

Co-Occurring Disorders Among Returning Veterans

Andrew J. Saxon, M.D.
 VA Puget Sound Health Care System
 Department of Psychiatry
 & Behavioral Sciences,
 University of Washington

Veterans and Co-occurring Disorders

- Co-occurring disorders with focus on PTSD
- Vietnam Veterans: Relationship between PTSD and substance use disorders
- Iraq/Afghanistan Veterans: Same issues with window to intervene
- Patient vignettes
- Thoughts about treatment

Co-occurring Disorder: Posttraumatic Stress Disorder (PTSD)

- Civil War: “Nostalgia”
- World War I: “Shell Shock”
- World War II: “Combat fatigue”
- Vietnam, Persian Gulf, Afghanistan, Iraq: “PTSD”

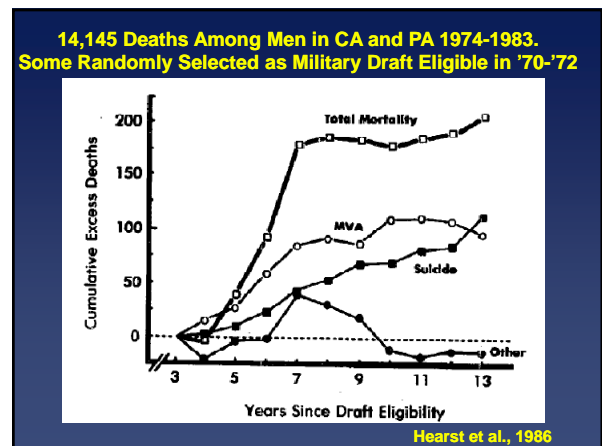
PTSD

- An event that involved actual or threatened death or serious injury; person's response involved intense fear, helplessness, or horror and
 - Re-experiencing the trauma
 - Avoidance of the trauma and numbing of responsiveness
 - Symptoms of increased arousal

Diseases in Union Civil War Veterans

- From roll books at National Archives, 303 companies of Union recruits randomly selected
- Total 35,730 military files located
- 15,027 linked to pension records and lived until 1890
 - 5.79% GI ailments only
 - 18.0% Cardiac ailments only
 - 17.4% GI and cardiac ailments
 - 5.1% Mental ailments only
 - 38.8% Co-occurring mental and physical ailments
- Younger age at enlistment and higher number killed in company related to development of disease and mortality
- Among those who did not live until 1890 and had death certificates (8623) average age of demise=37.1

Pizarro et al., 2006




Relationship of Vietnam Service to Psychiatric Disorders Men

%	Prevalence of PTSD			
	HWZ Stress (n=406)	LWZ Stress (n=783)	Era Vets (n=412)	Civilians (n=450)
Depression	11.1	3.1	4.1	1.5
Alcohol Abuse/Dep	45.6	37.2	37.9	27.1
Drug Abuse/Dep	8.4	4.9	6.0	3.4

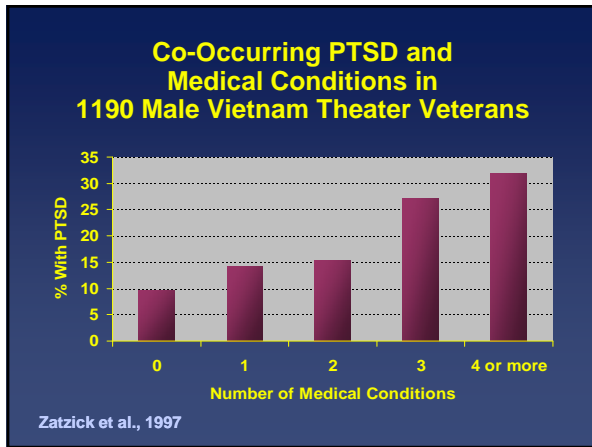
Jordan et al., 1991

Co-Occurring PTSD and Other Disorders in 1190 Male Vietnam Theater Veterans

%	Prevalence of PTSD		
	With Disorder	Without Disorder	OR
Depression	73.6	13.6	17.6
Alcohol Abuse/Dep	32.6	13.3	3.2
Drug Abuse/Dep	56.0	14.6	7.4



Zatzick et al., 1997




Relationship of Vietnam Service to Psychiatric Disorders Women

%	Prevalence of PTSD			
	HWZ Stress (n=170)	LWZ Stress (n=262)	Era Vets (n=304)	Civilians (n=218)
Depression	22.3	5.8	6.6	5.1
Alcohol Abuse/Dep	10.6	8.2	4.6	1.5
Drug Abuse/Dep	2.5	0.0	0.6	0.9

