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RESEARCH REPORT

Mental Health Needs of Veterans in the Canadian Correctional System: A Brief Review

2018 N° R-409

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Mental Health Needs of Veterans in the Canadian Correctional System: A Brief Review

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Executive Summary

Key words: *incarcerated veterans, mental health needs, homelessness, intervention strategies*

In 2012, the Correctional Service of Canada (CSC) and Veterans Affairs Canada (VAC) established a memorandum of understanding to support and provide services for veterans incarcerated in the federal correctional system. As part of this agreement, a VAC-CSC working group was formed to identify action items and to establish priority areas that enable both organizations to support offenders throughout incarceration and upon their release and reintegration into the community. Mutually agreed upon research initiatives are also a component of this agreement.

As part of the FY2017-2018 working group action plan, and to aid in improving current efforts to rehabilitate and reintegrate veteran offenders, a literature review on the mental health needs of veteran offenders was undertaken. This review examined information concerning the specific mental health needs of veterans as well as other factors that indirectly impact on mental health, such as homelessness and antisocial behaviors.

Homelessness among veterans is associated with mental health concerns and the potential for increased risk of criminal offending behaviour. Research has shown that addressing the need for housing better supports veterans in addressing their mental health issues and may divert veterans from criminal behaviour or criminal justice system involvement.

Veteran offenders are more likely to be convicted of violent offences than non-veteran offenders, suggesting a link with antisocial behaviour. Research indicated that incarcerated veterans were more likely to display physical manifestations of antisocial tendencies (e.g., smashing things, being manipulative, seeking revenge) and traits (e.g., verbal aggression, sensation seeking, disinhibition). An association between mental health concerns, antisocial behaviour, and the incidence of intimate partner violence and the role of prior trauma (combat history or military sexual trauma) was also explored.

Mental health research for veteran offenders identified the impact of post traumatic stress disorder and the struggle associated with transitioning to civilian life as factors that may increase the risk of incarceration. Veteran offenders often have complex mental health needs that also may impact on community reintegration following incarceration. Coping strategies used by veterans (e.g. substance misuse) may further contribute to criminal offending and incarceration.

An overview of assessment tools and community based interventions for veterans were explored. Veteran courts, in particular, have been identified as a strategy to minimize the potential for re-offending of veteran offenders and allow for a holistic examination of the veteran's offending, mental health issues, and prior military experience.

Mental health services and supports for veteran offenders are necessary, especially due to the interplay of homelessness, antisocial behaviours, and specific mental health diagnoses. Future research areas were identified, particularly for women and Indigenous veteran offenders.

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Introduction

As part of a memorandum of understanding established in 2012 between Veterans Affairs Canada (VAC) and the Correctional Service of Canada (CSC), a working group was formed to 1) build awareness of each other's programs, services, training, and research activities; 2) explore ways to identify individuals with military service at intake/admission to and discharge from CSC; 3) develop a protocol for coordination between VAC and CSC for mutual clients with mental health and other health conditions; 4) develop a collaborative approach to the discharge planning process at an early stage to improve service delivery to eligible veterans being released under community supervision; 5) share information and training sessions for staff development on mental health and related subjects such as suicide prevention/intervention, addictions, etc.; 6) share information and expertise on areas of mutual interest such as partnership building and collaborative care; 7) utilize established networks by CSC to reach out to provincial/territorial correctional institutions to raise awareness of veterans and VAC programs and services; and 8) explore research projects of mutual benefit. The joint working group established a Partnership Action Plan, which is updated annually, to support mutual clients throughout their incarceration and upon their reintegration into the community. As part of this plan, research projects were identified, including a brief review of the literature concerning veterans, crime, and their mental health and social issue needs.

Veterans and the Criminal Justice System

Veterans represent a relatively small, yet meaningful population within the Canadian correctional system. Recent research indicates that approximately 3% of offenders have self-reported Canadian military experience upon admission to a correctional institution (Coté, 2014; Derkzen & Wardrop, 2015; Farrell, Gileno, & Grant, 2009). This is lower than the prevalence of veterans within the United States (U.S.) and United Kingdom (U.K.) correctional justice systems, which yield rates of 4-9% and 9-12%, respectively (Bensimon & Ruddell, 2010). These rates may reflect the differential proportions of veterans in each country, as approximately 7% of Americans and 5-6% of British citizens have served in the military (National Centre for Veterans Analysis and Statistics, 2018; U.K. Ministry of Defence, 2017). In comparison, one in 30, or 3.3%, of Canadians are estimated to have a military background (Thompson, Chiasson & Pedlar,

2008). Thus, the number of veterans in the Canadian correctional system is proportionate to the number of veterans in the general Canadian population.

