity of our findings was also enhanced through checking for principles of saturation. Although a sample of 46 does not have impressive quantitative power, this sample seemed sufficient for reaching saturation—the point at which no new themes emerge (Guest, Bunce, & Johnson, 2006). Saturation can be said to be reached when coding additional transcripts does not contribute novel themes or insight and participants are sharing (generally) the same themes regarding ideas of interest. Often,

saturation tends to occur between 20 and 30 observations and this is consistent with the point at which saturation began to occur in the present samples (Kisely & Kendall, 2011).

Grounded theory strives for both internal consistency, so that emerging codes are ones agreed upon by all research team members, and generalizability, so that findings representative of our sample should be generalizable to the same degree that a population matches the qualities of our present sample (Meyrick, 2006). As codes emerged, I refined themes and patterns by removing codes which no longer seemed supported by the majority of our participants' narratives, adding additional codes that are pertinent but did not emerge early on, combining codes which highly overlap, and refining codes where my original definition and understanding of constructs referenced by participants shifted. In the thematic analysis process, I first reviewed codes that appear most often among participants' transcripts, followed by those codes which are central to the narratives shared, and also codes which seemed to be particularly insightful (Cutcliffe, 2000). Near the end of analysis, I looked for patterns and consistencies across participants' narratives and perspectives, tying these elements together where connections existed, presenting a set of themes grounded in our findings (Shah & Corley, 2006).

Statistical analyses

Demographic differences were statistically compared between groups using t-tests for continuous variables (e.g., age) and X^2 for categorical variables (e.g., gender). I also tallied the frequency with which codes were found in transcripts. Each transcript was given either a '1' or a '0' for each individual code. I then compared tallies using non-

parametric statistics, looking for differences in the frequency with which Veterans and non-Veterans discussed each code. These analyses were interpreted in light of the limited sample size and exploratory nature of the study at $p < .1$.

RESULTS

Participant background

Veterans and non-Veterans differed statistically on several demographic characteristics (see Table 1). First, fewer Veterans (N=2, 10.0%) than non-Veterans (N=9, 34.6%) were female ($X^2=3.77$, $p<.10$). Fewer Veterans (N=15, 75.0%) than non-Veterans (N=25, 96.2%) were unemployed ($X^2=4.46$, $p<.05$) and more Veterans reported income greater than \$10,000 (N=10, 55.6%) than non-Veterans (N=8, 30.8%) ($X^2=2.70$, $p<.1$). Veterans also were more likely to be currently married (N=6, 31.6%) compared to non-Veterans (N=1, 3.8%) and fewer Veterans (N=1, 5.3%) reported *never* being married compared to non-Veterans (N=16, 61.3%) ($X^2=16.55$, $p<.001$). More Veterans (N=19, 73.1%) completed some college or beyond than non-Veterans (N=7, 45.9%) ($X^2=3.74$, $p<.05$). Although not specifically gathered as part of the demographic information, and although there were no statistical differences in education level between groups, during interviews four non-Veterans specifically mentioned having a learning disability or being in special education classes when in school. Finally, no participants were in active duty in the military.

Statistical differences

Table 2 lists all the codes used in this study and the comparisons between groups on frequency of occurrence. Codes used most often in both samples include: family/relationships, mental health treatment, isolation, optimism, symptoms, work, education, stigma, religion/spirituality, and alcohol/substance use, and medication. There were 13 codes that differed statistically between the Veteran and non-Veteran group. More Veterans discussed *boredom* ($p < .05$), *regret/guilt/loss*, and *wanting to be "normal"* ($p < .1$). More non-Veteran interviews were labeled with the codes *pessimism* and *religion/spirituality* ($p < .001$), and *optimism: wanting a different future* ($p < .01$), *bringing up mental health, family, friends, future: no change, life goals*, and *relapse* ($p < .1$).

Qualitative differences

In addition to statistical differences in code frequency between groups, Veterans and non-Veterans also discussed topics in qualitatively different ways. I here describe differences and provide quotations to illustrate these variations. Key differences include Veteran "military mindset" and non-Veteran focus on mental illness; these differences, then, influence differing attitudes toward recovery and treatment, including (a) sensitivity to stigma, (b) passive versus active attitudes toward treatment, and (c) degree of optimism regarding the future.

Military mindset

First, Veterans were quick to discuss their experiences in the military. Every Veteran participant (unsolicited) either specifically brought up his or her time in the military or referred to himself or herself as a Veteran, indicating these individuals saw their military experiences as important aspects of their identity and life. In addition, many Veterans talked about their illness with a “military mindset.” This code was used whenever individuals (primarily Veteran participants) discussed needing to be “brave,” “fight symptoms,” or as P9 put it “resist to persist...it’s a passive way of fighting them [symptoms].” P18 also summarized this military mindset by comparing her response to mental health symptoms with difficulties and accomplishments from time in the military: “Basic training was hard. But it was kind of fun, too. Yeah, I learned that I could do anything; if I survived that, I can deal with this depression that I am battling now.” For several Veterans, this military mindset took the form of past denial regarding their illness or their previously poor insight into their need for help. P17, for example, explained:

After I lost that job I started drinking more. I started drugging more... I was still in total denial, and fighting, not believing I was ill and not wanting to ask for no help. I’m a Marine. I ain’t needing no help. Approximately a month ago I seen a guy who was in [the military] with me. And he’s a Veteran, too. And I told him then, I didn’t know that I was sick. And he said, “Well, all of us did.”

Similarly, while the topic of anger came up in both samples, Veterans often and were more likely to draw connections from anger to their mental illness. P39’s response to “Do you think you have a mental illness, and if so what do you think it is?” illustrates Veterans’ common perspective that anger is a part of their mental health:

I know when I hear voices and stuff I know I'm sick, somethin' wrong with me, so I try to get to the hospital, you know, sometime I go to gettin' irritable, snappin'

[at] people. I get real upset at somethin', about nothin', you know. [That's how] I know I'm almost about to relapse, so I just go get some medication and sit down.

When asked how other people are affected by his mental illness, P27 also illustrated the perspective that that anger is a mental health issue:

Well a lot of people don't understand it and then, also I go through the phases with the voices and I snap at people. You know, they don't know the reason of the cause...and I think if I was to open up more and get the frustration outta me and the anger outta me, this disease that I have would be better than me holding everything in until I crack up. Where I can't take it no more and have to be put in the hospital.

Some participants also discussed anger in relation to stigma they encountered. One Veteran articulated this when describing the impact other people in his life have on his illness: "I get angry a lot. [Them] just sayin' like, 'It's something wrong with you.' And it's just, I hate that part" (P40). A non-Veteran participant shared similar sentiments regarding stigma, but described the anger as turned inward toward himself instead of toward others: "[Because of the illness] I know I get anger. I get lonely and depressed and a lot more angry with myself. [Why?] Because I didn't do better for myself. I keep getting used by people" (P13).

Non-Veteran focus on mental illness

Military experience was central to the identity and self-perception of Veteran participants; non-Veterans, however, discussed a different type of life experience as central when recounting their life story—their mental illness. Although participants varied in the degree to which they emphasized their mental illness, Veterans were more likely to not even mention mental illness in their life story, and when they did, mental

illness was more secondary than the focus of their narrative. In contrast, more non-Veterans brought up the topic of mental health than did Veterans and, when discussed, it more often was central to their narrative. For example, when asked to tell her life story in as much detail as possible, one non-Veteran's opening words were "My name is (P11) and I had schizophrenia for all my life really. I started to get sick when I was 8 or 7 years old, going on the highway and I had imaginary friends and stuff like that." Non-Veterans also were more likely to share life narratives that centered completely around their mental illness. Non-Veterans like P3, when asked to tell their life story, tied every aspect of their narrative to their illness:

I went to a church that had a place for people with mental illness when I was about 12, my mother took me. Me and my two brothers, I'm a triplet. She took us, they're schizophrenics and she took us 'cause we were having problems concentrating on stuff, putting things in the right order. She took us then, but we didn't want to cooperate at that time. So, I went years of having shut downs and sometime I could get it together, dealing with homelessness and losing jobs, and so I did that for a lot of years. And then I came back to (name of CMHC) in about 2005 and started getting treatment. And I've been here ever since.

