

Anxiety Disorders, Active Component, U.S. Armed Forces, 2000-2012

Anxiety is a normal reaction to stress; however, in individuals with anxiety disorder, the anxiety becomes chronic and exaggerated, and affects the physical and psychological health of the individual. The main types of anxiety disorders are generalized anxiety disorder, panic disorder, post-traumatic stress disorder (PTSD), phobias, and obsessive-compulsive disorder (OCD). Incident diagnoses of anxiety disorders among active component service members steadily increased from 2000 to 2012. A majority of incident anxiety disorder diagnoses were “non-specific” anxiety disorders (ICD-9-CM codes: 300.0, 300.00, or 300.09) and over 75 percent of service members diagnosed with “non-specific” anxiety disorders did not have a more specific anxiety disorder diagnosis during subsequent medical encounters. Incidence rates of anxiety disorders were highest among females, white, non-Hispanics, in the youngest age groups, and among recruits and junior enlisted service members. About one-third of anxiety disorder cases also had a co-occurring diagnosis of either adjustment or depressive disorder within one year before or after the incident anxiety disorder encounter.

Anxiety disorders are a group of mental disorders characterized by persistent worry, nervousness, uneasiness, apprehension, or fear about future uncertainties. Anxiety is a normal reaction to stress; however, in individuals with anxiety disorder, the anxiety becomes chronic, exaggerated, and uncontrollable. The anxiety may be based on real or imagined events or be of unknown origin and can affect both physical and psychological health. Individuals with anxiety disorders commonly suffer from other mental disorders such as mood disorders (specifically, depression), and sleep disorders such as insomnia.¹⁻⁵

Anxiety disorders are categorized into several diverse types based on their cause or the focus of the anxiety; the main types are generalized anxiety disorder, panic disorder, post-traumatic stress disorder (PTSD), phobias, and obsessive-compulsive disorder (OCD). Individuals with generalized anxiety disorder suffer from chronic worry about a variety of everyday problems; this condition may be harder to diagnose since the cause of anxiety is not related to a specific object, event, or obsession.

Panic disorder is characterized by sudden anxiety attacks whose causes or

triggers are often unclear. An anxiety attack is an episode of intense fear characterized by a sense of impending doom and physical symptoms such as a rapid heart rate, sweating, shortness of breath, and dizziness. Physical symptoms may be so dramatic that affected individuals may fear they are suffering from a heart attack or are dying. Anxiety attacks may be isolated events or may become recurrent; in the latter case an individual may be diagnosed with panic disorder. Chronic anxiety attacks may lead to a fear of having panic attacks in public places and in turn agoraphobia (the fear of certain situations or environments). Because the boundaries and relationships between anxiety attacks, panic disorder, and agoraphobia are unclear, clinical diagnoses and public health surveillance of the conditions are difficult.⁶⁻⁸

PTSD results from exposure to a traumatic event such as intense combat, sexual assault, or death of a loved one. Individuals who suffer from PTSD have recurring thoughts and memories of the traumatic event which cause anxiety associated with the event to continue or reoccur. Phobias are irrational and excessive fears of an activity or situation (e.g., fear of heights, flying,

social situations), fear of open environments or crowds (agoraphobia), or fear of objects (e.g., spiders, needles). OCD is characterized by a need to perform a ritual or routine (e.g., excessive hand washing) based on fear or upsetting thoughts (e.g., fear of germs). In all categories of anxiety disorders, the anxiety can become so excessive that it interferes with work, travel, social interactions, and other activities of daily living and disrupts the mental and physical well being of the affected individual.

In the U.S. Armed Forces, mental disorders, of which anxiety disorders are a subset, account for significant morbidity, disability, healthcare service utilization, lost duty time, and attrition from military service.⁹⁻¹³ Of particular concern in this regard, incidence rates of mental disorders overall and anxiety disorders in particular have increased sharply among U.S. military members during the past 10 years.⁹⁻¹² In 2012, anxiety disorders accounted for more medical encounters than any other category of mental disorders and all but three injury/illness categories overall.¹² Furthermore, anxiety disorders affected more military members than all but one other category of mental disorders and accounted for more hospital bed days than all but two other categories of mental disorders.¹²

This report summarizes numbers, rates, and trends of incident diagnoses of anxiety disorders, by type, among members of the active component of the U.S. Armed Forces during the past 13 years. Military and demographic characteristics of those affected with, the healthcare burden associated with evaluation and treatment of, and co-occurring conditions with anxiety disorders are also summarized.