Research on Canadian veterans involved in the criminal justice system is limited (Coté, 2013, 2014; Derkzen & Wardrop, 2015; Farrell et al., 2009). As a result, the majority of knowledge concerning incarcerated veterans is derived from the U.S. Several studies comparing incarcerated veterans to the general veteran population in the U.S. identify that incarcerated veterans tend to be younger, less educated, unemployed, and more likely to report a mental health problem (Greenberg & Rosenheck, 2009). For example, one study that conducted telephone interviews with veterans revealed that those who were incarcerated had lower levels of education, displayed more antisocial traits, and showed greater impairment across several indicators of health and mental health (Black, Carney, Peloso, & Woolson, 2005). Furthermore, a synthesis of data from the Veterans Affairs Connecticut Healthcare System (1993-1997) and the Connecticut Department of Corrections demonstrated that histories of substance misuse and major depression increased veterans' risk of incarceration (Erickson, Rosenheck, Trestman, Ford, & Desai, 2008). Incarceration among veterans has been associated with younger age, male gender, witnessing parents fighting, a history of previous arrests, substance misuse, and symptoms of post traumatic stress disorder (PTSD; Elbogen, Johnson, Newton, et al., 2012).

In contrast, studies comparing veterans and non-veterans within the U.S. correctional justice system demonstrate that veterans are higher functioning, being more likely to have been married, have a high school education, and to report full-time employment at the time of incarceration (Collins et al., 2008; The Veteran Intervention Project, 2011). In addition, research from Canada, the U.S., and the U.K. demonstrates that in general, veteran offenders tend to be male (Black, et al., 2005; Derkzen & Wardrop, 2015; Elbogen, Johnson, Newton, et al., 2012), older than non-veteran offenders (Bensimon & Ruddell, 2010; Derkzen & Wardrop, 2015; Noonan & Mumola, 2007), and Caucasian (Williams et al., 2010; Greenberg & Rosenheck, 2012). Government data from the U.S. (Noonan & Mumola, 2007) and U.K. (HM Inspectorate of Prisons, 2014) indicate that, compared to non-veteran offenders, veterans were more likely to serve time for a violent offence, have a longer prison sentence, be a first-time offender, and have a shorter criminal record. Within Canada, a recent study conducted by CSC demonstrated that veteran offenders were more likely to be incarcerated for a sexual offence (Derkzen & Wardrop, 2015). Thirty-seven percent of veteran offenders had a current or past sexual offence history, and

14% were repeat sex offenders. In comparison, 13% of federal offenders within CSC custody are sex offenders (Stewart, Nolan, & Rubinfeld, 2016). Similarly, a study investigating criminal justice involved veterans in England and Wales demonstrated that veterans were 15% more likely to be convicted for a sexual offence compared to the general prison population (Bray, O'Malley, Ashcroft, Adedeji, & Spriggs, 2013).

Veterans and non-veterans in the criminal justice system also display several overlapping characteristics. Research has shown that matching veterans and non-veterans on age yields fewer differences in marital status, employment, and education (Collins et al., 2008). In addition, both groups tend to show high rates of mental health problems, substance misuse, and trauma (Wortzel, Binswanger, Anderson, & Alder, 2009). This being said, data from the U.K. indicated that, although incarcerated veterans and non-veterans were equally likely to report substance misuse and mental health problems, veterans were more likely to report depression, suicidal thoughts and feelings, disability, and physical health concerns (HM Inspectorate of Prisons, 2014). Furthermore, Greenberg and Rosenheck (2012) found that incarcerated veterans and non-veterans in the U.S. reported similar levels of mental health and substance misuse problems, yet veterans were more likely to receive a mental health diagnosis in the past year, and to report recent mental health service use. The U.S. Bureau of Justice Statistics revealed that incarcerated veterans and non-veterans reported comparable mental health problems, yet veterans were more likely to report recent mental health service use (Noonan & Mumola, 2007). This may, in part, be attributed to incarcerated veterans' high level of functioning relative to the general prison population (Collins et al., 2008; The Veteran Intervention Project, 2011). Veterans with a higher level of education may more easily access services; particularly those that are veteran-specific. In order to assess this possibility, further research is needed to examine the relationship between veterans' level of functioning and their ability to access services, as well as the availability of post-military services for veterans.

The demanding and often stressful nature of military service may heighten veterans' vulnerability to the development of physical health problems (Schaffer, 2011; Thompson et al., 2014), mental health problems (Boulos & Zamorski, 2013; Kimerling et al., 2010; Maguen et al., 2011), and social problems (i.e. unemployment, homelessness, and family violence; Jones, 2012; Schaffer, 2012). Each of these concerns may, in turn, contribute to veterans' involvement in the criminal justice system (Black, et al., 2005; Blonigen et al., 2016; Elbogen et al., 2010). Notably,

mental health problems, substance misuse, homelessness, and past criminal involvement have been commonly cited as risk factors for incarceration (Coté, 2013). If these needs are left unmet, incarceration may exacerbate the physical, social, and mental health concerns of veterans. For this reason, it is imperative that services intended for veteran offenders are equipped to recognize and manage these diverse yet interrelated needs.

Purpose of the Literature Review

As part of the VAC and CSC Partnership Action Plan, and in order to improve current efforts to rehabilitate and reintegrate veteran offenders, the literature on the mental health needs of veteran offenders was reviewed.¹ This review considers research pertaining to specific mental health concerns experienced by veteran offenders as well as factors that are indirectly related to the mental health of veterans, including homelessness and antisocial behaviours. To conclude, research concerning intervention efforts for veteran offenders will be discussed, including the availability of services, as well as intervention outcomes and effectiveness. In addition, this review will identify gaps in the current literature on the mental health needs of veteran offenders, and will propose future research directions in order to address these shortcomings.

