

Overview of Post-Traumatic Stress Disorder & the Older Adult

Education for
Health Care Professionals

Part 1: What is Post-Traumatic Stress Disorder?



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Post-Traumatic Stress Disorder (PTSD)

- Post-Traumatic Stress Disorder (PTSD) is a mental illness that is triggered by a single or multiple traumatic events such as a life threatening accident, war, natural disaster, assault or ongoing abuse. ([CMHA, 2017](#); [National Center for PTSD, 2018](#))
- Given the accumulation of exposure to traumatic events over their lifespan, older adults are the most vulnerable population for developing PTSD. ([Bryant et al., 2013](#))
- Exposure to traumatic events does not induce the development of PTSD in all people.
- Bryant et al. (2013) states that “PTSD is rarely a stand-alone diagnosis. It is most commonly diagnosed with "comorbid" conditions—those that are naturally related to the experience of PTSD, such as depression and substance abuse.”

([Bryant et al., 2013](#); [Canadian Mental Health Association \[CMHA\], 2017](#); [National Center for PTSD, 2018b](#))



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A Video Case Study & Brief Introduction



(Anxiety Disorders Manitoba, 2013)



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Post-Traumatic Stress Disorder (PTSD) DSM-5 Criteria

- **Criterion A - STRESSOR** (1 required)
- **Criterion B - INTRUSION SYMPTOMS** (1 required)
- **Criterion C - AVOIDANCE** (1 required)
- **Criterion D - NEGATIVE CHANGES IN COGNITION & MOOD** (2 required)
- **Criterion E - CHANGES IN AROUSAL AND REACTIVITY** (2 required)
- **Criterion F - DURATION** (required)
- **Criterion G - FUNCTIONAL SIGNIFICANCE** (required)
- **Criterion H - ATTRIBUTION** (required)

AND

- **Dissociative Specification**
- **Delayed Specification**

(U.S. Department of Veterans Affairs, 2018; Canadian Psychological Association, 2015; [Counselista, 2018](#))

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PTSD in Older Adults



- Common experiences of aging (i.e., reduced income or changes in identify related to retirement, widowhood, cognitive decline, etc.) can trigger pre-existing trauma resulting in PTSD in later life. ([Bryant et al., 2013](#))
- A significant number of older patients develop PTSD symptoms after receiving a catastrophic medical diagnoses or treatment and this is often underdiagnosed due to a lack of awareness that health problems can lead to PTSD symptoms. ([Move & Rouse, 2014](#))
- PTSD is a consequence of an injurious fall in a substantial minority of older adults. ([Chung et al., 2009](#))

([Bryant et al., 2013](#); [Chung et al., 2009](#); [Move & Rouse, 2014](#))



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Estimated Prevalence of PTSD

- In 2008, Van Ameringen et al. (2008) estimated the lifetime prevalence of PTSD in Canada to be at a rate of 9.2%. In their epidemiological study, they found that 76.1% of respondents had experienced at least one traumatic event in their lives that was significant enough to cause PTSD.
- Cook et al. (2017) estimates the prevalence among older adults to be 4.5%
- The Canadian Longitudinal Study on Aging (CLSA) findings suggest that PTSD prevalence decreases with age among English speaking women ([Raina et al., 2018, p. 156](#))
- Statistics Canada (2015) states that the estimated lifetime prevalence is 8% and that women are more likely to develop PTSD than men.
- Kilpatrick et al. (2013) argue the need for assessments to capture the complexity of multiple trauma exposures.

([Cook, McCarthy, & Thorp, 2017](#); [Kilpatrick et al., 2013](#); [Raina, Wolfson, & Kirkland, 2018](#); [Statistics Canada, 2015](#); [Van Ameringen, Mancini, Patterson, & Boyle, 2008](#);))

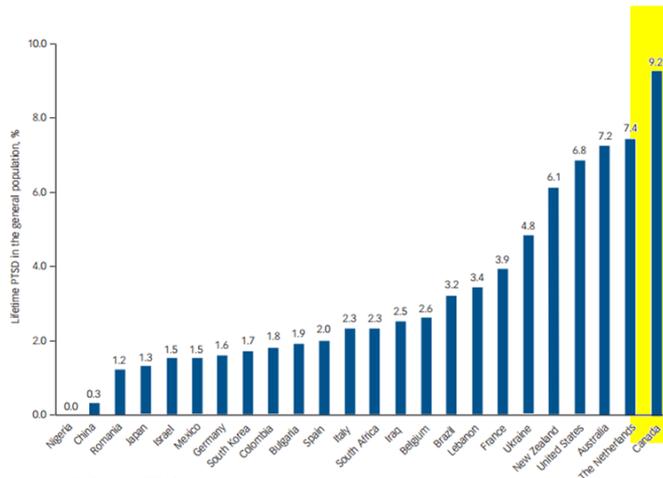


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Canada in Comparison to Other Countries

Lifetime PTSD prevalence in 24 countries (%, n=86 687), 2016



(Dückers, Alisic, & Brewin, 2016)

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Trauma, PTSD & Comorbidities >>

Prevalence of common medical conditions in older adults by traumatic experience and PTSD in Germany and USA.

