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Exposure to Trauma among

Women Offenders:

A Review of the Literature

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Exposure to Trauma among Women Offenders: A Review of the Literature

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Executive Summary

Key words: *women offenders, trauma, posttraumatic stress disorder (PTSD)*

A high prevalence of trauma has been recognized among women in the general population, with women offenders demonstrating even higher rates. Given these high rates, a review was undertaken with a focus on gender differences in the impact of trauma exposure, maladaptive coping strategies, the correlational link between trauma and later crime, assessment tools for trauma and posttraumatic stress disorder (PTSD), and relevant treatment programs.

While many offenders of both genders report having experienced potentially traumatizing events, the rates are higher for women. PTSD can develop as a result of exposure to a traumatic event and several studies also have noted gender differences in the experience and intensity of PTSD symptoms. PTSD has been linked to other psychiatric disorders such as major depression, lifetime substance use disorder, and borderline personality disorder, as well as self-injurious behaviour. Indeed, substance abuse and self-injurious behaviour have been argued to be maladaptive coping strategies for trauma exposure.

It has been argued that drugs and alcohol are initially used to cope with the exposure to trauma and the symptoms associated with PTSD but that substance use then develops into a larger problem that can exacerbate PTSD symptoms. A relationship between previous trauma and self-injurious behaviour has also been demonstrated in several studies. Women offenders who have engaged in self-injurious behaviour often report doing so to cope, to release negative emotions, or as a reaction to negative emotions arising from exposure to trauma.

While research has not demonstrated a causal link between trauma and criminality, there is a strong association between trauma exposure and women's offending behaviour. Existing research has noted that children who have been abused or neglected are more likely to be at risk for delinquency and adult criminality. While there is little evidence to support the inclusion of victimization as a criminogenic need in risk assessment instruments, trauma exposure and the symptoms of PTSD may nonetheless influence offenders' well-being. A review of trauma exposure and PTSD assessment tools is therefore included within this report.

Although evaluations on trauma and trauma-informed treatment programs have demonstrated a positive effect on participants (e.g., reductions in trauma symptoms, substance use, institutional adjustment, recidivism), greater research is needed in the area. Currently, the Correctional Service of Canada (CSC) offers the *Survivors of Abuse and Trauma* program, which provides group counselling to women offenders to deal with issues of trauma. In addition, all of CSC's correctional programs for women are trauma-informed.

Given the estimates for exposure to trauma among women offenders, trauma and trauma-informed treatment should be considered for women offenders who have experienced physical and sexual violence or other traumatic experiences to contribute to the well-being of women offenders, and to allow participants to fully benefit from programs that target criminogenic risk factors, thereby decreasing the likelihood of recidivism.

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Introduction

In the past two decades, there has been a growing understanding of trauma, which has been found to be linked with many negative outcomes. Covington (2008a) explains that trauma develops with an event in which an individual's normal coping mechanisms are overwhelmed. Certain psychological and physical reactions emerge following the event, which can lead to painful emotional states that can influence behaviour. Although not specific to women offenders, a plethora of studies have been published on the experience of trauma for a variety of groups, including soldiers in combat (Engdahl, Harkness, Eberly, Page, & Bielinski, 1993; Keane, Caddell, & Taylor, 1988; Milliken, Auchterlonie, & Hoge, 2007), survivors of natural disasters (Briere & Elliott, 2000; Lonigan, Shannon, Finch Jr., Daugherty, & Taylor, 1991; Nolen-Hoeksem & Morrow, 1991), medical patients (Cordova et al., 1995; Mehnert & Koch, 2007; Tedstone & Tarrier, 2003), and women in the community (Gladstone et al., 2004; Pico-Alfonso et al., 2006).

Research has demonstrated a high prevalence of exposure to trauma events among women in Canada. In 2009, 34 out of 1,000 women self-reported sexual assault, which is more than double the self-reported rate for men (15 per 1,000; Statistics Canada, 2013). Moreover, when comparing self-reported violent victimization[1] between Aboriginal and non-Aboriginal women, the rate is almost three times higher for Aboriginal women (279 versus 106 per 1,000 women; Statistics Canada, 2013). Further, 13% of Aboriginal women in all provinces[2] over the age of 15 have reported violent victimization at some point in their lives (Statistics Canada, 2011).

In recent years, the relationship between trauma and crime has been the subject of focus, especially for women offenders. As of April 2013, the Canadian federal women offender population was slightly more than 1,000, with approximately 57% incarcerated and 43% under supervision in the community (Public Safety, 2013). Although the federal women offender population as a whole is much smaller than the population of men offenders, it is increasing, with the Aboriginal women offender population representing one of the fast growing subsets. In the

[1] In order to reflect the state of the literature in the area, the terms victimization and trauma are used interchangeably within this report. However, it is important to note that individuals differ in their responses to potentially traumatizing events, and that individuals who experience similar events may not all be traumatized by them.

[2] This rate of reported violent victimization among Aboriginal women over the age of 15 excludes data from the Northwest Territories, Yukon, and Nunavut as a different methodology was used in these jurisdictions.

last five years, the federal women offender population has increased 7.6%, with the Aboriginal women subset of this population demonstrating nearly a 12% increase (Correctional Service Canada [CSC], 2013). Given the rates of victimization within the general population of Canadian women, and especially Aboriginal women, one would expect incarcerated women to have similar or even higher rates of trauma. This is in fact the case; previous studies have found 60% to 90% of women in Canadian federal institutions have experienced at least one form of violence in their lifetime (CSC, 1995). A study by Hoffman, Lavigne, and Dickie (1998) reported that 82% of women offenders serving a sentence for homicide have experienced physical or sexual abuse. More recently, Barrett, Allenby, and Taylor (2010) demonstrated that 86% of women offenders have experienced physical abuse at some point in their lives, and 68% have experienced sexual abuse. Furthermore, Shaw et al. (1991) found that 90% of Aboriginal women offenders have experienced physical abuse, and 61% have experienced sexual abuse. Although dated, this research suggests a high prevalence of trauma among Aboriginal women offenders. Despite these clear indications that significant proportions of women offenders report histories of sexual and/or physical abuse, researchers have demonstrated that there is no causal link between exposure to trauma and criminality (Dougherty, 1998). Furthermore, research has found that, although abused and neglected[3] children have significantly greater risk of criminality, a large portion of children who have been abused or neglected will not commit criminal acts (Widom, 1989).