¹ The methodology for the current study consisted of a review of the academic literature as well as government publications, non-government organizations publications, and websites (grey literature). Topics searched included: profiles of incarcerated veterans (prevalence, general characteristics, and challenges faced); crime-related issues (violence, risk, recidivism, reduction in crime, etc.); socio-economic problems (homelessness, poverty, and unemployment); relational problems (intimate partner violence, relationship and family problems); mental health problems (substance use, post-traumatic stress disorder, suicide, etc.); and rehabilitation and integration.

Veterans and Homelessness

Health and mental health problems among veterans may contribute to, or be exacerbated by, homelessness (Bensimon & Ruddell, 2010). Due to the transient and unstable nature of homelessness, it is difficult to determine its prevalence among veterans. A recent review of the literature on homelessness suggests that there is a considerable number of veterans within the homeless populations of the U.S. and the U.K., with rates of 7% and 6%, respectively (Van Til & Campbell, 2013). Unfortunately, relatively few Canadian studies have investigated homelessness among veterans, with no current data available on the prevalence of homeless veterans in Canada. For these reasons, most of what is known about homeless veterans is derived from international, though predominantly American, research. This body of literature proposes that homeless veterans share several similarities with the general homeless population, which is characterized by poor physical and mental health, substance misuse problems, and high mortality rates (Van Til & Campbell, 2013).

In a national study on homelessness among Canadian veterans, Ray and Forchuk (2011) conducted face-to-face interviews with 54 homeless veterans in order to better understand veterans' experiences of homelessness, and the factors that led to it. Several participants in this study indicated that they suffered from isolation and mental health problems that impeded them from re-integrating into the community. In effect, many of them expressed that the transition to civilian life following military service was an overarching challenge, which often led to poor coping strategies such as substance misuse or criminal activity.

Consequently, homeless veterans may have a heightened risk of criminal behaviour and incarceration (McGuire, 2007). Approximately 30% of incarcerated veterans in the U.S. reported a history of homelessness (Tsai, Rosenheck, Kaspro, & McGuire, 2013), compared to 18% of incarcerated individuals without a military background (Greenberg & Rosenheck, 2012). Conversely, criminal behaviour and incarceration have been shown to increase veterans' risk of homelessness (Ray, Haines, & Longo, 2013). Thus, there appears to be a strong link between homelessness and criminal involvement among veterans, although the causal direction of this relationship remains unclear.

Homeless veterans may be particularly prone to committing violent offences (Elbogen, Johnson, Wagner, et al., 2012; Elbogen, Beckman, Butterfield, Swartz, & Swanson, 2008). A

survey of American veterans demonstrated that homelessness was associated with increased odds of engaging in severe violence (Elbogen, Johnson, Wagner, et al., 2012). Recent homelessness was significantly associated with violence among veterans with severe mental illness (Elbogen, et al., 2008). In a study of inmates in Arizona, veterans who were homeless prior to incarceration were disproportionately convicted of a violent offence (Ray, et al., 2013). This relationship was mediated by mental health concerns, such as PTSD, traumatic brain injury (TBI), and substance misuse problems. Thus, the risk of criminal behaviour among homeless veterans may be compounded by mental health problems. A study involving interviews with 188 homeless male veterans in the U.S. revealed that criminal behaviour was positively associated with substance misuse, number of mental health hospitalizations, suicidal thoughts, and depression (Benda, Rodell, & Rodell, 2003). Therefore, homeless veterans with unmet mental health needs may be at a disproportionate risk of criminal behaviour and incarceration.

To address the needs of homeless veterans, focus groups and self-report data from 78 Canadian veterans were used to examine the housing needs of homeless veterans (Forchuk, 2016). Findings demonstrated that participation in housing programs, paired with case management and peer support, was related to a reduced reliance on emergency services and drop-in centres. In addition, the use of community-based health and social services increased among participants, suggesting improved integration and accessibility of support services. Having a better understanding of veterans needs and the risks they may pose if left unaddressed in the community could contribute to early prevention and intervention efforts. Although further research is necessary to truly understand the link between outcomes (homelessness, mental health, and crime), focusing on improved housing and accessibility of appropriate community based health and social services may have the potential to divert veterans from criminal behaviour and more specifically the criminal justice system.

Antisocial Behaviour among Veterans

Previous research demonstrates that veterans are more likely to be convicted of a violent offence compared to non-veteran offenders (Bensimon & Ruddell, 2010; MacManus et al., 2013; Noonan & Mumola, 2007). While some research proposes that criminal behaviour among veterans is a continuation of antisocial behaviour patterns that existed prior to military involvement (Bouffard, 2003; Wright, Carter, & Cullen, 2005), other research suggests that military involvement and combat exposure predispose veterans to violence and criminal behaviour (Elbogen, Johnson, Wagner, et al., 2012; Kelly, Skelton, Patel, & Bradley, 2011). In addition, the risk of antisocial and criminal behaviour may be compounded for veterans with mental health concerns (Elbogen, Johnson, Wagner, et al., 2012; Finley, Baker, Pugh, & Peterson, 2010).