Variable	No Trauma %		Trauma %		PTSD %	
	Germany	US	Germany	US	Germany	US
Hypertension	41.5	-	53.2	49.5	78.8	58.6
Osteoarthritis	28.5	-	43.0	45.1	53.0	60.6
Digestive problems	9.6	-	16.5	9.7*	33.3	23.1*
Diabetes mellitus	14.5	-	25.1	17.2	31.8	21.6
Angina pectoris / Coronary artery disease	4.8	-	15.2	7.41†	30.3	14.3†

* Sum of prevalence of gastritis, and stomach ulcer in the trauma group = 7.3% and 2.4%; gastritis and stomach ulcer in PTSD group = 16.9% and 6.2% respectively
 † prevalence of angina pectoris, excluding coronary artery disease

Adapted from: Appendix to: Kuwert P, Pietrzak RH, Glaesmer H. Trauma and post-traumatic stress disorder in older adults. CMAJ 2013. DOI:10.1503/cmaj.120866. Copyright © 2013 Canadian Medical Association or its licensors.

(Kuwert et al., 2013)

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Trauma, PTSD & Comorbidities

The findings of Kuwert et al. (2013) suggest the increased prevalence of the following medical conditions averaged Germany & US as shown in the chart below:

Variable	↑ From No Trauma to Trauma	↑ From Trauma to PTSD	↑ From No Trauma To PTSD
Hypertension	9.85%	17.35%	27.2%
Osteoarthritis	15.55%	12.75%	28.3%
Digestive problems	3.5%	15.1%	18.6%
Diabetes mellitus	6.65%	5.55%	12.2%
Angina pectoris / Coronary artery disease	6.5%	11%	17.5%

Depression, dementia, anxiety disorders, substance use disorders are also common comorbidities with PTSD. (Lohr et al., 2015)

(Kuwert et al., 2013; Lohr et al., 2015)



Consequences of PTSD

Physiological

“(O)lder adults with chronic PTSD were three times more likely to have any disability (e.g., self-care, mobility, cognition) than were those with no PTSD.” (Cook et al., 2017)

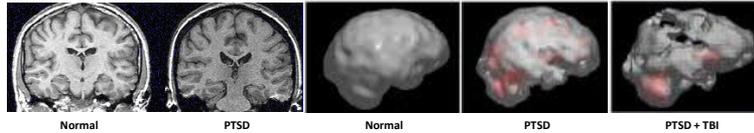
- Accelerated aging – premature development of physical health problems (Boks et al., 2015; Lohr et al., 2015; Miller & Sadeh, 2014; Wolf, 2016)
- Sleep disturbances including insomnia, fragmented and frequent nightmares (van Liempt, 2012)
- Increased comorbidities
- Increased risk of developing dementia
 - longitudinal studies have found that veterans with PTSD had more than double the risk of developing dementia than those without PTSD (Yaffee et al., 2010)

(Boks et al., 2015; Lohr et al., 2015; Meyer & Schuyler, 2014; Miller & Sadeh, 2014; Qureshi et al., 2010; van Liempt, 2012; Wolf, 2016; Yaffee et al., 2010)



Consequences of PTSD

Neurobiological



- **HPA-AXIS** function changes ([Cooper et al., 2017](#); [Meeuwis, 2012](#))
- Accelerated cortical thinning resulting in cognitive reductions ([Fiell, et al., 2014](#))
- Lindemer et al. (2013) stated that there is a clear relationship between the severity of PTSD and the negative effect on the thickness of both the middle temporal gyri and the postcentral gyri. They also believe that there is a compounded negative effect on cortical thickness when the individual has chronic PTSD and **mTBI**. Their findings suggest the importance of considering trauma's cumulative effects over the lifetime. ([Lindemer et al., 2013](#))

([Cooper, Bonert, Moser, Mirocha, & Melmed, 2017](#); [Fiell, et al., 2014](#); [Lindemer, Salat, Leritz, McGlinchey, & Milberg, 2013](#); [Meeuwis, 2012](#))

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Consequences of PTSD

Psycho-social



- Social isolation
- Reduced quality of life
- Increased mental health issues, addictions, and suicidal behaviours ([Pietrzak et al., 2012](#))
- Interpersonal relationships are often negatively affected due to weakened trust, difficulty communicating, regulating emotions and making decisions ([Bellamy & Hardy, 2015](#))
 - Higher rates of divorce ([Price & Stevens, 2017](#))
- Increased risk of being incarcerated ([Corrections Forum, 2013](#); [Jaggi et al., 2016](#); [Ruglass et al., 2016](#))

([Bellamy & Hardy, 2015](#); [Corrections Forum, 2013](#); [Jaggi, Mezuk, Watkins, & Jackson, 2016](#); [Lindemer et al., 2013](#); [Pietrzak et al., 2012](#); [Price & Stevens, 2017](#); [Ruglass et al., 2016](#))

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Consequences of PTSD

Socio-economic



- Impaired physical health and cognition negatively impacts function
 - chronic pain occurs at a high rate among those with PTSD
 - **“Older adults with PTSD generally perform more poorly across a range of cognitive measures, particularly processing speed, learning, memory, and executive functioning as compared to older adults without PTSD”** ([Cook et al., 2017](#))
- Difficulty maintaining employment
 - There is a strong relationship in combat related trauma and unemployment ([Marshall, 2005](#))

([Cook et al., 2017](#); [Lindemer et al., 2013](#); [Marshall, 2005](#))

Long-term Effects of Childhood Trauma



“Traumatic events of the earliest years of infancy and childhood are not lost but, like a child’s footprints in wet cement, are often preserved life-long. Time does not heal the wounds that occur in those earliest years; time conceals them. They are not lost; they are embodied.”

[Vincent J. Felitti](#)

([Felitti, 2010](#); [Lanius et al., 2010](#))