Post Traumatic Stress Disorder in incarcerated populations : current clinical considerations and recommendations

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Post Traumatic Stress Disorder in Incarcerated Populations: Current Clinical Considerations and Recommendations

Abstract

Purpose: Post traumatic stress disorder (PTSD) may have a detrimental impact on the individual's ability to benefit from rehabilitative prison-based programmes and studies have also found that there is an association between PTSD and higher rates of re-offending. Studies have also found that a significant number of cases of trauma and PTSD go undetected and therefore untreated in individuals who are incarcerated. **Approach:** A literature review was carried out exploring studies which have investigated PTSD in incarcerated populations in order to identify current clinical considerations and recommendations. **Findings:** This paper explores the key findings from the literature and highlights the important clinical implications and recommendations. **Value:** To the authors' knowledge, this is the first paper to focus specifically on how the findings from the literature can inform clinical practice and also what factors need to be given greater consideration, going beyond current systematic reviews and literature reviews in the field.

Keywords: Post traumatic stress disorder; PTSD; prison; prevalence; incarcerated; jail; inmates; prisoners.

Introduction

Post traumatic stress disorder (PTSD)

Post traumatic stress disorder (PTSD) is a heterogeneous syndrome which is characterised by symptom clusters which are relatively disparate. In the Diagnostic and Statistical Manual of Mental Disorder fifth edition (DSM-5; American Psychiatric Association, APA, 2013), PTSD consists of four symptom clusters, namely, intrusion symptoms, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity. In order to fulfil the diagnostic criteria for PTSD, the individual must be exhibiting features of all four clusters of symptoms for a minimum of one month and, crucially, the symptoms must cause the individual marked levels of distress or impairment (APA, 2013). However, a large number of individuals who have experienced a trauma develop sub-threshold PTSD rather than full clinical threshold PTSD (McLaughlin et al., 2015). Even sub-threshold post traumatic stress is clinically relevant, as studies have found it to be related to significant and long-standing impairment (e.g., Marshall et al., 2001). There are a variety of PTSD symptoms such as: re-experiencing traumatic events, avoidance of trauma-related stimuli, sleep problems, feelings of irritability, angry outbursts and feeling emotionally flat (APA, 2013). In a study carried out in the United States, the 12-month prevalence rate for PTSD in the general population was estimated at 3.5% (Kessler, Chiu, Demler, & Walters, 2005).

In the general population, the lifetime prevalence for PTSD ranges from 1% to 14% (e.g., Astur et al., 2006; Kessler et al., 2005a, 2005b). The prevalence rate for PTSD in a cross-national sample which encompassed 27 countries was estimated at 1.1% (Karam et al., 2014; Atwoli, Stein, Koenen, & McLaughlin, 2015). Studies indicate that females have at least double the rate of PTSD compared to males (e.g., Komarovskaya, Loper, Warren, & Jackson, 2011). Numerous studies have also found that PTSD is commonly comorbid with other mental health disorders, particularly major depressive disorder (Brady, Killeen, Brewerton, & Lucerini, 2000; Horesh et al., 2017). Other diagnoses which are often found in individuals with PTSD include: bipolar disorder, substance use disorders, anxiety disorders, psychotic symptoms, suicidal ideation and suicide attempt (e.g., Kubiak & Rose, 2007; Collimore, Carleton, Hofmann, & Asmundson, 2010; Ramsawh et al., 2014; Finley et al.,

2015; McMillan, Asmundson, & Sareen, 2017). It is also well-established that PTSD symptoms can be exacerbated by substance use which can increase the risk for impulsive or offending behaviour (Kubiak & Rose, 2007; McGuire & Clark, 2011). This may subsequently place the individuals at further risk for trauma (Kubiak and Rose, 2007; Mills, Teesson, Ross, & Peters, 2006).

