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Mental Health Treatment Utilization in OIF/OEF National Guard and Reserve Troops With and Without *DSM* Diagnoses

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Military service members have an increased risk of developing mental health (MH) problems following deployment to Iraq or Afghanistan, yet only a small percentage seek mental health treatment. The aim of the present study was to explore patterns of MH service utilization within the first 12 months following return from combat deployment. Participants were 169 service members who had returned from war-zone deployment in either Iraq or Afghanistan and had assessments covering a 12-month period following their homecoming. The authors first examined the prevalence of mental health diagnoses and engagement with mental health treatment (e.g., visits to the emergency room, inpatient hospitalization, individual therapy, group therapy, family or couple therapy, medication appointments, and self-help). Regression analyses explored whether distress, functioning, diagnoses, or social support predicted treatment use. Findings indicated that 28 of 50 military service members (56%) who met diagnostic criteria for a mental health disorder accessed services in the year following their return from deployment. Individual treatment was the most common modality, and those with major depressive disorder (MDD) reported the most treatment contacts. Social support was not associated with use of mental health services. Baseline functioning and psychiatric distress predicted entry into treatment whereas only psychiatric distress predicted amount of mental health service use in the 12-month postdeployment period. Findings highlight the need for enhanced strategies to link those reporting psychiatric distress with MH treatment services and increase community connectedness regardless of whether they meet full criteria for a mental health diagnosis.

Approximately 2.5 million military personnel from all branches of the U.S. military have been deployed to Iraq and Afghanistan since 2001 and, as of April 21, 2015, there have been more than 6,800 casualties in Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Studies of military personnel confirm higher rates of postdeployment psychopathology compared both to rates in the general population (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Rosellini et

al., 2015) and to predeployment rates within the same population (Milliken, Auchterlonie, & Hoge, 2007; Rosellini et al., 2015; Smith et al., 2008). Data from the *Armed Forces Health Surveillance Center (2012)* indicate that, since the start of military operations in 2001, there has been a 65% increase in diagnosed mental health (MH) disorders among active duty service members.

Despite their high rates of reported MH problems and steadily increasing rates of suicide (Kaplan, Huguet, McFarland, & New-

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som, 2007), service members have been found to underutilize MH services (Elhai, Reeves, & Frueh, 2004; Fikretoglu, Brunet, Guay, & Pedlar, 2007; Maguen et al., 2007; Seal et al., 2012). Although 78% of service members who meet screening criteria for psychological disorders acknowledge having a problem, only half are interested in receiving help, and fewer than one quarter had received help from a MH professional in the past year (Seal et al., 2012). In addition, treatment engagement may differ according to the type of psychiatric disorder under consideration. For example, different rates of treatment use have been seen in studies that focus on individual disorders such as posttraumatic stress disorder (Boden et al., 2014; Stecker, Shiner, Watts, Jones, & Conner, 2013), major depression (Blake et al., 1995), and substance use disorders (Weathers, Ruscio, & Keane, 1999).

In the context of a recent national survey indicating that engagement with Veterans Health Administration treatment has been linked to lessened risk of suicide mortality (McCarten, Hoffmire, & Bossarte, 2015), understanding which service members access care, what type of care they access, and frequency of use can have important implications for both improved mental health and suicide prevention. Notably, perceived social support may influence postdeployment treatment utilization (Murphy, Thompson, Murray, Rainey, & Uddo, 2009; Sayer et al., 2009). Social support can increase the likelihood that a service member seeks MH treatment (Murphy et al., 2009; Sayer et al., 2009), especially for those with severe MH problems (Sayer et al., 2009). Conversely, those who perceive low social support are more likely to screen positive for PTSD and endorse symptoms of this disorder, such as avoidance behaviors, consequentially preventing them from engaging in treatment (Duax, Bohnert, Rauch, & Defever, 2014).