As non-Veterans focused more on their mental illness, they also used it as the reference point to which they compared other aspects of their life stories. For example, many non-Veterans, like P23, reflected on pre-illness experiences through the lens of current symptoms: "[As a kid] I was pretty much normal. I didn't mix a lot with my brothers and sisters very much. I pretty much stayed around my mom and by myself. Looking back I guess I was pretty normal. I didn't have voices then. Hear voices then. And I wasn't paranoid or afraid of anything." Non-Veterans not only described symptoms and illness onset more often, but most also described these events earlier in their narratives than did Veterans. Specifically, most non-Veterans included symptom onset in

their life narratives and report it occurring during high school, whereas illness onset for most Veterans was after or during their military experiences. Some non-Veterans even identified symptoms present in their lives from an early age, which was not true among Veterans. Non-Veteran P38 illustrated:

I was paranoid when I was a kid. Something scared me, I don't know what it was...[but] then you get paranoid. But I'm doing a lot better. At first I was real worse. I would tell my sister and my mom to pull over, I think somebody is following us, and she would say nobody is following us, there are no cars behind us. You know, things like that.

Overall, when describing big life milestones, non-Veterans were more likely to spend more time focusing on their mental illness and were more likely to use their mental illness as the reference point to which other parts of their life story were compared.

Differing attitudes toward recovery and treatment

Differences in self-perception (i.e., “military mindset”) and focus of attention (i.e., non-Veterans’ focus on mental illness) impacted the way Veterans and non-Veterans discussed other aspects of their life. Specifically, Veterans and non-Veterans differed in how they discussed (1) stigma, (2) passive versus active approaches to treatment, and (3) the degree of optimism they held regarding the future. I first describe these differences and later discuss how these differences potentially relate to one another.

Sensitivity to stigma

Many participants discussed encounters with stigma from employers, family, friends, and a variety of other sources. Two key differences emerged as participants discussed stigma. First, Veterans seemed to have a heightened sensitivity to stigma—with more Veterans than non-Veterans discussing wanting to be “normal, without having to take pills” (P1). Although both groups mentioned regular encounters with stigma, the frustration Veterans expressed as a result of these encounters was greater than that expressed by non-Veterans. That is, while both groups rightfully saw stigma as negative, more Veterans discussed their emotional or behavioral responses to stigma. For example, P33 explained: “[Being diagnosed] made me angry. I didn't want to accept it. Then I finally accepted it, and I'm kind of sensitive about it to other people. I think people try to talk condescendingly to me and pamper me humor me, and I don't want that...I have the ability to work on keeping it in control, but it takes a lot of mental energy and mental focus.” Other times, Veterans’ sensitivity to stigma impacted the way they interact with others. Veteran P19 shared his response to stigma and captured the sensitivity many Veterans felt:

It keeps me locked up, away from people. You know, keeps me from getting close to people. It's like, I love my granddaughter but she's 11...it keeps me from being close like I wanna be. You know, 'cause I don't know what if I might have a flare up or anything, you know, and I don't wanna scare her... so it keeps me pretty much at length.

As a result of this heightened sensitivity to stigma, Veterans were particularly frustrated that, despite their illness, expectations to conform to social norms and hide symptoms were strong. As one Veteran put it: “[It’s hard when] people know that you suffer from mental illness, the way they, the prejudice you face and, and how hard it is to

function. But you're still expected to" (P18). Consequently, many Veterans described efforts they took to hide their symptoms and the pain that stigma-charged encounters regularly caused, as P16 described:

I try to act normal, but when people ask about it, I just tell them I don't want to talk about it. You know, because it feels, I guess it's stigma, you know, about mental illness. And sometimes I'll be, you know, I was working here in the hospital and they would make fun of the people on the (wing of hospital)...and I would think that they were talking about me, too. You know, they don't know anything about what's going on.

Another Veteran participant described: "When I introduce myself I have to omit certain information. And I feel like I'm lying to people or deceiving them...but I've also been honest with people and suffered the consequences of that...lost a job over it...so I quit telling people" (P24).

In addition to omitting information, more Veterans than non-Veterans described attempts to counteract stigma they encountered. Specifically, more Veterans discussed confronting stigma they encountered. Additionally, more Veterans described perspectives that reflected methods for coping with stigma, such as distancing oneself from those expressing negative perspectives, confronting, or seeking out more positive perspectives. Veteran P18's perspective of how others impact his illness reflects this active response to stigma common throughout Veteran interviews:

They like to antagonize me. And they have named me the black sheep of the family. And they feel like I'm the black sheep of the family...And I don't feel like it's fair the way they talk about me...And so I've learned from that to tell them I don't even want to hear it...So, that's the end of, and that and I just stay away from them. And then a very good friend of mine was like, you know what, sometimes you can't pick your family, but then you can go make a family that you want. Like, find people that care about you, and genuine people.

A second overall difference between Veterans and non-Veterans regarding stigma is that non-Veterans seemed to have internalized more of the public stigma and non-Veteran perceptions seemed characterized by greater self-stigma. More non-Veterans described difficulty separating how they saw themselves from stigma they encountered. Non-Veteran P21, for example, described feeling frustrated by stigma, but also the negative impact stigma had on her self-perception:

[Having this diagnosis] It don't make me feel good about myself. Even though I treat people the way I wanna be treated, nice, you know, I'll do anything in the world for someone if I could help 'em. But it makes me feel crazy and strange. That's why I don't mingle with people. Because I don't feel like I fit in. So yeah if that's what you wanna say, feel crazy, yes, I feel crazy *weird*. I'm ashamed of what I'm having to go through as far as society. No matter what I try to do to help myself seem like [by] the society I'm not being accepted. And that makes me angry, frustrated and that makes me feel like that I'm in a world by myself. And I would never be accepted...I shouldn't feel that way. I'm not the only one in this position.

More non-Veterans than Veterans described wrestling with liking themselves, and this often was connected to stigma they encountered from others. For example, non-Veteran P25 brought up the topic of stigma and remarked “It’s hard enough [without stigma] to accept yourself, you know, with the illness” and non-Veteran P37 similarly concluded:

Anybody realizes that I, you know, have a mental problem...I don't go around just lookin' for pity like that. I mean, expecting the pity... But as far as other [people are concerned], I think that it's, [how] other people other people feel, how they think about my illness is understandable.

The way non-Veterans discussed stigma reflected that they had internalized negative beliefs about their illness to a greater extent than Veterans. The code stigma was used more among non-Veteran transcripts, while the code “recovery perspective” was used

more often to label Veterans' responses. Additionally, while Veterans were more likely to challenge or confront stigma, non-Veterans described responding to stigma in ways that were more passive.

Passive versus active approaches to treatment

While Veterans were more likely to discuss anger, "fighting symptoms," and had speech characterized by a "military mindset," non-Veterans described managing their illness in ways that were more passive. For example, when asked the amount of control they perceived over their illness, many non-Veterans replied similarly to P23: "I don't think I can control it. I think I work around it. But I don't control it. But I know, I don't think I have any control over it. It depends on what situation comes or what I'm dealing with or what confronts me and I just have to adjust. Which sometimes ain't possible." For other non-Veterans, like P38, "control" meant ignoring her illness. Even for non-Veterans who perceived themselves as doing well, many discussed the future passively: "I don't know if I'll ever get better. But right now I feel pretty good. I can live with it" (P6). When asked about the possibility of improving, more non-Veterans indicated they saw themselves staying as they were, frequently discussing the possibility of relapse and their aim to not do so. Non-Veteran P3, for example, explained: "No, I don't know that they [my symptoms] will get better. I used to hope they get better, now I don't. It's just, I mean, it's been going on so long...I mean I don't know...They said maybe they could help me if they had a medication for it."

