

Mental Health Experiences and Needs Among Primary Care Providers Treating OEF/OIF Veterans: Preliminary Findings from the Geisinger Veterans Initiative

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Abstract: *This study describes the results of the Reaching Rural Veterans Initiative (RRVI) funded by the Commonwealth of Pennsylvania and the Federal Government. The purpose of this project was to address the needs of veterans and their family members in rural communities who were seen by non-VA primary care providers. As part of this project, an assessment of healthcare providers' knowledge and awareness of mental health-related issues and experiences with veterans' healthcare services was conducted. Following this assessment, an education program was developed and implemented at primary care sites within the Geisinger Health System and also made available to other area providers. The survey indicated that Geisinger's primary care providers are currently involved with providing mental health care to area service members and their families. It was estimated that these providers saw about 1,200 Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) patients and 3,600 of their family members in clinics over a 6 month period. A significant number of these persons had mental health problems. About two-thirds (65.4%) of providers reported having a mental health professional onsite and nearly 23% reported that over one-third of their patients have mental health problems. Significant mental health gaps discovered indicated that providers lacked knowledge of PTSD and other combat-related stress disorders, as well as knowledge of VA resources. In addition only 20% of the providers rated their mental health treatment skills as high and only about 8% reported that they had adequate knowledge of current mental health treatment strategies. Based on this needs assessment and the results of the provider intervention, further service improvements are planned. [International Journal of Emergency Mental Health, 2010, 12(3), pp. 161-170].*

Key words: *Veterans Health; PTSD; OEF/OIF; Combat Stress Injury; Needs Assessment; Primary Care; Mental Health.*

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Initial post-deployment research following service in Afghanistan (Operation Enduring Freedom, OEF) and Iraq (Operation Iraqi Freedom, OIF) has suggested that significant numbers of military personnel have screened positive for major depression, generalized anxiety or posttraumatic Stress Disorder (PTSD) upon return (Hoge et al., 2004). In addition, recent research suggests that the prevalence of PTSD may be as high as 20% among these service personnel (Booth-Kewley, Larson, Highfill-McRoy, Garaland, & Gaskin, 2010; Ramchand et al., 2010). It has been suggested that the burden of providing care for veterans with combat stress injuries, such as PTSD, will likely be heavier among providers in rural settings (Wallace et al., 2010; Weeks, et al., 2004). Increasingly, military recruits in the US are drawn from rural areas (Kane, 2006), raising the potential mental health burden in these regions (Wallace et al., 2010). This burden is increased due to the fact that VA healthcare facilities tend to be located within larger population centers (Wallace et al., 2010). Compared to urban and suburban veterans, rural veterans tend to live greater distances from both private sector and VA hospitals, visit their providers less frequently, have access to fewer mental health and specialty services, and have more physical and mental health problems (Weeks et al., 2004). While studies show that many mental disorders initially present in the primary care setting (US Public Health Service, 1999), these settings are typically ill-equipped to address these issues (Laraque et al., 2004). This is especially true, however, in the rural setting (Hanrahan and Hartley, 2008). Given these findings and the fact that the majority of veterans do not use VA health care services (US Department of Veterans Affairs, 2002), non-VA primary care providers in rural areas should be trained to diagnose PTSD and related disorders, should increase their clinical knowledge and skills related to PTSD and associated disorders, and they should be aware of the local and regional mental health resources in their area for this at-risk population.

To address these potential needs, Geisinger's Reaching Rural Veterans Initiative (RRVI) was funded in 2009 by grants received from the Commonwealth of Pennsylvania (Pennsylvania Department of Health, SAP# 4100047760) and the Federal Government (Human Resources and Services Administration, Grant# 1-D1ARH-16053-01-00). The RRVI was developed to address the needs of veterans and their family members in rural communities who were seen by non-VA primary care providers. As part of this project, an assessment of healthcare providers' knowledge and awareness of mental health-related issues was conducted. Following this assess-