Veterans with criminal histories tend to display higher rates of aggression and antisocial tendencies compared to veterans without prior criminal involvement (Black, et al., 2005; Blonigen et al., 2016; Kasarabada, Anglin, Stark, & Paredes, 2000). Telephone interviews with Gulf War veterans from Iowa demonstrated that, compared to the general veteran population, incarcerated veterans were more likely to display antisocial tendencies, such as smashing things, “getting even” when wronged, and taking advantage of others (Black, et al., 2005). Similarly, some of the research involving veterans in the criminal justice system indicates that, compared to veterans in general, incarcerated veterans are more likely to report antisocial traits including verbal aggression, sensation seeking, and disinhibition (Blonigen et al., 2016; Kasarabada, et al., 2000). An investigation of criminal histories of a sample of 13,856 U.K. current and former military personnel revealed that violent offending was more common among individuals with post-deployment alcohol misuse, PTSD symptoms, and self-reported aggression (MacManus et al., 2013). In contrast, positive social support has been shown to mitigate the risk of aggression and other antisocial behaviours among veterans (Elbogen, Johnson, Wagner, et al., 2012).

In a review of risk factors for violence among veterans, Elbogen and colleagues (2010) differentiated between dispositional, historical, clinical, and contextual factors that may predispose veterans to general aggression, intimate partner violence (IPV), or both. Younger age was cited as a dispositional risk factor for both general aggression and IPV, while lower education was a risk factor for general aggression only. In addition, for both general aggression

and IPV, historical risk factors included past violent behaviour, combat exposure, and childhood maltreatment. Experiencing a chaotic family life was associated with IPV perpetration only, and witnessing violence while growing up was associated with general violence only. Furthermore, clinical risk factors for both general aggression and IPV included PTSD diagnosis, PTSD symptoms, substance misuse, and depression, whereas having a personality disorder was associated with IPV only, and having traumatic brain injury (TBI) was associated with general aggression only. Lastly, financial status was the only contextual risk factor associated with general violence, while IPV was associated with relationship problems, high stress, newer marriages, and having children at home. In a literature review assessing the prevalence of IPV within military relationships, Jones (2012) found that risk factors for IPV include low socioeconomic status, low self-esteem, substance misuse, sexist and violence-oriented peer group climates, symptoms of psychopathology, prior exposure to violence, and military characteristics (i.e. constant relocation, deployment, occupational stress).

Several studies have examined the prevalence IPV perpetration among veterans, with mixed result (Elbogen et al., 2010; Hoyt, Wray, & Rielage, 2014; Jones, 2012). For instance, Jones (2012) found that rates of IPV within military relationships range from 13.5% to 58%. Data comparing court-referred IPV offenders with and without military experience revealed that those with military experience reported more frequent IPV perpetration (Hoyt, et al., 2014). On the other hand, a study comparing veterans and non-veterans within the criminal justice system in Ohio determined that the two groups showed little difference in IPV perpetration (Collins et al., 2008). Furthermore, a literature review examining domestic violence in military families found mixed results when comparing the military population to the general population (Rentz et al., 2006). Thus, although IPV appears to be common among veterans, it remains difficult to discern whether the prevalence of IPV within the military population exceeds that of the general population.

Although the majority of available research on interpersonal violence among veterans focuses on the male perpetrators of IPV, a small, yet notable body of research draws attention to the victimization of women veterans. Specifically, women veterans are disproportionately impacted by Military Sexual Trauma (MST; Kelly, et al., 2011; Kimerling et al., 2010). According to the Veterans Health Administration (2004), MST can be defined as “sexual harassment that is threatening in character or physical assault of a sexual nature that occurred

while the victim was in the military, regardless of geographic location of the trauma, gender of victim, or the relationship to the perpetrator.” Data from 135 women veterans seeking care in a U.S. Veterans Affairs trauma recovery program demonstrated that 83% of participants had experienced MST (Kelly, et al., 2011). Of those who experienced MST, approximately 95% experienced at least one additional trauma (e.g. childhood abuse, IPV). This sample was characterized by clinically significant PTSD symptoms, moderately severe depression, sleep difficulties, and moderate to severe chronic pain. In addition, 43% reported suicidal thoughts. Moreover, in a U.S. sample of 21,834 women and 142,769 men who used Veterans Health Administration services, 15.1% of women and 0.7% of men reported MST (Kimerling et al., 2010). In addition, those who experienced MST were significantly more likely to report depression, PTSD, other anxiety disorders and substance misuse disorders. Finally, a study of 91 incarcerated women veterans in the U.S. indicated that 11% had experienced MST (Schaffer, 2014). Although non-veteran women cannot experience military specific sexual trauma, previous research has indicated that 61-68% of women offenders in Canada have experienced prior sexual abuse (Barrett, Allenby, & Taylor, 2010; Shaw et al., 1991). Moreover, research has identified some of the risk factors associated with antisocial behaviours and aggression among perpetrators, however, more exploration into the trauma associated with victimization of veterans and how those experiences may play role as a risk factor to crime is necessary. Research of this nature could help to identify what support is required in order to mitigate negative outcomes and ensure intervention services adequately address the needs of this sub-population of veterans prior to criminal involvement.