Most previous studies of service utilization in military samples have been cross-sectional surveys that have examined use versus nonuse in military personnel by either collapsing across MH disorders (Gorman, Blow, Ames, & Reed, 2011) or focusing exclusively on one disorder such as PTSD (Spoont, Murdoch, Hodges, & Nugent, 2010). Few studies have examined patterns of treatment use in returning military personnel across different mental health diagnoses.

The purpose of this exploratory study is to examine MH treatment utilization in a sample of returning OEF/OIF military personnel. The goal is to elucidate which service members in psychiatric distress seek MH treatment and which do not, what types of services are accessed, and whether social support influences MH treatment utilization.

Method

Participants

The sample consisted of members of National Guard and Reserve Units who participated in a longitudinal study of risk factors for PTSD following return from deployment to Iraq or Afghanistan (Shea, Reddy, Tyrka, & Sevin, 2013). Of the original sample of 238, the current sample includes 169 participants who completed at least 12 months of follow-up and provided complete data on all measures examined in the current study. The average age of participants was 34.8 years ($SD = 9.36$). The sample was 95% male, 88% Caucasian, 5% Black or African American; and 14% Latino/a. Forty-eight percent were married or living with a partner,

37% were single, and 17% divorced or separated. Seventy-three percent had a posthigh school education (at least some college or higher). There were no significant differences in demographics between our subsample and the full sample of 238 (Shea et al., 2013) and the subsample's demographic characteristics are very similar to that of the total Rhode Island National Guard in proportion of Caucasians (90% vs. 88%), proportion of African American and other minorities (10% vs. 12%) and mean age (33.6 vs. 34.8).

Measures

Treatment use was assessed using the treatment section of the Longitudinal Interval Follow-up Evaluation (LIFE; Keller et al., 1987). This is a semistructured interview rating system for assessing the longitudinal course of Axis I mental disorders, psychosocial functioning, and treatment received. The treatment section of the interview includes continuous ratings of amount (frequency of sessions, dosage of medications) of different types of MH treatments. The LIFE most frequently has been used to assess 6-month or 1-year time periods.

Current and life-time Axis I disorders were assessed using the patient version of the Structured Clinical Interview for *DSM-IV* (SCID-I/P; First, Spitzer, Gibbon, & Williams, 2002) and the Clinician Administered PTSD Scale (CAPS; Blake et al., 1995). The *DSM-IV* version of the SCID-I/P has been shown to have good reliability (interrater $\kappa = .63$ – 1.0 , and test-retest $\kappa = .44$ – $.78$; Zanarini et al., 2000) and good-to-excellent validity (Basco et al., 2000). The CAPS has been shown to be a reliable and valid measure of PTSD symptom severity (Blake et al., 1995). All diagnostic variables were dichotomous.

Psychiatric distress was measured using the Brief Symptom Inventory (Derogatis & Melisaratos, 1983), a 53-item Self-Report Symptom Inventory designed to assess the following nine dimensions of psychiatric symptoms: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Distress from specific symptoms is rated on a Likert Scale from 0 (*not at all*) to 4 (*extremely*) distressing. The General Severity Index (GSI) subscale is used as an indicator of overall psychiatric distress. To create a subsample of those needing treatment we used a cutoff of .61 as it is within one standard deviation of the norm for outpatient clinical standards (Derogatis & Melisaratos, 1983). This cutoff was only used in identifying our subsample. In all analyses, BSI GSI score was used as a continuous variable.

Psychosocial functioning was assessed using the Global Assessment of Functioning (GAF) Scale from the SCID-I/P, which ranges from 0 to 100, with higher scores indicative of better functioning. Scores are assigned by the clinical interviewer on the basis of a participant's answers on the entire SCID. A cutoff score of 61 (moderate impairment) was used to identify participants for our subsample of those needing services. The continuous scale was used for all analyses (First et al., 2002).

