

The University of Liverpool
Doctorate in Clinical Psychology

**Is there a Relationship between Trauma
Experiences, Substance Use and Violence in
Adult Male Offenders**

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Chapter One: Introduction

Research has consistently identified a relationship between trauma and violent offending and much of the evidence for this so far has come from studies of juveniles (Widom, 1989a, 1989b). The literature indicates that specific types of trauma, such as child sexual and physical abuse and neglect may be associated with increased risk for later violent offending (Widom, 1989a; 1989b; Weeks & Widom, 1998). In addition, research suggests that individuals exposed to traumatic events are also at increased risk for developing a substance use disorder (Jacobson, Southwick & Kosten, 2001). According to Khantzian (1985) experience of trauma frequently precedes substance use, which in turn has been linked to rates of re-offending (Kubaik, 2004).

Individuals often use substances as a way of managing distressing symptoms of trauma and Post Traumatic Stress Disorder (PTSD), specifically those symptoms associated with regulating negative affective responses (Khantzian & Albanese, 2008). Responses to trauma can include anger, aggression towards others, self destructive behaviours and violence (Khantzian, 1985). These behaviours may lead to criminal involvement which ultimately increases the risk of arrest.

Offenders, in particular, experience many risk factors for developing PTSD and compared to those without a history of PTSD, men with a history of PTSD more often report regular use of alcohol and illegal drugs. Male inmates who were previously abused or the victim of childhood trauma also report more regular use of alcohol and illegal drugs than those not previously abused (Ireland & Widom, 1994).

Furthermore, people experiencing symptoms of trauma or PTSD often attempt to self-

medicate to gain relief from the persistent memories of abuse through the use of alcohol and drugs (Khantzian, 1985).

Substance use and dependence in prisoners is a well-known and growing concern. Research on substance use and criminal offending has indicated that heavy drug use, as well as alcohol abuse, increased the likelihood of being involved in crime and violent behaviour. In the UK it has been estimated that 78% of assaults are committed under the influence of alcohol (Jones & Hoffmann, 2006). The British Medical Association has estimated that, in many cases, either the offender or victim had consumed alcohol prior to their offence (65% homicides, 75% stabbings, 70% assaults and half of all domestic assaults; Jones and Hoffman, 2006).

Additionally, elevated rates of co-occurring substance use and psychiatric disorders have also been found in studies with both male (Sindicich, Mills, Barrett, Indig, Sunjic, Sannibale, Rosenfeld, & Najavits, 2014) and female offenders (Zlotnick, 1997). Furthermore, it is well documented that men and women entering prison have histories of exposure to traumatic events prior to incarceration (Teplin, Abram & McClelland, 1996) and several studies have evidenced a link between childhood trauma and substance use in later life (Kubaik, 2004). Consequently, offenders with co-occurring PTSD and substance use are more likely to become entrenched within the criminal justice system (Kubiak, 2004).

Given the evidence so far, this thesis aims to focus on further exploration of the link between trauma and violent offending and between substance use and violent offending, in particular in adult male offenders. It also aims to explore co-occurring

substance use and trauma or PTSD, and the nature of the relationship between substance use, trauma and violence.

As a first step, a systematic review of the available literature and research to date is presented in chapter two. The focus of the review chapter was to evaluate previous literature in relation to trauma, substance use and violence within an offending population. Co-occurring substance use and trauma was of particular interest and whether or not the evidence suggested that co-occurrence increased the likelihood of violence.

Chapter three comprises an empirical paper based on the findings of the systematic review and exploration of similar research in relation to trauma, substance use and violence. The study was designed with particular reference to the findings from chapter two that suggested that for those individuals who experienced co-occurring trauma and substance use the likelihood of violence increased. Although there is already a link established between trauma and violence in juveniles (Widom, 1989a; 1989b; Weeks & Widom, 1998) there is limited research on co-occurring trauma and substance use within an adult male offending population. Therefore, the focus of the empirical paper was to increase the evidence base in relation to adult male offenders who display violence in the hope this would inform better assessment and treatment outcomes.

Chapter four contains an extended discussion and conclusions of the current findings from this work looking at strengths and limitations. A report for dissemination to the National Offender Management Service (NOMS) in relation to outcomes and findings

and clinical implications of the study is also included. The final section of Chapter four considers the findings from the current research and offers a proposal for further research on this topic.

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Chapter Two: Systematic Review

Journal

The Journal of Forensic Psychiatry & Psychology¹

Title

Substance use and post traumatic stress disorder: does co-occurrence increase the likelihood of violence.

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Abstract

Background and aim

Substance use and trauma or Post Traumatic Stress Disorder (PTSD) has previously been linked to perpetration of violence. There is limited research on the relationship between these, despite recognition that they frequently co-occur. The aim of the current research was to explore whether co-occurring substance use and trauma or PTSD increased the likelihood of violence.

Method

Electronic databases were systematically searched; PILOTS, Web of Science, Scopus, and DISCOVER (PsycINFO, PsycARTICLES, Medline, National Criminal Justice Reference Service Abstracts). Articles were excluded that did not meet the inclusion criteria. The remaining articles were included in this review.

Results

Six articles were identified for inclusion. Five of the studies were cross-sectional and one study was a case-control design. All of the studies used self report measures and three additionally used clinical interviews. There was great variability in measures administered across studies.

Conclusion

The current review suggests co-occurring substance use and trauma or PTSD increased the probability of perpetrating violence. However, sample size, sample variability and measurement variability suggest limitations for generalisability across and between populations. Therefore, given the few studies to draw conclusions from the current results should be viewed tentatively. Further research is necessary using more rigorous methodology.

Key words Substance use, trauma, post traumatic stress disorder (PTSD), co-occurring Substance Use and PTSD, violence perpetration.

2.1 Introduction

2.1.1 Violent offending

At the end of May 2013, the prison population in England and Wales reached 83,151. Between 2002 and 2012 it grew by 14,830 with recent cases presenting before the courts becoming more serious. Specifically, violence against the person, drug offences and sexual offences are having the largest impact on the increasing prison population (Bromley Briefings Prison Factfile, 2013).

Of particular interest to this review is the perpetration of violence. As demonstrated by the British Crime Statistics for England and Wales, in 2010/2011 it was estimated that there were 2,203,000 violent incidents committed against adults and 642 homicides. The number of attempted murders recorded by the police in 2010/11 was 525. There was an estimated 1,211,000 incidents of violence with injury, accounting for just over one half (55%) of all violent incidents. There were 392,000 incidents of domestic violence, 7,006 firearm offences and 76,179 robberies recorded. Data for serious offences involving the use of a knife or sharp instrument have been collected since 2007/08 and comprise: attempted murder, threats to kill, actual bodily harm (ABH), grievous bodily harm (GBH), robbery, rape and sexual assaults. In 2010/11, the police recorded 32,714 offences (including homicides) involving a knife or sharp instrument (National Statistician's Review of Crime Statistics: England and Wales, 2011).

Similarly, violent offences perpetrated by youth such as grievous bodily harm and homicide also increased from 428 in June 2004 to 536 in January 2009.

Simultaneously, such an increase was also found in the number of young people

serving custodial sentences for murder. In June 2004 there were six young people in custody; this rose to 31 in December 2009 (Welfare & Hollin, 2012).

Violent offending is a major concern for society. Decades of research have attempted to understand the underlying factors that contribute towards this problem so that well-informed interventions to reduce the risk of violent offending can be developed.

Numerous factors have been studied in relation to violent offending, however, the present paper focuses specifically on Substance Use (SU) and trauma or Post Traumatic Stress Disorder (PTSD). There is already a vast amount of previous research on the relation of SU to violence (e.g., Bennett & Williams, 2003; Holtzworth-Munroe & Meehan, 2004; Lawson, Weber, Beckner, Robinson, Marsh, & Cool, 2003). By comparison, there is less research on the link between PTSD and violence. That said, previous research has consistently found childhood victimisation as a significant risk factor for involvement in violence and crime (e.g., Maxfield & Widom, 1996; Stouthamer-Loeber, Loeber, Homish, & Wei, 2001) and childhood victimisation has been also been linked to illicit drug use (Widom, Marmorstein, & White, 2006).

2.1.2 Substance use

For some time research has substantiated a link between substance use and violent offending (Crane, Oberleitner, Devine, & Easton, 2014; Smith, Homish & Cornelius, 2012) and there is growing concern for the number of offenders entering prison due to drug related offences, particularly violent offences.

The 2010/11 British Crime Survey reported that in twenty percent of reported crimes the victims believed that the offender was under the influence of drugs and in forty four percent of violent crimes the offender to be under the influence of alcohol (Bromley Briefings Prison Factfile, 2013). Moreover, Singleton and Meltzer (1998) found that 51% of remand prisoners and 43% of sentenced male prisoners in England and Wales fulfilled criteria for diagnosis of drug dependence in the year preceding prison, additionally, 80% of male prisoners reported having a history of illicit drug use.

2.1.3 Trauma and PTSD

Trauma and PTSD has previously been linked to violent offending. Many offenders enter the criminal justice system with a history of abusive experiences, in particular, early childhood maltreatment and neglect (Widom, 1989). Studies have frequently reported a link between traumatic experiences and violent offending in juveniles (Widom, 1989, 1989a), male offenders (Neller, Denney, Pietz & Thomlinson, 2006), and war veterans (Sullivan & Elbogen, 2014). Additionally, prevalence rates of prior trauma and abuse of between 10% - 21% have been found among female prisoners (Fazel & Baillargeon 2011) and from 4% - 21% among male prisoners (Brink, Doherty & Boer, 2001).

2.1.4 Co-occurring substance use and trauma or PTSD

There is growing evidence that trauma and PTSD frequently co-occur with substance use disorders (McCauley, Killeen, Gross, Brady & Back, 2012). Among substance abusing treatment-seeking populations, high rates of co-occurring PTSD and SU are consistently observed. In some cases, patients with PTSD are up to 14 times more likely than patients without PTSD to have an SU (Chilcoat & Menard, 2003; Ford,

Russo & Mallon, 2007). Alternatively, in patients seeking treatment for SU, lifetime PTSD rates have been estimated between 30% - 60% (Brady, Back & Coffey, 2004; Jacobsen, Southwick & Kosten, 2001). Research on co-occurring PTSD and SU has indicated a much poorer outcome for these individuals, for example, poor treatment outcome, including worse prognosis on substance use; a higher rate of inpatient drug treatment admissions, and a higher rate of other co-occurring psychiatric disorders (Brady, Killeen, Saladin, Dansky & Becker, 1994; Najavits, Gastfriend, Barber, Reif, Muenz & Baliane, 1998; Ouimette, Kimerling, Shaw & Moos, 2000).

