

The Relationship Between Concurrent PTSD & Suicidality in Middle Age: A Cohort Study of Vietnam Veterans



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Background

➤ Studies have explored various causes of death for different cohorts of veterans, with limited evidence for elevated rates of death due to suicide as opposed to accidents. While studies in clinical samples have found increased rates of suicide among Vietnam veterans with Post Traumatic Stress disorder (PTSD), the controversy about the relationship between suicide/suicidality and PTSD among community samples of veterans is still largely unresolved.

➤ The purpose of this study is to investigate the relationship between the symptoms of PTSD and suicidality. Using data from Vietnam veterans and a comparison group cohort (VES, 1972; baseline total N=1226), we will examine the predictors of suicidality assessed in the middle years of the cohort (VES-IV, 2006; N=418) and assess whether PTSD has an independent effect on a recent suicidality episode after controlling for other covariates.

Study Aim

- Are PTSD symptoms in Vietnam veterans independently related to a recent suicidality episode (e.g., thoughts, lifetime attempts, and ideation past 6 months) in midlife after controlling for demographics, military history, substance use, psychiatric problems, and coping?

Methods

➤ Washington University Vietnam Era (VES) samples:

➤ 4 waves of data was collected on a cohort of nonclinical community dwelling Vietnam veterans & comparison civilians in 1972, 1974 (PI: Robins) & in 1996-7 (VES-III), 2002-6 (VES-IV; PI: Price):

➤ Data at each wave included a focus on: VES-I & II: drug use & addiction before, during & after deployment; VES-III: general mental health, drug & alcohol use/abuse, PTSD, depression, etc. at 25 year follow up; VES-IV: coping strategies dealing with suicidality and PTSD.

➤ Measures:

➤ From 1972 survey: race (African American or not), age in 1971, enlistment status derived from military records (enlisted or draftee).

➤ From 1972 survey, but augmented by 1996 data: education level (high school diploma or not) and marital status (ever married or married at least once).

➤ From 1996 survey: Adult antisocial personality symptoms (0-7).

➤ From 2002 survey: alcohol use (7+ drinks/day, 7+ drinks/day for a week), drug use (number endorsed of stimulants, sedatives, cannabis, cocaine, opiates, others), PTSD symptom severity from 1996 to present (0-17), depression scale from 1996 to present (0-8 which excludes suicide item from scale), hopelessness scale (0-20), positive coping scale (0-48), and negative coping scale (0-36).

➤ Outcomes assessed at 2002 survey: suicidal thoughts (since 1996), suicidal attempts (lifetime), recent suicidal ideation (past 6 months).

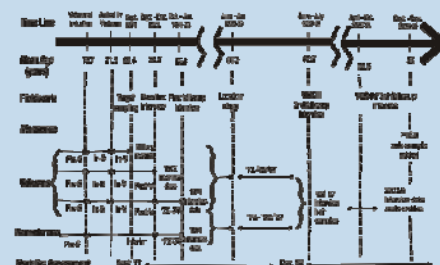
➤ Analysis: Logistic regression.

TABLE 1: Demographic characteristics for Washington University Vietnam Era Study (VES- IV) sample (N=418)

Demographics		M	SD
Age in 1971	Range 19 – 49 years	23.27	3.01
Race		N	%
	Other	337	80.62
Education in 1996		N	%
	High school diploma	342	81.82
Marital status in 1996		N	%
	Married at least once	383	91.63
Enlistment status		N	%
	Enlisted	243	59.41
	Drafted	166	40.59

Note: Sample sizes may vary due to missing data.

FIGURE 1: Washington University Vietnam Era Study (VES): 1971-2006¹



1. Washington University Vietnam Era Study: study design and measures to date. Pre-S (Pre-service), In-S (In-service), In-V (In-Vietnam), and Post-V (Post-Vietnam) up to the 1972 interview. At VES-III, annual measures were assessed retrospectively for the 1972 to 1996/7 period; at VES-IV, some annual measures were extended to the interview time (2002-6).

Results

TABLE 2: Predictors of suicidal thoughts, lifetime suicide attempts, and suicide ideation past 6 months among Vietnam Era Veterans (VES-IV, N=418).

	Suicidal Thoughts (Since 1996) N=86				Suicide Attempt Lifetime N=27				Suicide Ideation (Past 6 months) N=27			
	OR	lower	upper	P	OR	lower	upper	P	OR	lower	upper	P
Assessed in 1972: Enlisted	3.18	1.63	6.18	0.01	2.19	0.66	7.29	0.20	1.01	0.37	2.77	0.98
Assessed in 1972; Augmented by 1996-1997: Age in 1971	0.94	0.83	1.07	0.37	0.97	0.76	1.24	0.82	1.01	0.82	1.25	0.90
Caucasian	1.40	0.70	2.80	0.34	0.90	0.29	2.85	0.86	1.01	0.34	3.03	0.98
Assessed in 1996-1997: Ever married as of 1996	1.04	0.40	2.69	0.94	2.47	0.73	8.32	0.15	3.19	1.03	9.85	0.04
High school education as of 1996	0.70	0.36	1.37	0.29	0.72	0.27	1.94	0.52	0.54	0.21	1.40	0.20
Adult antisocial personality	1.35	1.16	1.59	0.00	1.05	0.82	1.34	0.71	1.09	0.85	1.40	0.48
Assessed in 2002-2006: PTSD symptom severity	1.10	1.02	1.18	0.01	1.16	1.01	1.34	0.04	1.05	0.92	1.19	0.48
Alcohol use	0.89	0.56	1.42	0.63	0.71	0.33	1.53	0.38	0.52	0.23	1.16	0.11
Drug use	0.92	0.70	1.21	0.53	1.40	0.96	2.05	0.08	1.43	0.99	2.07	0.05
Depression scale	0.99	0.85	1.15	0.89	1.12	0.87	1.44	0.39	1.20	0.93	1.53	0.16
Hopelessness scale	1.01	0.89	1.15	0.84	1.17	0.96	1.44	0.13	1.18	0.96	1.46	0.11
Positive coping scale	1.00	0.96	1.04	0.91	1.01	0.96	1.07	0.62	0.97	0.91	1.02	0.21
Negative coping scale	1.04	0.99	1.10	0.15	1.01	0.93	1.11	0.76	1.00	0.92	1.09	0.97

Note: Significant beta and p value (p<=.05) are bolded. OR for scales is per increase of scale; OR for symptoms is per symptom.

Discussion

- Findings from the VES-III data (Price, et al., 2004) indicated that 15.7% (N=671) of the cohort interviewed in 1996-1997 reported a history of non-fatal suicidality. Although preliminary, VES-IV data suggests that current PTSD symptoms are a significant predictor for suicidal thoughts and suicide attempts for Vietnam veterans.
- In the current study, PTSD symptom severity were predictive of suicidal thoughts and a lifetime history of a suicide attempt, after controlling for other covariates. However, PTSD was not significant for recent suicide ideation assessed in the past 6 months from the 2002-2006 interview date.
- Volunteering for military service during the Vietnam Era and adult antisocial personality was predictive of suicidal thoughts at midlife; ever married were predictive of recent suicidal ideation.
- Alcohol use, depression, hopelessness and coping were not significant; therefore, further work is needed to identify other predictors that may indicate a heightened risk for suicidal thoughts and behaviors among this cohort of aging veterans.
- Increasing effort to reduce PTSD symptoms may be useful for community-based suicide prevention efforts targeting aging veterans.

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