Medication was a topic almost every participant brought up, but the way it was viewed and discussed differed between groups. Compared to Veterans, the way non-Veterans' discussed illness management reflected a greater reliance on medication. While participants from both groups expressed dislike for being on medication or consequent side-effects, non-Veterans were noticeably more passive, even resigned, regarding the perspective that they would continue to be dependent on their medication:

I know that I have a mental problem. I know that I will be on medication for the rest of my life. So in that perspective, I have to face reality. You know, and I can't, I hope that I don't be at [this CMHC] for the rest of my life and taking pills for the rest of life...because when I don't take my medicine for a length of time it throws me right back to where I was when I first started. So therefore I know that I have to have my medicine to deal with society, period, or myself...It's just something that I got to deal with. Bad and the good, you know. The medicine it is helping, because I probably woulda by now probably done react on a lotta crazy thoughts again uh far as hurting myself. So yeah the medicine is helping. And I don't think I could actually deal with society without it. (P21)

For many non-Veterans, "control" over the illness was equated with taking medication. As P11 explained, "You control it [the illness], because if you don't take any medication for it you get worse and probably die from it—[get] suicidal and stuff." As non-Veterans discussed their treatment, they were notably more anxious than Veterans regarding relapse. Non-Veterans seemed to have both greater anxiety about symptom flare-ups and yet at the same time were more passive in their attitudes about treatment. Non-Veteran P54, for example, summarizes this passive attitude as he responds to whether he has control over his illness by pointing only to medication adherence:

After I would take it for so long, then I would tell myself I don't need it. But this is the last time I finally decided, once I got back on my medicine this time, that I'm gonna continue to take it 'cause I know I *do* need it...I didn't wanna accept the fact that for the rest of my life as long as I'm living and breathing, I said there gotta be some kinda way, whatever's in my mind gonna get right...But I guess I am [going to keep on it] because I don't wanna go back to the hospital.

While both groups discussed the importance of medication in treatment and wanting to avoid relapse, perspectives like the following by P5 were only found among non-Veterans, illustrating this more-pronounced fear and passive role in illness management among non-Veterans:

Sometimes I don't like [having mental illness] it because I have to depend on my medicines to keep me stable. And I wish I could just be normal, but I know that it'll never be because my doctor told me no matter even when I feel good to stay on my medicine. He said that part of my brain dies when I don't take my medicine. And it just scares me... It's kind of hard to say that you can control your mental illness but I just pray that, you know, I can control it and that I don't have too many episodes, 'cause I don't like to go back to where it all began.

By contrast, when Veterans discussed the role of medication in their treatment, more individuals seemed to view themselves as agents in the process of recovery, beyond just a consumer of medication. More Veterans described taking an active role regarding managing their symptoms, medication, and treatment. P24, for example, described his medication illustrating Veterans' heightened agency and also the impact of Veterans' "military mindsets" on their approach to addressing symptoms aggressively:

I met this doctor and he introduced me to Seroquel...it's a wonderful thing because it really helps me. It doesn't eliminate my problems, but my mood swings don't go as bad as they used to. They're, they're kind of about the same frequency, but the severity is not bad. And, you know, hearing the voices and the racing thoughts, they still happen, but they're not as often...I'm learning things, you know, through different programs to how to look out for it. You know, attack it before it attacks me.

Veterans, overall, also seemed to hold more holistic views regarding treatment, with medication as central, but not necessarily exclusive or ultimate. Most Veterans did discuss medication, and it certainly was a core element of their treatment; however, Veterans were more balanced than non-Veterans, discussing medication as one component of their treatment that helped them stay well. Veteran P19 illustrated:

See I realized it now. First I thought I'm gonna come and take this magic pill and I'll be all right. [Chuckles] But now I know better...I know I'll probably be on Risperidone or maybe something else later. Later on down the line for life. You know and I'm all right with it. And I mean I still do dread taking pills, you know, but I know it's necessary. I know it's something I'm gonna have to do if I want to live a good life. And plus the other thing counseling. I've realized it now. But I always did feel that if I talked to someone I'd feel a little better. I always felt that was one of the things I needed to do. To get the things that happened to me off my brain off of my chest you know. But that's constantly, you know, it's like flashbacks...[But] I gotta be patient...I went though, I wait[ed] all these years, why not a few more...I'm on the road now.

Degree of optimism regarding the future

Finally, Veterans and non-Veterans differed in the way they discussed their hopes for the future. Optimism among both groups included: a desire for their life to improve, belief that their future would improve, identifying past improvement, and specific life goals. While each facet of optimism (labeled with a separate code) was found among Veteran and non-Veteran interviews, noticeable differences also emerged. Overall, Veterans were more optimistic and non-Veterans more pessimistic; when Veterans were pessimistic, however, they were more likely than non-Veterans to focus on loss and missed life experiences, whereas non-Veterans were more pessimistic about their current and future circumstances.

First, when asked “What do you see for yourself in the future?” Veterans were consistently more optimistic. Most Veterans, such as P19, pointed to past improvement and progress they made in their recovery, while also forecasting continued progress in a way that reflected agency: “[In the future I see] peace, a quiet mind, hopefully a happier life. Happier relationships. ‘Cause I know what to work on now...so I’m looking forward to getting better. You know, I might not get cured, but I can get better.” Optimism in

several Veterans was so pronounced that these individuals even framed their illness as a positive—a perspective and degree of optimism not found among non-Veterans. Framing one's illness optimistically often involved identifying strength in themselves or from a religious source, or pointing to positive outcomes. Veteran P9's response to "How do you feel about having a mental illness?" reflects the optimism found noticeably more among Veteran interviews:

(Sighs) I feel blessed now, you know? I also understand about stigma, okay. That's their problem. That's how I feel about it. That's their problem...[because] I feel blessed. I feel that God only gave this to me cause I'm strong enough to deal with it. That's the way I feel about it. Cause where else it come from? I mean, you know, I don't think I opened the top of one of them bottles and drunk it in...But now since I understand it a little bit better, I feel blessed. That might sound weird I'm just telling you the way it feels.

Compared to non-Veterans, Veterans also placed greater emphasis on returning to a higher quality of life, including living independently, working, or having relationships when describing what they saw for themselves in the future. Veteran P42, for example, described his future goals and the active role he planned to take in working toward these life changes:

Well, I see a brighter future now that I'm not on drugs and I'm tryin' to live right. I think I'll be able to accomplish a lot as long as I keep comin' to the [VA] and keep, just takin' control of my life back. Catchin' up on my bills, feelin' like I'm somebody. And I feel like maybe one day I'll be able to function in society to where I can have friends. (P42)

More Veterans than non-Veterans included wanting relationships to improve when reflecting on their life goals. These often included relationships with romantic partners or family members. Veteran P16's account illustrates a relationship-oriented goal similar to those many Veterans shared:

You know, so she [my daughter] just let me know how, because she wrote me a letter, and said that she use to cry, she to use to wonder why, you know, she didn't have a dad there at home, just to come into the bedroom and say 'Everything is going to be all right, baby.' So I just tried to contact her now, you know, and trying to get into a relationship with her now, so that I can kinda just let her know that I love her.

Non-Veterans, by contrast, were noticeably more pessimistic regarding the future than were Veterans. Non-Veterans were less likely to discuss goals they hoped to achieve and fewer described themselves becoming connected in the community with work or relationships. Non-Veteran P10's response to what he saw for himself in the future captures this difference in degree (and lack) of optimism:

I see myself as being very lonely because you know I don't really think I would be accepted by any one of the opposite sex, and I don't think I'll ever end up getting married or becoming a father, because I'm 47 years old. So I really don't think I can suddenly change my life or just win a great victory and end up, you know, driving a Cadillac and living in the suburbs and all that.