Deployment support and postdeployment social support were assessed using the Deployment Risk and Resilience Inventory-2 (DRRI-2; Vogt et al., 2013). The DRRI-2 is a questionnaire comprised of 17 scales that assess key deployment-related risk and resilience factors. Items are rated using a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The

measure has well-established reliability and validity from previous research (King, King, & Vogt, 2003). Subscales used for this study were deployment social support (12 items; range = 12–60) and postdeployment social support (15 items; range = 15–75).

Procedure

Recruitment occurred between December 2006 and July 2009 during drill weekends, at initial or follow-up postdeployment health assessment or at postdeployment health reassessment debriefings. Approximately 67% ($n = 517$) of military personnel returning from the units were approached to participate in the study. Sixty-six percent ($n = 340$) of those individuals informed about the study gave permission to be contacted, and 70% of those individuals participated in the study. Contact information was obtained for those who gave permission to be contacted. They then were contacted by phone to schedule an interview. All returning personnel were eligible to participate. The only exclusion criterion was evidence of a condition that precluded valid and reliable assessment (i.e., active psychosis or cognitive impairment).

All participants provided informed consent. Initial assessments took place an average of 4.7 months (range of 2 weeks to 10 months) following return from deployment. Participants with initial assessments within the first 4 months of their return received a second assessment at 6 months. Subsequent interviews took place at 12 and 24 months following return from deployment. The current study includes participants who completed at least 12 months of follow-up. Initial assessments were completed by 238 participants: 215 had data for at least 6 months postreturn and 169 had data for at least 12 months. The decrease in sample size is the result of the study funding period, which was not long enough to follow all participants through 24 months. Thus, the decrease in sample size is not “attrition” as typically defined and is not likely to reflect biased retention. Excluding those who were not yet eligible for follow-ups (e.g., those participants whose 12 month date occurred after the end of the study funding), attrition rates were 5% at 6 months and 18% at 12 months. All measures in the current study, with the exception of treatment utilization, were from the initial assessment. MH treatment received during the prior 6 months was assessed at the 12-month interviews. The study received approval from human subjects review boards at Brown University, Providence VA Medical Center, the Department of Veterans Affairs, and the Department of Defense.

Analytic Plan

We conducted analyses in multiple steps. First, we examined basic characteristics of the entire sample. Second, we created a subsample representing those who had some potential need for mental health treatment. We used the following criteria to represent a potential need for mental health treatment: (a) at least one *DSM-IV* diagnosis; (b) GAF score less than 61; or (c) a BSI global severity score of .61 or higher. Participants who endorsed at least one of those categories were designated as being in potential need of MH treatment. Third, chi-squares and *t* tests were conducted using the subsample to compare those who did and did not engage in treatment on both demographic variables and diagnostic variables. Fourth, regression analyses (linear and logistic) were used to

determine whether meeting *DSM-IV* diagnostic criteria, functioning (GAF score), or distress (BSI global severity score) predicted either treatment use (yes/no) or the amount of use (the number of treatment contacts). Finally, a logistic regression was conducted to assess whether social support predicted treatment utilization. We conducted preliminary examination of impact of time of first assessment and found that it did not impact findings. Analyses were performed using SPSS version 24.

Results

Sample Characteristics

Out of the 169 participants, 50 (30%) met criteria for at least one *DSM-IV* disorder during the baseline assessment. Depression was the most prevalent disorder with 43 (26%) service members meeting criteria for lifetime MDD and endorsing at least some current symptoms (e.g., subthreshold for current episode) and 26 (16% of sample) endorsing current symptoms meeting full threshold criteria at baseline. Eighteen (13%) met criteria for PTSD, 33 (20%) for alcohol dependence, and 16 (9%) for a drug dependence disorder. Mean BSI Global Severity Index score for the 169 participants was .50 ($SD = 0.53$) suggesting mild distress and close to one standard deviation above the norm for nonclinical samples. The average GAF score was 61.75 ($SD = 10.61$; range = 33–90), indicative of mild symptoms and/or mild functional difficulties.