Additionally, the occurrence of PTSD-related symptoms has been associated with greater drug abuse severity (Clark, Reiland, Thorne & Cropsey, 2013; Barrett, Mills & Teesson (2011). The co-occurrence of SU and PTSD has also been associated with a higher risk of criminal involvement and violence perpetration (Proctor & Hoffman, 2012). Furthermore, trauma and abuse increase the risk of substance use (Herrenkohl, Huang, Tajima & Whitney, 2003) and drug use has often been associated with both violence and victimization (Borowsky & Ireland, 2004).

Surprisingly then, what is rarely considered in the literature is the link between co-occurring substance use and PTSD and the perpetration of violence. In particular, within the prison population little attention is given to these two co-occurring factors and its possible link to violence, despite the evidence that co-occurrence is associated with a higher risk of criminal involvement (Proctor & Hoffman, 2012).

Given that substance use and trauma have previously both been independently linked to violent behaviours, and those with co-occurring SU and PTSD have poorer outcomes; the current review was designed to evaluate whether co-occurring SU and

PTSD would be associated with an increased likelihood of violence, which may thus indicate an increased likelihood of becoming entrenched within the criminal justice system.

The prison population, particularly the number of violent offenders being incarcerated, has increased dramatically over recent years. Therefore, a more thorough understanding of the implications of co-occurring trauma and substance use and any relationship with violence may have significant implications for treatment of these individuals. It will also enhance clinical knowledge and the development of informed criminal justice systems. If co-occurring SU and PTSD are linked with greater likelihood of violent offending, the need for duality in treatment approaches to reduce the risk of violence may be necessary.

This systematic review set out to explore existing research into the associations and relationships between trauma, substance use and violence perpetration. This leads on to the particular question which this review addresses:

- Does co-occurring substance use and trauma or post traumatic stress disorder (PTSD) increase the likelihood of violence perpetration.

2.2 Methods

2.2.1 Inclusion criteria

After the initial screen of literature there was limited previous work available on this subject area, therefore, studies of male and female juveniles, adult males and females were all included within this current review. Studies that used self-report measures as

well as clinical interviews were also included. All measures of violence, trauma or PTSD and substance use (to include alcohol) were included. Additionally, only studies written in English language and both published and unpublished studies were included.

2.2.2 Exclusion criteria

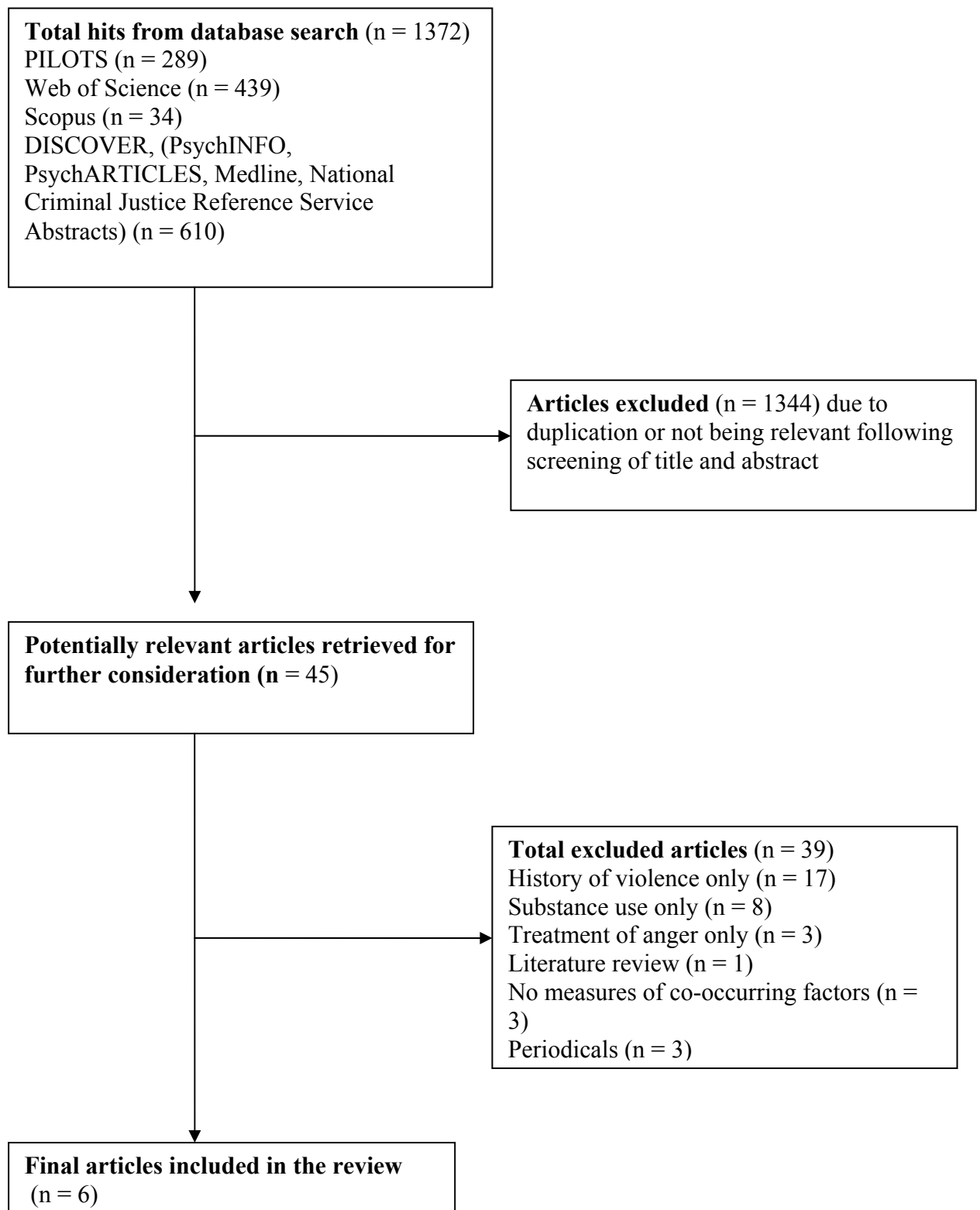
Since previous research has already established a link between SU and violent offending and PTSD and violent offending independently, studies were excluded if these relationships independently only were explored. Only studies which investigated the relationship between co-occurring substance use and trauma or PTSD in relation to externalising violent behaviours were included. The current review focus was on co-occurring SU and trauma or PTSD and any relationship to perpetration of violence. Therefore, any studies not pertaining to the above criteria were excluded from the review.

2.2.3 Search strategy

For the purpose of this review studies were identified by searching the following databases; PILOTS, Web of Science, Scopus and DISCOVER, (PsycINFO, PsycARTICLES, Medline, National Criminal Justice Reference Service Abstracts). The searches were not limited by year of publication. The following key terms were used; trauma OR post traumatic stress OR PTSD paired with Substance* OR co-occurring substance use disorder and PTSD, Violen* violent offend*. The search generated a total of 1372 articles. Following screening of title and abstract a total of 1344 were initially excluded due to duplication or lack of relevance. The remaining 45 articles were reviewed after collecting the full text. Of these a further 39 which

did not meet the inclusion criteria were excluded leaving six articles relevant for the review (see Figure 1).

Figure 1. Flow Chart for Article Selection Process



2.2.4 Summary of studies included

The final six articles that were included in the review all explored the association between symptoms of trauma or PTSD, substance use and the perpetration of violence. Two of the studies explored juvenile samples, one used female inmates and the remaining three studies used participants attending inpatient/outpatient integrated treatment programmes for co-occurring SUD and PTSD. Five of the studies were cross-sectional in design, although one study was also longitudinal in nature and a repeat of the respective authors' earlier study. This study followed participants at six weeks, three months, and nine months. One study was a case-control design. All of the studies used self report measures and three also used clinical interviews. There was variability in measures administered across studies. Table 1 shows the characteristics of each study included in the review and a summary of measures and outcomes.

Table 1: Summary of Relevant Studies Included in the Systematic Review

Study	Design	Sample	Measures	Reported significant findings
Mejia, Kliewer, & Williams (2006)	Case Control Study Design	1152 non-clinical (42.6% male) and 148 juvenile offenders (93.4% male) ages 11 to 19.	Family violence, adolescent maltreatment, impulsivity, substance use problems, violent behaviour, and pro-social behaviour.	Indirect paths from family violence to substance use problems, $\beta = .16$, $z = 5.48$, $p < .001$, from adolescent maltreatment to substance use problems $\beta = .10$, $z = 2.96$, $p < .01$, and from substance use problems to violent behaviour, $\beta = .34$, $z = 12.36$, $p < .001$, significant. Direct paths from family violence to violent behaviour, $\beta = .06$, $z = 2.17$, $p < .05$, and from adolescent maltreatment to violent behaviour, $\beta = .12$, $z = 3.87$, $p < .001$, significant.
Barrett, Mills & Teesson (2011)	Cross Sectional Design	102 participants from substance use treatment services	Opiate Treatment Index (OPI); Aggression Questionnaire (AQ); The World Mental Health Composite International Diagnostic Interview version 3.0 (WMH-CIDI 3.0); Clinician Administered PTSD Scale (CAPS); BDI-II; STAI	Violent and non-violent groups reported similar use of substance types in the past month, (3.8 vs. 3.8, $t_{100} = .14$, $p = .889$). Those who had committed a violent crime in the previous month had similarly high rates of childhood trauma (93.8% vs. 81.4%, OR 0.29 95% CI: 0.04–2.37). Those who committed a violent crime in the past month reported significantly greater overall PTSD symptom severity (98.1 vs. 89.0, $t_{100} = -2.13$, $p = .035$). Those who had committed a violent crime reported significantly more severe hyperarousal symptoms (31.8 vs. 27.3, $t_{100} = -2.69$, $p = .008$)
Barrett, Teesson & Mills (2014)	Longitudinal	102 participants from substance use treatment services Participants were interviewed at baseline and at 6-weeks, 3-months and 9-months post-baseline (follow-up rates of 71.8%, 80.3%, 74.8%, respectively).	Opiate Treatment Index (OPI); Aggression Questionnaire (AQ); The World Mental Health Composite International Diagnostic Interview version 3.0 (WMH-CIDI 3.0); Clinician Administered PTSD Scale (CAPS); BDI-II; STAI	There was no significant relationship detected between number of substances used and violence at baseline (OR 1.03, 95% CI: 0.72–1.47), 6-weeks (OR 1.18, 95% CI: 0.94–1.49) or 3-months (OR 1.17, 95% CI: 0.93–1.48). However, there was a significant effect at the 9-month follow-up (OR 2.27, 95% CI: 1.58–3.24), indicating that for each additional substance used at this time-point, the odds of perpetrating violence increased 27.0%. For PTSD symptom severity a significant main effect was detected (OR 1.03, 95% CI: 1.01–1.05), indicating that more severe PTSD symptoms were consistently associated with violence perpetration over the study period