In addition to pessimism regarding life-goals, non-Veterans also were more pessimistic regarding predictions about the course of their illness. More non-Veterans than Veterans also responded that they saw no change for themselves in the future. Notably, no Veterans responded that they saw the future staying the same, nor hoped just to maintain status quo, as was found in non-Veteran interviews. More non-Veterans also responded that they did not give thought to their future—whereas all Veterans were able to imagine their future and offer goals they hoped to achieve. Non-Veteran P13, for example, illustrates the notable pessimism and lack of goal-oriented future thinking found more among non-Veterans: “[How do I feel about having schizophrenia?] I feel short-cheated again. [And in the future] I don't know. I don't think about the future much. I've tried to commit suicide six times... I don't have very many friends anymore.”

In addition to the degree of optimism, other noticeable differences were the reasons surrounding Veteran and non-Veterans pessimism. Generally, more non-Veterans were pessimistic regarding their current life situation and what they saw for themselves in the future; Veterans were more pessimistic regarding losses and past life experiences interrupted by mental illness. Many Veterans reflected on specific situations they felt were negatively impacted by their illness. Often, these experiences were near symptom onset and altered the trajectory of their life:

That messed up my whole career because I loved the military...it wasn't right. It wasn't right at all, and from that point on, it's been like...don't tell me nothing. I won't bother you and don't bother me. That's been my problem ever since... I feel there's nothing I can do. What's done is done. They messed my life up. My life is pretty much through behind that. I'm 56 years old, my life is gone. And I don't have nothing to show... I'd like to get my life straightened out whereas I can contribute something worthwhile. You know, it's like I had all that time and all that ability wasted, wasted. You don't know what I could have been to the world...And I did a lot of positive things despite all the negatives. That's why I say if I didn't have a problem, life could have been a lot better for me. Because I know that there was potential, but anger got in the way, you know, and I would get very angry. (P8)

Many Veterans who brought up losses did so in the context of military careers that ended early. Time in the military was discussed as a high point by most Veteran participants—a high point usually interrupted by onset of mental illness. More Veterans than non-Veterans articulated illness onset as life being interrupted, emphasizing the acute loss they felt:

When I joined, I um had in my mind to do 20 years...[then I had my head injury] and from what I know now, that is was what started my illness and now I hear that sound regularly, even when I've been on the Risperidone...They told me I had a choice. Either that I could go back to active duty or I could stay in the hospital another year and get a medical discharge. And I wasn't gonna stay there on that medication for another year. So I chose to go back to active duty which was a bad idea...I threw the medication away, not knowing that I was addicted to the

Thorazine. I went through four days of withdrawal. So I got Article 15 for missing four days of formation. I went down. From there everything just goes downhill and I [was] in trouble all the time. (P19)

Several Veterans also contrasted their present life circumstances with memories of what other individuals had projected for them, pessimism taking root in the disparity between expectation and reality. These types of reflections were less common among non-Veterans, and this regret over loss and missed life experiences was acute and more frequent among Veterans, such as P18:

When I was in grade school, my teacher told me I was an overachiever. I was like, is that a good thing or a bad thing? She was like you'll always been on top. And look at me now. I'm not on top, but nothing. Every time I think [about that] I feel bad about myself, I, hear her voice saying, you going to always be on top. And I'd rather be an overachiever than where I'm at now. Just barely making average. I want to be above average.

DISCUSSION

Differences between Veterans and non-veterans were examined using qualitative and quantitative methods. More Veterans were male, employed, had higher income, higher education, and more were currently or previously married. Quantitative differences in code frequency included more Veterans discussing: *anger, boredom, regret/loss experiences, optimism: wanting a different future, and wanting to be “normal”/hide symptoms*; more non-veterans discussed: *religion, life goals, pessimism, family, friendships, poor insight, mental health, and future: no change*. Qualitative findings highlight that, compared to non-veterans, Veterans discuss anger as part of their mental health and held a “military mindset;” were more active toward their illness, treatment, and medication; were more optimistic overall, and when pessimistic, focused more on regret/loss from the past rather than pessimism regarding the future; and articulated a stronger desire to be “normal”/ heightened sensitivity to stigma. Non-veterans, by contrast, held more of a mental illness mindset, spending more time discussing mental illness when discussing their lives, and were less active and more pessimistic overall.

Proposed model

One goal of the current study and the use of grounded theory methodology was exploring a new area of research for the purpose of generating testable theories. Figure 1 presents such a theory, proposing how current findings may be related. First, Veterans seemed to be impacted by protective demographic factors, including more education, more employment, financial, and relationship resources, and later illness onset. Non-Veterans, alternatively, seemed to experience potentially limiting factors or challenges, including less education, less employment and financial resources, fewer romantic relationships, and earlier illness onset. I suggest that among Veterans (1) these protective factors and (2) Veterans' enriched sense of identity (beyond that of mental illness) reflected in their "military mindset" combine to produce a "fighting" response toward stigma they encounter. By contrast, the combination of non-Veterans' (1) fewer demographic/background strengths (2) and a sense of identity focused more on their mental illness may contribute to more internalized responses to stigma. Finally, I propose that Veterans' greater stigma resistance then contributes to a tendency to be more active in treatment and optimistic about the future. Non-Veterans' internalization of stigma, by contrast, may then contribute to a more passive approach to treatment and more pessimistic outlook regarding the future. Overall, I propose that Veteran status (i.e., Veteran/"military mindset" or non-Veteran/focus on mental illness) may moderate the relationship between stigma and how (a) active or passive and (b) degree of optimism.

The "military mindset" veterans held seemed to impact encounters with stigma, being active in treatment, and degree of optimism. First, Veterans were more sensitive to stigma because of their "military mindset," expressing a need to be "tough," and

associating mental illness with weakness; at the same time, Veterans approached stigma (and also their illness) with a mindset of needing to be “strong” or “fight”. Others have discussed whether military populations experience mental health stigma differently than the general population and argue that current measures of stigma focus on civilian-based concepts that may be different from those most salient for those in the military (Skopp et al., 2012).

In our sample, Veteran status was a strength—because fewer of these individuals seemed to have internalized the stigma they encountered. It is possible that fewer Veterans internalized stigma because their identity as a Veteran was a protective variable. Specifically, military experiences shaped these individuals’ views of themselves in meaningful ways. This identity as a Veteran was associated with being strong, enduring, and fighting—and these are strengths for resisting stigma, rather than internalizing it. By contrast, most non-Veterans did not report parallel identity-shaping events like military experiences were for Veterans’ identity. Work has been done regarding the importance of self-experience and illness identity on recovery (Lysaker, et al., 2006; Yanos, Roe, & Lysaker, 2010) as well as the detrimental impact of internalized stigma, impacting self-esteem, hope, and thereby recovery for individuals with schizophrenia (Yanos, Roe, Keith, & Lysaker, 2008).

This richer sense of identity as a Veteran, then, may be a protective factor in and of itself. For example, stigma-resistance, one’s capacity to form an opinion that differs from stigma one encounters, is strengthened by positive self-esteem, higher quality of life, and having social support (Sibitz et al., 2011). Although not formally assessed, veterans in our sample were more optimistic (which may reflect higher self-esteem), and

may have had a greater quality of life (i.e., income, work) and social support (e.g., VA/fellow veteran support and higher marriage rates). Past research has also traced the highly negative-effects of chronic stigma on self-perception and recovery for those with SMI (Perlick, et al, 2001). If non-Veterans are encountering stigma earlier, and with fewer protective factors to buffer its effects, this group may be more susceptible to internalizing public stigma and developing greater self-stigma (Ben-Zeev, Frounfleker, Morris, & Corrigan, 2012).

Relatedly, age of onset may contribute to group differences. People with early and gradual-onset of schizophrenia tend to have a poorer course and prognosis than those with acute and later-onset (Day et al., 1987). In our sample, more Veterans described later onset and perhaps more acute onset (although not systematically collected from every participant), often resulting from experiences in the military. As a result of this later-onset, Veterans tended to have more rich, positive, and identity-shaping life experiences prior to their illness (e.g., more education, employment, romantic relationships). Many of these experiences are associated with protective factors. For example, more Veterans were married, while more non-Veterans were never married, and social support is seen as a buffer to coping with stress (Coyne & Downey, 1991). Overall, it seems that later onset among Veterans is associated with protective factors, particularly contributing to this group developing more meaningful, identity-shaping events prior to psychosis. These hypothesis about later age of onset among veterans in our sample are consistent with findings others have reported regarding later onset in Veterans (Harvey et al, 2000). This study also reported Veterans and non-Veterans to have the same

premorbid functioning and symptoms at illness onset, suggesting age of onset may remain an important variable to consider when investigating group differences regarding both demographic and self-perception differences.