Out of the 169 participants, 101 (60%) fit into at least one of three categories indicating potential need for MH treatment (e.g., met criteria for *DSM* diagnosis, clinically significant psychiatric distress, or moderate impairment on the global assessment of functioning scale). Fifty participants (30%) met criteria for at least one *DSM-IV* diagnosis, 58 (34%) had GAF scores in the moderately impaired range, and 53 (30%) had BSI scores above our cutoff. Among the subsample of those needing treatment, (53%) met criteria for more than one need indicator. Five percent met criteria for diagnosis alone, 10% met for BSI only, and 38% met criteria for GAF alone.

Who Used MH Services?

We examined rates and characteristics of overall MH service utilization among the subsample of service members indicating potential need for treatment (see Table 1). Among this subsample, only 50% reported receiving treatment. In addition, 18% of those with no noted need for treatment accessed MH treatment.

Service use by disorder. Among those designated as having a potential need for treatment (by disorder, distress or functional impairment scales), rates of service use were identical for those without any *DSM-IV* diagnoses and those meeting criteria for only one diagnosis. Forty-five percent of each group accessed treatment during the 12-month post deployment return period. In contrast, 71% of those with more than one diagnosis accessed treatment. The highest rates of MH service use were seen in those meeting criteria for either MDD or an anxiety disorder at baseline. The lowest rates of service use were among those meeting criteria for PTSD (see Table 1).

Table 1. Characteristics of Participants With Potential Need for Mental Health (MH) Services ($N = 101$) Accessing MH Services During 12 Months Postdeployment

Characteristic	Accessed MH services ($n = 51$)	Did not access MH services ($n = 50$)	t/χ^2
Gender			
Female ($n = 5$)	1 (20%)	4 (80%)	
Male ($n = 96$)	48 (52%)	43 (47%)	
Mean age	37 ($SD = 9.70$)	33 ($SD = 9.30$)	$t(99) = -1.72, p = .93$
Race/ethnicity			
White ($n = 90$)	48 (53%)	42 (47%)	
Hispanic/Latino ($n = 15$)	5 (33%)	10 (67%)	
Native American ($n = 3$)	0	3 (100%)	
Asian ($n = 1$)	0	1 (100%)	
Black/African American ($n = 6$)	1 (17%)	5 (83%)	
Education			
High school graduate ($n = 31$)	20 (65%)	11 (35%)	$\chi^2(2) = 3.79, p = .15$
Some college ($n = 54$)	23 (57%)	31 (43%)	
College graduate ($n = 16$)	8 (50%)	8 (50%)	
Marital status			
Single ($n = 36$)	16 (44%)	20 (36%)	$\chi^2(2) = 1.27, p = .53$
Married/cohabiting ($n = 46$)	26 (57%)	20 (43%)	
Divorced/separate/widow ($n = 19$)	9 (47%)	10 (53%)	
No. of diagnoses met			
No <i>DSM-IV</i> diagnosis ($n = 51$)	23 (45%)	28 (55%)	$\chi^2(2) = 4.65, p = .09$
1 <i>DSM-IV</i> diagnosis ($n = 29$)	13 (45%)	16 (55%)	
>1 <i>DSM-IV</i> diagnosis ($n = 21$)	15 (71%)	6 (29%)	
Major depressive disorder ($n = 39$)	22 (55%)	17 (45%)	
PTSD ($n = 18$)	7 (39%)	11 (61%)	
Anxiety disorder ($n = 11$)	8 (73%)	3 (27%)	
Drug dependence ($n = 15$)	6 (40%)	9 (60%)	
Alcohol dependence ($n = 25$)	15 (42%)	10 (58%)	
Psychiatric Distress (BSI GSI)	.91 ($SD: .62$)	.48 ($SD: .47$)**	$t(95) = -3.71, p = .000$
Above the BSI GSI cutoff ($n = 41$)	29 (71%)	12 (29%)	
Global Functioning (GAF)	54.32 ($SD: 7.18$)	56.86 ($SD: 5.09$)**	$t(98) = 1.93, p = .05$
Above the GAF moderate impairment cutoff ($n = 91$)	45 (46%)	52 (54%)	

Note. PTSD = posttraumatic stress disorder; *DSM-IV* = Diagnostic and Statistical Manual, 4th edition; BSI GSI = Brief Symptom Inventory General Severity Index; GAF = Global Assessment of Functioning.