Given the high rates of exposure to possibly traumatizing experiences within the women offender population, the potential impact of such exposure on the women, and the maladaptive coping strategies adopted by women offenders, the correlational link between trauma and later crime are reviewed in greater depth. This literature review also examines trauma and posttraumatic stress disorder (PTSD) assessment tools as well as related treatment programs.

Gender Differences in Exposure to Trauma and PTSD

Research has found a high prevalence of trauma exposure among women offenders. Cook, Smith, Tusher, and Raiford (2005) reported that 99% of women offenders experienced at least one traumatic event in their lifetime and 81% have experienced five or more events.

[3] Widom (1989) defines neglect as "cases in which the court found a child to have no proper parent care or guardianship, to be destitute, homeless, or to be living in a physically dangerous environment" (p. 162).

Although offenders of both genders have been found to have elevated rates of exposure to potentially traumatic experiences, research findings frequently indicate gender differences (e.g., women are more likely to have experienced a variety of traumatic events, especially sexual abuse). Fagan (2001) examined the research findings of studies on childhood maltreatment and offending and identified varying and contradictory rates of abuse exposure within the literature. In fact, it was reported that the rates of childhood sexual abuse range from 2% to 30% for male offenders (i.e., boys and men) and 14% to 26% for female offenders (i.e., girls and women). Furthermore, the rates of childhood physical abuse range from 5% to 58% for male offenders and 13% to 37% for female offenders. More, Komarovskaya, Loper, Warren, and Jackson (2011) found similar rates of exposure to trauma for men and women offenders: 95% and 94%, respectively, experienced at least one traumatic event in childhood, adolescence, or adulthood. Conversely, a study by Messina, Grella, Burdon, and Prendergast (2007) reported higher rates of emotional (40% vs. 20%), physical (8% vs. 5%), and sexual abuse (39% vs. 9%), as well as physical neglect (29% vs. 20%) in childhood among women offenders compared to men offenders.

Generally speaking, sexual trauma is where the greatest gender differences exist. Several studies have noted that incarcerated women were more likely than men to have experienced at least one interpersonal sexual trauma during childhood, adolescence, and adulthood (e.g. Komarovskaya et al., 2011; Leigey & Reed, 2010). In fact, Leigey and Reed (2010) found that approximately 60% of the life-sentenced women inmates had experienced sexual abuse at some point in their lifetime compared to 8% of their men offenders. Overall, in studies that examine the rates of victimization of men or women offenders separately, a wide range of rates exists. However, in studies that examine the rate of physical and sexual abuse among both sexes, women offenders report more maltreatment than men offenders. In essence, rates of victimization vary depending on the sample (women vs. men, or both), how trauma is defined (e.g., witnessing of harm, physical and sexual abuse, physical and emotional neglect), and how trauma is assessed (e.g., self-report, official report). Although the findings vary among the studies, it is consistently demonstrated that the rates of exposure to potentially traumatic events are elevated within the offender population, and especially among women offenders.

PTSD can develop as the result of exposure to a traumatic event, either from direct personal experience or from witnessing an event (American Psychiatric Association [APA],

2000).[4] The diagnostic criteria for PTSD listed in the DSM-V (Diagnostic and Statistical Manual of Mental Disorders, 5th edition; APA, 2013) include the re-experiencing of the traumatic event, avoidance of stimuli associated with the traumatic event, and symptoms of increased arousal. Although trauma events are experienced by both men and women offenders, women offenders are more likely to experience PTSD symptoms (Gunter et al., 2012; Komarovskaya et al., 2011; Kubiak, 2004) and at a higher severity than men offenders (Komarovskaya et al., 2011; Kubiak, 2004). Leigey and Reed (2010) found that 18% of their sample of life-sentenced women offenders reported a diagnosis of PTSD compared to approximately 7% of life-sentenced men. Furthermore, Komarovskaya et al. (2011) found that 40% of the incarcerated women in their study met the PTSD criteria compared to 13% of the incarcerated men. Additionally, the authors noted that more women offenders met the DSM-IV-TR PTSD criteria than men, with women reporting higher degrees of symptoms. Trauma exposure has also been found to be related to other mental disorders (e.g., Zlotnick, 1997) and substance abuse (e.g., Salgado, Quinlan, & Zlotnick, 2007).

Zlotnick (1997) observed an association between PTSD and victimization among incarcerated women. Specifically, those diagnosed with PTSD were more likely than those without PTSD to have experienced childhood physical and sexual abuse. In another study that examined the prevalence of PTSD among incarcerated women, it was noted that 60% of the sample could be diagnosed with PTSD and 83% of the sample reported having experienced a PTSD symptom in the past month (Reichert & Bostwick, 2013). Of these women, 25% of the sample has experienced trauma symptomology during childhood, 41% as teenagers, and 84% in adulthood. However, in another study, only 16% exhibited PTSD symptoms despite the high prevalence rates of trauma exposure among incarcerated women (Huang, Zhang, Momartin, Cao, & Zhao, 2006); these researchers found that inmates who were 25 years or older and who had experienced more than five trauma events were four times more likely to develop PTSD than those who reported five or less traumatic events.