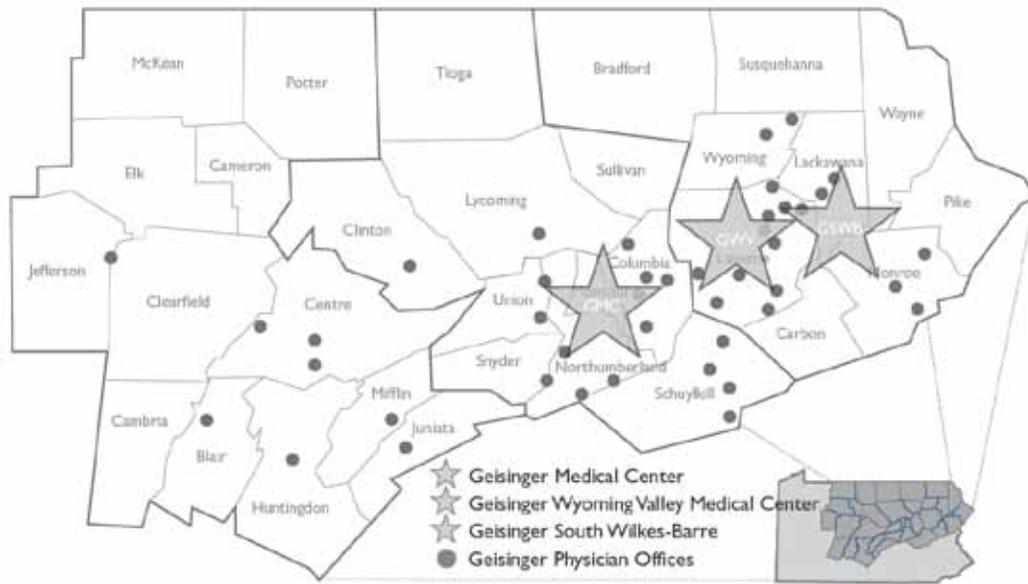
ment, an education program was developed. This intervention program was presented at primary care sites within Geisinger and was also made available to other providers both inside and outside the Geisinger Health System (GHS). This initiative also permitted the purchase of tele-psychiatry equipment that allowed Geisinger's psychiatrists and psychologists to have visits with patients in geographically distant primary care sites. In addition, this funding also allowed the Geisinger staff to meet with and assess school guidance counselors' needs in Central Pennsylvania related to the families and children of active duty and returning service personnel. The main objectives of the RRVI project were to:

- Survey Geisinger's primary care providers;
- Develop an intervention focused on identifying, treating, and referring OEF/OIF veterans and family members to appropriate providers;
- Identify gaps in service delivery;
- Provide support and referral information to veterans and family members;
- Network with VA, military, and civilian organizations;
- Develop a website for veterans and their family members; and,
- Develop a deployment-focused electronic "toolkit" for providers.

Geisinger Health System

The Geisinger Health System is a vertically integrated system that provides health services to more than 2.6 million persons in 43 counties in Pennsylvania. GHS employs 12,717 persons, including over 700 physicians with more than 75 specialties, more than 2,400 registered and licensed practical nurses, and more than 43 non-physician scientists, making it one of the largest employers in Pennsylvania (see Figure 1). The mission of GHS is to enhance quality of life based on a balanced program of patient care, education, research, and community service. Commitment of GHS to the health and well being of the rural and underserved population in Pennsylvania is demonstrated through its focus on excellence in clinical services, clinical, basic and health services research, and its significant community outreach programs and involvement. The RRVI program was part of this commitment. Geisinger is one of the country's most advanced

Figure 1. Geisinger System Service Area showing Location of Practice Sites in Pennsylvania



health care organizations, with an electronic health record (EHR) in all outpatient clinics, patient portal, and other digital means of delivering care. These electronic records are utilized by clinicians for both in-patient and out-patient care with integrated electronic scheduling, clinical lab, radiology, and other system (see: www.geisinger.org).