To understand antisocial behaviour among veterans, a large body of American research has identified PTSD and related symptoms as a potential link between military experience and antisocial behaviours (Blodgett, Fuh, Maisel, & Midboe, 2013; Elbogen, Johnson, Wagner, et al., 2012; Renshaw & Kiddie, 2012). Research examining risk factors for anger and aggression among veterans showed that PTSD was related to elevated anger and aggression (Renshaw & Kiddie, 2012). Elbogen, Johnson, Wagner and colleagues (2012) demonstrated that combat exposure and PTSD were related to increased odds of severe violence and other physical aggression. Similarly, in a sample of veterans with combat exposure, those with PTSD and sub-threshold PTSD reported significantly greater aggression compared to those without PTSD (Jakupcak et al., 2007). Furthermore, veterans with both PTSD and aggressive tendencies

experience higher rates of post-deployment criminal arrests (Elbogen, Johnson, Newton, et al., 2012). In addition, a study on veterans with severe mental illness consistently identified PTSD as a risk factor for violence (Elbogen, et al., 2008). In an analysis of separate PTSD symptom clusters, the hyperarousal cluster (i.e., those who experience heightened anxiety as a symptom of their PTSD) was most closely related to aggressive behaviour (Taft et al., 2007).

In addition to general aggression, PTSD and related symptoms often contribute to relationship problems and marital adjustment, which may increase veterans' risk of IPV perpetration (Elbogen et al., 2010). In an early mixed-methods study of relational adjustment among male veterans in the U.S., it was shown that families of veterans with PTSD displayed more problems related to family and marital adjustment, parenting skills, and violent behaviour, compared to families of veterans without PTSD (Jordan et al., 1992). Similarly, a review of Canadian and American literature regarding relationship problems among veterans with PTSD indicated that, compared to veterans without PTSD, those diagnosed with PTSD were more likely to report poor family adjustment and relationship problems (Monson, Taft, & Fredman, 2009). PTSD and related symptoms were suggested to account for the harmful effects of military trauma on family adjustment. Furthermore, male veterans with PTSD were significantly more likely to perpetrate psychological and physical aggression against their spouses and children, even after controlling for a variety of other variables. In a literature review of IPV perpetration among veterans, Marshall, Panuzio, and Taft (2005) concluded that PTSD largely explains the relationship between combat exposure and IPV perpetration among veterans.

Finally, in a study comparing partner-violent male veterans with and without PTSD, it was found that those with PTSD were more likely to report risk factors for partner violence, including co-occurring mental health problems, poor family and marital adjustment, combat exposure, and partner ratings of physical abuse (Taft et al., 2005). Taken together, PTSD may contribute to, and exacerbate the association between military experience, relationship problems, and IPV. Though not explicitly linked to offending behaviour, the results of these studies emphasize the importance of providing appropriate mental health support post deployment. Ensuring that services address the outcomes and characteristics that present themselves among those with PTSD may also help to reduce risks associated with crime.

Mental Health of Incarcerated Veterans

Certain aspects of military service, particularly, exposure to combat and related trauma, may pose considerable negative consequences to the mental health status of former military personnel (Coté, 2013). Perhaps the most widely recognized mental health concerns among veterans are psychological injuries related to trauma, such as PTSD and TBI (Bensimon & Ruddell, 2010). Research concerning the mental health of veterans has focused primarily on PTSD, while available research on other mental health concerns is relatively scarce (Rose, Aiken, McColl, & Carew, 2013).

PTSD among current and former military personnel continues to be a dominant health concern in the U.S. and Canada, with lifetime prevalence estimates ranging from 9% to 30% (Roth, St Cyr, & McIntyre-Smith, 2013). Approximately 30% of Canadian veterans have an operational stress injury resulting from military service (Statistics Canada, 2003). Among Canadian veterans who served in Afghanistan from 2001-2008 ($n = 30,513$), Boulos and Zamorski (2013) indicated that approximately 13.5% had a military-related mental health problem. Of these, 8% were diagnosed with PTSD and 6.3% were diagnosed with a depressive disorder. In addition, 29.6% of the population had accessed Canadian mental health services following deployment. Within the Canadian Forces, Class C and regular force veterans tend to report more mood and anxiety disorders compared to the general Canadian population (Thompson et al., 2014). Moreover, some research has investigated the impact of perpetrating violence, namely combat-related killing, on the mental health of veterans. Specifically, perpetrating violence has been associated with depression, substance misuse, trauma, and PTSD symptoms (MacNair, 2002; Maguen et al., 2011).