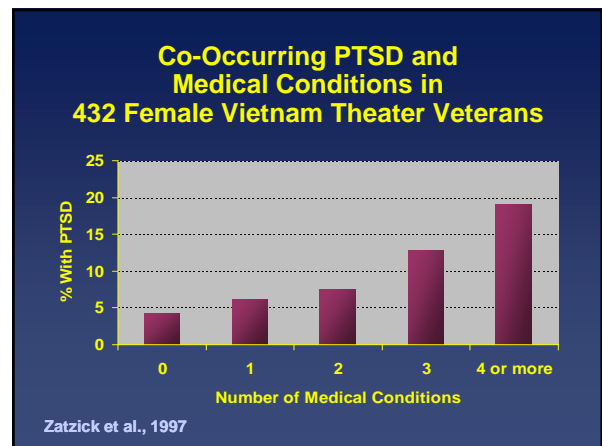
Jordan et al., 1991

Co-Occurring PTSD and Other Disorders in 432 Female Vietnam Theater Veterans

%	Prevalence of PTSD		
	With Disorder	Without Disorder	p
Depression	51.4	7.1	<0.005
Alcohol Abuse/Dep	40.7	8.2	.086
Panic Disorder	70.1	7.9	0.03




Zatzick et al., 1997

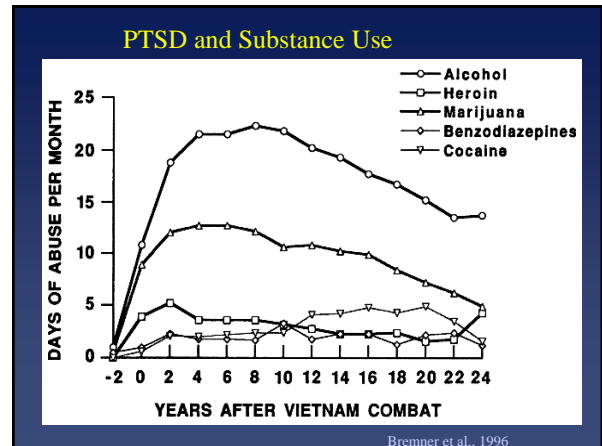


PTSD and Substance Use

- 61 Vietnam Combat Veterans with PTSD
 - Admitted for inpt. Tx.
 - Mean age 45.4 yrs.
 - Extensive interviews about longitudinal course of illness
 - Free from substance use minimum 30 days



Bremner et al., 1996




PTSD and Substance Use

Self Reports of Effects of Substances in
 Combat Related PTSD

	ETOH	MJ	Heroin	Benzo	Cocaine
Intrusive	+	0	+	0	0
Hyperarousal	+	+	+	+	-
Avoidance	0	0	0	0	0

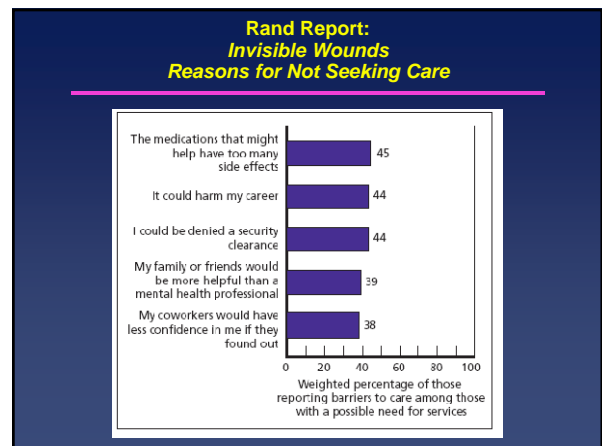
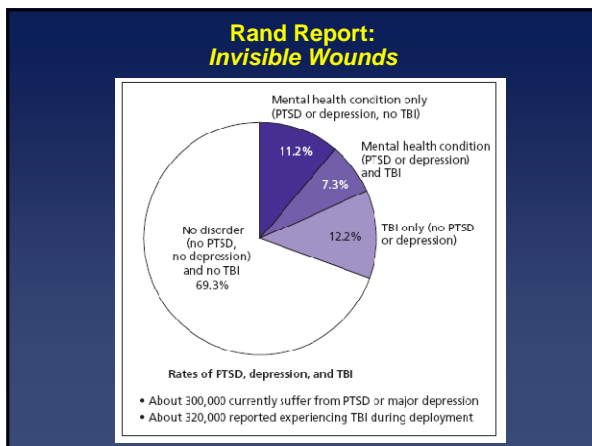
+ = Helps - = Worsens 0 = No effect