METHODS

Needs Assessment Survey

In the Fall of 2009 a needs assessment survey was conducted by the RRVI Study Team among all primary care providers employed in the Geisinger System. One purpose of this assessment was to evaluate service utilization at Geisinger among recently returning veterans and their family members. The other purpose was to evaluate the mental health services needs of primary care providers as this related to providing care for returning OEF/OIF service personnel and their family members. To conduct the provider survey, all 363 primary care providers at Geisinger were sent emails with a link to an electronic needs assessment survey through the Geisinger email system. These primary care providers included physicians ($n=285$), physician assistants (PAs) ($n=44$), certified nurse practitioners (CNP), and other non-physician providers ($n=34$). This email was sent with a message from Geisinger's Chief of Psychiatry introducing the study. Three emails were sent approximately two weeks apart

in order to encourage providers to respond to the survey. As a final reminder, a message was sent through the Geisinger clinical order-entry system. A small financial incentive was also used to encourage participation (\$10). At completion of the survey timeframe, 155 providers had returned surveys, representing a completion rate of 43%. This survey research project was approved by the Institutional Review Board of the Geisinger Health System.

Clinical Areas Assessed

For the survey instrument used in the RRVI study, we adopted survey items from a provider assessment instrument used in a project designed to evaluate the needs of primary care providers following the World Trade Center Disaster in New York City (Laraque et al., 2004; Laraque et al., 2009). The RRVI online survey was designed to take 10-15 minutes to complete and included reported estimates of OEF/OIF personnel and family members seen in the past 6 months, the most common mental health problems seen among OEF/OIF personnel and family members, the estimated prevalence of mental disorders seen at the primary care site, specific mental health services provided at each care site, and use of standard mental health screeners. It also included self-ratings of mental health knowledge, diagnostic and treatment skills, self-ratings of knowledge related to mental health treatment strategies, the availability of onsite mental health personnel,

mental health referral options, use of psychotropic medicines, and provider awareness of local mental health services for OEF/OIF personnel and family members.

Statistical Methods

Following completion of data collection and data cleaning, potential provider response bias was assessed by gender, age, and provider type (i.e., MD/DO, PA, CNP/other). A statistically significant response bias was detected for provider type ($p < 0.05$), but not for age or gender. Since physicians were less likely to complete the survey than non-physicians, survey weights were developed to correct for this bias, as is typically done in survey research (Boscarino, Adams, & Figley, 2004). Following this adjustment, there was no statistically significant difference ($p > 0.05$) detected by provider type, age, or gender. Next, four multi-item survey scales were developed from the survey to assess mental health knowledge (7 items), mental health diagnostic skills (7 items), mental health treatment skills (7 items), and common mental health treatment strategies (8 items). For these measures, providers were asked how they would rate their knowledge about typical mental health problems seen in primary care (e.g., substance abuse, depression, anxiety disorders, PTSD, suicidal behavior, etc.), rate their diagnostic skills in these areas, rate their treatment skills in these areas, and their knowledge of common mental health treatment strategies. All of these items had response categories ranging from 1 (not very skilled/knowledgeable) to 10 (very skilled/knowledgeable). Missing items for these scales were coded at the population median value for that item, respectively. The Chronbach's alpha for each of these rating scales was good (alpha = range 0.77-0.89), suggesting internal scale consistency, as has been previously reported (Laraque et al., 2004; Laraque et al., 2009).

For our analyses, we first present descriptive statistics revealing the demographic and mental health profile of the study population, followed by the overall results of service utilization by OEF/OIF personnel and family members. Next, we present the mental health services typically provided at these primary care sites and the overall results related to providers' self-rated mental health knowledge and skills. For analysis purposes, we defined higher self-rating on the multi-item scales as an average score of 7 or higher, similar to what had been previously reported (Laraque et al., 2004; Laraque et al., 2009). For the single-items scales, a score of 7 was used to define a higher self-rating. Finally, using

logistic regression, we present multivariate results predicting overall mental health knowledge, diagnostic skills, treatment skills, clinical treatment knowledge, awareness of area mental health resources, and OEF/OIF service utilization at the care sites. It is noted that in addition to weighting the survey data for non-response bias, the data were adjusted for data clustering, since more than one provider could be surveyed at each primary care site. All statistical analyses were conducted using Stata, version 11 (Stata Corporation, 2010).