PTSD has also been found to be associated with other psychiatric disorders. Zlotnick

[4]PTSD is defined in the DSM-V (APA, 2013) as the "development of characteristic symptoms following exposure to one or more traumatic events...The clinical presentation of PTSD varies. In some individuals, fear-based re-experiencing, emotional, and behavioural symptoms may predominate. In others, anhedonic or dysphoric mood states and negative cognitions may be most distressing. In some other individuals, arousal and reactive-externalizing symptoms are prominent, while in others, dissociative symptoms predominate. Finally, some individuals exhibit combinations of these symptom patterns" (p. 274).

(1997) reported that women offenders with PTSD, either previously or currently, had a greater likelihood of co-morbid major depression, lifetime substance use disorder, and borderline personality disorder than women offenders without PTSD. This finding is especially troubling since research has demonstrated that women offenders with co-morbid substance use disorder and PTSD who have entered into substance abuse treatment program were more likely to relapse post-treatment than women offenders that have entered treatment without PTSD (17% vs. 0%; Kubiak, 2004). Some women offenders also reported the emergence of other mental health problems such as attention deficit hyperactive disorder (ADHD) as a result of trauma exposure (Brazil, Doherty, Forrester, & Matheson, 2012).

Overall, the literature indicates that while many men and women offenders have experienced trauma exposure, rates are higher for women offenders. Also delineated in the literature are the many possible negative outcomes of trauma for women offenders, including the experience and magnitude of PTSD symptoms. This finding is concerning since research has demonstrated an association between PTSD and other psychiatric disorders such as depression (Zlotnick, 1997), substance use (Covington, 2008a; Kubiak, 2004; Zlotnick, 1997), borderline personality disorder (Zlotnick, 1997); ADHD (Brazil et al., 2012), and self-injurious behaviour (Borrill, Snow, Medlicott, Teers, & Paton, 2005; Clements-Noelle, Wolden, & Bargmann-Losche, 2009; Heney, 1990; Roe-Sepowitz, 2007; Brazil et al., 2012). Indeed, it has been argued that substance abuse (Brazil et al., 2012; Hume, Grant, & Furlong, 2007; Kubiak, 2004) and self-injurious behaviour (Borrill et al., 2005; Clements-Noelle et al., 2009; Heney, 1990; Milligan & Andrews, 2005; Power & Usher, 2010, 2011a; Roe-Sepowitz, 2007) are maladaptive coping strategies for trauma exposure.

Maladaptive Coping Strategies

In her review of trauma and its role, Covington (2008a) categorized the behaviours that can emerge as a result of trauma as retreat, self-destructive action, or destructive action. She argued that women are more likely to be self-destructive (e.g., substance abuse, self-injurious behaviour) or retreat (e.g., dissociation, depression), whereas men tend to take destructive action (e.g., aggression, violence). Several studies have noted an association between exposure to trauma and substance abuse. Based on existing research, Kubiak (2004) argued that drugs and alcohol are initially used to cope with the exposure of trauma and the symptoms associated with

PTSD but then develop into a larger problem where continued substance use can exacerbate PTSD symptoms, thereby making it even more difficult for women to cope. Similarly, in a Canadian study examining the trauma exposure of federal women offenders, some respondents reported that they had turned to drugs and alcohol as a coping mechanism to numb and forget their past traumatic experiences (Brazil et al., 2012). Hume et al. (2007) also found that most of the women in the Women Offender Substance Abuse Program (WOSAP)[5] indicated the use of substances as a means to cope with depression and/or anxiety, and that all of the women reported a history of trauma. The relationship between trauma and substance abuse is especially notable when considering the high rate of substance abuse among federal women offenders. Grant and Gileno (2008) reported that at least 80% of federal women offenders have substance abuse problems. Moreover, Barrett et al. (2010) noted that 38% of their sample of women offenders committed offences under the influence of drugs or alcohol, and 36% reported committing an offence to support a drug or alcohol habit. Furthermore, McClellan, Farabee, and Crouch (1997) found that 72% of women offenders reported drug use prior to their involvement in other forms of criminality.

A recent examination of mental health issues with federal women offenders confirmed statistics from Grant and Gileno (2008), as 80% of women assessed had a lifetime diagnosis of dependence to at least one drug or alcohol (Derkzen, Booth, McConnell, & Taylor, 2012). The most common substances were alcohol (55%) and cocaine (55%). All women with a lifetime diagnosis of substance dependence had at least one co-morbid lifetime diagnosis, with the most commonly identified disorders being PTSD (52%) and major depressive disorder (69%). Collectively, these findings demonstrate a link between trauma exposure and substance abuse among women offenders. A relationship between previous trauma and self-injurious behaviour has also been demonstrated in several studies (e.g., Borrill et al., 2005; Clements-Noelle et al., 2009; Heney, 1990; Milligan & Andrews, 2005; Roe-Sepowitz, 2007; Power & Usher, 2010, 2011a). Self-injurious behaviour (SIB) can include cutting, burning, hitting, head banding, ligature use, and swallowing sharp or indigestible objects (Power & Brown, 2010). In one comprehensive study of Canadian federal women offenders who engaged in SIB, two-thirds reported coping as the motivation for the behaviour. SIB was described as a way to release negative emotions or as a reaction to negative emotions (e.g., anger, frustration, depression,

[5] WOSAP is further discussed in the treatment section of this literature review.

anxiety), while 4% report self-injury as a means to re-enact past sexual, physical, or emotional trauma either in childhood or adulthood (Power & Usher, 2010). Furthermore, 29% of women indicated that the experience of physical, sexual, or emotional abuse has previously triggered an incident of self-injury (Power & Usher, 2010). Other researchers (e.g., Kenning et al., 2010; Snow, 1997) have also identified coping with negative emotions as a primary motivation for SIB. Barrett et al. (2010) identified that 78% of their sample reported the experiences of pain, anger, loneliness, and depression as the reason for the perceived need to self-injure. Heney (1990) concluded that self-injurious behaviour is "an attempt to control timing and extent of the anticipated pain which is seen as inevitable" (p. 5) and that by inflicting pain onto oneself, self-injurious behaviour decreases the amount of anxiety. SIB appears more common among women offenders who have experienced trauma. For example, in a study on SIB among federally-sentenced incarcerated women, women with a history of SIB were found to be significantly more likely to have experienced emotional and sexual abuse compared to those who had not engaged in SIB (Power and Usher, 2011b). In addition, Roe-Sepowitz (2007) reported that women offenders who have experienced sexual abuse are four times more likely to self-injure than those who have not experienced sexual abuse.

