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## THE LINKAGE BETWEEN ADVERSE CHILDHOOD EXPERIENCES AND PTSD: IMPLICATIONS FOR THE CANADIAN ARMED FORCES

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**JCSP 45**

**Service Paper**

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CANADIAN FORCES COLLEGE – COLLÈGE DES FORCES CANADIENNES

JCSP 45 – PCEMI 45

2018 – 2019

DS545 COMPONENT CAPABILITIES/ DS545 CAPACITÉS DES COMPOSANTES

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By Lieutenant-Commander K.M.A. Turcotte

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Word Count: 1947

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Nombre de mots : 1947

# **THE LINKAGE BETWEEN ADVERSE CHILDHOOD EXPERIENCES AND PTSD: IMPLICATIONS FOR THE CANADIAN ARMED FORCES**

## **AIM**

1. This service paper highlights the problem of a higher prevalence of adverse childhood experiences (ACEs) in members of the Canadian Armed Forces (CAF) in comparison with the Canadian general population (CGP). In addition to the higher potential of exposure to trauma in military operations, ACEs are a risk factor for developing PTSD in the CAF. The important impact of ACEs on long term health outcomes have only recently come to light and interventions aimed at reducing this impact on adults are in their infancy. As such, this paper proposes learning from the approaches Indigenous communities have taken to address ACEs in their communities. This paper is intended for the Chief of Military personnel; it recommends the consideration of these approaches in combination with an ACE trauma specific framework when making changes to new or existing mental health programs in the CAF.

## **INTRODUCTION**

2. CAF members have access to mental health services that far exceed what is offered to the Canadian population.<sup>1</sup> In addition, prevention strategies have been built into the CAF health system since the early 2000s with the introduction of the Rx 2000 Mental Health Strengthening initiative, including the resiliency building Road to Mental Readiness (R2MR) program in 2007.<sup>2</sup> These improvements in mental health services were confirmed in the 2012 CAF Ombudsman's

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<sup>1</sup> Mark Zamorski, Rachel E. Bennett, David Boulos, Bryan G. Garber, Rakesh Jetly, and Jitender Sareen, "The 2013 Canadian Forces Mental Health Survey: Background and Methods." *The Canadian Journal of Psychiatry* (SAGE Journals) 61 (Supplement I) (2016): 10S.

<sup>2</sup> Zamorski, Bennet, Boulos, Garber, Jetly, and Sareern, "The 2013 Canadian Forces Mental Health Survey," 11S.

Review, with statements that the mental health system “is far superior to that which existed in 2002”.<sup>3</sup> Continued quality improvement through research, education and clinical and rehabilitative services was emphasized in the release of the both the Surgeon General’s Mental Health (2014)<sup>4</sup> and Integrated Health (2017)<sup>5</sup> strategies. Moreover, these two strategies were reinforced through long term funding commitment to total health and wellness, resiliency and transition in Strong, Secure, Engaged, - Canada’s Defence Policy (2017)<sup>6</sup>.

3. Despite these improvements, we continue to support a population that has “higher rates of certain mental disorders [including PTSD] relative to the [Canadian] general population”.<sup>7</sup>

Recent studies comparing statistics Canada surveys on CAF mental health with the mental health of the CGP struggle to identify the reason for the excess burden of mental health disorders in the CAF. Other than exposure to trauma during the Afghanistan years, Rusu *et al* were, able to extract two factors that contribute to an increased prevalence of mental health disorders: socio-demographic composition and the history of childhood trauma in the CAF population<sup>8</sup>. One of the risks of developing PTSD, other than having a job that increases your risk of being exposed to traumatic events, is having experienced other trauma earlier in life, such as childhood abuse.<sup>9</sup>

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<sup>3</sup> J.J.-R Bernier, *Surgeon General's Mental Health Strategy*. (Ottawa: Her Majesty the Queen in Right of Canada, 2014), 8.

<sup>4</sup> Ibid, 26.

<sup>5</sup> MacKay, H.C. 2017. *Surgeon General's Integrated Health Strategy*. (Ottawa: Her Majesty the Queen in Right of Canada, 2016), 19.