Veterans faced with post-combat mental health concerns commonly struggle with the transition from military to civilian life and may be at increased risk of incarceration (Coté, 2013). Veterans involved in the criminal justice system tend to display complex mental health needs that, if left unaddressed, may impede their re-integration into the community following incarceration (Blodgett, et al., 2013). Specifically, mental health problems such as mood disorders, substance misuse problems, TBI, PTSD, and other anxiety disorders are prevalent among this population (Bensimon & Ruddell, 2010; Blodgett, et al., 2013; Derkzen & Wardrop, 2015; Greenberg & Rosenheck, 2009). For instance, research assessing trauma among 129

incarcerated veterans demonstrated that 87% reported exposure to trauma, and 39% screened positive for PTSD (Saxon et al., 2001). Those who screened positive for PTSD displayed higher levels of substance misuse problems, poorer mental health and general health, despite reporting greater health service utilization. Similarly, a series of structured telephone interviews with veterans found that those with a history of incarceration reported higher levels of depression, substance misuse, PTSD symptoms, other anxiety symptoms, and chronic fatigue (Black, et al., 2005). In addition, data from CSC indicated that 25% of incarcerated veterans reported depression symptoms (Derkzen & Wardrop, 2015). Also, research by Erickson and colleagues (2008) indicated that major depression was significantly related to incarceration among U.S. veterans. Government data from the U.K. demonstrated that incarcerated veterans were more likely to report depression and suicidal feelings compared to the general prison population (HM Inspectorate of Prisons, 2014).

Mental health needs may be confounded for specific populations of veterans in the criminal justice system. Women veterans in U.S. correctional settings have been found to report particularly significant mental health needs related to PTSD (24%), depression (66%), anxiety (73%), suicidal thoughts (11%), and suicide attempts (8%; Schaffer, 2014). In addition, Schaffer (2011) documented widespread mental health needs among incarcerated veteran sex offenders, including problems related to drugs (65%), alcohol (32%), anxiety (51%), depression (50%), psychiatric symptoms (54%), hallucinations (21%), and suicide ideation (8%). In a Canadian study involving 19 incarcerated male veterans, each of the participants reported at least one risk factor for incarceration, including previous incarceration, homelessness, mental health problems, and/or substance misuse problems (Coté, 2013). Furthermore, the relationship between mental health problems and incarceration was more pronounced for those with a history of deployment, as they were more likely to have been diagnosed with a psychological disorder and to have received mental health treatment. In addition, 83% of those with a history of deployment reported a diagnosis of military-related PTSD.

Veterans may use maladaptive coping strategies, such as substance misuse, to manage combat-related mental health problems (Bensimon & Ruddell, 2010). This may, in turn, contribute to veterans' risk of criminal activity and incarceration. In a review of post-deployment substance misuse problems among veterans, deployment and combat exposure were commonly associated with alcohol use, smoking, non-medical use of prescription drugs, and illicit drug use

(Larson, Wooten, Adams, & Merrick, 2012). Using data from the National Post-Deployment Adjustment Survey, Elbogen, Johnson, Newton and colleagues (2012) demonstrated that substance misuse was significantly associated with criminal arrests among veterans. Similarly, in a study of cocaine-dependent male veterans in the U.S., greater cocaine dependence and urges were positively related to one's number of times incarcerated (Kasarabada, et al., 2000). In addition, U.S. data on criminally involved women veterans revealed high levels of alcohol- (46%) and drug- (37%) related problems (Schaffer, 2014). While rates of substance-related problems are high among incarcerated veterans, they do not differ significantly from the general incarcerated population (HM Inspectorate of Prisons, 2014; Noonan & Mumola, 2007). That being said, data from the HM Inspectorate of Prisons (2014) indicated that incarcerated veterans may be less aware of the substance use resources available to them upon release, as well as resources for employment and accommodation. The study suggested that this may be due to the ad-hoc nature of these services offered by community charities and called for a national strategy to support veterans upon release and ensure access to necessary interventions to address their substance use issues as well as employment and accommodation concerns.

Veterans with co-occurring mental health problems may be disproportionately at risk of incarceration. For instance, an analysis of U.S. Veterans Affairs mental health data and correctional service data demonstrated that 25% of veterans with a dual diagnosis were incarcerated between 1994 and 1997 (Rosenheck, Banks, Pandiani, & Hoff, 2000). Correspondingly, data from the Veterans Affairs Connecticut Healthcare system demonstrated that, compared to the general veteran population, incarcerated veterans were more likely to have a mental health diagnosis, substance use disorder, or co-occurring mental health and substance use disorders (Erickson, et al., 2008). More recently, in federal corrections in Canada, 73% of incarcerated veterans were classified as having personal and emotional needs, while 47% had substance use related needs (Derkzen & Wardrop, 2015). In addition, a literature review by Larson and colleagues (2012) demonstrated that, among veterans, substance misuse commonly co-occurred with pain, suicide risk, PTSD, and depression. While previous research demonstrates that incarcerated veterans experience high levels of trauma, mental health problems, and substance misuse problems, an absence of research has examined the suicide risk among incarcerated veterans (Wortzel, et al., 2009).

Mixed findings have been reported when comparing the mental health status of

incarcerated veterans with the general incarcerated population. For instance, a review of U.S. literature revealed that veteran offenders had overall higher mental health needs compared to non-veteran offenders (Bensimon & Ruddell, 2010). In contrast, data from the U.K. demonstrated that incarcerated veterans reported comparable levels of mental health problems as the general prison population (HM Inspectorate of Prisons, 2014). Similarly, data from the U.S. Bureau of Justice Statistics demonstrated that veterans and non-veterans in state prison were equally likely to report mental health problems (Noonan & Mumola, 2007). A Canadian study indicated that incarcerated veterans reported similar levels of mental health and substance misuse problems as those documented in research on non-veterans (Coté, 2013). However, despite having similar scores on mental health indicators, incarcerated veterans may be more likely to have a mental health diagnosis compared to the general prison population (Greenberg & Rosenheck, 2012). The variation in findings suggests that a more in-depth look is necessary to determine if the mental health profile of veteran offenders is different from the general offender population and what, if any, implications this may have on their rehabilitation needs.