** $p < .01$.

Service use by psychiatric distress. In those with potential need for MH treatment, psychiatric distress was associated with greater MH service utilization, $t(95) = -3.71, p < .01$. Seventy-one percent of those above the clinical norm for psychiatric outpatients accessed treatment versus 35% of those with low or no distress.

Service use by psychosocial functioning. Among those with potential need for MH treatment, those who accessed treatment had lower GAF scores than those who did not access treatment, $t(98) = 1.93, p = .05$. However both groups had mean GAF scores in the moderately severe range (51–60) indicating significant impairment in psychosocial functioning. Forty-six percent of those below the moderate range of functional impairment accessed treatment compared to 25% of those with little to no functional.

Frequency and Types of MH Treatment Services Used

Rates and types of MH service utilization are presented in Table 2. Sixty participants (36%) reported at least one MH contact

in the 12-months postdeployment. Examination of the frequency distribution revealed four participants who reported 85 or more treatment contacts in the 12-months postreturn (range = 85–115). Rather than remove these outliers, we transformed their values to the next highest value of treatment contacts (41). Following the transformation of outliers, the average number of MH treatment contacts over a 12-month period postdeployment was 6.62 ($SD = 11.45$; range = 0–41) in the subsample with potential need and 2.56 ($SD = 7.92$; range = 0–41) in those without any identified need. Modal response was zero treatment contacts. Among those with need, 66% reported three or fewer treatment contacts over the 12-month postdeployment period. The most common modality of treatment was individual therapy.

Those with MDD who accessed treatment, reported an average of eight treatment contacts over 12 months postdeployment ($SD = 14.13$), those with PTSD reported an average of 2 treatment contacts ($SD = 3.49$), those with either alcohol or drug dependence reported an average of 3.6 contacts ($SD = 9.64$) and those meeting criteria for multiple disorders reported an average of 10.7 treatment contacts ($SD = 30.47$). See Table 2 for a breakdown of

Table 2. Rates of Mental Health (MH) Services Utilization (Type and Location) 0–6 Months Postdeployment and 6–12 Months Postdeployment for All Service Members (N = 169)

Type of treatment	Percentages or means of treatment use 0–6 months post-deployment (n = 169)		Percentages or means of treatment use 6–12 months post-deployment (n = 169)	
	Need treatment group	No treatment need group	Need treatment group	No treatment need group
Average no. of sessions	3.28 (SD = 6.23)	1.13 (SD = 3.94)	4.27 (SD = 8.97)	2.55 (SD = 7.92)
No DSM diagnosis	1.19 (SD = 2.26)	n/a ^a	2.37 (SD = 6.48)	n/a ^a
PTSD only	.667 (SD = 1.21)	n/a ^a	1.00 (SD = 2.24)	n/a ^a
MDD only	5.33 (SD = 8.24)	n/a ^a	4.37 (SD = 7.88)	n/a ^a
Alcohol or drug dependence only	.33 (SD = .65)	n/a ^a	1.08 (SD = 3.45)	n/a ^a
Multiple diagnoses	5.16 (SD = 8.76)	n/a ^a	8.57 (SD = 9.07)	
Individual therapy	36%	9.8%	26%	6.8%
Group therapy	2.8%	0%	1%	0%
Family or couple therapy	2.8%	1.6%	3%	3.4%
Medications only	23%	4.8%	25%	3.4%
Community MH Clinic	0	0%	0%	0%
Outpatient hospital clinic	2%	1.6%	0%	0%
Private mental health professional	3.7%	4.8%	4%	2%
Outpatient at VAMC clinic	30%	6.5%	28.7%	5%
Other outpatient clinic	2.8%	1.6%	4%	2%
Outpatient vet center	6.5%	0%	8%	3.4%
ER visit for psychiatric reasons	0	0	.9%	0%
MH hospitalization	0	0	.9%	0%

Note. PTSD = posttraumatic stress disorder; MDD = major depressive disorder; VAMC = Veterans Affairs Medical Center; ER = emergency room; MH = mental health.