<sup>6</sup> Government of Canada. 2017. *Strong, Secure, Engaged - Canada's Defence Policy*. (Ottawa: Her Majesty the Queen in Right of Canada, 2017), .

<sup>7</sup> Corneliu Rusu, Mark A. Zamorski, David Boulos, and Bryan G. Garber. "Prevalence Comparison of Past-year Mental Disorders and Suicidal Behaviours in the Canadian Armed Forces and the Canadian General Population." *The Canadian Journal of Psychiatry* 61 (Supplement 1) (2016): 48S.

<sup>8</sup> Ibid, 50S.

Note: Child abuse and Socio Demographics are the only factors that were measured. There may be other factors that have yet to be researched.

<sup>9</sup> Mayo Clinic. *Patient Care and Health Information - Diseases and Conditions - Post-Traumatic Stress Disorder (PTSD)*. Last modied July 6, 2016, <https://www.mayoclinic.org/diseases-conditions/post-traumatic-stress-disorder/symptoms-causes/syc-20355967>.

The survey comparison showed a significantly higher rate of CAF personnel in comparison with the CGP that have been exposed to domestic violence (18.3% vs. 14.7%) and physical abuse (61.3% vs. 43.4%). The higher prevalence of both domestic violence and physical abuse in the CAF relative to the general population is indicative of a larger problem justifying a public health focus on addressing childhood trauma in the greater CAF.

4. With the aim of reducing cases of PTSD in the CAF, this paper will explore programing targeted at building resiliency in communities that have experienced higher than normal rates of childhood trauma. Proposed program interventions are not meant to detract from already established resiliency programing in the CAF; they are meant to complement or enhance these programs.

## **DISCUSSION**

5. While the majority of CAF members are healthy, there is an “important minority” of individuals who have mental health problems that require treatment.<sup>10</sup> In order to build resiliency and reduce the incidence of PTSD, the CAF must first recognize that statements such as the following are actually wrong: “the perception that those selected for military service represent a disproportionately healthy segment of the population, given the rigorous screening and selection procedures in place”.<sup>11</sup>

6. Studies in Canada, Australia, New Zealand, the United Kingdom and the United States demonstrate that military service is attractive to individuals who are at increased risk of developing mental health disorders at a young age, in part due to higher rates of exposure to

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<sup>10</sup> Zamorski *et al*, 19S.

<sup>11</sup> Rusu *et al*, 53S.

child abuse and domestic violence relative to the general populations in those countries.<sup>12</sup> The CAF is not only dealing with the cumulative effects of combat operations in Afghanistan, it is also dealing with a population that has a higher than normal prevalence of Adverse Childhood Experiences (ACEs).

7. ACEs are defined by the World Health Organization as “some of the most intensive and frequently occurring sources of stress that children may suffer early in life. Such experiences include multiple types of abuse; neglect; violence between parents or caregivers; other kinds of serious household dysfunction such as alcohol and substance abuse; and peer, community and collective violence.”<sup>13</sup>

8. The above-mentioned prevalence of exposure to domestic violence and child abuse in the CAF falls squarely into the definition of ACEs. ACEs are predictors of PTSD, which is further compounded by the increased likelihood of being exposed to trauma in military operations<sup>14</sup>.

9. Public health approaches to preventing major disease often focus on identifying the major risk factor and attempting to reduce it. This approach has been demonstrated through large scale prevention strategies targeting smokers in order to reduce the risk of cancer.<sup>15</sup> Likewise, “taking action on adverse childhood experiences may be our best chance of emulating the success of public health action to prevent chronic physical diseases and thereby reduce the large global burden of mental disorders.”<sup>16</sup>

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<sup>12</sup> Zamorski *et al*, 53S.

<sup>13</sup> World Health Organization. 2018. "Violence and Injury Prevention - Adverse Childhood Experiences International Questionnaire (ACE-IQ)." [https://www.who.int/violence\\_injury\\_prevention/violence/activities/adverse\\_childhood\\_experiences/en/](https://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/en/).

<sup>14</sup> Mayo Clinic. *Patient Care and Health Information - Diseases and Conditions - Post-Traumatic Stress Disorder (PTSD)*. Last modied July 6, 2016, <https://www.mayoclinic.org/diseases-conditions/post-traumatic-stress-disorder/symptoms-causes/syc-20355967>.