Beyond age of onset, another factor that might be impacting differences between Veterans and non-Veterans, particularly in level of optimism and active engagement, is that of life experiences. Veterans overall had more protective factors (e.g., income, education, employment, romantic relationships), while non-veterans described more negative life experiences, reflected in the codes: *jail/trouble with the law, homelessness, alcohol/substance abuse, health/medication side effects, and financial issues*. Our demographic findings were consistent with the few studies that also compared veterans and non-veterans on education (Harvey et al, 2000; Thorp et al, 2012) and marriage (Thorp et al, 2012). It may be that differing attitudes toward treatment and recovery result from a combination of non-veterans experiencing more hardship, having mental-illness as more central to their identity, and having fewer protective factors. Learned optimism (Seligman, 2006; Zimmerman, 1990) may be a helpful framework for understanding the impact of life experiences on attitudes regarding the future. For example, it may be that, because Veterans have more positive life experiences early-on, they learn to expect these trends to continue and are more hopeful about returning to this pattern. If non-Veterans experienced more stigma and more negative experiences earlier in life, then they may have learned to adjust their expectations accordingly.

Quantitative versus qualitative findings

Although grounded theory does not generally use statistical hypothesis testing, it was informative to examine possible contradictions between code frequency and qualitative findings. See Table 3 for a complete listing of comparisons between qualitative and quantitative findings. In six cases, codes did not differ statistically between groups, although qualitative differences emerged; these cases may reflect low power rather than true contradictions. However, there also were six times when contradictions between qualitative and quantitative findings were stronger. For example, more non-Veterans had the code *fighting symptoms*, even though this is discussed as more salient for Veterans in the qualitative findings. Several factors contribute to this contradiction. First, although slightly more non-Veterans' narratives were given this code, Veterans spent substantially more time discussing this topic. Further, while Veterans discussed fighting in relation to stigma and recovery, more non-Veterans were given this code for discussing how they "control" their illness, and more had *fighting* paired with discussion of medication or fear. As another example, more Veterans discussed *isolation*, and yet also were more likely to be employed or married. It may be that because more Veterans experienced times when they were not isolated (e.g., school, the military, romantic relationships), they are more apt to notice differences in current levels of social contact. Relatedly, more non-veterans discussed *romantic relationships*. This may be because more non-Veterans were currently unmarried and desired this to change, whereas more Veterans already were or had been married. Further, although more non-Veterans discussed the topic of *life goals*, the types of goals discussed differed between groups. More Veterans discussed relationship goals (i.e., reconnecting with

children, developing more friendships) and wanting to give back and do something meaningful with their life (i.e., write a book, paint, or volunteer). More non-Veterans discussed education goals (i.e., learning to read, obtaining their GED), wanting to work, or medication changes. This may reflect that more Veterans already had more employment and education experiences. More Veterans also provided richer and more specific descriptions of their goals. Finally, suicide was discussed more among Veterans, although they also were more optimistic. When suicide was discussed by Veterans it was discussed as something they previously attempted, rather than a current struggle. This is consistent with research suggesting that Veterans with schizophrenia may be at increased risk for suicide, given the frequency of comorbid posttraumatic stress disorder (Strauss et al., 2006).

Implications

Finally, this study has several important potential implications. First, Veteran's "military mindset" was associated with both risk factors (i.e., heightened sensitivity to stigma) and protective factors (i.e., "fighting symptoms", being more active and optimistic, stigma resistance). One implication is that those who work with Veterans may wish to approach treatment by encouraging Veterans to "fight" their symptoms and developing strategies toward this end may be effective. Adopting language for discussing mental health that aligns with Veterans' "military mindset" may be helpful for alliance, communication, and Veteran buy-in regarding treatment. On the other hand, a "military mindset" may also contribute to Veterans being more resistant to engaging in treatment if

they feel the need to be “tough” and not seek help. Given that individuals in our study were all already engaged in treatment, the heightened sensitivity to stigma expressed by Veterans in our sample is particularly important, as it may suggest Veterans not engaged in treatment may be even more sensitive. Our findings also may suggest that campaigns that focus on Veteran identity and simultaneously challenge stigma might be appropriately matched with Veteran’s military-identity and sensitivity to stigma. Providers who work with Veterans should also be aware of this heightened sensitivity, and encourage Veterans to challenge, rather than internalize stigma. Further, many veterans also used their military experiences as context for discussing mental health, such as discussing anger. Providers serving Veterans should consider that many Veterans viewed anger as a part of their mental health, and also of the possibility that anger may be a way to deflect stigma they perceive attached to discussing mental health issues.

A cogent protective factor for Veterans was their enriched sense of self, developed via their military experiences and Veteran identity. Military experiences seemed to shape identity in ways that enhanced fighting stigma and also promoted being more optimistic and active in treatment. Helping non-Veterans develop a sense of self that focuses less on their mental illness and more on other aspects of who they are may be a potential step for reducing internalized stigma. Given that veteran-identity seemed to be protective in important ways, helping non-Veterans think about life experiences (or engage in life experiences) that foster a rich sense of identity may help these individuals develop greater resources for resisting stigma (Sells, Stayner, & Davidson, 2004; Saavedra, 2009). That is, although non-Veterans were more likely to experience demographic limiting factors, a potential for intervention may relate to helping facilitate

thinking about one's self that focuses less on one's mental illness and more on other factors that contribute to one's identity (Davidson & Straus, 2011). Non-Veterans may also have other strengths or sources of identity that differ from Veterans but which did not surface with the same prevalence as military experiences did for Veterans. For example, more non-Veterans in our sample discussed religion/spirituality than Veterans. This may be a protective factor that has the potential to meaningfully shape identity in ways that could promote stigma-resistance (Corrigan, McCorkle, Schell, & Kidder, 2003; Fukui, Satarnino, & Nelson-Becker, 2012).

Limitations

Women were under-represented in our study. Given the gender disparity of military veterans, this underrepresentation was to be expected, but points to a need for future studies to examine how patterns found here may apply to female veterans. Additionally, participants were individuals already engaged in treatment, and it is likely that individuals not in treatment (both Veteran and non-Veteran) will have perspectives that differ, at least to some degree. For example, if stigma is a factor in keeping people from seeking treatment (Kim et al, 2011), we may be missing important perspectives and barriers that impact those not engaged, which did not surface among our participants already in treatment. Future studies should seek out individuals who are not in treatment (both veteran and non-veterans) and compare reasons for not utilizing treatment, to see how perspectives compare between veteran and non-veterans of individuals who do not engage in treatment or who drop-out of treatment.

Future directions

Given the exploratory nature of the study, an important next step will be to test out current findings in larger samples using quantitative methods. The model proposed in Figure 1 suggests potential relationships to investigate, particularly whether Veteran-status moderates the relationship between stigma and optimism and/or the relationship between stigma and patient activation. Other interesting areas for future investigation include the influence of gender and age of onset on the present findings of group differences, given that more non-Veterans were female, and that it seems likely non-Veterans had earlier symptom onset than Veterans. Future studies should assess stigma, self-stigma, and stigma-resistance formally in order to better understand the relationship between these factors and Veteran-status. Future studies should also investigate how protective factors may interact, such as social support, age of onset, premorbid functioning, and early identity-enriching experiences, and whether these factors can be enriched to better the course of illness, engagement in treatment, optimism, and identity formation.