A systematic review and meta-analysis was recently published which identified and investigated studies which reported a relationship between PTSD and comorbid mental health disorders and/or problematic behaviours in both adolescents and adults who are imprisoned. This is the first systematic review of the field since the review carried out by Goff and colleagues in 2007. The present paper adds to the existing knowledge by focusing specifically on some of the key clinical considerations and recommendations based on the literature which has been identified by these two earlier reviews, including literature identified in the present literature review.

PTSD and traumatic exposure in incarcerated populations

There is an increasing number of studies which have found an association between traumatic events and later offending behaviour (Widom & Maxfield, 2001). Numerous studies have found that incarcerated individuals exhibit significantly higher rates of traumatic exposure when compared to the general population (Green, Miranda, Daroowalla, & Siddique, 2005; Grella, Stein, & Greenwell, 2005; Islam-Zwart & Vic, 2004). Studies estimate that more than 75% of individuals who are incarcerated are exposed to a significant amount of traumatic events throughout their lives (Boşgelmez et al., 2010; Huang et al., 2006; Payne et al., 2008). Studies appear to consistently find that the prevalence of PTSD is significantly higher in females compared to the males. For instance, Giarratano and colleagues (2017) found in their sample of males (n = 301) that 18.6% (n = 56) met the diagnosis for PTSD. However, this percentage was significantly higher in their sample of females (n = 196) where 38.8% (n = 76) were found to meet the diagnosis for PTSD. In the study carried out by Greene and colleagues (2014) they found that the prevalence of PTSD in the males was 7.1% and 25.4% in the females in their sample. In another study conducted by Heffernan and colleagues (2015) the prevalence of PTSD was 12.1% in the males and 32.3% in the females. Komarovskaya and colleagues (2011) also found that females showed higher rates of PTSD when compared to men (40.2% versus 12.5%). Lastly, Kubiak and colleagues

(2012) found in their sample that there was a higher rate of PTSD in females compared to males (53.0% versus 26.7%).

There have been a number of studies looking at PTSD in older adults (e.g., Maschi et al., 2011; Flatt et al., 2017). For instance, Flatt and colleagues (2017) found that over one in three of the older prisoners in their sample screened positive for PTSD. Lastly, there have been a number of studies which have looked at juveniles (children and adolescents) (e.g., Becker & Kerig, 2011; Bennett et al., 2015; Chaplo et al., 2017; Modrowski et al., 2017; Moore et al., 2013; Sharf et al., 2014). In the studies looking at this particular group where percentages of individuals diagnosed with PTSD were available, high prevalence rates of PTSD (compared to the general population) were found. The range went from 9.6% to 42.67% (Becker & Kerig, 2011 and Bennett et al., 2015, respectively). The finding with the juvenile males and females was consistent with the adult males and females, in that the female juveniles are also found to have higher prevalence rates of PTSD compared to the juvenile males. For instance, Moore and colleagues (2013) found that females were significantly more likely to have PTSD compared with males (40% versus 17%, $p < 0.05$).

The higher rates of PTSD in incarcerated populations is unsurprising when you consider the high rates of traumatic exposure in this population (Cauffman, Feldman, Waterman, & Steiner, 1998; Spitzer, Dudeck, Liss, Orlob, Gillner, & Freyberg, 2001; Steiner, Garcia, & Mathews, 1997).

Compared to the prevalence rates found in the general population, the prevalence rates of PTSD in criminal justice populations are much higher (Kubiak & Rose, 2007; Schnurr et al., 2004). In their review, Goff and colleagues (2007) found 103 papers which were potentially relevant following preliminary screening. After screening based on the exclusion and inclusion criteria, four of these 103 papers were included in the results. All four papers suggested that the prevalence of PTSD among incarcerated populations is greater compared to the prevalence found in the general population (Powell, Holt, & Fondacaro, 1997; Simpson, Brinded, Laidlaw, Fairley, & Malcolm, 1999; Brink, Doherty, & Boer, 2001; Butler & Allnut, 2003). Although the prevalence of PTSD was found to be higher in the incarcerated populations in each of the four studies, there was significant variability found across the studies with a range from 4% to 21.4%. Specifically, one study found that only 4% of the prisoners met the diagnostic criteria for PTSD (Brink et al., 2001). Another study