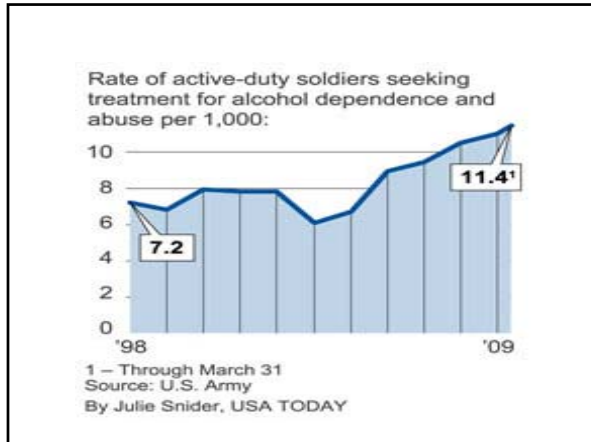


Bremner et al., 1996

Rand Report: Invisible Wounds Mental Health and Cognitive Care Needs of America's Returning Veterans April 2008

- 1.64 million U.S. troops deployed to Iraq and Afghanistan
- Random digit dialing reached a sample of 1,965 assessed for:
 - PTSD
 - Depression
 - Traumatic brain injury (TBI)



Frequency of Possible Diagnoses Among OEF and OIF Veterans

(n = 400,304)

Diagnosis (Broad ICD-9 Categories)	Frequency *	%
Infectious and Parasitic Diseases (001-139)	49,272	12.3
Malignant Neoplasms (140-208)	3,988	1.0
Benign Neoplasms (210-239)	17,274	4.3
Diseases of Endocrine/Nutritional/ Metabolic Systems (240-279)	93,028	23.2
Diseases of Blood and Blood Forming Organs (280-289)	9,677	2.4
Mental Disorders (290-319)	176,463	44.6
Diseases of Nervous System/ Sense Organs (320-389)	146,611	36.6
Diseases of Circulatory System (390-459)	69,295	17.1
Disease of Respiratory System (460-519)	83,771	20.9
Disease of Digestive System (520-579)	129,656	32.4
Diseases of Genitourinary System (580-629)	44,812	11.2
Diseases of Skin (680-709)	67,384	16.8
Diseases of Musculoskeletal System/Connective System (710-739)	197,078	49.2
Symptoms, Signs and Ill Defined Conditions (780-799)	167,959	42.0
Injury/Poisonings (800-999)	92,023	23.0

*These are cumulative data since FY 2002, with data on hospitalizations and outpatient visits as of September 30, 2008; veterans can have multiple diagnoses with each healthcare encounter. A veteran is counted only once in any single diagnostic category but can be counted in multiple categories, so the above numbers add up to greater than 400,304.

Cumulative thru 4th Quarter FY2008 20

Frequency of Possible Mental Disorders Among OEF/OIF Veterans since 2002*

Disease Category (ICD 290-319 code)	Total Number of GWOT Veterans*
PTSD (ICD-9CM 309.81)+	92,998
Depressive Disorders (311)	63,009
Neurotic Disorders (300)	50,569
Affective Psychoses (296)	35,937
Nondependent Abuse of Drugs (ICD 305)++	27,246
Alcohol Dependence Syndrome (303)	16,217
Special Symptoms, Not Elsewhere Classified (307)	9,755
Sexual Deviations and Disorders (302)	8,696
Specific Nonpsychotic Mental Disorder due to Organic Brain Damage (310)	8,057
Drug Dependence (304)	7,412

* Note – These are cumulative data since FY 2002. ICD diagnoses used in these analyses are obtained from computerized administrative data. Although diagnoses are made by trained healthcare providers, up to one-third of coded diagnoses may not be confirmed when initially coded because the diagnosis is provisional, pending further evaluation.

** A total of 178,483 unique patients received a diagnosis of a possible mental disorder. A veteran may have more than one mental disorder diagnosis and each diagnosis is entered separately in this table; therefore, the total number above will be higher than 178,483.

++ This row of data does not include information on PTSD from VA's Vet Centers or data from veterans not enrolled for VHA health care. Also, this row does not include veterans who did not receive a diagnosis of PTSD (ICD 309.81) but had a diagnosis of adjustment reaction (ICD-9 309).