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TABLES

| | Total Sample (N=46) | Veterans (N=20) | Non-Veterans (N=26) | Test of Significance |
|---|--|---|--|---|
| Gender Female Male | 11 (23.9%) 35 (76.1%) | 2 (10.0%) 18 (90.0%) | 9 (34.6%) 17 (65.4%) | $X^2(1, N =46)= 3.77^t$ |
| Age (Mean, SD) | 48.7 (8.7), Range: 21-71 | 48.9 (10.79) Range: 21-71 | 48.5 (6.8) Range: 37-64 | t=0.15 |
| Ethnicity Caucasian African American/ Other Hispanic/Latino | 17 (37.0%) 29 (63.0%) 2 (4.3%) | 6 (30.0%) 14 (70.0%) 2 (4.3%) | 11 (42.3%) 15 (57.7%) 0 (0.0%) | $X^2(1, N =46)= 0.74$ p= 0.18 ^a |
| Education HS or less Some college or beyond | 28 (60.9%) 18 (39.1%) | 9 (45.9%) 11 (55.0%) | 19 (73.1%) 7 (26.9%) | $X^2(1, N=46)=3.74^*$ |
| Employment Status Paid employment No paid employment | 6 (13.0%) 40 (87.0%) | 5 (25.0%) 15 (75.0%) | 1 (3.8%) 25 (96.2%) | $X^2(1, N =46)= 4.46^*$ |
| Current Housing Independent Housing Other Housing | 38 (84.4%) 7 (15.6%) | 16 (84.2%) 3 (15.8%) | 22 (84.6%) 4 (15.4%) | $X^2(1, N =45)= 0.00$ |
| Income (annual) <\$10,000 >\$10,000 | 26 (59.1%) 18 (40.9%) | 8 (44.4%) 10 (55.6%) | 18 (69.2%) 8 (30.8%) | $X^2(1, N =44)= 2.70^t$ |
| Marital status Never married Currently married, living with partner, or previously married (divorced, widowed, separated) | 17 (37.0%) 28 (60.9%) | 1 (5.0%) 18 (90.0%) | 16 (61.5%) 10 (38.5%) | $X^2(1, N =45)= 16.01^{***}$ |

^t= significance at $\leq .1$, * = significance at $\leq .05$, ** = significance at $\leq .01$, *** = significance at $\leq .001$, ^a = Fisher's Exact Test was used

| Code Name | Number of Total Participants with Code Used (N, %) (Total N=46) | Number of Vets with Code Used (Vet N= 20) | Number of Non-Vets with Code Used (Non-Vet N=26) | Test of significance |
|---|---|---|--|------------------------------|
| Accept /Passive | 28 (60.9%) | 11 (55.0%) | 17 (65.4%) | $X^2(1, N =46)= 0.51$ |
| Aggression/anger | 26 (56.5%) | 13 (65.0%) | 13 (50.0%) | $X^2(1, N =46)= 1.04$ |
| Alcohol/Substance Use | 32 (69.6%) | 12 (60.0%) | 20 (76.9%) | $X^2(1, N =46)= 1.53$ |
| Attitude toward having MI | 45 (97.8%) | 20 (100%) | 25 (96.2%) | $X^2(1, N =46)= 0.79$ |
| Boredom | 4 (8.7%) | 4 (20.0%) | 0 (0.0%) | $p < .03^{*a}$ |
| Bring up Mental Illness | 36 (78.3%) | 13 (65.0%) | 24 (85.7%) | $X^2(1, N =46)= 3.66^t$ |
| Daily/General Stress | 19 (41.3%) | 7 (35.0%) | 12 (46.2%) | $X^2(1, N =46)= 0.58$ |
| Denial | 8 (17.4%) | 7 (35.0%) | 1 (3.8%) | $p < .12^a$ |
| Education | 36 (78.3%) | 15 (75.0%) | 21 (80.8%) | $X^2(1, N =46)= 0.22$ |
| Family | 44 (95.7%) | 18 (90.0%) | 26 (100%) | $X^2(1, N =46)= 2.72^t$ |
| Family/Caregivers unsure how to support | 32 (69.6%) | 15 (75.0%) | 17 (65.4%) | $X^2(1, N =46)= 0.49$ |
| Fight symptoms/ Resist/Fearless/Bravery | 16 (34.8%) | 6 (30.0%) | 10 (38.5%) | $X^2(1, N =46)= 0.34$ |
| Friendships/Social support | 34 (73.9%) | 12 (60.0%) | 22 (84.6%) | $X^2(1, N =46)= 3.55^t$ |
| Future: no change | 4 (8.7%) | 0 (0.0%) | 4 (15.4%) | $X^2(1, N =46)= 3.37^{t, a}$ |
| Guilt/Regret/Loss | 28 (60.9%) | 15 (75.0%) | 13 (50.0%) | $X^2(1, N =46)= 2.97^t$ |
| Health | 28 (60.9%) | 10 (50.0%) | 18 (69.2%) | $X^2(1, N =46)= 1.76$ |

| Code | Group 1 | Group 2 | Group 3 | Statistic |
|---|------------|------------|------------|----------------------------|
| Helping Others/giving back | 16 (34.8%) | 5 (25.0%) | 11 (42.3%) | $X^2(1, N=46)=1.49$ |
| Homeless | 15 (32.6%) | 4 (20.0%) | 11 (42.3%) | $X^2(1, N=46)= 2.56$ |
| Isolation | 34 (73.9%) | 16 (80.0%) | 18 (69.2%) | $X^2(1, N=46)= 0.68$ |
| Jail time/trouble with law | 25 (54.3%) | 9 (45.0%) | 16 (61.5%) | $X^2(1, N=46)= 1.25$ |
| Medication | 42 (91.3%) | 19 (95.0%) | 23 (88.5%) | $X^2(1, N=46)= 0.61$ |
| Mental health treatment | 42 (91.3%) | 17 (85.0%) | 25 (96.2%) | $X^2(1, N=46)=1.77$ |
| Money issues | 16 (34.8%) | 5 (25.0%) | 11 (42.3%) | $X^2(1, N=46)= 1.49$ |
| Optimism: Belief that the future <i>will</i> improve | 24 (52.2%) | 13 (65.0%) | 11 (42.3%) | $X^2(1, N=46)= 2.33$ |
| Optimism: Improvement (identify this in themselves) | 37 (80.4%) | 16 (80.0%) | 21 (80.8%) | $X^2(1, N=46)= 0.00$ |
| Optimism: Life goals | 32 (69.6%) | 11 (55.0%) | 21 (80.8%) | $X^2(1, N=46)= 2.74$ t |
| Optimism: Want to improve/ <i>Want</i> a different future | 32 (69.6%) | 18 (90.0%) | 14 (53.8%) | $X^2(1, N=46)= 6.98^{**}$ |
| Pessimism/loss of optimism for future | 25 (54.3%) | 6 (30.0%) | 19 (73.1%) | $X^2(1, N=46)= 8.46^{***}$ |
| Recovery perspective | 27 (58.7%) | 14 (70.0%) | 13 (50.0%) | $X^2(1, N=46)= 1.87$ |
| Relapse | 13 (28.3%) | 3 (15.0%) | 10 (38.5%) | $X^2(1, N=46)= 3.07$ t |
| Religion/spirituality | 31 (67.4%) | 9 (45.0%) | 22 (84.6%) | $X^2(1, N=46)= 8.07^{***}$ |
| Romantic relationships/marriage | 37 (80.4%) | 14 (70.0%) | 23 (88.5%) | $X^2(1, N=46)= 2.45$ |
| Self-Medicating | 16 (34.8%) | 8 (40.0%) | 8 (30.8%) | $X^2(1, N=46)= 0.43$ |
| Stigma | 41 (89.1%) | 17 (85.0%) | 24 (92.3%) | $X^2(1, N=46)= 0.62$ |

| | | | | |
|---|------------|------------|------------|--------------------------------------|
| Suicide (past attempts) | 19 (41.3%) | 10 (50.0%) | 9 (34.6%) | $X^2(1, N=46)= 1.10$ |
| Symptom onset (bring this up spontaneously) | 31 (67.4%) | 13 (65.0%) | 18 (69.2%) | $X^2(1, N=46)= 0.09$ |
| Symptom cause | 40 (87.0%) | 18 (90.0%) | 22 (84.6%) | $X^2(1, N=46)= 0.29$ |
| Trauma | 36 (78.3%) | 15 (75.0%) | 21 (80.8%) | $X^2(1, N=46)= 0.22$ |
| Want to be Normal/hide symptoms | 18 (39.1%) | 11 (55.0%) | 7 (26.9%) | $X^2(1, N=46)= 3.74$ ^t |
| Wronged by others | 30 (65.2%) | 13 (65.0%) | 17 (65.4%) | $X^2(1, N=46)= 0.00$ |

