

Supplementary Table 2 PTSD and Heart/Cardiovascular Disease

<u>Cardiovascular Disease Positive Findings</u>				
Study	N, Gender, and Mean Age	PTSD Diagnostic & Assessment Methods	Description	Findings
Lauterbach et al. 2005 (50)	National Comorbidity Survey +PTSD: 429 -PTSD: 5448 Gender: Full sample = 50% women + PTSD = 68.4% women Mean (SD) age years: Full sample 33.2 (10.7) + PTSD = 33.6 (9.8)	Modified version of the DSM-III-R PTSD module from the Diagnostic Interview Schedule (DIS)	Retrospective self-report. Primary outcome = self-report from checklist of medical disorders over preceding year	+ PTSD ↑ 12 of 14 physical disorders, including HTN and cardiac disorders. ulcer, as well as any health problem
Sawchuk et al. 2005 (61)	People from Northern Plains tribe: 1414 +Lifetime PTSD: 208 -PTSD: 1206 Gender: + PTSD = 69% women - PTSD = 48% women Mean (95% CI) Age years: + PTSD = 37 (36-38) - PTSD = 34 (34-34)	DSM-IV criteria for PTSD using World Health Organization Composite International Diagnostic Interview	Data from American Indian Service Utilization Psychiatric Epidemiology Risk and Protective Factors Project (AI-SUPERPPF) Primary outcome: Self-reported CVD	12% + PTSD had CVD versus 5% - PTSD (p <.01) After adjusting for age, sex, and education, + PTSD OR for CVD = 2.4 (95% CI 1.4–4.1). Adjusting for age, sex, and education, and CVD risk factors (diabetes, high blood pressure, smoking history, and a lifetime alcohol abuse/ Dependence) diagnosis + PTSD OR for CVD = 2.0 (95%CI 1.1–3.8)

Kang et al. 2006 (55)	<p>WW II POWs: 19,442 +PTSD/+POW: 3,254 -PTSD/+POW: 16,188 +PTSD/-POW: 133 -PTSD/-POW: 9,595</p> <p>Gender: All men</p> <p>Mean age years in 1991: POWs = 70.2 (SD not provided) Non-POW = 69.9 (SD not provided)</p>	PTSD diagnoses determined by record review	Retrospective follow-up of healthcare utilization (1991-2000). Primary outcome: six ICD-9 categories	<p>+PTSD/+POW versus +PTSD/ PTSD no significant differences in any CVD</p> <p>+PTSD/+POW versus – PTSD/-POW ↑ HTN (OR, 1.26; 95% CI, 1.16–1.37), and CIHD (OR, 1.13; 95% CI, 1.04–1.22)</p> <p>+PTSD/+POW versus – PTSD/+POW ↑ HTN (OR 1.25; 95% CI, 1.16–1.35), and CIHD (OR 1.19; 95% CI, 1.11–1.29)</p>
Spiro et al. 2006 (58)	<p>2262 male Veterans in Veterans Health Study +PTSD = 456 -PTSD 1455 MDD: 351</p> <p>Mean age years” +PTSD: 56 -PTSD: 64 MDD: 61</p> <p>(SDs not provided)</p>	DSM-IV criteria were applied using information from the PTSD Checklist for Civilians (PCL-C), Traumatic Stress Scale, and the Combat Scale	Cross-sectional self-report Primary outcomes: Health status: SF-36 22 self-reported conditions or symptoms from the comorbidity index	<p>PTSD reported an average of 7.1 comorbid medical conditions compared to 4.5 among those with neither PTSD or depression (p<.001)</p> <p>ORs (adjusted for age and depression) were significant (OR CI > 1.0) for angina, CHF, dermatitis, prostatitis, and stroke, but not for BP, diabetes, or enlarged prostate</p>
Sledjeski et al. 2008 (62)	<p>Individuals from the National Comorbidity Survey-Replication (NCS-R): 5366</p> <p>+PTSD: 574 +trauma/-PTSD: 4054</p>	Lifetime diagnosis via World Mental Health Survey Initiative Version of the World Health Organization Composite International Diagnostic Interview (WMH-CIDI).	Cross-sectional retrospective report Primary outcomes: 15 self-reported medical conditions	+ PTSD highest risk arthritis/ rheumatism, back/neck pain, headaches, chronic pain, heart disease , and ulcers; those -trauma had the lowest rates