Study	Design	Sample	Measures	Reported significant findings
Day, Hart, Wanklyn, McCay, Macpherson & Burnier (2013)	Cross Sectional	112 incarcerated youth (68 males and 44 females).	Trauma Questionnaire–Short Form (CTQ–SF); The Barratt Impulsiveness Scale–Version 11 (BIS–11); The Centre for Epidemiological Studies Depression Scale for Children (CES–DC); Ontario Student Drug Use and Health Survey (OSDUHS); Risk Behaviour Surveillance System (YRBSS); Marlowe–Crowne Social Desirability Scale (MCSD)	Four models were tested to examine the hypothesis that impulsiveness, depression, and drug use mediated the relationship between child physical and emotional abuse and violence perpetration and peer victimization. 1) The overall model was statistically significant with an R^2 of .23, $p = .001$, and child physical abuse was the only significant variable within this model, with child physical abuse having a positive direct effect on fighting behaviour. 2) The effect for mediation was significant and the overall model was significant with an R^2 of .29, $p = .001$. In this model, depression was the only mediator, which partially mediated the relation between child physical abuse and victimization. Physical abuse also had a direct effect on victimization. 3) The effect for mediation was significant, and the overall model was significant with an R^2 of .19, $p = .001$. In this model, drug use was the only unique mediator and fully mediated the relation between emotional abuse and fighting. 4) The effect for mediation was significant, and the overall model was significant with an R^2 of .25, $p = .001$. Depression was the only mediator, and fully mediated the relation between child emotional abuse and victimization.
Whitehouse-Yarnell (2006)	Cross Sectional	55 female inmates	The Pre-Sentence Investigation (PSI); The Offense Gravity Score (OGS); The Global Severity Index in The Brief Symptom Inventory (BSI); The Posttraumatic Stress Diagnostic Scale (PDS); The Substance Abuse Subtle Screening Inventory-3 (SASSI-3)	No significant mediation or moderation effects were found in relation to number of felonies/misdemeanours, however, they did find those inmates with lower substance use severity also had less PTSD symptoms and fewer felonies/misdemeanours. No significant mediation or moderation effects for severity of offences, however, inmates with lower substance use severity also had less PTSD symptoms and had committed less severe offenses.

Study	Design	Sample	Measures	Reported significant findings
Parrott, Drobles, Saladin, Coffey & Dansky (2003)	Cross Sectional	196 participants (72 men and 124 women) recruited from inpatient and outpatient substance use treatment programs	Structured Clinical Interview for the DSM-IV (SCID-IV); Conflict Tactics Scales (CTS-2)	<p>A significant difference in the perpetration of physical assault (PA) and psychological aggression (PSA) between the two substance-dependent groups was not detected. Within the PTSD group, analyses were significant for PA, $F(2,101) = 11.94$, $p < .01$, and PSA, $F(2,102) = 10.81$, $p < .01$.</p> <p>Cocaine-dependent participants reported increased perpetration of PA and PSA towards their partners relative to alcohol-dependent ($p < .05$) and nondependent participants ($p < .01$). In addition, alcohol dependent participants reported more frequent perpetration of PA and PSA towards their partners than participants with no substance dependence diagnosis, $p < .05$.</p> <p>Participants diagnosed with PTSD reported perpetrating more PA, $F(1,189) = 5.45$, $p < .05$, and PSA, $F(1,190) = 9.66$, $p < .01$, towards their partners than participants without a PTSD diagnosis.</p>

2.3 Results

Barrett, Mills and Teesson (2011) explored the effects of co-occurring substance use dependence (SUD) and post traumatic stress disorder (PTSD) on perpetration of violence. Participants were 102 individuals (62.7% females) recruited to a randomised controlled trial of integrated treatment for co-occurring SUD and PTSD. Inclusion required the participant to have used substances in the previous month and to have a past-month diagnosis of PTSD according to the DSM-IV (1994). Validated instruments were administered to measure perpetration of violent crime, mental health, including aggression, substance use, PTSD, depression, anxiety and borderline personality disorder (BPD). Over half (54.7%) of the sample reported they had committed a crime involving violence in their lifetime and 15.7% a violent crime in the past month. Those who had perpetrated a violent crime reported significantly higher total scores (108.6% vs. 91.3%), on the Aggression Questionnaire (AQ; Buss & Perry, 1992) and significantly higher AQ subscale scores for anger, (26.8% vs. 22.6%), and physical aggression, (34.1% vs. 25.4%).

Both the violent and non-violent groups reported similar use of substance types in the past month, (3.8% vs. 3.8%). Those who had committed violence reported significantly lower scores on a modified version of the Opiate Treatment Index (OTI; Darke, Hall, Wodak, Heather & Ward, 1992) for other opiates, however, significantly higher OTI scores were reported for alcohol and cannabis in the previous month compared to the non-violent group. Those who had committed a violent crime in the previous month also had high rates of childhood trauma (93.8% vs. 81.4%) compared to those who had not. Both groups shared similar trauma histories in terms of the types of events to which they were exposed. However, those who had committed a violent crime in the past month reported significantly greater overall PTSD symptom severity (98.1% vs. 89.0%) and significantly more severe

hyper-arousal symptoms (31.8% vs. 27.3%) compared to those who had not committed a violent crime. Similar scores for depression (37.9% vs. 33.4%), state anxiety (57.9% vs. 52.2%) and trait anxiety (64.0% vs. 60.8%) and high rates of BPD (93.8% vs. 68.6%) were reported by those who had committed violent crime.

Barrett, Mills and Teesson (2014) extended their earlier study (Barrett, Mills & Teesson, 2011) by using a longitudinal design; follow up interviews were conducted with their original sample at 6-weeks, 3-months and 9-months post-baseline (follow-up rates of 71.8%, 80.3%, 74.8%, respectively). One-quarter (26.5%; n=27) of participants reported having committed a violent crime during the months prior to baseline, 6-week, 3-month or 9-month follow-up. Sixteen percent of participants reported having perpetrated violence during the month prior to baseline which is consistent with their earlier findings. At 6-week follow-up, the proportion of participants who had committed violence decreased significantly and remained stable through to 3-month follow-up and 9-month follow-up. There was no significant relationship detected between number of substances used and violence as in their earlier study at 6-weeks or 3-months. However, a significant effect was found at the 9-month follow-up, indicating that for each additional substance used at this time-point, the odds of perpetrating violence increased by 27%. A significant main effect was detected for PTSD symptom severity indicating that more severe PTSD symptoms were consistently associated with violence perpetration.

Parrott, Drobesa, Saladina, Coffey and Dansky (2003) explored the effects of substance dependence and post traumatic stress disorder (PTSD) on perpetration of partner violence. Participants were 72 men and 124 women from a substance use treatment service for cocaine or alcohol dependence and/or a diagnosis of PTSD.

Participants were assessed for cocaine or alcohol dependence and PTSD using the SCID-IV (First, Spitzer, Gibbon & Williams, 1996). The PTSD group consisted of 26 cocaine-dependent, 38 alcohol-dependent, and 41 nondependent participants, and the no-PTSD group consisted of 26 cocaine-dependent, 22 alcohol-dependent, and 43 nondependent participants. Partner violence was measured with the Conflict Tactics Scales (CTS-2; Straus, Hamby, Bony-McCoy & Sugarman, 1996). The Physical Assault (PA) and Psychological Aggression (PSA) subscales of the CTS-2 were analyzed for the present study. A significant difference in the perpetration of physical assault (PA) and psychological aggression (PSA) between the two substance-dependent groups was not detected. Within the PTSD groups, analyses were significant for PA and PSA.

Main effects of substance dependence were found for PA and PSA. Cocaine-dependent participants reported increased perpetration of PA and PSA towards their partners relative to alcohol-dependent and nondependent participants. In addition, alcohol dependent participants reported more frequent perpetration of PA and PSA towards their partners than participants with no substance dependence diagnosis, participants diagnosed with PTSD reported perpetrating more PA and PSA towards their partners than participants without a PTSD diagnosis.

2.3.1 Mediating and moderating effects of substance use

The following three studies were also focused on exploring relationships between trauma, substance use and violence. Specifically, what was of interest was whether or not substance use mediated or moderated the association between trauma and violence. Mediation analysis is helpful in understanding the mechanism through which the causal variable affects the

outcome, while a moderating variable is one that influences the strength of a relationship between two variables (Hayes, 2013).

Mejia, Kliewer, and Williams (2006) explored associations between violence exposure and violent and pro-social behaviour in a sample of 1152 non-clinical adolescents (42.6% male) and 148 juvenile offenders (93.4% male) all aged between 11 and 19 years. The study also examined direct and indirect mechanisms by which family violence and adolescent maltreatment are associated with increased risk of violent behaviour and impaired pro-social behaviour. Domestic violence was conceptualised as both family violence and adolescent maltreatment. Structural Equation Modelling tested the effects of family violence and adolescent maltreatment on violent and pro-social behaviours and whether they were mediated by substance use problems and impulsivity.

Indirect paths from family violence to substance use problems, from adolescent maltreatment to substance use problems, and from substance use problems to violent behaviour, were all significant. Thus substance use mediated the effects of family violence on violent behaviour and adolescent maltreatment on violent behaviour

However, the study failed to measure items relating to sexual and physical abuse, neglect, or emotional maltreatment which may limit its ability to generalise to other studies relating to early childhood maltreatment (e.g., Widom, 1998). Secondly, no differences between students and juveniles were explored which may have given a better understanding of the mechanisms leading to violent behaviour between the two differing populations.