<sup>15</sup> Anthony F. Jorm and Roger T. Mulder. "Prevention of mental disorders requires action on adverse childhood experiences." *Australia & New Zealand Journal of Psychiatry* (The Royal Australian and New Zealand College of Psychiatrists: 2018) 52 (4), 316.

<sup>16</sup> Jorm *et al*, 318.

10. The chronic disease implications of ACEs have only recently become known; therefore, the importance of prevention strategies are only starting to be recognized by governments and decision makers.<sup>17</sup> Recent public health research is focused on preventing ACEs before they emerge in children. However, there is almost no research on mitigating the effects of ACEs in adults, whether in a military or non-military context. And while resiliency building and prevention initiatives in the CAF to date have focused on the expected exposure of members to trauma in military operations, these interventions have not taken into sufficient account the impact of higher rates of exposure to domestic violence and child abuse (ACEs) in the CAF.

### **Best Practices in addressing ACEs**

11. Interventions specifically designed to reduce the effects of ACEs in adults are in their infancy. However, the initial evidence suggests that employing a trauma informed approach to the development of programs and services “aid the healing and recovery of victims/survivors of trauma”.<sup>18</sup> Trauma-informed approaches understand the form of trauma and its effects on individuals and communities and thereby create safer working environments by employing staff with a better understanding of the cultures they are supporting. These approaches also actively involve individuals and cultures in the governance, design and evaluation of programs.<sup>19</sup>

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<sup>17</sup> World Health Organization. 2009. "Addressing Childhood Experiences to Improve Public Health: Expert Consultation." Meeting Report. Accessed October 2018.  
[https://www.who.int/violence\\_injury\\_prevention/violence/activities/adverse\\_childhood\\_experiences/global\\_research\\_network\\_may\\_2009.pdf?ua=1](https://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/global_research_network_may_2009.pdf?ua=1).

<sup>18</sup> Judy Atkinson, *Closing the Gap: Trauma-informed services and trauma-specific care for Indigenous Australian children*. (Australian Institute of Health and Welfare; 2013), 1.

<sup>19</sup> *Ibid*, 2.



12. Today, it is well accepted best practice in health care organizations to partner with patients and their families in all institutional initiatives.<sup>20</sup> By extension, ACE-informed interventions should include members and their families and be informed by the distinct military practices and norms.

13. The most evident attempts to address this problem have occurred within historically marginalized communities that have suffered high rates of intergenerational ACEs, such as Indigenous communities in Canada, the United States, Australia and New Zealand. The CAF should acquire a better understanding of the lessons learned in these communities and adapt this knowledge to the needs of the our culturally distinct military populations.

### **Canadian Indigenous Communities Approaches**

14. In particular, much can be learned from our recent Canadian experience with truth and reconciliation following years of Indigenous trauma associated with colonial rule and residential schooling. Indigenous communities have implemented several initiatives aimed at healing and working “towards a stronger and healthier future”.<sup>21</sup> Initiatives involve the entire community (especially elders) and are framed around traditional healing and cultural practices and include stories, ceremonies, workshops, and ongoing research.<sup>22</sup>

15. The final report of the Truth and Reconciliation Commission of Canada affirms that a ‘one size fits all’ approach will not work because “every Indigenous nation across North America has its own culturally specific laws that are enacted, validated, and enforced through

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<sup>20</sup> Accreditation Canada, "Patient Partner Adds Real Value to Survey Team: Senior Quality Advisor." (*Accreditation Canada*, 2017). Accessed October 2018. <https://accreditation.ca/news/patient-partner-adds-real-value-survey-team-senior-quality-advisor/>.

<sup>21</sup> Government of Canada, "Mandate of the Truth and Reconciliation Commission of Canada." (Winnipeg, 1999) <http://www.trc.ca/websites/trcinstitution/index.php?p=7>.

<sup>22</sup> Government of Canada. *Honouring the Truth Reconciling the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada*. (Winnipeg: Her Majesty the Queen in Right of Canada, 2015).

protocols and ceremonies that are uniquely their own”. As such, the exploration of indigenous trauma healing practices for CAF application are not meant to be prescriptive; they are meant to be examined through the lens of our own distinct CAF ethos and culture.