+++ This category currently excludes 48,737 veterans who have a diagnosis of tobacco use disorder (ICD-9CM 305.1) and no other ICD-9CM 305 diagnoses.

Cumulative thru 4th Quarter FY2008 21

Neurocognitive Outcomes following Iraq Deployment

- Neurocognitive assessments prior to and post deployment in 654 Army soldiers
- Similar baseline and subsequent assessments in 307 non-deployed soldiers
- Deployment associated with
 - Worse performance in:
 - » Sustained attention
 - » Verbal learning
 - » Visuo-Spatial memory
 - More:
 - » Confusion
 - » Tension
 - Better:
 - » Reaction time

Vasterling et al., 2006



Veterans Presenting to 86 Outpatient PTSD Programs 4/1/04 to 12/31/06

	Iraq/Af.	Gulf War	Vietnam
N	6523	2376	20,170
Mean Age	32.29	41.15	58.44
Female	11%	10%	0
Received Fire	95%	84%	96%
PTSD Dx	79%	84%	91%
ETOH Abuse/Dep	20%	25%	29%
Drug Abuse/Dep	6%	13%	13%

Fontana & Rosenheck, unpublished manuscript


4/1/04 to 12/31/06 Cohort of Iraq/Afghanistan Veterans Presenting to 86 Outpatient PTSD Programs Compared to Veterans Presenting from 2/1/92 to 10/31/94 in 105 Outpatient PTSD Programs

	Iraq/Af.	Gulf War	Vietnam
N	6523	1045	17,094
Mean Age	32.29	32.26	46.26
Female	11%	12%	0
Received Fire	95%	74%	97%
PTSD Dx	79%	55%	80%
ETOH Abuse/Dep	20%	34%	54%
Drug Abuse/Dep	6%	16%	30%

Fontana & Rosenheck, unpublished manuscript

Close-up on Women Vets

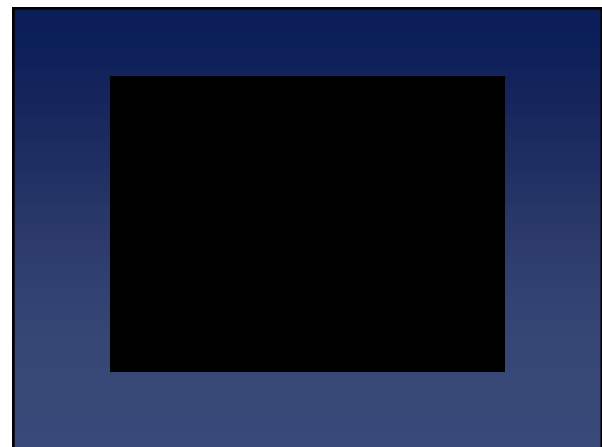
- 7.5% of veterans now; 10% by 2010
- 15% of active duty military
- 20% of new military recruits, >24% USAF
- 17% of National Guard and reservists
- 12% of those deployed in Iraq/Afghanistan
- Increased exposure to combat



Military Sexual Trauma*

- 27% of men have experienced military sexual trauma
- 60% of women have experienced military sexual trauma
- 3.5% of men have experienced military sexual assault
- 23% of women have experienced military sexual assault
- 1.2% of men have experienced rape
- 11% of women have experienced rape
- 1% of men seeking care at VA facilities have experienced sexual trauma
- 20% of women seeking care at VA facilities have experienced sexual trauma

* Data sources: Department of Defense: [2006 Annual Report on Military Services Sexual Assault](#) [pdf]
 Department of Veterans Affairs, "Military Sexual Trauma Among The Reserve Components Of The Armed Forces"



Evidence-Based Psychotherapy

- Exposure Therapy
 - Imaginal and en vivo exposure, EMDR (eye movement desensitization and processing)
- Cognitive therapy and cognitive processing therapy
- Anxiety/Symptom Management
- Supportive Therapy
- Psychodynamic Therapy

Pharmacotherapy of PTSD

- Sertraline and Paroxetine (SSRIs) only FDA approved agents
- Tricyclic antidepressants, monoamine oxidase inhibitors and other antidepressants appear to benefit some patients
- Atypical antipsychotics may also have some usefulness
- Prazosin beneficial for nightmares
- Benzodiazepines controversial in patients with co-occurring substance dependence

Veterans and Co-occurring Disorders

- Veterans need PTSD and SUD treatment
 - Intervention now could reduce adverse lifelong impact of SUDs on newly returning veterans with PTSD
 - Integrated treatment of PTSD and SUDs shows promise
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