^t= significance at $\leq .1$, *= significance at $\leq .05$, **= significance at $\leq .01$, ***= significance at $\leq .001$ ^a= Fisher's Exact Test was used

| Table 3. Code qualitative/quantitative contradictions | | | | |
|---|---------------|------------------|---|---|
| Code | Contradiction | No-Contradiction | Problem: | Possible Explanation |
| Accept/Passive | x | | No statistical difference | Trend is in the correct direction |
| Anger/Aggression | x | | No statistical difference | Trend is in the correct direction |
| Alcohol/Substance use | | x | | |
| Boredom | | x | | |
| Bring up Mental Illness | | x | | |
| Denial | | x | | |
| Education | x | | Vets went further, but similar #s discussed | Many discussion (in both groups) related to elementary or HS. Code captured the topic, not the amount of schooling, which was captured in demographic differences. |
| Family | x | | Fewer Vets discussed | 2 Vets jumped to military rather than family life when telling life story. |
| Fight symptoms/Resist | x | | Fewer Vets discussed | Veterans had more specific discussions about fighting symptoms, being angry about their illness and this impacting their recovery. Some Vets also talked about fighting stigma. Also, more lengthy and central. |
| Friendship/Social support | | x | | |
| Future: No change | | x | | |
| Guilt/Regret/Loss | | x | | |
| Health | | x | | |
| Homeless | | x | | |
| Isolation | x | | More Vets discuss | More vets are married and working, yet discuss isolation; They may be more aware of isolation/see bigger contrast with their life pre-illness |

| Table 3. Code qualitative/quantitative contradictions (continued) | | | | |
|---|---|---|---------------------------|---|
| Jail time/Trouble with the law | | x | | |
| Medication | | x | | |
| Mental health treatment (bring up) | | x | | |
| Money issues | | x | | |
| Optimism: <i>want</i> future to improve | | x | | |
| Optimism: belief future <i>will</i> improve | x | | No statistical difference | Trend is in the correct direction |
| Optimism: improvement (past) | x | | No statistical difference | This was tied with life goals as the most common type of optimism among non-Vets. Easier for them to point to past than imagine future improvement. |
| Optimism: life goals | x | | Fewer Vets discuss | These frequencies do not capture a qualitative difference. Vets discuss relationship and wanting to give back and do something meaningful with their life. Non-Vets discuss education, wanting to work, or medication changes. Vets were more specific. |

| Table 3. Code qualitative/quantitative contradictions (continued) | | | | |
|---|---|---|---------------------|---|
| Pessimism | | x | | |
| Recovery perspective | | x | | |
| Relapse | | x | | |
| Religion/spirituality | | x | | |
| Romantic relationships / marriage | x | | Fewer Vets discuss | More non-Veterans mention past relationships in less detail. Also, more Veterans were currently married and more non-Veterans never married. This may reflect why more non-Veterans bring up wanting romantic relationships, because fewer have them. Also not a statistically significant difference, just a trend. |
| Self-medicating | | x | | |
| Stigma | | x | | Differences were in way stigma was discussed, not frequency |
| Suicide | x | | More Vets discussed | Among Vets, suicide was always relating to past attempts or thoughts. More non-Veterans (a few) discussed needing meds to prevent suicide. Overall, Vets may be at higher risk for suicide this also may be consistent with the literature. |
| Symptom onset | | x | | |

| Table 3. Code qualitative/quantitative contradictions (continued) | | | | |
|---|--|---|--|--|
| Symptom cause | | x | | |
| Trauma | | x | | |
| Want to be normal/ hide symptoms | | x | | |
| Wronged by others | | x | | |