METHODS

The surveillance period was 1 January 2000 to 31 December 2012. The surveillance population included all U.S. members of the Army, Navy, Air Force, Marine Corps, and Coast Guard who served in the

active component at any time during the surveillance period. Cases were identified from standardized records of hospitalizations and outpatient medical encounters during the surveillance period in fixed (i.e., not deployed, at sea) military and nonmilitary (purchased care) medical facilities.

For surveillance purposes, anxiety disorder cases were ascertained from records of medical encounters that included anxiety disorder-specific diagnoses (ICD-9-CM: 300.0x-300.3).^{10,11,13} An incident case of anxiety disorder was defined as a hospitalization with an anxiety disorder-specific diagnosis in the first or second diagnostic position; two outpatient visits within 180 days documented with anxiety disorder-specific diagnoses in the first or second diagnostic positions of the records of the case-defining visits; or a single outpatient visit in a psychiatric or mental health-care specialty setting (defined by Medical Expense and Performance Reporting System [MEPRS] code: BF) with an anxiety disorder-specific diagnosis in the first or second diagnostic position.^{10,12}

Anxiety disorders were analyzed overall, by main categories (anxiety states, phobic disorders, and obsessive-compulsive disorders), and by specific diagnoses (as defined by 5-digit ICD-9-CM diagnostic codes) (Table 1). An individual could be considered an incident case 1) once during the surveillance period in each subcategory; 2) once during the surveillance period in each main category; and 3) once during the surveillance period for any anxiety disorder-related diagnosis. As such, the sum of incident diagnoses of subcategories and main categories of anxiety disorders exceed the total of incident diagnoses of anxiety disorders of any type. Of note, PTSD diagnoses were not considered in this analysis, because PTSD has been reviewed in detail in other, recent *MSMR* reports.^{10,11}

For purposes of this analysis, diagnoses of non-anxiety-related mental disorders or insomnia were considered co-occurring conditions if they 1) satisfied the case definitions for those conditions (as specified in previous *MSMR* reports)^{10,11,13,14} and 2) occurred within one year before or after the incident diagnosis of the subject anxiety disorders.

TABLE 1. Incident counts and incidence rates of anxiety disorders, overall and by subcategories, active component, U.S. Armed Forces, 2000-2012

Category (ICD-9-CM code)	No.	Rate ^a	% rate difference 2000-2012
Total anxiety disorder ^b	217,409	117.2	327.0
Anxiety states ^c (300.0x)	203,130	109.5	425.2
Anxiety state, unspecified (300.00)	170,652	92.0	644.4
Panic disorder without agoraphobia (300.01)	23,175	12.5	44.2
Generalized anxiety disorder (300.02)	40,659	21.9	174.2
Other anxiety state (300.09)	2,852	1.5	46.3
Phobic disorders ^c (300.2x)	21,675	11.7	32.8
Phobia, unspecified (300.20)	629	0.3	-40.0
Agoraphobia with panic disorder (300.21)	6,811	3.7	57.4
Agoraphobia without mention of panic attacks (300.2)	607	0.3	92.9
Social phobia (300.23)	9,531	5.1	69.7
Other isolated or specific phobias (300.29)	5,624	3.0	-28.7
Obsessive-compulsive disorders ^c (300.3)	8,370	4.5	9.8

^aRate per 10,000 person-years
^bNumber of unique individuals overall (i.e., deduplication of all categories).
^cNumber of unique individuals in each main category (i.e., deduplication of subcategories).

RESULTS

During the 13-year surveillance period there were 217,409 incident diagnoses of anxiety disorders among active component service members (Table 1). The unadjusted incidence rate was 117.2 per 10,000 person-years (p-yrs).

For most incident cases (n=205,717, 94.6%), their first anxiety disorder-related diagnosis was a “non-specific anxiety disorder” (i.e., ICD-9-CM: 300.0, 300.00, or 300.09). Many of these individuals later received more specific anxiety-related diagnoses: generalized anxiety disorder (n=29,504, 14.3%); panic disorder without agoraphobia (n=16,789, 8.2%); specified phobic disorders (n=9,234, 4.5%); and obsessive-compulsive disorder (n=3,278, 1.6%) (data not shown). Of note, however, more than three-fourths (n=157,549, 76.6%) of those whose incident diagnoses were one of the “non-specific anxiety disorders” did not receive more specific anxiety-related diagnoses during subsequent medical encounters.