Intervention Efforts for Veteran Offenders with Mental Health Needs

Many veterans in the criminal justice system have mental health needs that, unless attended to, may inhibit them from successfully transitioning into the community following incarceration (Blodgett, et al., 2013). A variety of assessment tools have been implemented in order to identify the mental health treatment needs of incarcerated individuals (Blodgett, et al., 2013). These tools are not specific to veteran offenders though they typically acknowledge the roles of trauma and gender in mental health screening (Blodgett, et al., 2013). Unfortunately, there are currently no studies that examine the use and/or effectiveness of mental health assessment tools with incarcerated veterans.

Although assessment tools have not been developed or tested specifically with the veteran offender population, intervention strategies, such as veteran treatment courts, have been emerging in order to address the rehabilitation needs of this specific sub-population (Cavanaugh, 2010; Harris, 2013; McDonough, 2013; Smith, 2011; Veterans Affairs Canada, 2017). Within this framework, the speciality court works with local, state and federal authorities in a collaborative team effort to rehabilitate veterans and reduce their risk of recidivism by treating the underlying causes of their criminal behavior (Cavanaugh, 2010). Where traditional courts focus on the crime, veteran courts focus on the individual and the underlying issues caused by their past experiences (e.g. deployments, reintegration as civilians; Harris, 2013). In Canada, VAC and the Nova Scotia mental health court began a Veterans Justice Outreach (VJO) program to assist veterans involved in the criminal justice system and to support them through the court process (Moulton, 2017; Veterans Affairs Canada, 2017). The VJO recognizes the impact that military services can have on veterans and their behaviour. It identifies, tracks, and explores alternatives to incarceration for veterans as well as former RCMP members. VAC intends to implement the program in other provincial jurisdictions. Although specific research for the Nova Scotia pilot project are not available, it is estimated that since the VJO program was established, 8% of participants were veterans (Moulton, 2017; R. Safire, personal communication, March 23, 2018). Research related to the outcomes of these courts in the U.S. has, for the most part, been positive. For example, one study found that participation in veteran treatment court is associated with an increase in the use of services for both violent and non-violent offenders (McDonough, 2013). Similarly, Smith (2011) found that veterans who utilized the veteran court, were found to

have a lower rate of re-offending than the general criminal population. Veteran court provides a comfortable setting which has the ability to promote entry into and compliance with therapy and treatment (McDonough, 2013; Smith 2011).

In addition to specialized courts, there is a body of research that speaks to evidence-based treatment and intervention for military-related PTSD. Though not evaluated in a correctional setting, highly effective treatments that have been identified for military-related PTSD include cognitive processing therapy (CPT) and prolonged exposure (PE; Roth, et al., 2013). Both are trauma-focused treatments that aim to combine anxiety management and cognitive restructuring with psycho-education to alleviate symptoms of PTSD (Roth, et al., 2013). Future research could benefit from an investigation into the efficacy of these therapies among veteran offenders.

As discussed previously, homelessness is another risk factor that has been linked to crime among military personnel. It is important to identify interventions aimed at homeless veterans as homelessness may have a compounding impact on mental health and the likelihood of criminal behaviour. Unfortunately, limited data has evaluated the effectiveness of intervention efforts for this specific sub-population of veterans (McGuire, 2007). The research that is available indicates that interventions targeted at homeless veterans are most effective when a ‘housing first’ approach is applied (Van Til & Campbell, 2013). This model stresses that a stable living environment is required first in order to respond to individual needs (e.g., mental health, substance misuse, employment, etc.) in an effective manner (Van Til & Campbell, 2013). In addition, interventions for homeless veterans are most effective when they include case management support, do not require sobriety, and are long-term (Van Til & Campbell, 2013). To further complicate the issue, incarcerated veterans at risk of homelessness may require more focused efforts to link them to appropriate housing and mental health services (Blodgett, et al., 2013).

There is a paucity of research that specifically addresses interventions for incarcerated veterans. However, Sigafos conducted a study in 1994 that developed a program to treat PTSD among incarcerated veterans. The author argues that the prison environment can mimic conflict environments (e.g., Vietnam) that veterans may have been exposed to during their service, thus creating a ‘survivor mode’ in which incarcerated veterans may re-experience PTSD symptoms (Sigafos, 1994). The treatment model involved three dimensions: group therapy; individual therapy; and, videos of military/war to discuss and examine feelings. The preliminary findings

associated with this treatment strategy were positive, however, no comprehensive evaluation was ever completed.