^a Those designated as “no treatment need group” were all participants who failed to meet any DSM diagnosis therefore these cells are empty since meeting one DSM diagnoses would move them into the need treatment group.

treatment frequency from 0 to 6 months and 6 to 12 months postreturn among those with treatment need.

Psychiatric distress, functioning, diagnosis and treatment use. A logistic regression was used to assess whether distress, global functioning, and # of diagnoses predicted use of mental health treatment (yes/no) in the 12 months following return from deployment. All predictor variables (BSI, GAF, and number of diagnoses) were entered together. Both global functioning ($\beta = .055, p < .05$) and psychiatric distress ($\beta = 1.52, p <$

.01) were found to predict use of treatment. Number of diagnoses did not predict treatment use (see Table 3).

To assess whether these same variables predicted amount of mental health use, a linear regression was conducted with number of treatment contacts as the dependent variable (see Table 4). A significant regression equation was found, $F(3, 150) = 7.886, p < .001$, with a R^2 of .136. Only psychiatric distress predicted amount of mental health treatment use ($\beta = .216, p < .05$). Neither functioning ($\beta = -.041, p = .66$) nor number of diagnoses ($\beta =$

Table 3. Summary of Logistic Regression Results Regarding Factors Influencing the Utilization of Mental Health (MH) Treatment (Y/N) (N = 169)

Variable	β (SE β)	Wald's χ^2	df	p	OR
Model 1 (psychiatric predictors)					
Constant	2.194	1.57	1	.163	8.97
GAF total	-.055 (.024)	5.31	1	.021	.946
BSI GSI score	1.53 (.488)	9.77	1	.002	4.596
No. of diagnoses	-.281 (.327)	.738	1	.390	.775
Model 2 (psychiatric & support predictors):					
Constant	.358 (2.32)	2.22	1	.871	.669
GAF total	-.052 (.024)	4.63	1	.031	.949
BSI GSI score	1.50 (.498)	9.12	1	.003	4.495
Postdeployment support	.032 (.029)	1.27	1	.259	1.03
Unit cohesion	.007 (.021)	.118	1	.738	1.00

Note. GAF = Global Assessment of Functioning; BSI GSI = Brief Symptom Inventory General Severity Index; OR = Odds Ratio.

Table 4. Predictors of Amount of Mental Health (MH) Treatment Use in the 12 Months Following Return for Deployment ($N = 169$)

Variable	<i>B</i>	(<i>SE B</i>)	β
Constant	5.57	10.56	1
BSI Global Severity Index	7.05	3.28	.216**
GAF score	-.068	.155	-.439
No. of <i>DSM-IV</i> diagnoses	3.90	2.37	1.63

Note. BSI = Brief Symptom Inventory; GAF = Global Assessment of Functioning Scale; *DSM-IV* = *Diagnostic and Statistical Manual*, 4th edition.

** $p < .01$.

.165, $p = .11$) were found to predict amount of use above and beyond what was predicted by psychiatric distress.

Does Social Support Influence MH Treatment Engagement?

A logistic regression was conducted to assess whether unit cohesion or perceived social support by family and friends predicted treatment utilization (yes/no). Psychiatric distress and global functioning were entered in block one, and Unit Support and Postdeployment Support were entered as predictors in block two. Treatment use (y/n) was assessed at 6-month and 12-month follow up and covered the period of time from baseline assessment to 12 months postreturn. Neither unit support ($\beta = .007$, $p = .731$) nor postdeployment support ($\beta = .032$, $p = .259$) was found to predict use of MH services (see Table 3, Model 2).