Whitehouse-Yarnell (2006) explored relationships between PTSD symptom severity, SUD symptom severity, and severity and frequency of criminal behaviour. Additionally, she was interested in whether substance use symptom severity mediated or moderated the relationship between PTSD symptom severity and severity of criminal behaviour. The sample consisted of 55 female prison inmates. Eighty eight percent of inmates had a history of traumatic experiences and reported PTSD symptoms in the category of moderate to severe (35%) or severe (40%). Eighty nine percent of the sample scored in the high category of substance use severity, with cocaine-based substances being the most frequently reported drugs of choice (51%).

Whitehouse-Yarnell (2006) computed correlations to determine relationships among the independent and dependent variables. She did not find a significant relationship between substance use severity, number of felonies or felonies/misdemeanours, PTSD symptoms or frequency or severity of criminal behaviours. Additionally, no significant mediation or moderation effects were found in relation to number of felonies/misdemeanours. However, those inmates with lower substance use severity also had fewer PTSD symptoms and fewer felonies/misdemeanours.

Whitehouse-Yarnell (2006) also explored whether substance use symptom severity mediated or moderated the relationship between PTSD symptom severity and severity of criminal behaviour past and present. Again, no significant effects for mediation or moderation were found. Although, it was found that those inmates with lower substance use severity also had fewer PTSD symptoms and had committed less severe offenses.

No significant mediation or moderation effects were found for PTSD symptom severity or substance use severity on frequency or severity of offenses. However there were a number of methodological limitations. Firstly, the study relied heavily on self report measures which may lead to under-reporting of symptoms of substance use. Secondly, the sample size was small, this may have limited statistical power, given that a large sample size is a requirement for the investigation of mediation and moderation effects (Fairchild & MacKinnon, 2009)

Finally, Day, Hart, Wanklyn, McCay, Macpherson and Burnier (2013) tested four mediator models of violent perpetration and peer victimization in a sample of 112 incarcerated youths. These authors were particularly interested in the relationship between child physical and emotional abuse and fighting and victimization, and whether this was mediated by impulsiveness, depression and drug use.

Four separate multiple mediation analyses were conducted for both types of child abuse (physical, emotional) and for each dependent variable (fighting, victimization). In model one, the effect for mediation (i.e., the sum of all specific indirect effects) was not significant, for child physical abuse and fighting behaviour. The overall model was statistically significant; child physical abuse was the only significant variable within this model, having a positive direct effect on fighting behaviour. For the second model, the effect for mediation was significant and the overall model was significant. In this model, depression was the only mediator, partially mediating the relation between child physical abuse and victimization. Physical abuse also had a direct effect on victimization. In model three, the effect for mediation was significant, and the overall model was significant. In this model, drug use was the only unique mediator and fully mediated the relation between emotional abuse and fighting. Finally, for the fourth model the effect for mediation was significant, and the

overall model was significant with an. Depression was the only mediator, and fully mediated the relation between child emotional abuse and victimization.

This study highlighted the mediation effects between depression and drug use on fighting behaviour and victimisation in juveniles. Impulsiveness did not have any mediating effects on either of the dependent variables. Both physical and emotional abuse was associated with impulsiveness; however, impulsiveness was not associated with either peer victimization or fighting behaviour. Additionally, the study found that drug use significantly mediated the relationship between emotional abuse and fighting behaviour.

2.4 Discussion and limitations

The primary objective of this review was to establish whether co-occurring substance use and trauma or PTSD increased the likelihood of violence. The review was particularly interested in whether or not this increase was apparent within an offender population. However, given the limited availability of literature the current study reviewed papers from a diversity of populations and highlighted a limited evidence base to date and a need for further research in this subject area.

Five of the six studies reviewed in this current review seem to have met the current objective, however, due to variation in designs and discrepancy in measures no casual interpretations can be made at this time. In particular, the discrepancy in measurement and variability in participant samples suggest the results should be viewed tentatively.

Despite these limitations five of the six studies suggested a link between co-occurring trauma, PTSD, substance use and perpetration of violence, with the exception of one study by Whitehouse-Yarnell (2006). However, caution is necessary in drawing any strong conclusions due the limited number of studies and the heterogeneity in methodologies.

Most of the studies were of adequate sample size, with the exception of Whitehouse-Yarnell (2006). Other studies, despite adequate sample size, were skewed in distribution (males, 72 and females, 124; Parrott et al., 2003) and between a non offending population and juvenile offenders (Mejia et al., 2006). That said, none of the studies made reference to power analysis and therefore, one can only make assumptions on adequate sample size within these studies. Given that many juvenile offenders experience far more adverse family experiences (Widom, 1989), comparisons between offending and non offending populations may have yielded dissimilar results and this discrepancy may have added to the validity and interpretation of the current results. Despite these limitations, the findings reported by Mejia and colleagues suggested family violence and adolescent maltreatment increase the probability of violent behaviour in adolescents, and that this violent behaviour was mediated by substance use and impulsivity. Additionally, three of the studies used participants recruited from substance use treatment programmes. Their level of violence perpetration may not be deemed as severe in comparison to juvenile offenders or inmates. Since no information on the seriousness or type of violence perpetrated was provided in many of these studies, these results may warrant further investigation.

Measurement variability was an issue. There was variability of measures used across studies to assess trauma, PTSD and substance use. Therefore, this made it difficult to draw any firm similarities and conclusions across and between the various studies in the literature. Barrett

et al. (2011; 2014) determined whether participants met DSM-IV criteria for dependence using the Composite International Diagnostic Interview (CIDI) version 3.0 (Kessler & Ustun, 2004). PTSD severity in the past month was assessed using the Clinician- Administered PTSD Scale (CAPS; Blake, Weathers, Nagy, Kaloupek, Gusman, Charney & Keane, 1995). By contrast, Parrott et al., (2013) assessed PTSD and substance dependence based on the Structured Clinical Interview for the DSM-IV (SCID-IV). Whitehouse-Yarnell (2006) using the Posttraumatic Stress Diagnostic Scale (PDS; Foa, Cashman, Jaycox & Perry, 1997) measured the severity of PTSD symptoms related to only a single identified traumatic event; and the Substance Abuse Subtle Screening Inventory-3 (SASSI-3; Miller, 1997) identified individuals with a high probability of having a substance use disorder. Child abuse was measured by Day et al., (2013) using the CTQ-SF whereas Mejia et al., (2006) used a variety of items to measure family violence. However, Mejia et al., (2006) failed to include measures relating to sexual and physical abuse. Given that previous work has suggested that many juveniles entering the criminal justice system are at an increased risk of child physical and sexual abuse (Widom, 1998), including these measures could have proved advantageous. That said, many of the measures used across the studies have previously been found to have good internal reliability and validity. However, the variability in seriousness and type of abuse measured make it difficult to make comparisons across studies and generalise to other populations.

Similarly, measures of violence perpetration included an array of variability across studies. One study specifically measured partner violence (Parrott et al., 2013) however, no information on the context of the violence was included (i.e. violence was in self defence; retaliation; provoked). For instance, generally males tend to hold a more physical or instrumental representation of aggression (as a means of imposing control over others) (Astin,

Redston, & Campbell, 2003). Whereas, female aggression tends to be more retaliatory and expressive in nature (Parrott et al., 2013; Astin, Redston & Campbell, 2003). Barrett et al. (2011, 2014) measured the perpetration of violent crime using a modified version of the Opiate Treatment Index (Darke, Hall, Wodak, Heather & Ward, 1992), however, they did not report whether this modified version was piloted first nor was there any mention of validity of the modified scale, therefore, this could limit the conclusions drawn from the study.

Despite these limitations, findings by Parrott et.al., (2013) do suggest several important implications. For example, cocaine and alcohol dependence and PTSD appear to be important factors associated with physical and emotional abuse in intimate relationships. They also show that when alcohol, cocaine and PTSD are factors within an intimate relationship there is an increased risk of physical and emotional abuse. Both studies by Barrett et al., (2011; 2014) demonstrated the importance of assessing for both PTSD and substance use in the perpetration of violence. They found a significant reduction in violence perpetration over time which may highlight the importance of integrated treatment for co-occurring SUD and PTSD. Those participants with more severe substance dependence and more severe PTSD symptoms were consistently more likely to perpetrate violence. However, Barrett and colleagues failed to distinguish between types of violent offences and reported only a general measure of violence in relation to co-occurring disorders. Whilst a general measure of violence seems applicable this does not allow for any distinction to be made between specific types of violent offences in relation to co-occurring disorders and therefore limits the generalisability across specific violent offence types. What was encouraging in this study was that they were able to distinguish that anger, physical aggression, higher OTI scores for alcohol and cannabis, lower OTI score for other opiates, and greater severity of PTSD hyperarousal symptoms, were significantly associated with committing violence in the

past month. Therefore, this may suggest targeting PTSD hyperarousal symptoms in particular, within interventions for those with co-occurring SU and PTSD may facilitate a reduction in violence in this group.

Additionally, what must be considered in their results was the presence of other co-occurring disorders (depression, anxiety and BPD). Individuals with other co-occurring disorders may have a greater severity of distress than those with substance use and PTSD alone; therefore, caution should be taken when interpreting these results as no exploration of this was conducted within the study. Furthermore, while longitudinal studies are useful and can trace patterns of change over time and possibly give a true picture of cause and effect over time their internal validity is often threatened by high rates of attrition which place a significant limitation on their conclusions.

Three of the studies explored the mediation and moderation effects of substance use on trauma and violent behaviour. Whitehouse-Yarnell (2006) failed to achieve any significant results although, again, small sample size and measurement variability may have affected these results. The study also used the Offense Gravity Score (OGS) to measure the severity of criminal behaviour. This score is a standard measure of severity of crime designed by the Commonwealth of Pennsylvania's Commission on Sentencing (1997) and which may make it difficult to generalise to other populations. Furthermore, only females housed in a county prison were examined. Inmates in county prisons in the USA are generally those with a sentence of less than two years (i.e., for minor offences such as prostitution, simple assault, possession of a controlled substance, summary offenses). Therefore the likelihood of violent perpetration may be reduced in comparison to those offenders housed in more secure criminal justice settings.