Another area where progress is taking place is the expansion of veteran treatment courts to correctional settings. This approach addresses the mental health and substance misuse problems among incarcerated veterans by connecting them with the appropriate services and resources (Blodgett, et al., 2013). Peer based support has also been highlighted as an important source for self-care both for veterans in general, as well as for those within the criminal justice system (Blodgett, et al., 2013). Peer support groups, particularly for veteran offenders, have shown to encourage information exchange and support. For incarcerated veterans, these groups can encourage the exchange of information about available community services and act as a positive support for dealing with incarceration as well as for developing plans for re-entry into the community (Blodgett, et al., 2013).

Furthermore, interventions that emphasize the risk-needs-responsivity model and/or cognitive behavioural treatments are also promising, however, these types of treatment need to be evaluated with justice involved veterans, and may require adaptation due to veterans' military training and experience, mental health concerns, and other characteristics (Blodgett, et al., 2013; Timko et al., 2014). Research on evidence-based treatments for the general population with mental health concerns are also likely to translate well to support the needs of veterans (Blodgett, et al., 2013). These interventions have not been evaluated in correctional settings, though there is no indication in the literature that they would be less effective in an institutional environment. Although there is a growing body of knowledge that identifies the needs of veteran offenders, significant gaps still remain in the care and services available to meet these needs (Timko et al., 2014).

Discussion

Although about 3% of federal offenders admitted to custody in Canada self-identified as veterans, only one study has focused on their characteristics and mental health profiles (Derkzen & Wardrop, 2015). In general, veteran offenders have higher mental health needs than the general Canadian population, but comparable mental health needs to the non-veteran Canadian federal offenders (Derkzen & Wardrop, 2015). An understanding of the role that their prior military service plays in their overall mental health and the interplay of other risk factors (homelessness, antisocial behaviours, co-occurring mental health problems) would provide a better understanding of the complexity and breadth of these issues for incarcerated veteran offenders as well as identify what interventions and services are necessary to support them during their incarceration and once released to the community. CSC has revised current case management strategies to identify and support veteran offenders once admitted to federal custody (J. Hartt, personal communication, March 27, 2018), thereby allowing CSC and VAC to coordinate case management and identify potential institutional interventions during incarceration and community supports upon release, particularly with respect to mental health services. A Veterans Support Secretariat (J. Croucher, personal communication, April 4, 2017) was also established to support veteran employment opportunities within the Public Service of Canada and to examine services and identify benefits for veteran offenders.

Most of the information available concerning the mental health concerns of incarcerated veterans stems from the U.S. Although useful to identify overall profiles and patterns in the mental health needs of incarcerated veterans, it is unclear whether these findings are representative of Canadian veterans, especially those in the federal correctional setting. Also, much of the research specific to mental health needs of veteran offenders focuses on PTSD. Although an important area of study, this does not allow for an examination of the other mental health concerns of these offenders. For instance, one-quarter of federal Canadian offenders indicated a diagnosis of depression while 20% had an identified cognitive deficit that impacted on their ability to identify and access services and supports (Derkzen & Wardrop, 2015). These findings demonstrate that additional research into the specific mental health needs of Canadian veterans and the impact on service access and retention is important, particularly with respect to mental health services. One-third of federal veteran offenders were convicted of sexual offences,

which is three-times the rate among the general federal offender population. An examination of this population to examine the types of sexual offending, the interplay with substance misuse, and the role of mental health issues would be beneficial. Finally, little is known about the experience of federal veteran offenders during incarceration or under community supervision. Research examining their institutional behaviour, rates of mental health related incidents (e.g., self-harm or suicide related), as well as the rates of return to custody and the supports and services accessed during release would be important.

Research concerning women veterans is limited (Schafer, 2014). Although they comprise approximately 2% of the federal Canadian veteran cohort identified by Derkzen and Wardrop (2015), they were not able to generate a profile of these women due to the limited number of veteran women offenders identified. With recent improvements to CSC's identification process of veteran offenders (J. Hartt, personal communication, March 27, 2018), women-specific veteran offender research would be an important area for further study, especially with respect to an overall profile of women veteran offenders as well as exploring differences in mental health needs, the impact of prior sexual trauma, and gender-responsive treatment needs.

Research examining non-Caucasian veteran offenders is also limited. Indigenous offenders represented 17% of veteran offenders admitted to custody within CSC (Derkzen & Wardrop, 2015). As with women offenders, a profile of Indigenous veteran offenders, their mental health treatment needs, the interplay with Aboriginal social history factors, as well as their experiences while incarcerated and under community supervision would be of benefit.

Finally, little research exists concerning the effectiveness of veteran specific interventions within a correctional context. Although CSC does not currently offer veteran specific interventions, mental health staff are trained to assist offenders with PTSD, substance use issues, and other mental health issues, including co-occurring mental health issues (C. Busila, personal communication, April 11, 2018). Veteran specific interventions for Indigenous offenders would need to be culturally sensitive and appropriate while interventions for women offenders would need to be gender-informed to align with CSC corporate priorities and responsibilities. Future research in this area is necessary.

Conclusions

This literature review examines the importance of mental health services and supports for veteran offenders. Homelessness, antisocial behaviours, and specific mental health diagnoses

present additional challenges for the support and rehabilitation of these offenders, particularly due to the association of these factors with criminal offending in general. Future research initiatives concerning veteran offenders will be identified based on consultation with the VAC-CSC working group and the corporate needs of CSC.

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