Discussion

Psychiatric distress and global functioning both predicted use of mental health services whereas formal *DSM*-diagnosis did not predict use. It is notable that, of the three indicators of mental health treatment need, only psychiatric distress predicted the amount of MH service use. This suggests that while functional difficulties may be important in getting service members into treatment, levels of distress will keep them in treatment, serving as both a catalyst for overall treatment engagement. It is important to note that psychiatric distress was measured using self-report measures whereas both psychosocial functioning and clinical diagnoses were derived from clinician interviews. It is possible that service members may be more willing to disclose severity of psychiatric distress on self-report measures rather than in face-to-face interviews. In addition, it is possible that what is most important in determining service use is individual perceived distress rather than clinician rating of problems. This has implications for outreach efforts and supports the idea that brief screenings using distress measures may be optimal for use in determining which service members might be most receptive, and in need, of treatment. Therefore early intervention efforts should target those expressing distress as early as the first weeks after returning home.

Although *DSM-IV* diagnosis did not predict service use above and beyond distress and functioning, over half of all service members who met at least one *DSM-IV* diagnosis used treatment

during their 12-month postreturn period. MH treatment use was assessed using comprehensive structured clinical interviews, and rates were consistent with those reported in epidemiological studies in the general population (Kessler et al., 2005), yet higher than those typically reported in the research with returning military personnel using self-report screening measures (Hoge et al., 2004). Not surprisingly, individuals with multiple *DSM-IV* diagnoses reported the greatest use of treatment. Among individual disorders, those with MDD reported the most MH treatment use and those with PTSD reported the least amount of use. Those who accessed MH treatment had higher distress and worse psychosocial functioning.

The higher rates of MH treatment use in our sample, while promising, should be tempered by our definition of engagement as having completed only one MH treatment contact. It is possible that many service members had an initial visit to an MH clinic when they returned home because it was suggested or mandated, but did not return for treatment. In fact, 75% of those using MH services reported fewer than three treatment contacts over the 12-month postdeployment period, suggesting minimal engagement in active treatment.

Individual treatment was the primary modality of treatment and very few service members used any group therapy, a format that is emphasized at most VAMCs across the country. This suggests that during the months following return from deployment, OEF/OIF service members may be unlikely to enroll in group therapy. The majority of service use was either individual therapy or medication management, and virtually all treatment received was either through the VAMC or VHA outpatient clinics.

Finally, neither deployment support nor postdeployment social support was found to predict the use of MH services. This was unexpected considering that social support has been linked to utilization of MH services. Many clinicians and researchers have suggested that treatment engagement efforts should target family and support networks, but the current findings suggest that perceived social support did not impact rates of treatment use in military personnel. Some research has suggested that the impact of social support may be different for those with mild-moderate MH symptoms than it is for those with more severe conditions (Thoits, 2011). Thus the relationship between social support and treatment use may be U-shaped.

Limitations

Analyses were limited by sample size because only small numbers of service members met criteria for specific diagnostic categories. Comparisons of service use by diagnostic category could not be examined due to small numbers of participants falling into each cell. In addition, the sample was relatively homogenous in terms of demographic variables with only five women completing 12-month assessments and relatively few nonwhite participants. Although our sample was representative of the demographics of Rhode Island in terms of race and ethnicity, it is more homogeneous than the overall demographics of the National Guard and Reserves across the United States. In addition, protection of confidentiality precluded the collection of any data on the participants who refused to participate in the study. Therefore, we are not able to determine whether there were any meaningful differences in those who participated and those who did not. As such, findings

potentially may not be generalizable to other samples of National Guard and Reserve members.