Similar patterns emerge with respect to suicide and suicide attempts: Borrill et al. (2005) noted that nearly half of the women offenders in their study associated suicidal behaviour with past sexual abuse. Further research has demonstrated that all forms of childhood abuse and neglect, such as emotional and physical also increase the risk for past and future suicide attempts (Clements-Noelle et al., 2009).

In all, these findings demonstrate the association between trauma exposure and self-injurious behaviour – and possibly suicide risk – in women offenders. It appears that self-injury may alleviate the anxiety and emotional experiences of women, including those arising from exposure to trauma. That said, though an association between exposure to trauma and coping strategies such as substance abuse and self-injurious behaviour among women offender appears to exist, the relationship is not clearly understood. Both substance abuse and self-injurious behaviour have been argued to be maladaptive coping strategies. For instance, though drugs and alcohol may initially be used to cope with the exposure to trauma and PTSD symptoms, the substance use may progress into a larger problem where it exacerbates the PTSD symptoms.

The Relationship between Trauma and Criminality

While research has not demonstrated a causal link between trauma and criminality, there is a strong association between exposure to potentially traumatizing experiences and women's offending behaviour. For example, Widom (1989) recognized that children who have been abused or neglected are significantly more likely to be at risk for delinquency and adult criminality. Grella, Stein, and Greenwell (2005) examined the pathways in which women engaged in socially deviant behaviours and observed that early experiences of trauma events in childhood were positively related to engagement in violent crimes among substance abusing women offenders in California.

DeHart (2008) explains that drug addiction, prostitution, and physical violence have been "conceptualized as crimes and as survival strategies to cope with overwhelming physical, sexual, and psychological victimization" (p. 1362). For example, Messina et al. (2007) found that both men and women offenders with more exposure to childhood adverse events (i.e., physical, emotional, and sexual abuse, and neglect) enter the criminal justice system and commence drug and alcohol use at an earlier age. Women offenders with greater exposure also had more arrests than men offenders. Messina and Grella (2006) identified that engagement in prostitution was positively related to the number of childhood traumatic events. For every increase of one childhood traumatic event, the odds for engaging in prostitution later in life increased by 19%. However, Widom (1989) also noted that although child abuse and neglect may lead to an increased risk of delinquency and criminality, the findings demonstrate that a large portion of abused and neglected children do not engage in criminal behaviour. In other words, although no causal link exists between the experience of trauma and criminal behaviour, greater exposure to trauma is related to increased involvement with the criminal justice system.

Overall, while there is a high prevalence of trauma exposure among women offenders, victimization has not been found to be directly related to an increased risk of offending, institutional misbehaviour, or recidivism. In their research, Bonta, Pang, and Wallace-Capretta (1995) found little evidence to support the inclusion of victimization in offender risk assessment or its consideration as a criminogenic need. They noted that in most cases, experiences of victimization did not predict recidivism. Although this may be true, trauma exposure and the symptoms of PTSD may nonetheless influence offenders' well-being. Byrne and Howell (2002) suggest a highly inter-connected process whereby trauma may be associated with offending: they

argue that criminality may be the result of previous abuse, the PTSD developed from the abuse, or the substance abuse involved in coping. In order for women offenders to fully benefit from treatment programs, these issues must be properly assessed and addressed. Indeed, proper assessment is viewed as key to better understand the role of trauma in the lives of women offenders.

Assessment

Several assessment tools have been used to assess exposure to trauma and PTSD[6] symptoms among women offenders. A description of each assessment tool and examples of studies in which the measures have been used as well as a quick reference guide that includes the assessment tool, the time period examined, and its internal consistency (Cronbach's alpha) is provided in the Appendices[7].

There is a gap in the literature regarding the test-retest reliability of tools to assess exposure to trauma and PTSD symptoms with women offenders as a sample. Often studies discuss the reliability of the measures by using the rates from previous studies based on a non-offender sample (e.g., soldiers, women in the community). Proper assessment of previous exposure to trauma should be a priority (Bryne & Howells, 2002; Huang et al., 2008, Kubiak, 2004) since the assessment and recognition of trauma and related constructs can inform appropriate interventions (Clements-Noelle et al., 2009; Power & Usher, 2011b), further supporting the need for offenders to be screened for trauma both at intake and prior to release (Brazil et al., 2012; Byrne & Howells, 2002; Kubiak, 2004). Clements-Noelle et al. (2009) also argue that screening women offenders for childhood trauma exposure may reduce the risk of

[6] This report reviewed assessment tools that are based on the DSM-IV (APA, 2000). The criteria for PTSD in the DSM-IV differs from DSM-V (APA, 2013), as Criterion A2 has been eliminated and there are now four symptom clusters instead of three. Since the DSM-V was published fairly recently, to date, there is no research available on the assessment tool based on the criteria for PTSD in the DSM-V. To date, only the Clinician-Administered PTSD Scale has been updated to include the DSM-V criteria for PTSD.