found the prevalence to be 10.2% (Simpson et al., 1999). The remaining two studies found a much higher prevalence of PTSD in sentenced prisoners. Specifically, Butler and colleagues (2003) found a prevalence of PTSD in sentenced prisoners of 21.40% and Powell and colleagues (1997) found a prevalence of 21%. Two of the four studies comprised of samples which included just males (Brink et al., 2001; Powell et al., 1997). The other two studies included both males and females (Butler et al., 2003; Simpson et al., 1999). In the two studies which included females in their sample, they found that women were disproportionately more affected (Butler et al., 2003; Simpson et al., 1999).

However, Goff and colleagues (2007) point out one of the potential issues in making comparisons across studies. The definition of 'current' symptoms of PTSD varies across studies which may contribute to the variations found across studies in the identified prevalence of PTSD in sentenced prisoners. In the two of the four studies which found the prevalence of PTSD to be much higher at 21% and 21.4% (Powell et al., 1997 and Butler et al., 2003, respectively), they defined 'current' as the presence of PTSD symptoms in the six months and twelve months prior to diagnosis, respectively. Therefore, these two studies allowed for much longer duration 'at risk' for PTSD. On the other hand, the two studies which found much lower prevalence defined 'current' as the presence of PTSD symptoms in the one month prior to diagnosis (Brink et al., 2001; Simpson et al., 1999).

Clinical Implications and Recommendations

Need for more effective PTSD screening and treatment interventions

An important issue that is worth drawing attention to is the findings by Gosein and colleagues (2016). Their findings indicated that a significant amount of cases of trauma and PTSD goes undetected and therefore untreated in sentenced prisoners. They found that current PTSD was identified by structured diagnostic interview (Structured Clinical Interview for DSM-IV TR PTSD Module, SCID-I) in 46.2% of their sample which was significantly higher than the 2.1% identified in the same sample using clinical assessment. Some of the possible explanations for the fact that nearly 50% of their sample had active diagnoses of PTSD at the time of assessment which was not identified as such by the clinical teams may be due to the emphasis which is given to the treatment of more active and urgent psychiatric symptoms (e.g., psychosis or suicidality). Consistent with this, Gosein and colleagues (2016) found that individuals are not as likely to be diagnosed with PTSD if they are diagnosed with psychosis upon admission. Thus, there is clearly a need for more effective PTSD screening and treatment interventions in this particular population (Gosein et al., 2016).

As previously highlighted by Campbell and colleagues (2016), "current service provision and evidence base within the prison setting is poor and needs to be addressed urgently" (Campbell et al., 2016, pp. 117). Campbell and colleagues (2016) published a report based on a case study which highlighted the possibility of effectively treating PTSD in prisoners within a prison setting using adaptations to conventional trauma-focused cognitive behavioural therapy (TF-CBT). In the report they outline a two-phased approach to treating PTSD in an individual within the prison setting. The first phase began with stabilisation which was followed by an integration of culturally appropriate ideas from narrative exposure therapy (NET), given that the traumas were during war and conflict, and TF-CBT. PTSD and scores on paranoia scales improved between start and end of treatment. At the six-month follow-up, these improvements were found to be maintained. There is a clear and urgent need for service provision and evidence-based practice for PTSD in prisons (as least in the United Kingdom) to "allow individuals to engage in opportunities to reduce re-offending, free from mental health symptoms" (Campbell et al., 2016, pp. 112).