RESULTS

The demographic and practice characteristics of the study population are shown in Table 1. As seen, most providers were less than 55 years of age (80.2%) and they were about equally female and male providers (50.3% vs. 49.7%, respectively). In addition, most providers tended to

Table 1.
Provider Demographics and Practice Characteristics
(N=155)*

Age	Percent	(n)
Less than 35	24.0	38
35-54	56.2	88
55+	19.8	31
Gender		
Female	50.3	81
Male	49.7	76
Provider Specialty		
MD	51.2	77
DO	21.1	32
PA	14.5	25
CNP/Other	13.4	23
On-site Mental Health Provider		
At Practice Site	65.4	103
Not at Practice Site	34.6	54
% Patients Seen with Mental Health Problems		
Less than 35% of Patients	77.1	121
35% or more of Patients	22.9	36
Practice Location		
Less than 20 Miles from Main Campus	56.7	90
More than 20 Miles from Main Campus	43.3	67

*Data are weighted for non-response bias and adjusted for provider clustering in clinic sites. Ns may not total to 155 due to data weighting.

be physicians (72.3%) compared to PAs and CNPs (27.9%). Furthermore, the majority of providers (65.4%) reported the availability of an onsite mental health professional. Finally, 22.9% of providers reported that more than a third of their respective patients had a mental health disorder and the majority of their clinic sites (56.7%) were within 20 miles from the main hospital campus, where the Department of Psychiatry is located.

In terms of OEF/OIF personnel seen at the clinic sites, the majority of providers (55%) reported that they saw one or more service members within the past 6 months, with an average of 3.5 (SD = 5.9) seen per provider during this period (Table 2). However, in terms of family members of OEF/OIF service members seen, a significant majority of providers (77.3%) reported having these patient contacts, with an average of 10.9 (SD = 16.0) family members seen in the past 6 months. In addition, 28% of service members and 59% of family members of these personnel were reported to have mental health problems (Table 2). When asked to report the top three mental health problems seen among OEF/OIF personnel and their family members, providers reported, in order, generalized anxiety disorder (49.5%), family and marital problems (39.6%), and major depression (35.2%). Interestingly, only 12% of providers specifically mentioned PTSD as being one of the more common mental health problems seen among these patients. Given the average number of OEF/OIF service personnel (about 3) and the average number of family members seen (about 10) and the number of primary care providers at Geisinger (~ 360) this calculates into approximately 1,200 OEF/OIF patients and 3,600 OEF/OIF family members seen in primary care in the past 6 month. As noted above, since 28% of OEF/OIF service members and 59% of their family members had mental health problems, this translates into 336 OEF/OIF service persons and 2,124 of their family members, respectively, seen at Geisinger clinics in the past 6 months with mental health problems.

Table 3 shows the general practice patterns related to mental health issues seen in the primary care clinics. Noteworthy is that bereavement issues (29.9%) and PTSD (27.7%) are less frequently assessed during the general medical evaluations, compared to other mental health problems (Table 3). In addition, PTSD was the least likely to be treated and managed at the primary care setting (35.4%). Nevertheless, the majority of providers (59.6%) used diagnostic

Table 2.
OEF/OIF Veterans and Family Members Seen in Practice in Past 6 Months (N=155)*

Deployed Veterans Seen in Past 6 Months		
	Percent	(n)
No	45.0	70
Yes	55.0	87
Mean (SD)	3.5	5.9
Deployed Veterans Seen in Past 6 Months with Mental Problems		
	Percent	(n)
No	72.0	113
Yes	28.0	44
Family Members of Deployed Veterans Seen in Past 6 Months		
	Percent	(n)
No	22.7	35
Yes	77.3	122
Mean (SD)	10.9	16.0
Family Members of Deployed Veterans Seen in Past 6 Months with Mental Problems		
	Percent	(n)
No	41.0	64
Yes	59.0	93
Top 3 Mental Health Problems Seen among Veterans/Family Members in Past 6 Months		
	Percent	(n)
Generalized Anxiety Disorders	49.5	78
Family & Marital Problems	39.6	62
Major Depression	35.2	55

*Data are weighted for non-response bias and adjusted for provider clustering in clinic sites. Ns may not total to 155 due to data weighting.

mental health screeners and the majority of them prescribed psychotropic medications for patients at least “occasionally” or “frequently” (Table 3).