The study by Mejia and colleagues had interesting results. A significant effect of family violence on violent behaviour was found, and that violent behaviour was mediated by adolescents' substance use problems and impulsivity. Again, it must be noted that no measures of child sexual or physical abuse were explored. Only one study used a sample of incarcerated juveniles (Day et al., 2013) and found drug use fully mediated the relationship between emotional abuse and fighting. Although these are promising results, again no indication of the seriousness of fighting behaviour was reported. Additionally, given the sample was of mixed gender, males and females often tend to display their aggression in different ways. Despite these limitations, the mediation effects found in this study suggest a causal effect of drug use on fighting in juveniles.

Finally, all studies relied heavily on self report measures which may be open to over or under reporting of symptoms. This method of assessment has been shown to be reliable and valid among violent offenders (Kroner & Loza, 2001) and substance users (Darke, 1998), however, information gathered from other sources could potentially have strengthened the current findings.

2.5 Conclusions

This review has highlighted that the current literature demonstrates clear links between trauma, substance use and violence. However, the nature of the relationship between the three remains somewhat unclear given that it is difficult to make comparisons between and across studies. This requires further investigation. This review has also identified common methodological limitations, primarily in sample variation and lack of common standardized measurements of the concepts under study. Future research in this area should concentrate on clarifying whether substance use and trauma predict specific types of offending, in particular,

violent offending. In addition, specific types of abuse and the relationship with violent offending would add to the current literature, specifically with those offenders who commit violent offences. Furthermore, if substance use does mediate or moderate the relationship within the offending population this may add to the current literature in terms of understanding the mechanisms that drive people to commit violence.

The presence of co-occurring substance use and PTSD within the offending population, particularly in male offenders, who more often than not commit the most serious of violent offences, has importance in understanding the perpetration of violence. Research exploring pathways that link trauma and substance use to violence may have important implications for practice, research, and policy.

The links between PTSD and violence (Widom, 1998a; 1998b), substance use and violence (Crane, Oberleitner, Devine & Easton, 2014) and co-occurring substance use and PTSD (McCauley, et al., 2012) are already well established. What lacks in the literature is evidence for a link between all three of these components and its likely effects, if it exists, for those individuals who experience all of these problems and in particular within the offending populations. Given that the outlook is generally poor for those individuals who experience co-occurring substance use and trauma or PTSD, the literature suggests those with co-occurrence are at increased risk for violence and therefore, further investigation on this topic is needed. No causal interpretations can be drawn from the current review at this time given the cross-sectional design of most studies and the limited available literature.

Substance use was found to mediate the effects childhood abuse (Day et al., 2013) and family violence (Parrott et al., 2013) on partner violence and fighting behaviours in juveniles which

has important implications, suggesting, substance use may have a causal effect on the relationship between trauma and violence. Further research is needed to substantiate this.

Lacking in the current literature is the incidence of co-occurring substance use and trauma within the prison population and the likelihood of this occurring in those offenders who commit the most violent offences. The majority of studies have focused on individuals in substance use treatments which may suggest this population to be less violent than those within the prison population. There appears to be very few studies to date that have explored the link between substance use and PTSD and perpetration of violent offending in an adult male prison population. Given that violent offenders generate great costs to the public, and society in general, a more thorough investigation of the literature on trauma, substance use, as well as co-occurring SU and trauma or PTSD and its link to violence would be valuable. This may have implications for treatment and suggests treating both substance use and PTSD simultaneously may have added benefit for some violent individuals and thus reduce the risk of further violence perpetration and re-offending. Given that the prison system offers a variety of offender rehabilitation programmes it may be beneficial to incorporate a programme that address both substance use and PTSD for those offenders identified with co-occurring substance use and PTSD. For example, an integrated treatment for co-occurring substance use and PTSD such like the participants in the study explored by Barrett, Mills and Teesson (2011).

This review has highlighted the need for further exploration, in particular, with those individuals who commit the most serious of violent offences who also experience trauma, substances use and co-occurring substance use and PTSD. The current gap in the literature to date, therefore, warrants further investigation in specially designed studies.

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Chapter Three: Empirical Paper

Journal

The Journal of Forensic Practice¹

Title

An exploration of trauma, substance use and violent offending in adult male offenders: Does trauma and substance use predict violence?

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¹ Articles should be between 5000 and 7500 words in length. This includes all text including references and appendices. HARVARD style referencing. See Appendix two for guidelines

Abstract

Purpose - The link between Substance Use and violence is well established. Early maltreatment and abuse have been linked to both violence and substance use. Rarely considered within the prison system are the likely effects of these two factors co-occurring. The purpose of this paper was to establish any relationships between these factors in relation to violent offending. In particular, whether there was an interaction effect of substance use on trauma and violence was of interest.

Design/methodology/approach – Data were obtained on 790 male prisoners. Self-report of trauma, substance use and index offence was evaluated during clinical interview. Logistic regression analysis explored relationships between these variables.

Findings – A general measure of trauma was not related to any offence types, including violent offending. There was no interaction effect of trauma and substance use on violent offending. Substance use and age were both related to violent offending. Chronic trauma was related to substance use. Physical and emotional abuse was related to substance use.

Research limitations/implications – Measures were all based on self-report. No information was available on age at which the traumatic event was experienced. A general measure of substance use and therefore were unable to distinguish between specific types of substance and/or alcohol use and the relationship with violence.

Practical implications – Prison services could incorporate access to rehabilitation programmes that address trauma as a means to reduce substance use.

Originality/value – There are few published studies concerning co-occurring trauma and substance use within the prison population. This paper may be of interest to clinicians and prison staff working within this population.

Keywords Trauma, Post Traumatic Stress Disorder, Substance Use, Violence, Co-occurring trauma and Substance Use, Offenders,

Paper type Research paper

3.1 Introduction

Violent crime covers a wide range of offences such as minor assaults, serious wounding to the most serious violent crime of murder. Despite a general downward trend in the number of violent offences committed in England and Wales in the past 10 to 20 years, violence still bears great costs to many families as well as to society in general (Office for National Statistics, 2014). Many of these individuals who commit violent offences inevitably end up incarcerated whereby the professional workforce within the prison are tasked with the role of rehabilitating these offenders, and thus, reducing their risk of re-offending upon release.

Prisons offer a wide array of rehabilitative programmes in order to reduce their risk of re-offending (Ministry of Justice Analytical Series, 2013). Specifically, many of these programmes are aimed at addressing offenders' criminogenic needs or dynamic risk factors. Criminogenic needs are those risk factors correlated with criminal behaviour (Latessa & Lowenkamp, 2005). These needs or factors can be divided into two groups, the first entailing variables that are static, such as criminal history, age and gender, and cannot be changed. However, dynamic risk factors such as drug and alcohol misuse, education, and unemployment are those factors amenable to change (Office for National Statistics, 2014). Of particular concern is the number of prisoners entering the prison system with drug and/or alcohol use or dependence. Often substances are used to manage distressing symptoms of trauma and Post Traumatic Stress Disorder (PTSD), specifically those symptoms associated with regulating negative affective responses (Khantzian, 1985; 1997). Some of these responses to trauma include anger, aggression towards others and violence (Chemtob, Novaco, Hamada, Gross & Smith, 1997). These behaviours may lead to criminal involvement or lead to excessive risk taking behaviours which ultimately may increase the risk of arrest (Khantzian, 1985; 1997).

3.1.1 Substance use and violence

Research on substance use and criminal offending has consistently indicated that heavy drug use as well as alcohol abuse may increase the likelihood of being involved in crime, and in particular, violent behaviour. Several studies have reported an increased risk of violent behaviour in those who abuse substances (Spunt, Goldstein, Bellucci & Miller, 1990; Carly Lightowlers & Harry Sumnall, 2014) and in studies of violent men (batterers, rapists, and child abusers) high levels of substance abuse have been found (Johnson & Belfer, 1995).

Crime often co-exists with substance use; a study by Steiner, Garcia, Matthews (1997) found that 82% of incarcerated juveniles in their sample were drug dependent. Specifically, substance use is more often found in connection with violent crimes. Van Dalen (2001) suggests, not only does substance use accompany violence, it also it appears to facilitate criminal involvement in general.

However, many offenders present with a multitude of factors that require attention in order to support effective rehabilitation (Ministry of Justice Analytical Series, 2013). One such factor that is often paid little attention within the prison system is that of trauma.

3.1.2 Trauma and violence

A review of PTSD within the prison population (Goff, Rose, Rose & Purves, 2007) suggested that trauma and PTSD is widespread, and violent offenders may often under-report symptoms. Goff et al., (2007) has suggested PTSD is often not considered as an antecedent to criminal behaviour and highlighted the possible lack of appreciation of PTSD within the criminal justice system. Despite this lack of appreciation there is a wealth of literature that links early abuse and maltreatment with violent behaviour (Herrenkohl, Huang, Tajima & Whitney, 2003) as well as substance use (Langan & Pelissier, 2001), in both juveniles and

adult offenders. Overall Herrenkohl et al., (p. 7) suggest there is “a likely need for PTSD treatment services for sentenced prisoners”.

A study by Haapasalo and Hamalainen (1996) examined 89 incarcerated juveniles and found prevalence rates of physical child abuse were 78.4% for property offenders and 86.5% for violent offenders). Among violent offenders, physical abuse or extreme physical abuse was reported by 57.5% of the sample. Additionally, drug abuse was more prevalent among those who had committed violent offences than for those who had committed property offences.

A study by Widom and Ames (1994) explored 908 substantiated cases of child abuse and neglect between 1967 and 1971. They found an association between childhood physical abuse and later arrests for violent sex crimes in males, and children who reported physical abuse had the highest rates of arrest for violence. Additionally, Herrenkohl, et al., (2003) found that early physical abuse increased the likelihood of violent offending, while English, Widom and Brandford, (2002) reported child maltreatment such as neglect and sexual abuse predicted later violent behaviour.

A study by Lisak and Beszterczey (2007) exploring the life histories of 43 adult males on “death row” found 75% of inmates had suffered multiple forms of severe maltreatment, including sexual and physical abuse, witness to violence, and were verbally abused and terrorised in early childhood or adolescence. Furthermore, a study by Neller, Denney, Pietz and Thomlinson (2006) explored the link between trauma and violence in 93 male inmates from a maximum security detention centre. Of their sample 96% reported witnessing some sort of traumatic event and 67% reported violence in the year prior to incarceration.