	<p>-trauma: 738</p> <p>Gender : +PTSD = 75.0% women +trauma/-PTSD = 49.3% women - trauma = 59.1% women</p> <p>3108 (52.8 weighted %) females and 2258 (47.2 weighted %) males</p> <p>Mean (SD) age years: +PTSD = 41.8 (0.8) +trauma/-PTSD = 45.2 (0.5) -trauma = 42.7 (1.1)</p>			of chronic medical conditions, and traumatized individuals without PTSD fell in-between
Spitzer et al. 2009 (63)	<p>Community German adults: 3171</p> <p>+PTSD: 62 +trauma/-PTSD: 1669 -trauma/-PTSD: 1440</p> <p>Gender: +PTSD = 67.7% women +trauma/-PTSD = 50.1% women - trauma = 53.6% women</p> <p>Mean (SD) age years: +PTSD = 55.2 (16.6) +trauma/-PTSD = 57.3 (15.7) - trauma = 1651 women (52.1%) and 1520 men (47.9%); mean age of 53.7 (15.1) years = 49.6 (13.2)</p>	DSM-IV criteria per SCID PTSD Module	Cross sectional/retrospective report Primary outcome: self-reported medical history as well as physical examination (for BP and BMI)	For + PTSD significant ORs included ↑ angina (OR 2.4), heart failure (OR 3.4), and peripheral artery disease (OR 2.5)
Glaesmer et al. 2011 (52)	<p>Population sample of Germans ages 60-85 years old</p> <p>+PTSD: 67</p>	PTSD diagnosed with Part 3 of the Posttraumatic Diagnostic Scale (PTDS) per DSM-IV criteria	Cross-sectional design. Primary outcome: Physical morbidity - #	+ PTSD ↑ risk “some” medical conditions relative to those – PTSD, including cardiovascular diseases,

	<p>+trauma/-PTSD: 423 - trauma: 966</p> <p>Gender: +PTSD = 53.7% women +trauma/-PTSD = 52.7% women - trauma = 52.2 % women</p> <p>Age: + PTSD or + trauma/- PTSD significantly older than – trauma (means not provided)</p>		and severity of 21 common chronic conditions, plus an open category assessed via self-report questionnaire	and cardiovascular risk factors (HTN and cholesterol) – ORs ranged from 1.94 for peripheral vascular disease to 3.76 for elevated cholesterol
Pietrzak et al. 2012 (21)	<p>Adults aged > 60 years in Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC): 9463</p> <p>Full PTSD: 469 Partial PTSD:545 Trauma exposed/-PTSD: 7519</p> <p>Gender: Full PTSD = 69.7% women Partial PTSD = 65.7% women Trauma exposed/PTSD = 53.2 % women</p> <p>Mean ages not provided, but all participants > age 60 years</p>	<p>Lifetime PTSD diagnosis via NIAAA Wave 2 Alcohol Use Disorder and Associated Disabilities Interview Schedule-DSM-IV CVersion (AUDADIS-IV)</p>	<p>Study design: part of a longitudinal study but present analyses based on assessment of PTSD at Wave 2 and retrospective report of health for prior year.</p> <p>Primary outcome: self-report of past year dx any of 17 medical conditions</p>	<p>After adjustment for demographics and psychiatric comorbidity, full PTSD was associated with ↑ HTN, angina pectoris, tachycardia, other heart disease, stomach ulcer, gastritis, and arthritis (ORs=1.3 to 1.8). Partial PTSD was associated with increased odds of gastritis (OR=1.7), angina pectoris (OR=1.5), and arthritis (OR=1.4).</p>
Vaccarino et al. 2013 (64)	<p>Vietnam Era Twin Registry born between 1946 and 1956 with no baseline history of CHD: 562 (281 twin pairs)</p> <p>+PTSD: 137 -PTSD: 425</p>	<p>PTSD diagnosed in 1992 via DIS per DSM-III-R criteria (for 19 pairs DIS missing, so imputed based on MSC-PTSD score > 80)</p> <p>15-item PTSD symptom scale also obtained in 1987</p>	<p>Prospective follow-up with median of 13-years.</p> <p>Primary outcome: CHD, other cardiovascular measures</p>	<p>69 twins developed CHD during follow-up; incidence of CHD 22.6% in twins with PTSD vs. 8.9% in those without PTSD (p <05)</p>

