Suicide Risk Among Active and Retired Canadian Soldiers: The Role of Posttraumatic Stress Disorder

This In Review features a primer by Dr Jitender Sareen[1] on PTSD and some of its most well-established risk and resilience factors. As noted by Dr Sareen, there is increasing evidence that PTSD is associated with suicidal risk. The second paper in this In Review is a systematic review by Dr Nicola T Fear and colleagues (see Hines et al[2]) on the PTSD rates observed in various armies of the world following deployment to Iraq and Afghanistan. As this issue of *The Canadian Journal of Psychiatry* is being prepared, the last members of the CAF have recently returned from Afghanistan. Several suicides by returnees from Afghanistan have been made public and reports have been echoed by the media; as a result, suicidality among the CAF's active and retired members has once again become a source of concern for all Canadians.

According to the most recent report from the DFHP,

> *between 1995 and 2012, there were no statistically significant increases in suicide rates [in the Canadian Forces]. The number of Regular Force male suicides was generally lower than that expected based on Canadian male suicide rates. SMRs comparing CF [Canadian Forces] suicide rates by deployment history to Canadian suicide rates demonstrated that the number of Regular Force male suicides was consistently less than that expected based on Canadian male suicide rates. Rate ratios indicated that those with a history of deployment were not at an increased risk of suicide compared to those who have never been deployed.*[3, p 3]

Stating that military deployment, per se, does not increase the risk of suicide appears to contradict recent published evidence from the United States[4,5] as well as results from the CCHS 1.2–CFS. The CCHS 1.2–CFS is a unique cross-sectional survey in the field of psychiatric epidemiology in that it is perhaps the first to have been carried out on a representative sample (N = 8841) of active members from a national army.[6] One of its goals was to provide accurate rates of mental disorders, notably PTSD and suicidality, found within the ranks of the CAF to be disclosed, not only to the CAF themselves but also to Canadians at large. In this data set, during their lifetime, 15.4% of the CAF members report some suicidal ideations, and 2.3% report having made at least 1 suicide attempt. Although SMRs stemming from these data are perhaps not at odds with comparable civilian data covering a similar period in Canada,[7] according to the figures presented in Table 1, suicide ideations and attempts are multiplied by 4.8 and 4.7, respectively, among CAF members who report a diagnosis of PTSD at some point in their lives. The data pertaining to past-year prevalence reveal an even more pronounced pattern: the odds of reporting suicide ideations or attempts in the past year are multiplied by 11.5 and 31.6, respectively, among PTSD casualties. Although most people who report suicidal ideations do not attempt or die by suicide, in a recent study concerning a large military sample, 38.5% of ideators developed a plan and 34% of ideators with a plan made an attempt on their own life within the following year.[4]

Table 1

Suicidality in the Canadian Armed Forces according to the CCHS 1.2–CFS Survey

	Lifetime prevalence					
	Ideations			Attempts		

Variable	%	95% CI	AOR	%	95% CI	AOR
All subjects (*N* = 8441)	15.4	14.5–16.3		2.3	2.0–2.7	
Lifetime PTSD status						
No (*n* = 7873)	13.4	12.5–14.3	1.0	1.9	1.6–2.3	1.0
Yes (*n* = 568)	42.5	38.0–47.0	4.8	8.4	5.9–10.9	4.7
Deployment-related PTSD						
No (*n* = 8012)	14.9	13.9–15.8	1.0	2.3	1.9–2.6	1.0
Yes (*n* = 429)	24.7	20.2–29.2	1.9	3.5	1.6–5.4	ns
	Past-year prevalence					
	Ideations			Attempts		
	%	95% CI	AOR	%	95% CI	AOR
All subjects (*N* = 8441)	3.8	3.4–4.3		0.2	0.1–0.3	
Lifetime PTSD status						
No (*n* = 7873)	3.2	2.8–3.7	1.0	0.1	0.1–0.2	1.0
Yes (*n* = 568)	27.7	20.3–35.1	11.5	4.3	1.2–7.3	31.6
Deployment-related PTSD						
No (*n* = 8012)	3.5	3.0–3.9	1.0	0.2	0.1–0.3	5.1
Yes (*n* = 429)	9.4	6.3–12.6	2.9	0.0		1.0

Adjusted and weighted data, bootstrapped. All AORs are significant at $P < 0.05$ or more, unless stated otherwise.

AOR = adjusted odds ratio; CCHS 1.2–CFS = Canadian Community Health Survey: mental health and well-being—Canadian Forces Supplement; ns = nonsignificant; PTSD = posttraumatic stress disorder

Note in Table 1, comparing CAF members whose PTSD is deployment-related to the rest of the sample (that is, those who are either PTSD-free

or whose PTSD is not deployment-related) yields weaker and (or) inconsistent findings that seem, at first sight, to support, in part, the DFHP assertions that deployment does not increase suicidality. However, these figures cannot be taken at face value. It is not always understood that the CCHS 1.2–CFS sample does not include members who, year after year, leave the CAF (or are being dismissed) precisely because of deployment-related mental health problems.

People who develop mental health problems while employed by the CAF are dismissed from the CAF after about 2 years, if they remain unfit to be deployed. This workplace policy creates a rosy picture of the mental health in the CAF. It comes as no surprise that several people who died by suicide were former CAF personnel. This notion is supported by a mortality analysis of 2800 former CAF personnel, which reveals higher likelihoods of death by suicide by more than 2-fold in excess of their general population cohort for most age groups.[8]

Despite its flaws, what the data from Table 1 demonstrate unequivocally is that PTSD increases suicidality, irrespective of whether the PTSD was developed as part of a military deployment or otherwise. The claim by the DFHP that deployment is not suicidogenic misses the point that military deployment is traumatogenic, and that PTSD is suicidogenic. It is time to call a spade a spade and acknowledge what the real societal cost of military deployment entails in Canada and elsewhere.

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