Anxiety states

Of the three main categories of anxiety disorder, “anxiety states” accounted for the most cases (n=203,130) and the highest incidence rate (109.5 per 10,000 p-yrs)

(Table 1). Only 2.7 percent of all incident medical encounters for “anxiety states” were hospitalizations (Table 2). Members of the Army, recruits, enlisted members, and those in healthcare occupations had markedly higher rates of anxiety state diagnoses than their respective military counterparts. Also, females, service members in their twenties, and white, non-Hispanics, had relatively high rates of anxiety state diagnoses.

Of all specific diagnoses (per ICD-9-CM 5-digit diagnostic codes) included in the anxiety state category, “anxiety state, unspecified” accounted for the most cases (n=170,652), the highest incidence rate (92.0 per 10,000 p-yrs), and the largest percent increase (644.4%) in diagnoses during the surveillance period (Table 1, Figure 1). Of all other specific anxiety state diagnoses, generalized anxiety disorder accounted for the most cases (n=40,659; rate: 21.9 per 10,000 p-yrs) and the largest relative increase in rates (174.2%) during the surveillance period (Table 1, Figure 1).

Phobic disorders

Phobic disorders accounted for 21,675 cases (overall rate: 11.7 per 10,000 p-yrs); 679 (3.1% of the total) incident medical encounters for “phobic disorders” were hospitalizations (Table 2). The highest

FIGURE 1. Incidence rates of anxiety states, active component, U.S. Armed Forces, 2000-2012

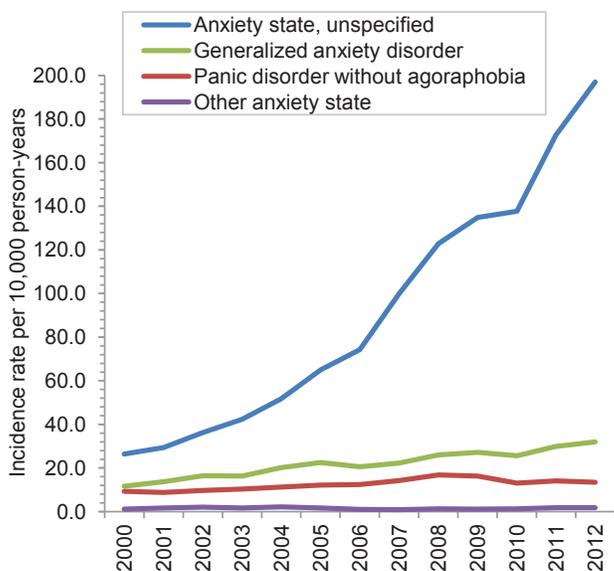
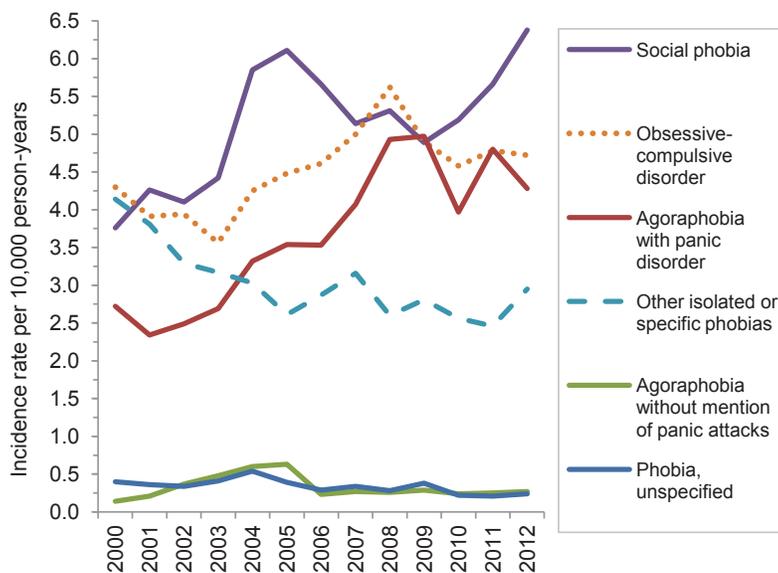


FIGURE 2. Incidence rates of phobic disorders and obsessive-compulsive disorder, active component, U.S. Armed Forces, 2000-2012



subgroup-specific rates of phobic disorder diagnoses were among recruits (22.3 per 10,000 p-yrs), females (19.6 per 10,000 p-yrs), and healthcare workers (16.3 per 10,000 p-yrs). Rates of phobic disorder diagnoses were also highest among service members under the age of 20, among white, non-Hispanics, and among service members in the Air Force and among the junior enlisted.