	Gender: All men Mean (SD) age years: +PTSD = 42.5 (2.4) -PTSD = 42.7 (2.4)			
Turner et al. 2013 (65)	VA patients +PTSD: 433 -PTSD: 230 Mean (SD) age years: +PTSD: 58.2 (10.3) -PTSD: 58.0 (11.6) Gender (% women): +PTSD: 10.4% -PTSD: 3.2%	CAPS using DSM-IV criteria	Cross sectional study Primary outcome: Ischemia on exercise treadmill test	Obesity: +PTSD = 42.6% -PTSD = 31.2% (p = .003) Ischemia: unadjusted OR: 1.93 (95% CI 1.21- 3.08; p =.006). Ischemia adjusted for age, sex, prior CVD OR = 2.07 (95% CI 1.27-3.36; p = .003).

Cardiovascular Disease Negative Findings

Study	N, Gender, and Mean Age	PTSD Diagnostic & Assessment Methods	Description	Findings
Dobie et al. 2004 (59)	VA patients completing mail survey: 1206 +PTSD in past month: 266 -PTSD: 940 Gender: All women Mean (SD) age years: +PTSD = 42 (11) -PTSD = 47 (15)	PTSD Checklist–Civilian Version (PCL-C)	Cross-sectional design Primary outcomes: self-reported medical history and health behaviors via Women’s Health Survey	+PTSD ↑ reported higher rates of a range of disorders), but not myocardial infarction or CAD: + PTSD = 4.7%; - PTSD = 5.1% (OR = 1.76; 0.86-3.60) . HTN was also non-significant + PTSD = 28.0% - PTSD = 29.1% (OR = 1.24 ; 95% CI 0.90-1.71)).

Cardiovascular Disease Mixed Findings

Study	N, Gender, and Mean Age	PTSD Diagnostic & Assessment Methods	Description	Findings
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<p>Walczewska et al. 2011 (60)</p>	<p>+PTSD: 80 -PTSD: 70</p> <p>Inclusion criteria for PTSD group: (1) born 1928 – 1941, (2) deportation to Siberia, (3) minimum duration deportation 5 yrs, (4) +PTSD</p> <p>HC group born in same era, and gender matched but: (1) no traumatic history, (2) no PTSD</p> <p>Gender: +PTSD = 50.0% women - PTSD = 50.0% women</p> <p>Mean (SD) Age years: + PTSD = 69.3 (5.9) - PTSD = 70.8 (4.9)</p>	<p>PTSD diagnosis established by direct interview verified using DSM-IV criteria</p> <p>Classified as mild, moderate, or severe</p>	<p>Cross-sectional design.</p> <p>Primary outcome: health status and cardiovascular risk. Detailed social, medical, and lifestyle history taken via patient report and chart review</p>	<p>+ PTSD significantly ↑ CAD, diabetes; as well as SBP, DBP, fasting blood glucose, total cholesterol, LDL, and triglycerides</p> <p><i>HTN and CVD, more prevalent in + PTSD, but not reach statistical significance</i></p>
<p>Crum-Cianflone et al. (66)</p>	<p>60,025 participants in the Millennium Cohort Study.</p> <p>+PTSD: 3,331 - PTSD: 56,694</p> <p>Gender: +PTSD 34.4%, -PTSD 23.4% women</p> <p>Mean age at baseline 34.4 years (SD not specified)</p>	<p>PTSD determined as participants reporting moderate or higher level of at least 1 intrusion, 3 avoidance, and 2 hyperarousal symptoms, with a PCL-C score of ≥50.</p>	<p>Longitudinal survey data.</p> <p>Primary outcome: Newly reported CHD</p>	<p>+ PTSD associated ↑ CHD in age, sex, and race adjusted model (OR, 2.25; 95% CI 1.49–3.39). However, when adjusted for anxiety and depression, + PTSD no longer associated with new onset CHD (adjusted OR, 1.27; 95% CI, 0.76–2.12)</p>