

Elevated Risk for Autoimmune Disorders in Iraq and Afghanistan Veterans with Posttraumatic Stress Disorder

Supplemental Information

Table S1. Stratified sample characteristics for males and females

Characteristic	Women					Men				
	Total <i>n</i>	No Psychiatric Disorder <i>n</i> (%)	Other Psychiatric Disorders <i>n</i> (%)	PTSD <i>n</i> (%)	<i>p</i> value	Total <i>n</i>	No Psychiatric Disorder <i>n</i> (%)	Other Psychiatric Disorder <i>n</i> (%)	PTSD <i>n</i> (%)	<i>p</i> value
Characteristic	79,365	40,141 (50.6)	19,310 (24.3)	19,905 (25.1)	<.001	586,913	292,658 (49.9)	110,394 (18.8)	183,861 (31.3)	<.001
Age: Mean (SD) ^a	30.2 (8.2)	30.5 (8.4)	29.7 (7.9)	30.1 (8.1)	<.001	31.4 (8.7)	32.4 (9.0)	31.0 (8.6)	29.9 (8.0)	<.001
Age Group ^a										
18-24	23,699	11,616 (28.9)	5,999 (31.1)	6,084 (30.6)	<.001	163,037	72,460 (24.8)	31,848 (28.8)	58,729 (31.9)	<.001
25-34	34,682	17,370 (43.3)	8,704 (45.1)	8,608 (43.2)	<.001	229,061	106,916 (36.5)	44,649 (40.4)	77,496 (42.1)	<.001
35-44	14,550	7,584 (18.9)	3,237 (16.8)	3,729 (18.7)	<.001	134,554	76,472 (26.1)	23,265 (21.1)	34,817 (18.9)	<.001
45-54	6,425	3,571 (8.9)	1,370 (7.1)	1,484 (7.5)	<.001	60,261	36,810 (12.6)	10,632 (9.6)	12,819 (7.0)	<.001
Race/Ethnicity										
White	30,955	15,346 (38.2)	7,774 (40.3)	7,835 (39.4)	<.001	295,146	143,003 (48.9)	57,167 (51.8)	94,976 (51.7)	<.001
Non-White	48,401	24,795 (61.8)	11,536 (59.7)	12,070 (60.6)	<.001	291,767	149,655 (51.1)	53,227 (48.2)	88,885 (48.3)	<.001
Marital Status										
Married	26,901	13,682 (34.1)	6,262 (32.5)	6,957 (35.0)	<.001	266,874	139,800 (47.8)	46,619 (42.3)	80,455 (43.8)	<.001
Never Married	45,434	23,214 (57.9)	11,334 (58.8)	10,886 (54.8)	<.001	296,434	141,384 (48.3)	59,149 (53.6)	95,901 (52.2)	<.001
Divorced/Widowed/Other	6,942	3,213 (8.0)	1,689 (8.8)	2,040 (10.3)	<.001	23,269	11,281 (3.9)	4,560 (4.1)	7,428 (4.0)	<.001
Military Rank										
Enlisted	71,729	35,086 (87.4)	17,969 (93.1)	18,674 (93.8)	<.001	538,917	257,523 (88.0)	104,087 (94.3)	177,307 (96.4)	<.001
Other	7,627	5,055 (12.6)	1,341 (6.9)	1,231 (6.2)	<.001	47,996	35,135 (12.0)	6,307 (5.7)	6,554 (3.6)	<.001
Active Duty or Reserve										
Active Duty	45,095	23,139 (57.6)	11,112 (57.5)	10,844 (54.5)	<.001	326,247	160,904 (55.0)	59,253 (53.7)	106,090 (57.7)	<.001
Reserve/National Guard	34,261	17,002 (49.6)	8,198 (42.5)	9,061 (45.5)	<.001	260,666	131,754 (45.0)	51,141 (46.3)	77,771 (42.3)	<.001