In terms of the self-rating of mental health knowledge, diagnostic and treatment skills, knowledge of current mental health treatment strategies, and awareness of local/regional mental health resources, the survey results suggested that the providers lacked confidence in current mental health

Table 3.
General Practice Procedures at Office related to
Mental Health (N=155)*

As part of health history, ask patients about:		
	Percent	(n)
Alcohol or Substance Abuse	85.6	134
Generalized Anxiety Disorder	59.9	94
Bereavement Issues	29.9	46
Major Depression	67.6	106
Posttraumatic Stress Disorder	27.7	43
Suicidal Behavior or Thoughts	61.4	96
Family or Marital Problems	57.6	90
Typically treat and manage in your practice:		
	Percent	(n)
Alcohol or Substance Abuse	43.6	68
Generalized Anxiety Disorder	71.5	112
Bereavement Issues	51.3	80
Major Depression	63.8	100
Posttraumatic Stress Disorder	35.4	55
Suicidal Behavior or Thoughts	42.9	67
Family or Marital Problems	56.7	89
Refer patients out for diagnosis and treatment:		
	Percent	(n)
Alcohol or Substance Abuse	70.5	111
Generalized Anxiety Disorder	80.3	95
Bereavement Issues	45.6	72
Major Depression	67.4	106
Posttraumatic Stress Disorder	67.3	106
Suicidal Behavior or Thoughts	75.1	118
Family or Marital Problems	62.4	98
Currently use standard diagnostic screeners in your practice for mental health problems:		
	Percent	(n)
No	40.4	64
Yes	59.6	93
Prescribe psychotropic drugs for mental health issues occasionally or frequently:		
	Percent	(n)
No	22.4	36
Yes	77.7	121

*Data are weighted for non-response bias and adjusted for provider clustering in clinic sites. Ns may not total to 155 due to data weighting.

treatment interventions, with only 8.4% scoring high on this self-rated knowledge measure (i.e., having a mean score of 7 or higher on these rating scales). These providers also scored lower (only 20% had a mean score of 7 or higher) in terms of their self-assessment of mental health treatment skills (Table 4). In addition, while 33.4% of providers had higher awareness of area mental health services, only 3.2% had higher

Table 4.
Knowledge, Skills, Clinical Ratings,
and Awareness of Area Mental Health Services
(N=155)*

High Overall Rating of Mental Health Knowledge†		
	Percent	(n)
No	68.9	109
Yes	31.1	48
High Overall Rating of Mental Health Diagnostic Skills†		
	Percent	(n)
No	59.5	94
Yes	40.5	63
High Overall Rating of Mental Health Treatment Skills†		
	Percent	(n)
No	80.0	126
Yes	20.0	31
High Overall Rating of Mental Health Clinical Strategies†		
	Percent	(n)
No	91.6	144
Yes	8.4	13
High Awareness of Mental Health Services in Area‡		
	Percent	(n)
No	66.6	105
Yes	33.4	52
High Awareness of VA Services in Area‡		
	Percent	(n)
No	96.8	152
Yes	3.2	5

*Data are weighted for non-response bias and adjusted for provider clustering in clinic sites. Ns may not total to 155 due to data weighting.

†Defined as an average score of 7 or higher on a 7-item or 8-item rating scale ranging from 1-10.

‡ Defined as a score of 7 or higher on a single-item rating scale ranging from 1-10.

awareness of the treatment resources provided by the VA.

Detailed multivariate results predicting mental health knowledge and skills, mental health service awareness, and providing care for OEF/OIF personnel in the past 6 months are shown in Table 5. Each of the seven outcomes shown are simultaneously adjusted for all seven covariate variables shown (i.e., age, gender, provider type, etc.). As can be seen,

Table 5.
Multivariate Logistic Regression Results Predicting Higher Mental Health Knowledge, Diagnostic Skills, Treatment Skills, Clinical Strategies, Awareness of Services, and Care for OEF/OIF Veterans (N=155)