Need for trauma-focused treatment in correctional facilities

The prison environment affords a potential unique opportunity to intervene (Butler et al., 2006; Sindicich et al., 2014). An increasing number of studies are indicating that the

prevalence of PTSD and also traumatic exposure is much higher in incarcerated populations compared to the general population. This highlights that trauma-focused treatment in correctional facilities is imperative. Given the differences in the patterns of traumatic exposure, Komarovskaya and colleagues (2011) have stated that the primary aim of trauma-focused treatment may be different for males compared to females (Komarovskaya et al., 2011).

The need to assess prisoners for objective and subjective trauma and stressful life events: Over the course of a lifetime, there are changes in the subjective impressions of trauma

In a study carried out by Maschi and colleagues (2011), it was found that participant's age had a significant and inverse relationship to post-traumatic stress symptoms. Specifically, it was found that participants (aged 55–82 years) who were younger were more likely to report a higher level of post-traumatic stress symptoms when compared to the older participants. Thus, it is possible that over the course of a lifetime, there are changes in the subjective impressions of trauma. Given this, Maschi and colleagues (2011) recommend the need for support professionals to assess prisoners for objective and subjective trauma and stressful life events and then offer effective evidence-based treatment that include these subjective experiences of psychological distress while in prison (Maschi, Morgen, Zgoba, Courtney, & Ristow, 2011).

Clinicians may benefit from assessing diagnostic criteria across multiple traumatic events rather than just the identified index trauma

In the DSM–5, Criterion A for PTSD now specifies traumatic event(s) (APA, 2013, pp. 271–272). This is a modification from previous editions of the DSM where there was the requirement that all PTSD symptoms were associated which a single traumatic event (Briere & Scott, 2015). The change in the DSM-5 regarding this issue reflects the increasing widespread belief that PTSD can develop as a result of exposure to multiple traumas as opposed to being due to a single event which had been the prevailing view for some time (Briere et al., 2016). Modrowski and colleagues (2017) found that the majority of youth in their sample were polyvictims. Given this, they suggest that clinicians need to assess diagnostic criteria across multiple traumatic events as opposed to simply the index trauma (Modrowski et al., 2017). Briere and colleagues (2016) argue that in many cases of PTSD,

single-trauma-focused exposure therapies can be effective (e.g., Foa, Hembree, & Rothbaum, 2007), however, interventions that address multiple traumas and multiple outcomes may be more effective for individuals experiencing PTSD as well as other difficulties which are related with more complex trauma scenarios (Courtois & Ford, 2013).

Additionally, Briere and colleagues (2016) have suggested that exposure-based interventions may not be effective to target all the 'major trauma related symptomatology' in cases where instances of PTSD reflect the interaction and 'mutual exacerbation of multiple trauma effects over time' (pp. 444). They argue that although emotional processing of a single traumatic event can generalise to the impact of other types of traumas to a certain degree, therapy which consists of cognitive interventions, interpersonal therapy, affect skills training and psychodynamic/relational interventions which target broader difficulties which are related with a complex trauma history may be most helpful (Briere et al., 2016).

The importance of carrying out an assessment of childhood interpersonal trauma history in newly incarcerated individuals

Greene and colleagues (2014) have recommended that prevention and treatment services need to include an assessment of childhood interpersonal trauma history for both male and female adults who are newly incarcerated and experiencing psychiatric disorder(s). If a history of childhood interpersonal trauma is identified with this assessment, evidence-based treatment should be offered irrespective of whether the individual receives a diagnosis of PTSD (Ford et al., 2013). Carrying out such an assessment for newly incarcerated individuals could also increase our understanding of who will not got on to develop Axis 1 disorders (e.g., PTSD) even though they reported childhood interpersonal trauma and high levels of post traumatic stress syndrome (PTSS). Moreover, a greater understanding of the protective factors which contribute to "resilience" may have important treatment implications (Greene et al., 2014).