16. There is an enormous body of research focused on approaches to healing in Indigenous communities. One such study focused on a Northern Ontario Cree community that demonstrates high levels of resiliency despite the history of trauma it has shared with five other nearby Cree communities.<sup>23</sup> Using the ‘medicine wheel’<sup>24</sup> as a framework, the authors drew out the characteristics of resiliency in this community with a goal of revealing new ways of thinking about and studying mental health.<sup>25</sup> They discovered that resiliency in this community was a result of: (1) connection to the land through the physical work involved in the hunting and collection of food as well as physical isolation from other influences; (2) Openness to both Catholic and traditional spiritual practices; (3) community cohesion and mutual support when faced with mental health difficulties; and (4) optimism through a focus on the future.<sup>26</sup>

17. Another study delivered a ‘train-the-trainer’ program to community leaders aimed at increasing awareness of best practices in suicide prevention and wellness in Alaskan indigenous communities.<sup>27</sup> The aim for these leaders to then take this knowledge and deliver it to their own communities. Once again, the program was culturally sensitive and included elders and other key leaders in the communities involved. At the time of the study 20 of the trained trainers had

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<sup>23</sup> David Danto and Russ Walsh. "Mental Health Perceptions and Practices of a Cree Community in Northern Ontario: A Qualitative Study." (*International Journal of Mental Health Addiction*, 2017), 728.

<sup>24</sup> “The medicine wheel describes the separate dimensions of the self– mental, physical, emotional, and spiritual – as equal and as parts of a larger whole. The medicine wheel represents the balance that exists between all things. Traditional Aboriginal healing incorporates the physical, social, psychological, and spiritual being.”  
Ibid, 728.

<sup>25</sup> Ibid, 728.

<sup>26</sup> Ibid, 731-734

<sup>27</sup> Lisa Wexeler, “Promoting Community Conversations About Research to End Suicide: learning and behavioural outcomes of a training-of-trainers model to facilitate grassroots community health education to address Indigenous youth suicide prevention” (*International Journal of Circumpolar Health* 76, 2017), 2.

already delivered the program to 54 communities. The authors received a positive reception from the communities for distributing research findings in an impactful way.<sup>28</sup>

18. These two studies are only meant to shed light on some of the approaches to building resiliency and reducing trauma in Indigenous communities. By applying some of these community centered philosophies along with the best practices discussed above in addressing ACEs, the CAF might be better postured to build resiliency and reduce PTSD in our community.

## **CONCLUSION**

19. As the evidence suggests, ACEs increase the risk of PTSD. Among members of the CAF, there is a higher prevalence of exposure to domestic violence and child abuse before they enter the force thereby reducing resilience which increases the risk of PTSD in response to military operations. Current health programs need to take ACEs into account in refining the delivery of existing programs and services and, in this respect, much can be learned from the experience of Indigenous communities in addressing intergenerational ACEs.

## **RECOMMENDATIONS**

20. The CAF should adapt our current mental health programing using best practices in ACEs prevention. Any changes should be informed by the experiences of other communities that have suffered trauma, such as our Indigenous communities, who are further ahead than CAF in addressing intergenerational trauma among adults.

21. With a trauma-informed approach at the forefront, the extensive suite of programs and services offered by the CAF needs to be informed by the insights of ACE research. In particular,

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<sup>28</sup> Ibid, 7.

CAF health programs need to be informed by the linkage between ACE and PTSD so that factors beyond the onset of trauma as a result of military operations are considered and addressed. In addition, due to the stewardship role the CAF play with respect to the development of healthy military communities, the connection between ACE and intergenerational domestic violence and child abuse – a connection that has been explored in depth by the Canadian Truth and Reconciliation Commission<sup>29</sup> – the research evidence on ACE should be considered in the validation and refinement of military family resource centres services and programs. In the short-term, this will result in more resilient members and healthier families. The longer-term effect will facilitate the prevention of ACEs for future generations.

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<sup>29</sup> Government of Canada. *Honouring the Truth Reconciling the Future: Summary of the Final Report of the Truth and Reconciliation Commission of Canada*. (Winnipeg: Her Majesty the Queen in Right of Canada, 2015).

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