Study Variables Assessed*	Higher Overall Knowledge †		Higher Diagnostic Skills †		Higher Treatment Skills †		Higher Clinical Knowledge ‡		Aware of Area Mental Health Services †		Aware of Area VA Mental Health Services ‡		Provided Care for OEF/OIF Veterans	
	OR	p-value	OR	p-value	OR	p-value	OR	p-value	OR	p-value	OR	p-value	OR	p-value
Provider Age														
Under 35 (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
35-54	3.93	0.025	4.22	0.022	2.47	0.258	1.36	0.574	1.68	0.415	1.38	0.450	3.36	<0.001
55+	4.65	0.015	9.62	<0.001	4.82	0.041	4.08	0.050	2.49	0.183	1.70	0.514	5.25	0.001
Provider Gender														
Male (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
Female	0.50	0.026	0.32	0.001	0.30	0.017	0.85	0.676	0.58	0.168	0.86	0.726	0.41	0.108
Provider Type														
Non-Physician (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
Physician	1.96	0.202	0.87	0.763	1.04	0.945	0.85	0.754	0.94	0.842	1.62	0.491	0.23	0.002
Onsite MH Prof.														
No (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
Yes	0.63	0.509	0.82	0.635	0.86	0.846	0.75	0.685	1.61	0.140	2.90	0.022	0.79	0.552
Higher % MH Cases														
No (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
Yes	2.65	0.039	3.06	0.092	3.57	0.013	3.62	0.003	0.93	0.857	2.27	0.187	1.51	0.368
MH Screeners Used														
No (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
Yes	1.01	0.963	1.79	0.202	1.15	0.771	2.75	0.039	0.51	0.227	0.77	0.689	0.85	0.653
Psychotropics Used														
No (ref)	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--	1.00	--
Yes	4.06	0.032	4.73	0.012	4.63	0.032	2.27	0.220	4.71	0.003	3.22	0.298	2.94	0.044

*Note: All 7 predictor variables shown are included in the regression analyses simultaneously.

†Higher ratings classified as a mean score of 7 or higher on a multi-item scale, with items coded 1-10 or a score of 7 or higher on a single item score, coded 1-10.

‡Due to skewed data that limited multivariate analyses for these measures, these outcomes were re-coded to a score of 6 or higher.

OR = odds ratio; MH = mental health; Ref = reference group.

compared to younger providers, those 55 and older tend to report higher mental health knowledge and skill levels ($p < 0.05$). Compared to the younger providers, these older providers were also more likely to have seen OEF/OIF service members ($OR = 5.25, p = 0.001$). In addition, female providers were less likely to report higher mental health knowledge, treatment skills, and diagnostic skills ($p < 0.05$), compared to male providers, while physician providers were significantly less likely to treat OEF/OIF service personnel ($OR = 0.23, p = 0.002$), compared to non-physician providers. Furthermore, having an onsite mental health provider was associated with higher awareness of VA health services ($OR = 2.90, p = 0.022$), while practice sites with a higher percentage of mental health cases had providers with higher mental health knowledge, treatment skills, and mental health clinical experience ($p < 0.05$). Finally, reported use of psychotropic medicines was associated with providers who rated their mental health knowledge, diagnostic skills, and mental health treatment skills higher and who also had higher awareness of area mental health resources ($p < 0.05$). Psychotropic medicine use was also associated with a greater likelihood of treating OEF/OIF service personnel ($OR = 2.94, p = 0.044$).

DISCUSSION

As suggested, the RRVI project was launched in 2009 with grants from the Commonwealth of Pennsylvania and the Federal Government. The RRVI project attempted to address the needs of veterans and their families from rural communities who might be seen by primary care doctors in non-VA facilities. Studies of recently returning OEF/OIF veterans suggest co-occurring mental health diagnoses and psychological problems were being detected in VA primary care facilities in substantial numbers (Seal, Bertenthal, Miner, Sen, & Marmar, 2007). An assessment of provider awareness of combat stress-related issues was conducted through the RRVI initiative and an education program was developed, based on this research. This educational program was presented to primary care providers within the Geisinger System and also available to other primary care providers outside of Geisinger. This program included training to help providers in detecting and managing posttraumatic stress disorders and other combat-related mental health problems. It also included the provision of screening tools to be used in clinical practice and provided resources for providers, veterans, and families through web-based sites. This initiative also allowed Geisinger to purchase telepsychiatry equipment that

allowed psychiatrists and psychologists to visit with patients in geographically distant primary care sites. In addition, this funding allowed Geisinger staff to meet with and assess the needs of area school counselors as this pertained to the families and children of active duty and returning OEF/OIF personnel.