However, given that both samples were derived from maximum security detention prisons, as

well as the high base rates of reported trauma, these results may not generalise across other offending populations. However, the literature does suggest that for those offenders who commit the most serious of crimes many enter the criminal justice system with a high prevalence of traumatic experiences. Why some individuals perpetrate violent acts and some do not has been the question of research for many years. In an attempt explain these reasons research has offered a number of theoretical frameworks to illustrate the mechanisms that lead from traumatic experiences to the perpetration of violence.

3.1.3 Emotion regulation model of violence

The emotion regulation model of violence suggests impulsive aggression may be the product of a failure of emotion regulation. Children who witness or are subjected to violence or trauma may dissociate from painful experiences leading to a limited repertoire of emotional expression. These children often exhibit more dysregulated emotion regulation patterns which have been associated with negative outcomes in childhood. A study by Shields, Ryan, and Cicchetti (2001; p322) found that “maltreated children were more likely to have emotion dysregulation, inappropriate emotional lability, rigid responsiveness, and an inability to adapt their emotional arousal”. This emotion dysregulation and lack of emotion control may lead to aggressive outbursts and violence (McCord, 1988). In particular, children with faulty emotion regulation may have faulty impulse control, display increased anger, have difficulties in moderating their anger and have difficulty in correctly perceiving emotional reactions of others. This faulty regulation of negative emotions may lead to increased risk for aggression and violent behaviour (Davidson, Putnam & Larson, 2000).

3.1.4 Attachment model of violence

Attachment theory suggests early attachment relationships play a pivotal role throughout development. Attachment security is believed to play an important role in a person's

subsequent emotional and social development (Bowlby, 1988). Bowlby, (1969, 1973, 1980) speculates that disruptions in early attachment relationships with caregivers leads to adjustment difficulties and problems with self-regulation, as well as difficulties in later relationships. Furthermore, Erickson, Egeland, and Pianta (1989) suggest that childhood maltreatment and abusive experiences result in insecure attachments. Moreover, research has suggested that insecurely attached individuals may be at risk of involvement in violence victimization and perpetration (Barnett, Martinez & Bluestein, 1995; Holtzworth-Munroe & Stuart, 1994; Kesner, Julian & McKenry, 1997) and both childhood sexual and physical abuse increase the risk for later substance abuse (Brown & Anderson, 1991; Cavaiola & Schiff, 1988).

3.1.5 The trauma model of violence

The trauma model of violence (Haapasalo & Pokela, 1999) suggests negative parenting experiences, including sexual and physical abuse and neglect can lead to symptoms of PTSD. They also suggest that different traumas (severity, chronicity, developmental period) could lead to different consequences. In adults, outcomes of the traumatic events may include antisocial and criminal behaviour. However, they would argue that irrespective of the type and duration of trauma the common core effects of traumatic experiences, such as post traumatic stress are the same, which leads to the acquisition of a disposition toward violence. In support of the trauma model of violence, Pomeroy (1995, p. 89) has indicated that “persons who have been traumatized, by whatever circumstances, are more likely to choose violence as an option to resolve their future conflicts and stress.”

3.1.6 Co-occurring substance use and trauma

Since early maltreatment and abuse have been linked to both violence and substance use, what are rarely considered in terms of rehabilitation within the prison system are the likely effects of these two factors co-occurring. Yet the prevalence of early abuse and the use of alcohol as well as harmful other drugs has persistently been found among offenders (Langan & Pelissier, 2001; U.S. Department of Justice, Bureau of Justice Statistics, 2004).

In general, childhood maltreatment has been associated with an increased risk of substance misuse and abuse (e.g., Cicchetti & Toth, 2005), and later drug related arrests (Brems, Johnson, Neal & Freeman, 2004). In particular, child sexual abuse in females has frequently been associated with substance use and dependence (Wilsnack, Vogeltanz, Klassen & Harris, 1997; Galaif, Stein, Newcomb & Bernstein, 2001).

A population based study in New Zealand found child sexual abuse was significantly associated with substance dependence in juveniles. Furthermore, a longitudinal study of adolescents in the US, found child physical abuse, but not sexual abuse, was associated with alcohol abuse, marijuana abuse, and other drug abuse (Lo & Cheng, 2007).

3.1.7 Self-medication for symptoms of trauma

For some individuals, unmanageable symptoms of trauma may lead to numbing of feelings by participation in substance use, risk-taking behaviours and increased violence (Crimmins, Brownstein, Spunt, Cleary, Ryder & Warley, 1999; Garbarino, 1999). The self-medication hypothesis (Khantzian, 1985; 1990) suggests more often than not trauma will precede substance use.

Evidence to support this claim has been found in studies with individuals diagnosed with substance dependence (Johnson, Striley & Cottler, 2006; Buss, Abdu and Walker, 1995). Furthermore, in a study of prison inmates, exposure to childhood and adult traumatic experiences was significantly related to substance use problems for both males and females (Carlson, Shafer & Duffee, 2010). This association between trauma and substance use appears consistent with the self-medication hypothesis (Khantzian, 1985; 1990) which postulates that substance use serves as an attempt to alleviate symptoms of traumatic experiences.

Alternatively, competing theories such as the high-risk hypothesis (Acierno, Resnick, Kilpatrick, Saunders & Best, 1999; Chilcoat & Breslau, 1998) posit that the lifestyle of a substance user typically involves engaging in high risk lifestyles which may increase the likelihood of experiencing traumatic events and developing post traumatic stress disorder.

3.1.8 Co-Occurring substance use and violent offending

Little is known about the effects of co-occurring trauma and substance use and its likely effect on violent behaviour. Several recent studies have explored the link between trauma and substance use and the likelihood of violent offending (Crimmins, Cleary, Brownstein & Warley, 2000; Barrett, Teesson & Mills, 2011; 2014). A longitudinal study by Barrett et al. (2014) found at nine month follow up, more severe PTSD symptoms was consistently associated with violence perpetration. Additionally, Crimmins et al., (2000) found experiencing significant traumatic events was three to four times more likely among cocaine users. Furthermore, youths who were remanded for homicide were two times more likely to have witnessed a killing, and three times more likely to have witnessed a shooting or stabbing within their home.

In addition, some studies have explored whether or not substance use mediates or moderates the effect of trauma on violent offending. Whitehouse-Yarnell (2006) explored mediating and moderating effects of substance use on trauma and severity and frequency of offending. No significant mediating or moderating effects of substance use were found, although she did find those inmates with lower substance use severity also had fewer PTSD symptoms and had committed less severe offenses. Similarly, Day, Hart, Wanklyn, McCay, Macpherson and Burnier, (2013) explored the mediating effects of impulsiveness, depression, and drug use on child physical and emotional abuse, violence perpetration and peer victimization. They found physical abuse had a positive effect on fighting behaviour. Drug use fully mediated the relationship between emotional abuse and fighting, and depression mediated the relationship between child emotional abuse and victimization.

3.2 Research Aims

The research evidence suggests therefore, that trauma and substance use may not only be associated with offending behaviour, but particularly with a greater risk of violent offending (compared to other non-violent forms of offending). Additionally, early traumatic experiences have been associated with an increased risk of substance use and dependence. Understanding the psychological effects of trauma and substance use within penal and forensic settings is therefore extremely important as it may add to a more comprehensive assessment of prisoner need and treatment planning (Solomon & Heide, 1999). Additionally, exploring moderating effects of substance use, also represented as an interaction effect, may be important in understanding the strength of the relation between trauma and violence (Baron & Kenney, 1986). In other words, if substance use moderates the relationship between trauma and violence, this may suggest that for those offenders who experience co-

occurring trauma and substance use (presuming there is an interaction effect) the likelihood of committing violence is stronger than for those who experience trauma alone. The presence of substance use in offenders may strengthen the relation between trauma and violence.

Given the evidence, it is plausible therefore, that the relationship between trauma and violent offending may become stronger in individuals with co-occurring substance abuse problems as the reliance on substances may contribute further to interpersonal problems and emotion dysregulation, influencing the type of offending behaviour observed. Consequently, in addition to exploring how both trauma and substance abuse relate to offending behaviour, the interaction between substance use and trauma in predicting offending behaviour is also of interest in the current study.

Previous studies have examined the relationship mainly focused on early childhood trauma and victimization (Ireland & Widom, 1994; Widom & Ames, 1994; Herrenkohl, et al., 2003). The current study will seek to explore general trauma symptoms given that no data are available on age or duration at which trauma was experienced by the current participants. This will provide an opportunity to extend the findings relating to the link between childhood trauma and violent offending and identify whether trauma in general predicts offending behaviours.

Given the high prevalence of violent prisoners who enter the prison system, understanding whether trauma is associated with specific forms of offending behaviour may have implications for treatment approaches within the prison system. The current study may also highlight a need for treatment that specifically addresses trauma and co-occurring substance use as part of the rehabilitation process and thus add to a reduction in re-offending.

The purpose of the current study was to investigate whether or not there was a relationship between three variables, namely, trauma, substance use and offending behaviour. Specifically, violent and non-violent offending was compared. Exploratory analyses were also employed that examined any relationships between trauma and general offending categories. A further aim of the study was to explore any interaction effects of trauma and substance use and whether this impacted on the offending behaviour of adult male offenders. Specific hypothesis with respect to the current study were:

- Trauma and substance use will be related to a greater risk of violent versus non-violent offending behaviour. It was hypothesised this relationship will remain even whilst controlling for age.
- There will be an interaction between trauma, substance use and violent offending, with substance use acting as a moderator between trauma and violent offending, whereby trauma will have a stronger relationship with violent (versus nonviolent) offending in those with co-occurring substance use problems.

Furthermore, secondary analyses were also undertaken exploring the relationship between substance use and trauma, following the observation in the literature of a link between these variables.

3.3 Method

3.3.1 Design

A cross-sectional, between participants design was used for the current study, that is, individual differences between participants were compared at one time-point. The analyses examined relationships between trauma, substance use, or both, and offending behaviours.

Participants entered the Primary Care Psychological Service within a North West of England Prison on a voluntary basis seeking help for their distress. Participants were grouped into either the violent offending group or non-violent offending group as determined by their current index offence. Participants were further divided into groups based upon whether they had experienced trauma (Chronic trauma, physical, emotional and sexual abuse) and whether or not they had used substances (yes/no).