Social phobia was the most frequently diagnosed phobic disorder (n=9,531; rate: 5.1 per 10,000 p-yrs). Social phobia diagnoses increased 69.7 percent during the surveillance period (Table 1, Figure 2). Agoraphobia with panic disorder and other isolated/specific phobias each accounted for more than 5,000 cases and affected more than three service members per 10,000 person-years.

Obsessive-compulsive disorders

Obsessive-compulsive disorder accounted for 8,370 cases and an overall rate of 4.5 per 10,000 p-yrs during the surveillance period (Table 1). Annual incidence rates sharply increased from 2003 to 2008 and then slowly declined to a relatively stable level which has persisted from 2010 to 2012 (Figure 2). The highest

subgroup-specific rates of obsessive-compulsive disorder diagnoses were among females (8.4 per 10,000 p-yrs), recruits (7.6 per 10,000 p-yrs), and healthcare workers (7.3 per 10,000 p-yrs). Also, service members in the Army and enlisted members (particularly junior enlisted) had higher rates of obsessive-compulsive disorder diagnoses than their respective counterparts in military service.

Healthcare burdens associated with anxiety disorders

During the 13-year surveillance period, an anxiety disorder was recorded as the primary (first-listed) diagnosis after 1,167,634 medical encounters of 219,972 service members (mean: 5.3 anxiety disorder-related medical encounters per affected individual) (Figure 3). Annual numbers of anxiety disorder-related medical encounters and numbers of individuals affected increased 704 percent and 502 percent, respectively, during the period.

During the surveillance period, anxiety disorders accounted for 93,992 hospital bed days; anxiety disorder-related bed days increased 316 percent from the first to the last year of the period (Figure 3).

Co-occurring conditions

Approximately one-third of all service members diagnosed with an anxiety disorder were also diagnosed with an adjustment disorder (34.3%) or a depressive disorder (33.5%) within one year before or after their case-defining anxiety disorder encounters (data not shown). Incident diagnoses of anxiety disorders were also temporally associated with diagnoses of behavioral health disorders (ICD-9-CM V-coded diagnoses such as partner relationship problems, family circumstance problems, etc.) (26.8%); “other mental disorder” (19.6%); post-traumatic stress disorder (16.4%); insomnia (12.3%); alcohol abuse/dependence disorder (10.7%); personality disorder (7.1%); and substance abuse/dependence disorder (4.9%).

EDITORIAL COMMENT

As reported previously,^{10,11} diagnoses of anxiety disorders among U.S. military members have steadily increased during the past 13 years. The anxiety disorder-related diagnosis (5-digit ICD-9-CM diagnostic code) that accounts for most of the increase in anxiety disorder-related diagnoses overall is

TABLE 2. Incident counts and incidence rates of anxiety disorders, active component, U.S. Armed Forces, 2000-2012