[7] For additional information on the sample of the assessment tools, refer to Norris and Hamblen (2004). The authors reviewed 24 measures that fall into two broad categories: scales that measure DSM-IV PTSD criterion A (trauma histories) and scales that measure DSM-IV PTSD criteria B-D (symptom histories). PTSD Criterion A determines whether the individual has been exposed to a traumatic event. Exposure to a traumatic event can be determined if "the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others" and if "the person's response involved intense fear, helplessness, or horror" (APA, 2000, p. 467). PTSD Criterion B-D determine whether the trauma is persistently re-experienced by the individual, whether there is a persistent avoidance of stimuli associated with the traumatic event(s) and the numbing of responsiveness, and whether there are persistent symptoms of increased arousal (APA, 2000, p. 468).

suicide, while others promote the development of positive coping styles in the rehabilitation of PTSD (Huang et al., 2008). In-depth research in this area should be explored.

Treatment

There is a dearth of literature that evaluates the effectiveness of programs that treat women offenders with trauma exposure. In general, Koons, Burrow, Morash, and Bynum (1997) have found that correctional programs that address women's multiple needs are the most effective, with those addressing physical and sexual abuse among the most promising. In addition, however, some programs which include a focus on PTSD and/or trauma have been evaluated, including *Seeking Safety, Esuba, Integrity,* and the *Women Offender Substance Abuse Program.*

Zlotnick, Najavits, Rohsenow, and Johnson (2003) evaluated the effectiveness of *Seeking Safety*, a treatment program developed to target both substance use disorder and PTSD using cognitive-behavioural therapy. Participants[8] were recruited from a voluntary residential substance abuse treatment program in a woman's correctional facility in the United States. *Seeking Safety* consists of 25 topics (e.g., asking for help, coping with triggers, setting boundaries in relationships) that emphasize coping skills, stabilization, and the reduction of self-destructive behaviours. It was found that 53% of women offenders no longer met the criteria for PTSD in post-treatment, and after three months, 46% of women offenders no longer met the criteria for PTSD (Zlotnick et al., 2003). Furthermore, only 35% of the sample of women offenders reported substance use within three months of release. Findings also demonstrated that within three months of release, 33% returned to custody. It is important to consider that the results of this study are based on a very small sample size with some of the participants unable to complete follow-up data at six weeks and three months.

Ward and Roe-Sepowitz (2009) explored the effectiveness of *Esuba*, a 12-week psychoeducational trauma and abuse intervention program with women sex workers from two settings: a correctional facility and a community exiting program in the United States. The program is designed to "heighten awareness of abuse and violence while teaching anger management and communication skills" (Ward & Roe-Sepowitz, 2009, p. 297). There are 12

[8] There were a total of 18 participants that participated in the study. Two women dropped out of the treatment, therefore follow-up data were only available for 16 women at six weeks, and 15 women at three months. There was no comparison group for this study.

sections to the *Esuba* program with a different topic each week. Topics include identifying differences between perception and reality, self-abuse, and letting go of the past. *Esuba* emphasizes relational connections between the survivors and the group facilitator, creating an environment where experiences can be shared and accepted. It was found to be an effective intervention[9] in decreasing trauma symptoms for the women as demonstrated by an assessment using the TSI at pre- and post-program. The women experienced fewer symptoms of dissociation, anxiety, and depression after the intervention. Furthermore, the results demonstrate that the incarcerated group experienced a greater decrease in the levels of trauma symptoms than the community group. These results were later confirmed in a larger sample of women offenders (Roe-Sepowitz et al., 2012).

Messina, Grella, Cartier, and Torres (2010) completed a study that compared the post-release outcomes of women offenders who participated in different substance abuse treatments within the institution. The participants were randomly assigned to two different programs: 1) *Integrity,* a gender-responsive treatment that encompasses two programs, *Helping Women Recover* (Covington, 2008b) and *Beyond Trauma* (Covington, 2003), and 2) *Destiny Prison Program,* a standard institution-based therapeutic community program[10]. *Integrity* was modified to be a gender-responsive program, integrated with the two program curriculums by Covington (2003; 2008b). *Helping Women Recover* is a 17-session program within four modules: self, relationship, sexuality, and spirituality (Covington, 2008b), while *Beyond Trauma* consists of 11 sessions in three areas: teaching women what is trauma and abuse, teaching women appropriate responses to trauma and abuse, and developing coping skills (Covington, 2003). Comparisons indicated that participation in *Integrity*, the gender-responsive treatment which addresses trauma, was associated with significantly greater reductions in substance use over time (Messina et al. 2010). Furthermore, participants in *Integrity* voluntarily remained in the aftercare program for a longer period of time and were less likely to recidivate within 12 months of release when compared to participants in the *Destiny Prison Program.* Overall, the authors concluded that participation in the gender-specific trauma-informed program led to better outcomes.

[9] There was a total sample of 29 participants who volunteered to participate, 18 in the incarcerated group and 11 in the community group. There were three drop outs in the incarcerated group and eight in the community group. Only data for participants that completed the entire 12-week program were available.

[10] There were a total of 115 women entering institutional treatment that agreed to participate. Participants were randomly assigned either to the *Integrity* group (n = 60) or the *Destiny* group (n = 55). Ninety-four participants completed the 6-month follow-up, and 85 participants completed the 12-month follow-up. No information was provided on the number of drop outs in each group.

In addition, Cole et al. (2007) developed an eight-week program for incarcerated women that have experienced childhood sexual assault. The intervention included topics such as setting boundaries, healthy self-soothing, and enhancing of self-esteem that were covered in 2.5 hour biweekly group meetings. Both the treatment and control group were administered two trauma-specific and general measures pre- and post-intervention. Although based on extremely small samples[11], the findings suggested that the intervention may have prevented the increase of trauma-related symptomatology and because of this, women may have transitioned more easily to the institutional environment; however, similar results (of lesser magnitude) were also found for the control group except for the decline in scores for the Somatization and the Phobic Anxiety scales of the SCL-90-R in the control group, demonstrating greater severity and more symptoms.