3.3.2 Participants

Participants were from a North-West of England category C and B prison which holds convicted male adults as well as remand and unconvicted men. Prisoners within the sample were drawn from the general population of the prison who were referred to the prison's Primary Care Psychological Service due to experiencing elevated levels of psychological distress. Retrospective data were used and the current sample was drawn from an existing database which held information on 2227 prisoners who had attended the service between 2007 and 2014. Only prisoners with information on their current offence were included in the study. This service is a unique development and the only one of its kind across HM prison service. The purpose of the Prison Primary Care Psychological Service is to ensure that men currently detained with mild-moderate mental health needs are able to access the same type and quality of resources and effective intervention available to people in the community.

3.3.3 Measures of trauma and substance use

Offenders who had experienced trauma, substance use or co-occurring trauma and substance use were identified by self report during the initial assessment stage on entry to the prison psychological service. Trauma and substance use was assessed by a professional clinical team member by way of a structured clinical interview (see Appendix three for a full copy of

the assessment protocol). During the clinical assessment self-report history of trauma and substance use was recorded by the professional this was recorded as yes/present or no/not present. History of physical, emotional and sexual abuse was also recorded as well as whether or not trauma symptoms resulted from one specific incident or chronic trauma (multiple or prolonged incidents of trauma and abuse). Given that trauma and substance use have been linked to violent offending, these variables were also explored in relation to specific types of offence across the sample. For purpose of analysis for the current study participants were categorised based on their offending behaviour into either the violent group (serious violence/murder; violence against the person; sexual offences; firearms/offensive weapon) or the non-violent group (possession of drugs; dealing drugs; fraud; car crimes/theft/driving offences; burglary; shoplifting; breach of specific licence/order; other; please see Appendix four for a full list of offence types and coding criteria).

3.3.4 Procedure

Anonymised retrospective data were extracted from an existing secure NHS database by a member of the current care team. Given that prisoners are released and moved around the prison system no consent was gained from participants. However, as the database was fully anonymised no consent was required from participants. This was in full compliance with National Information Governance Board (NIGB) for Health and Social Care regulations. Ethical approval was also obtained by the local NHS R&D department and the National Offender Management Service (NOMS).

3.3.5 Data analysis

Anonymised data were entered into SPSS version 20 (IBM Corporation, 2011) for analysis. Descriptive statistics were calculated for demographic data for all participants. A multiple

logistic regression was carried out to examine the relationship between offence types and trauma. Whilst theoretically, trauma is assumed to influence offending behaviour, for the purposes of this analysis, trauma was treated as the dependent variable since offence type had more than two categories. As the dataset is cross-sectional this makes no substantive difference to the interpretation of the results. A second multiple logistic regression was performed to test whether independent variables trauma and substance use predicted the dependent variable violent/non violent offending. A third logistic regression analysis explored any interaction effects between trauma and substance use in predicting violent/non violent offending. To test the main hypothesis that trauma was related to violent offending, at significance level .05 and power 0.8 and Odds Ratio effect size = 2.00, assuming a baseline probability (i.e., probability when trauma not present) of violent offending of .22 (based on the observation that violent offending normally comprises 22% of crimes; Smith and Allen, 2004), using Gpower analysis a sample size of $n = 618$ was required. Further logistic regression analysis was run to ascertain any relationships between substance use and variables of trauma and abuse.

3.4 Results

There were $n = 790$ participants included in the final analysis with a mean age of 37.8 years ($SD = 8.8$). Of the overall sample $n = 147$ (18.6%) reported an experience of trauma of some form in their lifetime and $n = 145$ (18%) reported previous substance use. There were 45 (5.7%) reporting trauma as a specific incident and $n = 38$ (4.8%) reported trauma as chronic. Furthermore, $n = 9$ (1.1%) of the sample reported previous physical abuse, child sexual abuse was reported by $n = 6$ (0.8%) and $n = 117$ (14.8%) reported emotional abuse.

The sample was divided into five separate offence categories which revealed, n = 76 (9.6%) had committed serious violence or murder, n = 321 (40.6%) violence against the person, n = 68 (8.6%) sexual offences, n = 29 (3.7%) firearms or offensive weapons and n = 296 (37.5%) had committed non-violent offences. The data met the assumptions for binary logistic regression as all the dependent variables were dichotomous and there was no indication of multicollinearity amongst the predictors, with no excessively high relationships apparent amongst predictors.

3.4.1 Trauma and offence categories

A logistic regression analysis was performed in the first instance to assess any relationships between trauma (1 = present, 0 = absent) on the likelihood of participants engaging in any of the separate offence categories. The offence categories were entered into the model as a set of five dummy variables with serious violence/murder as the reference category (Table 1).

Table 1: Trauma and Offence Categories

PREDICTOR	B	SE	Wald	DF	Sig	OR	CI	
							Lower	Upper
Serious violence/murder (Reference category)			.627	4	.960			
Violence against the person	-1.97	.348	.318	1	.537	.822	.415	1.626
Sexual offences	.048	.206	.054	1	.816	1.049	.701	1.570
Firearms/offensive weapons	-.063	.351	.032	1	.858	.939	.472	1.870
Non violent offences	.134	.482	.077	1	.782	1.143	.444	2.941
Model χ^2	$\chi^2 = .643$, df = 4, P = .958							
N = 790								

Dependent = Trauma: 1 = Yes; 0 = No

The Chi square goodness of fit test was computed to test the overall fit of the model. In this case the model was not a significant improvement over a baseline model with no predictors, $\chi^2 = 0.643$, df = 4, $P = .958$. At step 1 the independent variables made no statistically

significant contribution to the model and therefore suggested trauma was not related to any of the offence categories within the model. Due to the non-significant results suggesting there was no relationship between trauma and any of the violent offences or the non-violent offences, further analysis was conducted to explore whether or not any of the participants may have been exerting any undue influence over the parameters of the model. I therefore calculated Cook's distances to determine whether or not the regression model was stable across the sample or, if there were any influential cases that were affecting the results. Field (2005) suggests any cases with a value of greater than one may indicate a possible influential case. Cook's distances test did not identify any cases with a value of over one (range = .001 - .14) therefore suggesting the regression was not affected by influential cases.

2.4.2 Trauma, Substance use and violent versus non violent offending

A second logistic regression analysis was performed to test whether the independent variables trauma and substance use predicted the dependent variables violent/non violent offending whilst also controlling for age (see Table 2).

Table 2: Trauma, Substance Use and Violence

PREDICTOR	B	SE	Wald	DF	Sig	OR	CI	
							Lower	Upper
Trauma	-.089	.192	.218	1	.641	.914	.628	1.332
Substance use	-.489	.189	6.723	1	.010*	.613	.424	.887
Age	1.631	.008	9.054	1	.003*	.975	.959	.991
Model χ^2	$\chi^2(3) = 16.480$ p = .01							
N = 790								

Dependent = Violent offending = 1: non violent offending = 0: Independent variables = trauma, Substance use and age. * Significant at the .05 level.

After adding the predictor variables into the model the Chi square goodness of fit test suggested the overall fit of the model was good ($\chi^2(3) = 16.480$ p = .01). The Wald test demonstrated that trauma did not make a significant contribution to the likelihood of violent

offending¹ (.218, $p = .641$). However, there was a significant effect for substance use (OR .613, 95% CI: .424 - .887) and age (OR .975, 95% CI: .959 - .991). When the Odds Ratio (OR) value is greater than one, it indicates that as the predictor increases, the odds of the outcome occurring increase. Conversely, an OR of less than one indicates as the predictor increases the odds of the outcome occurring decreases (e.g., an OR of .5 would mean the odds of the outcome are halves for each unit increase in the predictor; Field, 2005). The Wald criterion also indicated that the predictor variables substance use and age were significant, (Wald = 6.732, $p = .01$; Wald = 9.054, $p = .01$). As substance use increased by one unit the odds of committing violent offending decreased by .613, holding other variables in the model constant. Additionally, as age increases by one unit (one year) the likelihood of violent offending also decreased by .975, holding other variables in the model constant. Cook's distances test revealed there were no influential cases above one affecting the results (range = .001 - .02).

The study was also interested in whether or not there was an interaction effect of substance use and trauma on violent offending. An interaction term was computed and added to the model. Step two of the model, with the interaction term added, was not a good fit, $\chi^2 (1) = .699$ $p = .403$. The Wald criterion indicated the trauma*substance use interaction did not make a significant contribution to the prediction of offence type (OR .672, 95% CI: .264 – 1.172. There was therefore no indication that the relationship between trauma and violent crime was stronger or weaker for those who also reported substance use.

Therefore Cook's distances was calculated to determine whether or not the regression model was stable across the sample or, if there were any influential cases that were affecting the

¹ Trauma remained non-significant with violent offending even when chronic trauma, rather than any trauma, was the predictor.

results. Cook's distance did not identify any cases with a value of over one (range .001 - .01) therefore suggesting the regression was not affected by influential cases.

3.4.3 Substance use and trauma

Trauma made no significant contribution to the likelihood of violence occurring in the initial analysis, however, research has indicated that often trauma and substance use frequently co-occur, particularly within the prison system (Langan & Pelissier, 2001). Therefore, I was also interested in whether or not there was a relationship between trauma and substance use. A logistic regression analysis was performed to explore any relationships between the two variables. The Chi square goodness of fit test revealed the model was not significant ($\chi^2 (1) = .139$ $p = .709$). Cook's distance test revealed there were no influential cases above one affecting the results (.001 - .03).

Therefore, the study further explored whether chronic trauma as a predictor variable was related to the likelihood that offenders would use substances. The Chi square goodness of fit test revealed the model was a significant improvement on the baseline model ($\chi^2 (1) = 4.338$ $p = .04$). The Wald criterion also indicated that this predictor was significant, (Wald = 4.787, $p = .03$) as chronic trauma increased by one unit the odds ratio was over twice as large (2.208), therefore indicating that those offenders who experience chronic trauma have twice the odds of using substances.

3.4.4 Substance use, physical, emotional and child sexual abuse

Logistic regression was again conducted to ascertain whether or not specific forms of trauma (physical, emotional and child sexual abuse) added to the likelihood of participants using substances (see Table 3).

Table 3: Substance Use, Physical, Emotional and Sexual Abuse

PREDICTOR	B	SE	Wald	DF	Sig	OR	CI	
							Lower	Upper
Physical abuse	.863	.229	14.236	1	.000**	2.371	1.514	3.712
Emotional abuse	2.250	.755	8.888	1	.003*	9.485	1.161	41.626
Child sexual abuse	-.048	1.107	.002	1	.966	.954	.109	8.354
Model χ^2 (χ^2 (3) = 23.718 p = .01 N = 790								

Dependent = substance use (Yes = 1; No = 0) Independent = physical, child sexual and emotional abuse. * Significant at the .05 level; ** Significant at the .001 level.