	Women					Men				
	Total <i>n</i>	No Psychiatric Disorder <i>n</i> (%)	Other Psychiatric Disorders <i>n</i> (%)	PTSD <i>n</i> (%)	<i>p</i> value	Total <i>n</i>	No Psychiatric Disorder <i>n</i> (%)	Other Psychiatric Disorder <i>n</i> (%)	PTSD <i>n</i> (%)	<i>p</i> value
Military Branch										
Army	49,135	22,527 (56.1)	11,617 (60.2)	14,991 (75.3)	<.001	358,735	159,660 (54.6)	66,549 (60.3)	132,526 (72.1)	<.001
Air Force	14,104	8,763 (21.8)	3,307 (17.1)	2,034 (10.2)	<.001	65,080	46,424 (15.9)	11,182 (10.1)	7,474 (4.1)	<.001
Marines	3,184	1,571 (3.9)	748 (3.9)	865 (4.3)	<.001	88,744	40,175 (13.7)	15,233 (13.8)	33,336 (18.1)	<.001
Navy	12,933	7,280 (18.1)	3,638 (18.8)	2,015 (10.1)	<.001	74,354	46,399 (15.9)	17,430 (15.8)	10,525 (5.7)	<.001
Multiple Deployments	25,704	13,158 (32.8)	5,898 (30.6)	6,648 (33.4)	<.001	240,129	119,397 (40.8)	42,344 (38.4)	78,388 (42.7)	<.001
Urban	47,788	23,457 (67.1)	11,958 (67.1)	12,373 (66.2)	<.001	322,358	156,980 (61.3)	63,068 (62.1)	102,310 (59.3)	<.001
Primary Care Visits: M (SD) ^b	2.0 (2.3)	1.4 (1.7)	2.5 (2.3)	2.9 (2.8)	<.001	1.6 (1.9)	1.1 (1.3)	1.9 (2.2)	2.2 (2.4)	<.001
Mental Health Visits: M (SD) ^b	2.3 (8.3)	0.1 (0.7)	2.3 (6.0)	6.9 (14.5)	<.001	2.6 (9.6)	0.1 (0.5)	2.4 (7.9)	6.6 (15.1)	<.001
Military Sexual Trauma ^c	10,481	1,257 (3.1)	2,537 (13.1)	6,687 (33.6)	<.001	3,169	291 (0.1)	650 (0.6)	2,228 (1.2)	<.001
Psychiatric Diagnoses										
PTSD	19,905			19,905 (100.0)	<.001	183,861			183,861 (100.0)	<.001
Depression	26,851		11,848 (61.4)	15,003 (75.4)	<.001	157,258		45,465 (41.2)	111,793 (60.8)	<.001
Anxiety Disorder	17,149		7,797 (40.4)	9,352 (47.0)	<.001	106,670		36,835 (33.4)	69,835 (38.0)	<.001
Adjustment Disorder	13,674		7,109 (36.8)	6,565 (33.0)	<.001	96,952		40,407 (36.6)	56,545 (30.8)	<.001
Psychosis	946		292 (1.5)	654 (3.3)	<.001	8,624		2,085 (1.9)	6,539 (3.6)	<.001
Alcohol Use Disorder	5,234		1,715 (8.9)	3,519 (17.7)	<.001	80,848		24,198 (21.9)	56,650 (30.8)	<.001
Substance Use Disorder	2,678		811 (4.2)	1,867 (9.4)	<.001	38,692		9,571 (8.7)	29,121 (15.8)	<.001
Comorbid Psychiatric Dx: M (SD) ^d	1.7 (1.0)		1.5 (0.9)	1.9 (2.0)	<.001	1.7 (1.2)		1.4 (1.0)	1.8 (1.3)	<.001

Dxs, disorders; M, mean; *n*, number of participants; PTSD, posttraumatic stress disorder; SD, standard deviation.

^a Age refers to age at initial VA appointment.

^b Visits refer to mean annual number of primary care or mental health visits.

^c Military sexual trauma exposure is based on VA clinical encounters coded for military sexual trauma.

^d Refers to number of psychiatric diagnoses excluding PTSD. Total column reflects either 39,215 women or 294,255 men with one or more psychiatric diagnosis.

Table S2. *International Classification of Diseases, Ninth Revision Clinical Modification (ICD-9-CM) codes used to identify and categorize targeted autoimmune disorders*

Autoimmune Disorder	ICD-9-CM Subgroup	ICD-9-CM Codes
Thyroiditis (aggregate)	Graves	2420.0, .1
	Hypothyroidism	244.8, .9
	Thyroiditis	245.0, .1, .2, .3,
Inflammatory Bowel Diseases	Crohn's Disease	555.0, .1, .2, .9
	Ulcerative Colitis	556.0, .1, .2, .3, .4, .5, .6, .8, .9
Multiple Sclerosis	Multiple Sclerosis	340
Rheumatoid Arthritis	Rheumatoid Arthritis	714.0, .1, .2, .4, .81
Lupus Erythematosus	Lupus Erythematosus	695.4
	Systemic Lupus Erythematosus	710.0