CSC's Women Offender Substance Abuse Programming (WOSAP) has also been evaluated. Although, WOSAP is no longer offered by CSC as a treatment program[12], it speaks to the need to address trauma exposure in the treatment of substance abuse. WOSAP has three treatment modules: Engagement and Education, Intensive Therapeutic Treatment, and Relapse Prevention and Maintenance. Engagement and Education, offered to all women in the institution regardless of the use of substances, supports women as they transition from the community into the institution while motivating them to make positive changes (Matheson, Doherty, & Grant, 2008). Every effort is made to connect newly incarcerated women with substance use program providers within the first 48 to 72 hours in order to offer support, identify, and manage women affected by substance use (Hume et al., 2007). The module also teaches women coping strategies including grounding techniques to connect the women with the present moment in periods of dissociation (Matheson et al., 2008). Another module within WOSAP that addresses trauma is the Intensive Therapeutic Treatment (ITT). This module explores the underlying issues related to substance abuse, such as trauma, within a safe environment. Women offenders who participated in ITT-WOSAP returned to custody at a lower rate than those who did not.

[11] A total of 13 participants were selected from a larger sample of incarcerated women to voluntarily participate in the study. Participants were randomly assigned to either the treatment group (n = 7) or the control group (n = 6). A total of four participants dropped out of the study, three in the treatment group and one in the control group.
[12] WOSAP has been replaced with the Women Offender Correctional Program and Aboriginal Women Offender Correctional Program, which are also trauma-informed. Given the programs' relative newness, however, they have not yet been evaluated.

CSC also offers the *Survivors of Abuse and Trauma* program[13], which provides counselling to women offenders to deal with issues of trauma (CSC, 2007). The program aims to increase self-esteem, empowerment, and the understanding of crime and life experiences, while teaching coping strategies, including relaxation, positive thinking, art therapy, journaling, meditation, self-care, self-awareness, stress and emotional management, assertiveness, and confidence. The program consists of two main components: Education/Awareness and Therapeutic Support Group. In a qualitative review, Chabot (2002) found that all participants reported the program to be beneficial. Facilitators noted that the program had a positive effect on the women's self-esteem and empowerment, and provided the women a forum to express emotions.

Although all of the aforementioned treatment programs demonstrated a positive effect on the participants, long-term and in-depth follow-up is needed to determine the effectiveness of the trauma and trauma-informed treatment programs. Results to date suggest that treatment programs that address previous trauma should be available for women offenders exposed to physical and sexual violence, especially given that research has found that incarceration can contribute to women offenders' PTSD symptoms (Dirks, 2004; Heney & Kristiansen, 1998). By preventing the exacerbation of symptoms, such programs may help women offenders transition more easily in the correctional environment.

Conclusion

Although the estimates for exposure to trauma among men and women offenders vary by study, the timing and type of trauma exposure and prevalence of PTSD often differ by gender. More specifically, women are more likely to experience PTSD symptoms, and at a higher intensity, than men offenders. These differences need to be taken into consideration when examining PTSD, mental health, and maladaptive behaviours of women offenders to ensure that effective interventions are implemented in order to positively impact rates of reintegration. Trauma-informed treatment should be considered for women offenders who have experienced physical and sexual violence or other traumatic experiences for a number of reasons. Although the experience of trauma is not predictive of recidivism, the provision of voluntary abuse and

[13] The *Survivors of Abuse and Trauma* program is offered in every institution for women federal offenders. The program is delivered by contractors and each institution delivers their own version of the program. The program is offered on an as-needed-basis.

trauma programs and the inclusion of trauma-informed approaches in correctional programs can contribute to women's well-being and may facilitate greater benefits from program participation. Additionally, addressing trauma may allow participants to more fully benefit from programs that target criminogenic risk factors, and thereby decrease the likelihood of recidivism. Currently, CSC provides the opportunity for women offenders to address issues related to trauma during incarceration by delivering trauma-informed programs and psychological services.

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Appendix A: Description of Assessment Tools that Measure Trauma and PTSD Symptoms

Measures to Assess Trauma

Childhood Trauma Questionnaire. The Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) assesses childhood maltreatment in five areas (emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect) using a 29-item questionnaire on a 5-point scale. The CTQ has been used in several studies to measure the extent of childhood maltreatment in relation to suicidal behavior (see Chapman, Specht, & Cellucci, 2005; Clements-Noelle et al., 2009) and trauma among women offenders (see Strickland, 2008; Walsh, Gonsalves, Scalora, King, & Hardyman, 2012). Studies using the CTQ have yielded internal consistency coefficients ranging from 0.66 to 0.97 (Clements-Noelle et al., 2009; Power & Usher, 2011b; Walsh et al., 2012).

Life Stressor Checklist-Revised. The Life Stressor Checklist-Revised (LSC-R; McHugo et al., 2005) is a 30-item self-report questionnaire that assesses traumatic and stressful life events and has been used in several studies involving women offenders (see Courtney & Maschi, 2012; Grella et al., 2005; Messina & Grella, 2006; Messina et al., 2007; Wolff, Frueh, Shi, & Schumann, 2012). The LSC-R screens the occurrence of traumatic events, the age of occurrence for the first event, the duration, and the life-threat or emotional impact on the DSM-IV criteria (Messina et al., 2007). The LSC-R, the revised version of the LSC, was developed specifically for criminal justice populations (Courtney & Maschi, 2012). Although the LSC-R includes stressful life events such as the loss of a loved one, financial difficulties, and physical health problems (Courtney & Maschi, 2012), it can be revised to only include childhood trauma and adverse events before the age of 16, as it has been in a study by Messina et al. (2007). The LSC-R has been used, on its own or in combination with other measures, to assess physical trauma/violence and sexual trauma/violent in childhood and adulthood (e.g., Messina & Grella, 2006; Messina et al., 2007; Wolff et al., 2012). An average range of 0.70 was observed for the test-retest reliability of the different items on the scale using a sample of women offenders (Courtney & Maschi, 2012).