Noteworthy is that providers who completed the RRVI training session indicated that they would recommend this training to colleagues, that the information presented was highly useful, and that the session enhanced their medical knowledge in this clinical area. Furthermore, 90% reported that they planned to make practice changes following completion of the training session, including routinely screening patients, using referral resources, using follow-up mental health appointments, and other significant practice changes. The clinical areas that the providers tended to rate the lowest following these sessions were their skills and knowledge related to pain management, the treatment and diagnosis of concussions, and knowledge of traumatic brain injuries, considered the signature wound of the current conflicts (Hoge et al., 2008).

The provider needs assessment survey we conducted was insightful and provided the basis for the RRVI interventions, as indicated. In light of the overrepresentation of returning veterans to rural settings, these findings should be considered important. Psychological distress and mental illness as well as family distress appear to occur at a relatively high rate in veterans and their families and it appears that many primary care providers believe that they are not adequately prepared to identify and treat these problems. A model is presented here for providing initial training and support to primary care providers. Clearly, further assessment of this model should be conducted in a non-integrated health system in order to understand the generalizability of this program to train providers. Recently, a similar intervention effort was undertaken among children's primary care providers in the New York City area following the World Trade Center disaster, which demonstrated some success (Laraque et al., 2009), so the preliminary results are encouraging.

As was seen, Geisinger's primary care providers are currently involved with providing mental health care to area OEF/OIF service members and their families. The most common mental health problems reported by providers for OEF/OIF service personnel and their family members include anxiety disorders, depression, and marital problems. Altogether 28% of providers reported seeing OEF/OIF

service members with mental health problems in the past 6 months and 59% reported seeing family members with these problems during this same timeframe. It was estimated that primary care providers saw about 1,200 OEF/OIF patients and 3,600 OEF/OIF family members in Geisinger's primary care clinics over a 6 month period. A significant number of these persons had mental health problems. Nearly 60% of providers have used mental health screener instruments and the majority prescribed psychotropic medicines. In addition, about two-thirds (65.4%) of providers reported having a mental health professional onsite and nearly 23% of them reported that over one-third of the patients seen have mental health problems of some type.

Significant mental health gaps discovered in the RRVI needs assessment study indicated that providers lacked knowledge of PTSD and other combat-related stress disorders, as well as knowledge of VA healthcare resources. In addition only 20% of the providers rated their mental health treatment skills as high and only about 8% reported that they had adequate knowledge of current mental health clinical strategies. Significant differences were also discovered in terms of provider demographics and practice characteristics. Older providers reported greater mental health knowledge and skills, as did male providers. In addition, practice sites with greater numbers of mental health patients had providers that reported higher levels of mental health knowledge, as did those providers who prescribed psychotropic medicines.

This study has several limitations that should be noted. One is that our study response rate was 43%, suggesting that our survey results may be biased. Another is that the results reported were based solely on self-reported information. Thus, these results may be biased due to faulty recall. No attempt was made to validate provider recall related to their patient contacts. However, we did use a survey instrument that had been previously validated and this, hopefully, limited study bias. In addition, we compared providers' responses in the current study to those surveyed in the New York City metropolitan area several years earlier related to the September 11 attacks (Laraque et al., 2004; Laraque et al., 2009). Interestingly, the service gaps and knowledge issues found among Geisinger's providers were similar to those found in New York after the World Trade Center among children's primary care providers. Our plan is to reassess Geisinger's providers in the future to track improvements in mental health knowledge and clinical practices skills over time.

In conclusion, the scope of mental health problems that will emerge among OEF/OIF veterans is unclear at this time, but may be as high as 20%. Since most of these veterans will not likely be seen by VA providers in the future, preparing non-VA providers in primary care to diagnose, treat, manage, and refer these patients is paramount and will improve the quality of care for these patients and their family members. This problem may be especially prevalent in rural areas for the reasons discussed above (Wallace et al., 2010; Weeks, et al., 2004). Given better understanding of combat-stress injuries and the treatment modalities available for veterans today (Figley and Nash, 2007), there is little excuse for a repeat of the Vietnam tragedy that occurred among an earlier generation of war veterans (Boscarino 1995; Boscarino 2008; Kulka, et al., 1990). The veteran community deserves better health care and community support.

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