	Total			Anxiety states			Phobic disorders			Obsessive-compulsive disorders		
	No.	Rate ^a	IRR	No.	Rate ^a	IRR	No.	Rate ^a	IRR	No.	Rate ^a	IRR
Total	217,409	117.2	.	203,130	109.5	.	21,675	11.7	.	8,370	4.5	.
Inpatient	6,188	3.3	.	5,546	3.0	.	679	0.4	.	433	0.2	.
Outpatient	211,221	113.8	.	197,584	106.5	.	20,996	11.3	.	7,937	4.3	.
Sex												
Male	164,884	104.0	Ref	154,000	97.1	Ref	16,389	10.3	Ref	6,119	3.9	Ref
Female	52,525	195.0	1.9	49,130	182.4	1.9	5,286	19.6	1.9	2,251	8.4	2.2
Race/ethnicity												
White, non-Hispanic	151,517	130.2	1.7	141,631	121.7	1.7	15,185	13.1	1.8	6,260	5.4	2.3
Black, non-Hispanic	27,367	85.9	1.1	25,442	79.9	1.1	2,785	8.7	1.2	743	2.3	Ref
Hispanic	20,984	110.3	1.5	19,799	104.1	1.5	1,805	9.5	1.3	675	3.6	1.5
Asian/Pacific Islander	5,424	74.8	Ref	5,061	69.8	Ref	539	7.4	Ref	204	2.8	1.2
Other/Unknown	12,117	109.9	1.5	11,197	101.6	1.5	1,361	12.3	1.7	488	4.4	1.9
Age												
<20	14,050	104.0	1.1	12,211	90.4	Ref	1,894	14.0	1.8	541	4.0	1.2
20-24	77,538	126.9	1.3	71,688	117.3	1.3	8,330	13.6	1.7	2,867	4.7	1.4
25-29	53,748	131.6	1.4	50,811	124.4	1.4	5,152	12.6	1.6	2,018	4.9	1.5
30-34	29,577	108.4	1.1	27,997	102.6	1.1	2,718	10.0	1.3	1,282	4.7	1.4
35-39	22,776	98.0	1.0	21,618	93.0	1.0	2,053	8.8	1.1	961	4.1	1.2
40-44	13,625	103.2	1.1	13,045	98.8	1.1	1,032	7.8	1.0	488	3.7	1.1
45+	6,095	96.0	Ref	5,760	90.7	1.0	496	7.8	Ref	213	3.4	Ref
Service												
Army	110,628	166.4	2.0	106,131	159.6	2.2	7,237	10.9	1.3	3,702	5.6	1.6
Navy	37,367	82.8	Ref	33,224	73.6	Ref	5,634	12.5	1.5	1,827	4.1	1.2
Air Force	42,538	95.0	1.1	38,567	86.2	1.2	6,300	14.1	1.7	1,814	4.1	1.2
Marine Corps	21,766	90.5	1.1	20,421	84.9	1.2	1,941	8.1	Ref	833	3.5	Ref
Coast Guard	5,110	99.7	1.2	4,787	93.4	1.3	563	11.0	1.4	194	3.8	1.1
Status												
Recruits	6,818	184.2	1.6	5,910	159.7	1.5	826	22.3	1.9	282	7.6	1.7
Active duty (non-recruits)	210,591	115.8	Ref	197,220	108.5	Ref	20,849	11.5	Ref	8,088	4.5	Ref
Rank												
Junior enlisted	118,771	146.0	2.6	109,649	134.8	2.6	12,682	15.6	3.4	4,355	5.4	1.8
Senior enlisted	80,994	109.8	2.0	77,036	104.4	2.0	7,364	10.0	2.2	3,037	4.1	1.4
Junior officer	10,996	59.3	1.1	10,213	55.1	1.0	1,089	5.9	1.3	617	3.3	1.1
Senior officer	6,648	56.0	Ref	6,232	52.5	Ref	540	4.6	Ref	361	3.0	Ref
Occupation												
Combat-specific ^b	31,994	137.9	1.4	30,863	133.0	1.5	1,795	7.7	Ref	880	3.8	Ref
Armor/motor transport	12,263	152.8	1.5	11,502	143.3	1.6	1,076	13.4	1.7	411	5.1	1.4
Repair/engineering	54,709	100.1	1.0	50,776	92.9	1.0	6,345	11.6	1.5	2,161	4.0	1.0
Comm/intel	49,911	119.3	1.2	46,601	111.4	1.2	5,143	12.3	1.6	2,121	5.1	1.3
Health care	26,046	172.2	1.7	24,484	161.8	1.8	2,469	16.3	2.1	1,101	7.3	1.9
Other	42,486	99.5	Ref	38,904	91.1	Ref	4,847	11.4	1.5	1,696	4.0	1.0

IRR=Incidence rate ratio
^aRate per 10,000 person-years
^bInfantry, artillery, combat engineering