FIGURES

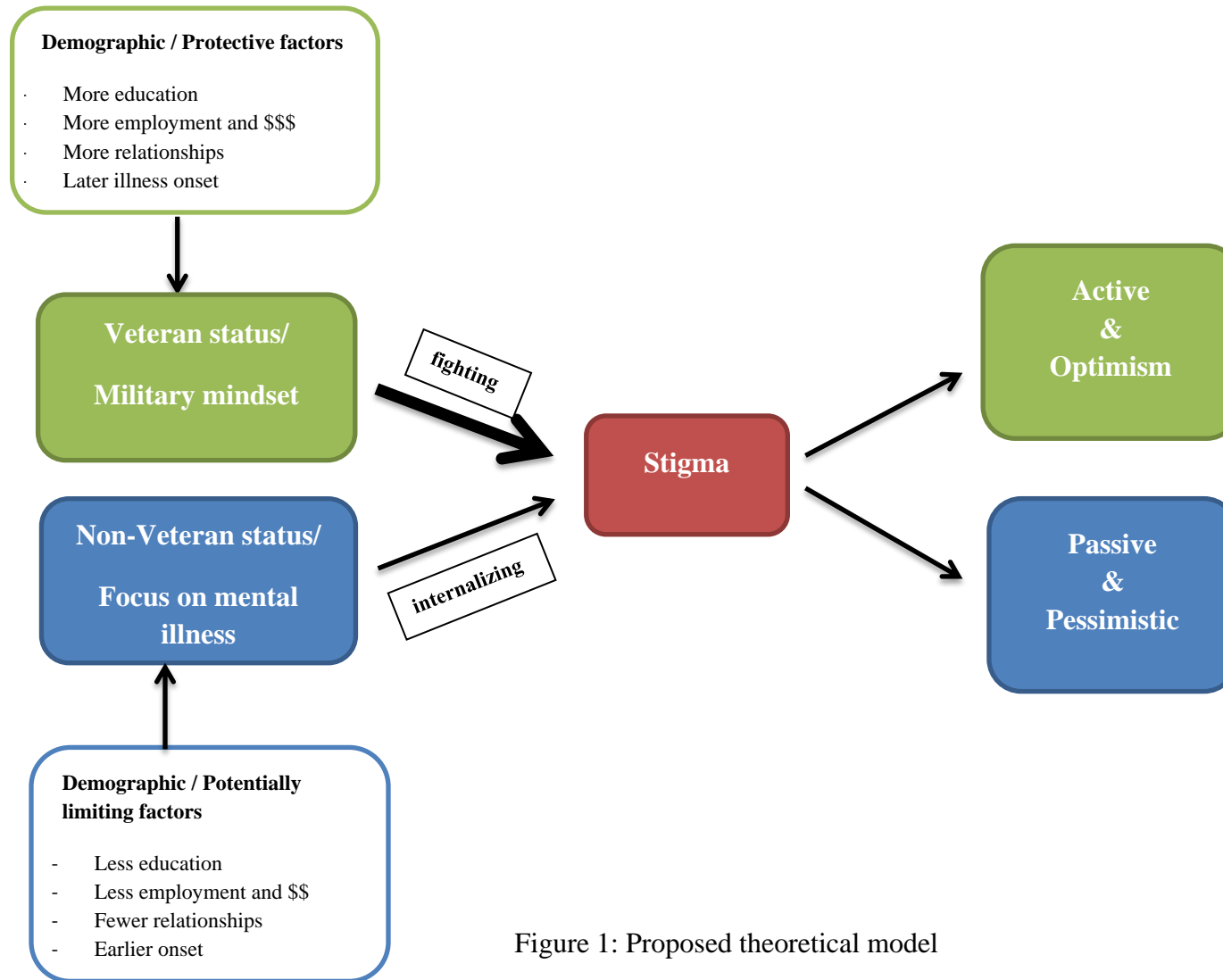


Figure 1: Proposed theoretical model

APPENDIX

Appendix: Supplemental analyses

| Table A: Code frequency with sample divided by gender | | | |
|---|-------------------|-----------------------|----------------------------|
| Code | Veterans (N=20,%) | Non-Veterans (N=26,%) | X2 Value by Veteran status |
| Veteran | -- | -- | -- |
| Non-Veteran | | | |
| Accept/Passive | 11 (55.0%) | 17 (65.4%) | 0.51 |
| Anger/Aggression | 13 (65.0%) | 13 (50.0%) | 1.04 |
| Alcohol/Substance use | 12 (60.0%) | 20 (76.9%) | 1.53 |
| Boredom | 12 (60.0%) | 20 (76.9%) | $p < .03^{*a}$ |
| Bring up mental illness | 13 (65.0%) | 24 (85.7%) | 3.66 ^t |
| Daily/General stress | 7 (35.0%) | 12 (46.2%) | 0.58 |
| Denial | 7 (35.0%) | 1 (3.8%) | $p < .12^a$ |
| Education | 15 (75.0%) | 21 (80.8%) | 0.22 |
| Family | 18 (90.0%) | 26 (100%) | 2.72 ^t |
| Family not sure how to support | 15 (75.0%) | 17 (65.4%) | 0.49 |
| Fight symptoms/resist/bravery | 6 (30.0%) | 10 (38.5%) | 0.34 |
| Friendships/Social support | 12 (60.0%) | 22 (84.6%) | 3.55 ^t |
| Future: no change | 0 (0.0%) | 4 (15.4%) | 3.37 ^{t, a} |
| Guilt/regret/lost experience | 15 (75.0%) | 13 (50.0%) | 2.97 ^t |
| Health | 10 (50.0%) | 18 (69.2%) | 1.76 |
| Helping others/giving back | 5 (25.0%) | 11 (42.3%) | 1.49 |
| Homelessness | 4 (20.0%) | 11 (42.3%) | 2.56 |
| Isolation | 16 (80.0%) | 18 (69.2%) | 0.68 |
| Jail/Legal trouble | 9 (45.0%) | 16 (61.5%) | 1.25 |
| Medication | 19 (95.0%) | 23 (88.5%) | 0.61 |
| Mental health treatment | 17 (85.0%) | 25 (96.2%) | 1.77 |
| Military | 20 (100%) | 0 (0.0%) | 38.44 ^{***} |
| Money issues | 5 (25.0%) | 11 (42.3%) | 1.49 |
| Optimism: future will improve | 13 (65.0%) | 11 (42.3%) | 2.33 |
| Optimism: improvement | 16 (80.0%) | 21 (80.8%) | 0.00 |
| Optimism: want different future | 18 (90.0%) | 14 (53.8%) | 6.98 ^{**} |
| Personal medicine/Life goals | 11 (55.0%) | 21 (80.8%) | 2.74 ^t |
| Pessimism | 6 (30.0%) | 19 (73.1%) | 8.46 ^{***} |
| Recovery perspective | 14 (70.0%) | 13 (50.0%) | 1.87 |
| Relapse | 3 (15.0%) | 10 (38.5%) | 3.07 ^t |
| Religion/Spirituality | 9 (45.0%) | 22 (84.6%) | 8.07 ^{***} |
| Romantic relationships | 14 (70.0%) | 23 (88.5%) | 2.45 |
| Self-medicating | 8 (40.0%) | 8 (30.8%) | 0.43 |
| Stigma | 17 (85.0%) | 24 (92.3%) | 0.62 |
| Suicide | 10 (50.0%) | 9 (34.6%) | 1.10 |
| Symptom onset | 13 (65.0%) | 18 (69.2%) | 0.09 |
| Symptom cause | 18 (90.0%) | 22 (84.6%) | 0.29 |
| Trauma | 15 (75.0%) | 21 (80.8%) | 0.22 |
| Want to be "normal"/hide symptoms | 11 (55.0%) | 7 (26.9%) | 3.74 ^t |
| Wronged by others | 13 (65.0%) | 17 (65.4%) | 0.00 |

^t= significance at $\leq .1$, * = significance at $\leq .05$, ** = significance at $\leq .01$, *** = significance at $\leq .001$

^a= Fisher's Exact Test was used

| Table B: Demographic variables by gender | | | |
|---|--|--|--|
| | Men (N=35, %) | Women (N=11, %) | Test of significance by gender |
| Age | 49.6 (8.9) Range: 21-71 | 45.7 (7.6) Range: 36-64 | t=1.3 |
| Ethnicity Caucasian African American/ Other Hispanic/Latino (y) | 14 (40.0%) 21 (60.0%) 1 (2.9%) | 3 (27.3%) 8 (72.7%) 1 (9.1%) | $X^2(1, N =46) = 0.58$ $p=0.43^a$ |
| Education HS or less Some college/ beyond | 10 (28.6%) 25 (71.4%) | 6 (54.5%) 5 (45.5%) | $X^2(1, N=46)=2.49$ |
| Employment status Paid employment No paid employment | 5 (25.0%) 15 (75.0%) | 1 (3.8%) 25 (96.2%) | $X^2(1, N =46) = 4.46^*$ |
| Current Housing Independent Housing Other Housing | 30 (85.7%) 5 (14.3%) | 8 (80.0%) 2 (20.0%) | $X^2(1, N =45) = 0.19$ |
| Income (annual) Less than \$10,000 Greater than \$10,000 | 18 (52.9%) 16 (47.1%) | 8 (80.0%) 2 (20.0%) | $X^2(1, N =44) = 2.34$ |
| Marital status Never married Currently married/living with partner/ previously married | 15 (42.9%) 20 (57.1%) | 2 (18.2%) 8 (72.7%) | $X^2(1, N =45) = 4.89^t$ |

^t= significance at $\leq .1$, * = significance at $\leq .05$, ** = significance at $\leq .01$,

*** = significance at $\leq .001$, ^a = Fisher's Exact Test was used

| | Men (Mean, SD) | Women (Mean, SD) | Test of Sig. | Veteran s (Mean, SD) | Non- Veterans (Mean, SD) | Test of Sig. |
|--|----------------------|------------------------|-----------------|-------------------------------|-----------------------------------|---------------------|
| PANSS total score | 69.9 (16.4) | 71.3 (18.2) | t=-0.23 | 73.5 (17.9) | 67.8 (15.5) | t=-0.14 |
| PANSS positive symptoms | 14.8 (5.2) | 15.7 (5.4) | t=-0.50 | 15.8 (4.8) | 14.5 (5.5) | t=0.86 |
| PANSS negative symptoms | 17.9 (5.4) | 16.4 (4.7) | t=0.83 | 18.5 (6.0) | 16.7 (4.4) | t=1.15 |
| PANSS thought disorder | 14.2 (4.4) | 14.9 (5.2) | t=-0.46 | 13.9 (4.9) | 14.7 (4.4) | t=-0.58 |
| PANSS hostility subscale | 8.2 (2.6) | 8.6 (3.9) | t=-0.32 | 8.8 (3.2) | 8.0 (2.7) | t=0.86 |
| PANSS emotional discomfort subscale | 12.7 (4.9) | 13.5 (5.1) | t=-0.42 | 14.3 (4.8) | 11.9 (4.7) | t=1.74 ^t |

^t= significance at $\leq .1$, * = significance at $\leq .05$, ** = significance at $\leq .01$, *** = significance at $\leq .001$

^a= Fisher's Exact Test was used

| | Mean Word Count (SD) | Median Word Count | Range | Test of Significance (Men versus women; Veteran versus non- Veteran) |
|-----------------|-------------------------|----------------------|------------|---|
| Men | 3,100.1 (4,723.4) | 1,381 | 69-2,5493 | t=0.67(p<.50) |
| Women | 2,086.7 (2,827.4) | 886 | 256-9,011 | |
| Veteran | 1,900.3 (2,258.3) | 789 | 69-9,182 | t=1.32 (p<.19) |
| Non- Veteran | 3,594.3 (5,358.2) | 1520.5 | 138-2,5493 | |