Trauma History Questionnaire. The revised Trauma History Questionnaire (THQ; Green, 1996) contains 24 items that assess the exposure to traumatic events, the frequency, and age the event first occurred (Salgado et al., 2007). The THQ has been used in various studies involving women offenders (see Komarovskaya et al., 2011; Sacks et al., 2008; Salgado et al,

2007; Wolff et al., 2012; Zlotnick, Johnson, & Najavits, 2009). It has been found to have a test-retest reliability of 0.47 to 1.00 with non-women offender samples (Komarovskaya et al., 2011; Sacks et al., 2008). Komarovskaya et al. (2011) examined the exposure to trauma and symptoms of PTSD among men and women offenders using a truncated 18-item version of the tool. The researchers categorized the items into four categories: natural/general trauma, witness/indirect exposure to violence, interpersonal nonsexual traumas, and interpersonal sexual traumas. The THQ with been used, on its own or in combination with other measures to assess physical trauma/violence and sexual trauma/violence in childhood and adulthood and whether they met the criteria for current and past PTSD (Wolff et al., 2012; Zlotnick et al., 2009).

Traumatic Life Events Questionnaire. The Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000, Kubany, 2004) has been used to assess the exposure of traumatic events among women offenders in numerous studies (see Cook et al., 2005; Eastman & Bunch, 2009; Fournier, Hughes, Hurford, & Sainio, 2011; Huang et al., 2006; Huang, Zhang, Momartin, Huang, & Zhao, 2008). There are different variations of the questionnaire with the number of traumatic events ranging from 15 to 24 items. For each traumatic event, the participants are also asked to respond yes or no to whether they experienced fear, helplessness, or horror (Cook et al., 2005). Changes can be made to the TLEQ by replacing items (e.g., warfare or combat) in order to make the questionnaire more suitable to the sample (Huang et al. 2008). In a study with women offenders, Huang et al. (2008) observed a satisfactory test-retest reliability within two weeks, with a kappa coefficients range from 0.91 to 1.0.

Measures to Assess PTSD Symptoms

Clinician-Administered PTSD Scale. The Clinician-Administered PTSD Scale (CAPS; Blake et al., 1995) has been used in many studies (see Huang et al., 2006; Huang et al., 2008; Salgado et al., 2007; Wolff et al., 2012; Zlotnick et al., 2009). CAPS assesses 17 lifetime and current PTSD symptoms[14] as well as the intensity and frequency of the symptoms on a 5-point scale (Salgado et al., 2007) through a structured clinician interview that takes about 45 to 90 minutes to complete (Huang et al., 2006). The CAPS has been used, on its own or in combination with other measures, to assess whether women report trauma exposure and whether they met the criteria for current and past PTSD, both full and subthreshold (e.g., Huang et al.,

[14] The CAPS-1 assesses current and lifetime PTSD, while the CAPS-2 assesses one week symptom status (National Centre for PTSD, 2007a).

2006; Zlotnick et al., 2009). A kappa coefficient of 0.85 to 0.87 for three symptoms and a coefficient of 0.94 for the whole measure have been observed with a non-women offender sample (Huang et al., 2008).

Symptom Checklist-90-Revised. The Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1994) is a 90-item self-report questionnaire that measures current psychological symptomology on a 5-point scale (Cole, Sarlund-Heinrich, & Brown, 2007, Harris et al., 2003). The SCL-90-R measures nine symptoms dimensions (e.g., somatisation, obsessive-compulsive behaviour, anxiety) and three global indices of distress (Harris et al., 2003). It has a test-retest reliability of 0.66 to 0.90 using non-women offender samples (Cole et al., 2007; Harris et al., 2003). This instrument does not measure the prevalence of PTSD but rather used to assess symptom severity (Huang et al., 2006); it has also been used to evaluate the results of treatment programs (e.g., Cole et al., 2007).

Trauma Symptom Checklist-40. The Trauma Symptom Checklist-40 (TSC-40; Elliot & Briere, 1992) is a 40-item self-report questionnaire that assesses traumatic symptoms on six subscales within the most recent two months using a 4-point scale and has been used in various studies involving women offenders (see Grella et al., 2005; Messina & Grella, 2006; Messina et al., 2007; Salgado et al., 2007; Zlotnick et al., 2009). The internal consistency of the TSC-40 ranges from 0.66 to 0.77 for the six subscales (anxiety, depression, dissociation, sexual abuse, sexual problems, and sleep disturbance) and 0.89 to 0.91 for the full scale with a non-women offender sample (Grella et al., 2005). The Trauma Checklist-40 has been used, on its own or in combination with other measures, to assess whether women report trauma exposure and whether they met the criteria for both full and subthreshold PTSD (e.g., Zlotnick et al., 2009).

Trauma Syndrome Inventory. The Trauma Syndrome Inventory (TSI; Briere, 1995) assesses the level of trauma symptoms using a 100-item self-report questionnaire on posttraumatic stress and traumatic events within the past six months. The TSI includes three validity scales and ten clinical scales (anxious arousal, depression, anger/irritability, intrusive experiences, defensive avoidance, dissociation, sexual concerns, dysfunctional sexual behaviour, impaired self-reference, tension reduction behaviour). The TSI subscales yielded strong reliability ranging from Chronbach's alpha of 0.83 to 0.90 (Roe-Sepowitz, Bedard, Pate, & Hedberg, 2012) and of 0.62 to 0.92 for the subscales (Ward & Roe-Sepowitz, 2009) with a sample of women offenders. This measure has been used in numerous studies on women

offenders (e.g., Bradley & Follingstad, 2003; Cole et al., 2007; Roe-Sepowitz, Bedard, & Pate, 2007; Roe-Sepowitz et al., 2012; Ward & Roe-Sepowitz, 2009).