Treatment engagement can include formal mental health services (psychologist, psychiatrist, group therapy, etc.), informal community-based resources (e.g., community leaders, friends, and family), and formal community-based services such as faith-based counseling. Only formal sources of treatment were examined in this study, thus limiting our understanding of the complete array of services and supports that service members may be accessing after their return home from deployment. In this study we measured perceived social support using the DRRI which does not capture amount of support used or type of support provided. Future research should aim to further dissect the aspects of social support that veterans identify as beneficial. Assessing the nature and amount of social support may reveal specific types of support that can be utilized in interventions.

Clinical Implications and Recommendations

Results from this study reveal that service members continue to underuse needed MH treatment. It is particularly concerning that only 45% with one DSM diagnosis accessed treatment and most who did access treatment reported fewer than three treatment contacts in 1 year. Empirically supported treatments often consist of weekly therapy for 8–12 weeks suggesting that service members who do access treatment are not receiving an adequate “dose” of treatment. Untreated and undertreated MH problems can lead to worse outcomes (McCarten et al., 2015) and larger costs and decreased productivity over extended periods of time (Kessler et al., 2008).

These findings suggest the existence of substantial barriers preventing treatment seeking and commitment from those who need it the most. In fact, our results suggest that most service members are seeking treatment once psychiatric distress or the number of diagnoses is relatively high. Treatment engagement can be hindered by stigma (Kim, Thomas, Wilk, Castro, & Hoge, 2010; Stecker, Fortney, Hamilton, & Ajzen, 2007; Stecker, Fortney, & Sherbourne, 2011; Wright et al., 2009), logistical issues, (Kim et al., 2010; Stecker et al., 2013; Visco, 2009), negative beliefs and/or lack of knowledge about eligibility and treatment options (Lehavot, Der-Martirosian, Simpson, Shipherd, & Washington, 2013). Considering the burdens of MH and substance use problems experienced by OIF/OEF returnees, it is essential to provide returnees proper treatment services to assist them in addressing the challenges they face upon their return from deployment. A significant number of service members in distress do not engage in MH services, highlighting the utility of training staff or individuals who regularly engage service members in any context (e.g., primary care clinics, community outreach programs) to identify, screen and address mental health treatment options. The psychiatric distress present in nonengaged service members could be captured by brief screening tools such as the two or six-item PTSD Checklist (Lang & Stein, 2005; Weathers et al., 1999), the two-item Patient Health Questionnaire (Kroenke, Spitzer, & Williams, 2003), the four-item Alcohol Use Disorders Identification Test (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993), or the Drug Use Disorders Identification Test (Berman, Bergman, Palmstierna, & Schlyter, 2005). These brief screening measures could be used to detect anxiety, depression, and

substance use in Veterans. Positive screens could then facilitate additional assessment if needed and appropriately focused discussions regarding the appropriate treatment options available as well as personal barriers to treatment (e.g., logistics, stigma).

A key component for this approach is properly training providers to be comfortable administering and discussing the results of these screening measures of self-disclosed distress. To this end, nonconfrontational and collaborative therapeutic approaches such as motivational interviewing (Miller & Rollnick, 2013) and/or shared decision making (Elwyn et al., 2012) may be especially well suited for enhancing provider comfort and confidence in these encounters. These personalized approaches highlight collaboration and focus on making a change plan that takes into account the preferences of the veteran, and explicitly emphasize the veteran’s personal responsibility (rather than that of the provider) in facilitating any healthy changes in his or her life. As such, subsequent change can be attributed to intrinsic efforts, enhancing self-esteem, and personal resilience. Preliminary research has demonstrated the utility of such brief, collaborative contacts in increasing interest in engaging in mental health treatment in both face-to-face (Stecker et al., 2011) and telephone (Seal et al., 2012) modalities. In sum, future intervention efforts should focus on treatment entry and retention within VAMC systems with particular focus on early screening for psychiatric distress and use of stigma reduction interventions to keep service members engaged in treatment.

Keywords: mental health; treatment utilization; military

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