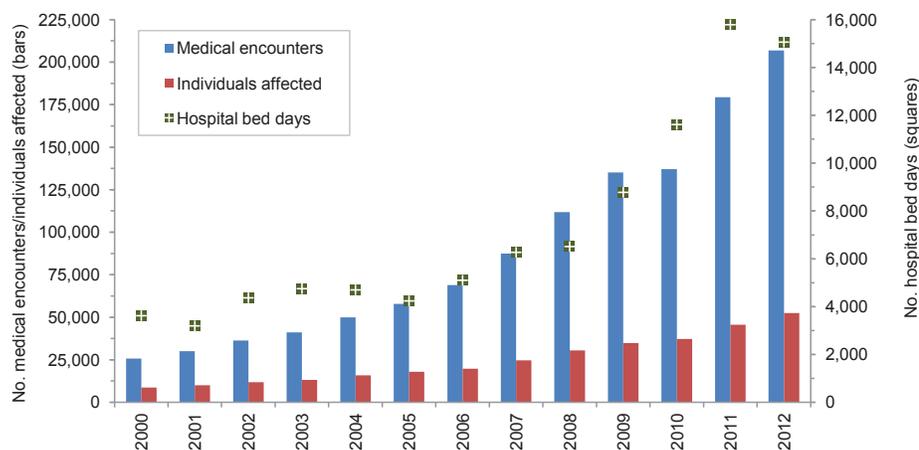
“anxiety state, unspecified” (ICD-9: 300.00). “Anxiety state, unspecified” indicates an anxiety or phobia that does not meet formal criteria for a specific anxiety disorder but whose symptoms are disruptive or distressing to the affected individual.¹⁵⁻¹⁷ The diagnosis is also indicated if, for example, anxiety symptoms have not persisted long enough to be considered generalized

anxiety disorder.¹⁵ For these reasons, the non-specific diagnosis is often the incident (first-ever) reported anxiety disorder-related diagnosis for affected individuals.

Of interest, more than 75 percent of all service members who received “non-specific anxiety disorder”-related diagnoses (ICD-9 codes: 300.0, 300.00, 300.09) did not receive more specific anxiety disorder-related

diagnoses during later medical encounters. The finding suggests that most anxiety disorders among service members lack the clinical hallmarks of more specific anxiety disorders, are eventually attributed to other, commonly co-occurring conditions such as depressive disorders, or are self-limited responses to stresses associated with life events. Other affected individuals may have

FIGURE 3. Medical encounters^a for anxiety disorder, number of individuals affected,^b and hospital bed days, active component, U.S. Armed Forces, 2000-2012



^aTotal hospitalizations and ambulatory visits for the condition (with no more than one encounter per individual per day per condition).

^bIndividuals with at least one hospitalization or ambulatory visit for the condition.

left military service (and were lost to follow-up) before the full clinical manifestations of specific anxiety disorders were apparent. Nonetheless, some studies have suggested that individuals who do not meet the criteria for formal anxiety disorder diagnoses report similar levels of disability and treatment-seeking as those who are diagnosed with generalized anxiety disorder.¹⁷⁻²⁰

Incidence rates of anxiety disorder diagnoses of almost all types increased during the surveillance period. Also, rates of anxiety disorder diagnoses of all types were consistently relatively high among females, white, non-Hispanics, healthcare workers, recruits, and other enlisted members. As with other mental disorders, the physical and mental challenges associated with basic military (recruit) training, the cumulative health effects of continuous exposure of a military force to the stresses of prolonged war fighting, the increased attention to and availability of mental health services, and the decreasing stigma associated with mental healthcare seeking and mental disorder diagnoses have impacted recent trends of diagnoses of anxiety disorders.

This report documents that approximately one-third of service members who were diagnosed with anxiety disorder had co-occurring and roughly concurrent diagnoses of either adjustment or depressive disorder. This observation correlates with findings of other studies that individuals

with anxiety disorders are consistently diagnosed with other types of mental disorders, primarily depression.¹⁻⁵ Given the overlap in symptoms with other types of mental disorders and the varying interpretations of the definition of anxiety disorders by clinicians, the counts and rates of anxiety disorder diagnoses reported here must be considered rough estimates of the clinically significant anxiety disorder-related morbidity that affects U.S. military members.

Finally, this report documents that, in addition to increasing rates of diagnoses of anxiety disorders, the overall healthcare burden (e.g., medical encounters, hospital bed days, individuals affected) associated with anxiety disorder evaluation and treatment has also increased dramatically over the past 13 years. Significant increases in resources to identify and treat mental disorders among service members and successes in reducing stigmatization for seeking care for anxiety symptoms likely contribute to such increases. To the extent that such initiatives continue, it is likely that rates of diagnoses of and healthcare burdens associated with treatment of anxiety disorders and other mental disorders will continue to increase.