Appendix B: Measures to Assess Trauma among Women Offenders

Scale	Description	Time Period Examined	Reliability	Discussed In
Childhood Trauma Questionnaire (CTQ) - Bernstein et al. (1994)	- 28-item questionnaire measures five areas of child maltreatment including emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect using a 5-point scale (Clements-Noelle et al., 2009)	Lifetime	- Internal consistency highest for sexual abuse scale (median α=0.92), lowest for physical neglect scale (median α=0.66) (Clements-Noelle et al., 2009)[a] - Internal consistency coefficients ranging from 0.78 to 0.96 on two subscales (Power & Usher, 2011b)	Chapman et al. (2005) Clements-Noelle et al. (2009) Power & Usher (2011b) Walsh et al. (2012)
Life Stressor Checklist (LSC) - Wolfe & Kimerling (1997) Life Stressor Checklist–Revised (LSC-R) - McHugo et al. (2005)	- 30 to 31-item self-report questionnaire that assesses traumatic and stressful life events (Courtney & Maschi, 2012; Messina et al., 2007)	Lifetime	- Average range of 0.70 for the test-retest reliability of the different items on the scale (Courtney & Maschi, 2012)	Courtney & Maschi (2012) Grella et al. (2005) Messina & Grella (2006) Messina et al. (2007) Wolff et al. (2012)
Trauma History Questionnaire (THQ) - Green (1996)	- 24-item self-report questionnaire to assesses exposure to traumatic events, their frequency, and the age event was first experienced (Salgado et al., 2007)	Lifetime	- Test-retest reliability of 0.47 to 1.00 (Komarovskaya et al., 2011; Sacks et al., 2008)[a]	Komarovskaya et al. (2011) Sacks et al. (2008) Salgado et al. (2007) Wolff et al. (2012) Zlotnick et al. (2009)
Traumatic Life Events Questionnaire - Kubany (2000), Kubany (2004)	-21 to 24-item questionnaire on the exposure of traumatic events. Participants are asked whether they had experienced the event and at what frequency (Cook et al., 2005; Eastman & Bunch, 2009; Fournier et al., 2011)	Lifetime	- Kappa coefficients range from 0.91 to 1.00 (Huang et al., 2006; Huang et al., 2008)	Cook et al. (2005) Eastman & Bunch (2009) Fournier et al. (2011) Huang et al. (2006) Huang et al. (2008)

[a] Alpha, test-retest reliability extracted from studies not related to women offenders.

Appendix C: Measures to Assess PTSD Symptoms among Women Offenders

Scale	Description	Time Period Examined	Reliability	Discussed In
Clinician-Administered PTSD Scale (CAPS) - Blake et al. (1995)	- Respondents are assessed through a structured clinical interview on the 17 symptoms of PTSD outlined in the DSM-IV (Salgado et al., 2007)	Lifetime and Current	- Kappa coefficients of 0.85 to 0.87 for three symptoms and coefficient of 0.94 for the whole measure (Huang et al., 2006 ; Huang et al., 2008)[a]	Huang et al. (2006) Huang et al. (2008) Salgado et al. (2007) Wolff et al. (2012) Zlotnick et al. (2009)
Symptom Checklist-90-Revised (SCL-90-R) - Derogatis (1994)	- 90-item self-report questionnaire regarding the respondent's current psychological status on a 5-point scale (Cole et al., 2007; Harris et al., 2003)	Current psychological symptomatology	- Test-retest reliability ranging from 0.66-0.90 (Cole et al.,2007)[a] - Coefficient alpha of 0.77 to 0.90 (Harris et al., 2003)[a]	Cole et al. (2007) Harris et al. (2003) Huang et al. (2006)
Trauma Symptom Checklist -40 (TSC-40) - Elliott & Briere (1992)	- 40-item self-report questionnaire that assesses trauma symptoms on a 4-point scale. The assessment includes six subscales (anxiety, depression, dissociation, sexual abuse, sexual problems, and sleep disturbance) (Grella et al., 2005; Messina & Grella, 2006)	Past two months	- Subscale alpha of 0.66 to 0.77 - Full scale alpha of 0.89 to 0.91 (Grella et al. 2005)[a]	Grella et al. (2005) Messina & Grella (2006) Messina et al. (2007) Salgado et al. (2007) Zlotnick et al. (2009)
Trauma Symptom Inventory (TSI) - Briere (1995)	- 10 clinical scales which includes anxious arousal, depression, anger/irritability, intrusive experiences, defensive avoidance, dissociation, sexual concerns, dysfunctional sexual behavior, impaired self-reference (Bradley & Follingstad, 2003) - 100 item self-report questionnaire of posttraumatic stress and traumatic events using a 4-point scale (National Centre for PTSD, 2007b; Norris & Hamblen, 2004).	Past six months	- Subscales alpha of 0.83-0.90 (Roe-Sepowitz et al., 2012) - Coefficient alphas for the subscales ranges from 0.62 to 0.92 (Ward & Roe-Sepowitz, 2009)	Bradley & Follingstad (2003) Cole et al. (2007) Roe-Sepowitz et al.(2007) Roe-Sepowitz et al. (2012) Ward & Roe-Sepowitz (2009)

[a] Alpha, test-retest reliability extracted from studies not related to women offenders.