Possibility that adolescents may not be accurate reporters of their own arousal symptoms: Need to consider developmental processes in the diagnosis and treatment of PTSD

Modrowski and colleagues (2017) have raised the possibility that adolescents may not be accurate reporters of their own arousal symptoms. In their study they found that changes to

the DSM–5 PTSD criteria enabled 22 youths to screen positive for PTSD who, based on the DSM–IV–TR, would not have screened positive for PTSD. Moreover, despite previously having received a positive screening for PTSD based on the criteria in the DSM–IV–TR, 18 youths in the sample did not screen positive for PTSD based on the criteria in the DSM–5. Modrowski and colleagues (2017) investigated the potential reason why the youths in their sample no longer screened positive for PTSD when using the DSM–5. They found that the entire subset failed to meet Criterion E (as they did not exhibit two different symptoms in Criterion E at levels which were clinically significant). Given that Criterion E still measures arousal (similar to the DSM–IV–TR's Criterion D) this may appear surprising. However, changes were made to this criterion in the DSM–5 which is now called Criterion E. For instance, one of the changes made to that DSM–5 is that Criterion E also now includes symptoms of self-destructive and reckless behaviour (which may include things such as self-injury, problematic substance use, etc). These symptoms are in addition to the ones that were previously in the DSM-IV-TR, namely, increased irritability or anger, hypervigilance and impaired concentration. Therefore, the findings in the study carried out by Modrowski and colleagues (2017) that youth in the sample who only screened positive for PTSD based on the DSM–IV criteria failed to meet DSM–5 Criterion E (arousal) indicates that adolescents may be unable to report on their own arousal symptoms accurately or they may hold the belief that these symptoms are normal. In adolescents who are high-risk (e.g., detained youth), this is an important consideration given that their involvement with the criminal justice system may be through association with, or worsened by, these very symptoms of PTSD (Bennett et al., 2014; Modrowski et al., 2017).

Need for prison staff training

Studies have found that symptoms of PTSD are significantly associated with violence in prison (e.g., McCallum, 2018). Such findings support the need for staff training and the availability of a service to assess and treat PTSD (McCallum, 2018).

Need to integrate trauma-informed practices within the juvenile justice system

A study by Modrowski and colleagues' (2017) identified particularly high rates of PTSD in samples of youths involved in the juvenile justice system. This highlights the

importance of integrating trauma-informed practices within the juvenile justice system (Ford, Kerig, Desai, & Feierman, 2016; Kerig, 2012; Modrowski et al., 2017).

Association between multiple experiences of trauma and the severity of the most recent offence

Karatzias and colleagues (2018) recently identified another important issue to consider in their study. They found that there was a significant association between multiple experiences of trauma and the severity of the most recent offence (which was measured by length of sentence and not with age at first offence). Therefore, multiple instances of traumatisation may not subsequently lead to offending behaviour, but, when an individual has experienced multiple traumas commits an offence, the seriousness of the offence may be greater (Karatzias et al., 2018).

Importance of the delivery of evidence-based PTSD treatment in prison

PTSD may have a detrimental impact on the individual's ability to benefit from rehabilitative prison-based programmes (Cauffman et al., 1998) and studies have found that there is an association between PTSD and higher rates of re-offending (Kubiak, 2004; Karatzias et al., 2018). Harner and colleagues (2015) argue that it is crucial that prisons offer evidence-based PTSD treatment. This treatment should, ideally, be offered as early as possible in confinement, as alleviation or eradication of the symptoms of PTSD may enable individuals to engage more fully in prison-based programming (e.g., addiction treatment, parenting classes) (Harner et al., 2015).

Future Research Directions

There is a need for additional research in order to advance our understanding of the prevalence of PTSD in incarcerated populations (juveniles, adults and older adults, as well as looking at gender differences across each of these three age stages) (Caraballo et al., 2013). As indicated in more detail below, there is also a need for more research investigating the course, phenomenology, protective factors and treatment of PTSD in incarcerated populations (Caraballo et al., 2013).