REFERENCES

1. Taylor DJ, Lichstein KL, Durrence HH, Reidel BW, Bush AJ. Epidemiology of insomnia, depression,

and anxiety. *Sleep*. 2005;28(11):1457-1464.
 2. Brown TA, Barlow DH. Comorbidity among anxiety disorders: implications for treatment and DSM-IV. *J Consult Clin Psychol*. 1992;60(6):835-844.
 3. Rodriguez BF, Weisberg RB, Pagano ME, Machan JT, Culpepper L, Keller MB. Frequency and patterns of psychiatric comorbidity in a sample of primary care patients with anxiety disorders. *Compr Psychiatry*. 2004;45(2):129-137.
 4. Goisman RM, Goldenberg I, Vasile RG, Keller MB. Comorbidity of anxiety disorders in a multicenter anxiety study. *Compr Psychiatry*. 1995;36(4):303-311.
 5. Sanderson WC, DiNardo PA, Rapee RM, Barlow DH. Syndrome comorbidity in patients diagnosed with DSM-III-R anxiety disorder. *J Abnorm Psychol*. 1990;99(3):308-312.
 6. Kessler RC, Chiu WT, Jin R, Ruscio AM, Shear K, Walters EE. Panic disorder and agoraphobia in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2006;63:415-424.
 7. Thyer BA, Himle J, Curtis GC, Cameron OG, Nesse RM. A comparison of panic disorder and agoraphobia with panic attacks. *Compr Psychiatry*. 1985;26(2):208-214.
 8. Thyer BA, Himle J. Temporal relationship between panic attack onset and phobic avoidance in agoraphobia. *Behav Res Ther*. 1985;23(5):607-608.
 9. Armed Forces Health Surveillance Center. Editorial: signature scars of a long war. *MSMR*. 2012;19(6):2-4.
 10. Armed Forces Health Surveillance Center. Mental disorders and mental health problems, active component, U.S. Armed Forces, 2000-2011. *MSMR*. 2012;19(6):11-17.
 11. Armed Forces Health Surveillance Center. Summary of mental disorder hospitalizations, active and reserve components, U.S. Armed Forces, 2000-2012. *MSMR*. 2013;20(7):12-15.
 12. Armed Forces Health Surveillance Center. Absolute and relative morbidity burdens attributable to various illnesses and injuries, U.S. Armed Forces, 2012. *MSMR*. 2013;20(4):5-10.
 13. Seal KH, Bertenthal D, Miner CR, et al. Bringing the war back home: mental health disorders among 103 788 US veterans returning from Iraq and Afghanistan seen at Department of Veterans Affairs facilities. *Arch Intern Med*. 2007;167(5):476-482.
 14. Armed Force Health Surveillance Center. Insomnia, active component, U.S. Armed Forces, January 2000- December 2009. *MSMR*. 2010;17(5):4-11.
 15. The Mayo Clinic. Anxiety. Found at: <http://www.mayoclinic.com/health/anxiety/DS01187/DSECTION=symptoms>. Accessed on: 23 July 2013.
 16. Maier W, Buller R, Sonntag A, Heuser I. Subtypes of panic attacks and ICD-9 classification. *Eur Arch Psychiatr Neurol Sci*. 1986;235:361-366.
 17. Lawrence AE, Brown TA. Differentiating generalized anxiety disorder from anxiety disorder not otherwise specified. *J Nerv Ment Dis*. 2009;197:879-886.
 18. Angst J, Gamma A, Bienvenu OJ, et al. Varying temporal criteria for generalized anxiety disorder: Prevalence and clinical characteristics in a young cohort. *Psychol Med*. 2006;36(9):1238-1292.
 19. Kessler RC, Brandenbrug N, Lane M, et al. Rethinking the duration requirement for generalized anxiety disorder: evidence from the National Comorbidity Survey Replication. *Psychol Med*. 2005;35:1073-1082.
 20. Ruscio AM, Chiu WT, Roy-Byrne P, et al. Broadening the definition of generalized anxiety disorder: effects on prevalence and associations with other disorders in the National Comorbidity Survey Replication. *J Anxiety Disord*. 21:662-676.