Investigating the protective factors

There is also a need for research to investigate what the protective factors are that provide resilience in individuals who are traumatised (both juveniles and adults). To date, there have been relatively little research investigating this(Becker & Kerig, 2011). There have been some studies which have found the interpersonal-affective component of psychopathy to be protective against the development of PTSD (Willemson, De Ganck, & Verhaeghe, 2012; Sellbom, 2015; see Anestis, Harrop, Green, & Anestis, 2017).

Research in older incarcerated samples

Research investigating PTSD in older prisoners is relatively sparse. This is problematic given the findings by Flatt and colleagues (2017) which showed that over one in three of the older prisoners in their sample screened positive for PTSD. However, only one in five of those who screened positive reported a prior diagnosis of PTSD.

Incarcerated women with PTSD and female offending

Zlotnick and colleagues (2009) highlighted that there is a need for more research in order to better understand the needs of incarcerated women and what treatment approaches may be most effective. They suggest that what may be helpful is a longer treatment during the period of incarceration and, following release, increased frequency of treatment. To date, there remains a need for more research in this area. Additionally, Howard and colleagues (2017) have pointed out that currently there is a lack of understanding of female offending behaviour as well as the needs of female offenders (e.g., De Vogal & Nicholls, 2016).

Interaction between PTSD and substance use disorder (SUD)

There is a need for increased awareness and understanding of how PTSD and SUD interact and also how addressing one in treatment may impact on the other. There is a need for research to explore what the most effective treatment pathway is for individuals who present with both PTSD and SUD. Specifically, "whether it is necessary to treat PTSD and SUD simultaneously and/or using models specifically for the dual diagnosis" (Zlotnick, Johnson, & Najavits, 2009, pp. 336).

Need to improve screening approaches

There is a very real need to consider integrating more effective screening approaches at the point of contact with custodial services and, if the individual is retained in custody, at appropriate intervals (Moore et al., 2013). Moore and colleagues (2013) have argued that improving screening approaches will "ensure trauma experiences are carefully reviewed and appropriate measures are put in place to support young people at each stage of their incarceration, not only at the point of admission, which is often the main focus given the risks associated with first-time incarceration" (Moore, Gaskin, & Indig, 2013, pp. 868). Facer-Irwin and colleagues (2019) have recently emphasised that there is currently no routine screening for PTSD in clinical services and PTSD is also typically undiagnosed and untreated within prison settings (Fazel, Hayes, Bartellas, Clerici, & Trestman, 2016; Jakobowitz, Bebbington, McKenzie, Iveson, Duffield, Kerr, & Killaspy, 2017; Tyler, Miles, Karadag, & Rogers, 2019 – see Facer-Irwin, Blackwood, Bird, Dickson, McGlade, Alves-Costa, & Macmanus, 2019).

PTSD and correctional staff

Although not the focus of the present review it is important to highlight the five studies that were identified in the searches returned from the five databases that investigated PTSD in relation to correctional staff (Kunst, Bogaerts, & Winkel, 2009; Boudoukha, Altintas, Rusinek, Fantini-Hauwel, & Hautekeete, 2013; Bogaerts, & van der Laan, 2013; Holloway, Cruise, Morin, Kaufman, & Steele, 2018; James & Todak, 2018). For instance, in their study, Boudoukha and colleagues (2013) found that correctional staff reported high global scores of post traumatic stress (PTS) corresponding to the level of clinical symptoms of patients with Acute Stress Disorder. This finding indicates that there is a need to support correctional staff and also to address the relational dynamics between prisoners and correctional staff (Boudoukha et al., 2013).

Conclusion

This paper highlights the increasing number of studies which have identified high prevalence rates of PTSD within correctional facilities. This points to the importance of the

need for intervention studies which are specifically tailored to the needs of individuals with this disorder. The PTSD-triggering effects of the prison environment can be reduced if trauma-informed treatment becomes standard practice (Ruzich et al., 2014).

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