The model was a good fit (χ^2 (3) = 23.718 p = .01). The Wald criterion suggested two of the three variables entered into the model were significant. Physical abuse and emotional abuse significantly added to the likelihood participants would use substances, whereas, child sexual abuse did not. The analysis revealed that when physical abuse is present there is twice the odds that offenders would use substances (OR 2.371, 95% CI: 1.514 – 3.712). Emotional abuse was also significant, the results suggest as emotional abuse increases there is nine times the odds that offenders would use substances (OR 9.485, 95% CI: 2.161 – 41.626). Cook's distance test revealed there was one influential case above one that may have been affecting the results (1.05). The analysis was computed again with the influential case removed. However, this made no significant change to the overall model and child sexual abuse remained non-significantly related to substance use.

3.5 Discussion

The aim of this current study was to explore whether or not there were any associations between trauma and specific offence types, and in particular whether or not experiencing trauma increased the likelihood of violent offending. Additionally, given the high prevalence of prisoners entering the judicial system with a history of both trauma and substance use, I was also interested in whether or not when they co-occurring the likelihood of committing

violence is stronger than for those who experience trauma alone. Finally, as previous research has also indicated a link between trauma and substance use (Khantzian, 1985, 1990), the relationship between trauma and substance use was also examined.

Contrary to previous findings the current study did not support the hypothesis and find a relationship between trauma and violent offending. Trauma was not related to any of the offence categories. When the second analysis was run, a general measure of trauma was added to the model along with substance use whilst controlling for age. Again, trauma was not significantly related to violent offending. However, what I did find was that substance use as well as age were both significantly related to violent offending. That said, as the data is retrospective in nature it is not possible to make inferences concerning causal paths between substance use, age and violent offending.

However, in contrast to previous research a significant negative relationship was found between substance use and violent offending. This suggested that as substance use increased, the likelihood of violent offending would decrease. Previous research has suggested the opposite, that an increase in the use of substances is related to violent offending, in particular with juveniles (Haapasalo & Hamalainen, 1996).

The current findings, therefore, indicate that as offenders increase their substance use, their offending may become less violent. This may suggest that as the offender becomes more reliant on substances and the need to feed their habit intensifies, their propensity to offend may become increasingly related to acquisitive crime to buy substances and violence may become less prevalent. However, the current study did not distinguish between drug and

alcohol use, therefore, these results should be viewed tentatively as no distinctions between substance use and dependency and motivation to offend could be made.

What was also noteworthy was that as age increased, the likelihood of violent offending decreased. This finding is consistent with a wealth of literature that already exists suggesting that offending behaviour reaches a peak during late adolescence and that most offenders begin to desist by early adulthood (Moffit, 1993; Farrington, Ttofi & Coid, 2009). However Moffit (1993) suggests there are a small number of offenders whom she calls ‘life course persistent offenders’, who are generally versatile and commit both violent and nonviolent crimes that persist in offending in adulthood. Given that data were not available on number of offences or age of first offence it is difficult to establish if the current sample may have been categorised as adolescence limited or ‘life course persistent’ offenders (Moffit, 1993).

Given that substance use and trauma frequently co-exist, particularly within the prison system, the study was also interested in whether or not substance use moderated the effect of trauma and substance use. I did not find any interaction effects of substance use and trauma on violent offending; this suggested the relationship between trauma and violence did not become stronger or weaker when inmates had co-occurring substance use.

Previous work has suggested a link between trauma and substance use (Khantzian, 1985, 1990), therefore, the study was also interested in whether or not chronic trauma was associated with substance use within the current sample. A significant relationship was found between chronic trauma and substance use. However, chronic trauma may develop from a multitude of factors and therefore it is difficult to determine which traumatic experiences would constitute chronic trauma. Therefore, I explored the three different subtypes of abuse

(physical, emotional and child sexual abuse) within the sample. Abuse can often lead to an individual experiencing a variety of trauma-related symptoms (Bowlby, 1969; 1973; 1980; McCord, 1988); I was therefore interested in any likely associations between the three variables of abuse and substance use.

The analysis revealed both emotional and physical abuse was significantly related to substance use; however, child sexual abuse was not significantly related to substance use. This is in contrast to much of the previous research (Widom & Ames, 1994; English, Widom & Brandford, 2002) that supports a link between child sexual abuse and trauma symptoms. On the other hand, the study did find physical abuse significantly related to substance use and therefore, the findings support previous literature (Herrenkohl, et al., 2003). However, the majority of studies exploring the link between child sexual abuse and later use of substances have mainly relied on data from female offenders (Wilsnack, et al., 1997; Galaif, et al., 2001). This could suggest that for males physical abuse may be a stronger predictor for substance use, whereas for females child sexual abuse may be the strongest predictor. A history of sexual abuse is disproportionate for female offenders. Female offenders are up to seven times more likely to have experienced sexual abuse compared to male offenders. A history of abuse and victimization in female offenders is linked to mental health problems, particularly PTSD (e.g., Heckman, Cropsey & Olds-Davis, 2007) and substance use as a self-medicating coping strategy (e.g., Staton, Leukefeld & Logan, 2001). Similarly, Ouimette et al., (2005) found gender differences among individuals who had been abused and discovered that more females than males reported beginning to use substances after the trauma and more females reported using substances for coping than did males.

3.5.1 Limitations

Firstly the cross-sectional nature of the current data does not allow for inferences regarding causation. Secondly, the current study was not able to distinguish between age of first traumatic experience and its likely association with later violent offending. As a general measure of trauma symptoms was used and given that the literature suggests early trauma is predictive of later violent offending (Widom, 1989), the study was not able to differentiate between early trauma nor frequency or age of traumatic events. Therefore, it was difficult to determine whether or not these two factors may have made a significant difference to the results. However, given that studies vary on their definition of trauma and abuse it is difficult to draw any firm conclusions from the current analysis and how this may relate to previous findings.

Furthermore, the current sample population were drawn from a category C and B prison and included prisoners experiencing high levels of distress at the time of data collection.

Therefore, it may be difficult to generalise the findings to other offending populations, particularly those offenders who may be incarcerated for the most serious of crimes in high security prisons.

The study also used a general measure of substance use which included both substances and alcohol, therefore, again the study was unable to distinguish between the two, in addition, the study was unable to determine whether physical and emotional abuse were directly related to substance use or alcohol abuse or both within the current sample. Childhood maltreatment may also vary according to gender, therefore as the current sample was a male only sample of offenders the results may not generalise across offending populations and gender.

Finally, the current study did not use validated measuring instruments to record symptoms of trauma or abuse and relied heavily on self-reports and the clinical judgement of staff. Given that self-report measures may be predisposed to over or under reporting of symptoms, the data may have been vulnerable to sampling error owing to recall and reporting bias (Goodman, Ghatti, Quas, Edelstein, Alexander, Redlich, Cordon & Jones, 2003). A more vigorous interpretation may have been possible if information had been gathered from family members, significant others or legal and clinical reports.

3.5.2 Clinical implications

The findings from the current study did not reveal a direct association between a general measure of trauma experiences and violent offending. However, a significant association between substance use and chronic trauma and particularly in terms of physical and emotional abuse was established. Therefore, the evidence seems consistent with the self-medication hypothesis (Khantzian, 1985; 1990) which suggests trauma may be associated with an increased risk of substance use in order to alleviate traumatic memories and experiences.

Consequently, a need to address symptoms of abuse that may lead an offender to engage in substances may be warranted. If individuals use substances to self-medicate against experiences of physical and emotional abuse, and abuse history is related to substance use, then it seems plausible that programmes should necessitate a need to address both.

Additionally, given that substances use is recognised as a criminogenic need related to the risk of offending then it may be plausible to highlight abuse as a criminogenic need given its relationship to substance use.

Offenders not having had the opportunity to resolve their unmanageable feelings and symptoms of trauma before release may not have the opportunity to learn alternative ways of coping. Hence, this may lead to the offender returning to substances to cope, or a continuation of drug use whilst incarcerated, which in turn may lead to a greater risk of re-offending upon release. There is evidence to suggest individuals with co-occurring substance use and PTSD suffer from more severe complaints and more relapses in substance use than those individuals with substance use disorders alone (Back, Dansky, Coffey, Saladin, Sonne & Brady, 2000; Najavits, Weiss & Shaw, 1999). Therefore, the common treatment approach, whereby substance use and trauma or PTSD are treated sequentially may not be optimal and the need to address both trauma and substance use mutually as criminogenic needs may be something to consider.

One of the most widely recognized and studied non-exposure based treatments for co-occurring substance abuse and PTSD is the manualised present-focused Seeking Safety (SS) programme developed by Lisa Najavits in the early 1990's. The present-focused approach of Seeking Safety has been shown to be effective with offenders without causing further distress (Najavits, 2006). The SS addresses trauma in terms of current impact, symptoms, related problems (e.g., substance abuse) and increasing safe coping skills whilst staying present-focused, thus avoiding the exploration of past memories and minimizing distress. In their recent paper, Miller and Najavits (2012; 6) suggests "targeting trauma and related impacts, but in present-focused safe ways can be ideal in prison settings".

Furthermore, they suggest staff training should include information about trauma and the principles of trauma-informed care. By doing so, staff may be better equipped to minimize

triggers, respond effectively to trauma symptoms and reduce critical incidents that may be related to past incidents of abuse (Miller & Najavits, 2102).

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Chapter Four: Concluding Discussion

4.1 General Overview

The overarching aim of this thesis was to investigate any associations and interactions among three variables, namely, trauma, substance use and violent offending in a population of male offenders. Adolescent and adult criminality, as well as substance use and dependence, are recognised repercussions of experiences of trauma (Widom & Ames, 1994). Specifically, the current study focused on the question of whether trauma or substance use was related to violent offending. Additionally, it was interested in whether there was an interaction effect of substance use on trauma and violent offending which may suggest that for those offenders with these co-occurring factors it was the use of substances that added to the likelihood they would use violence. Participants in the study were 790 male offenders recruited from a category C and B prison in the North West of England.

No direct associations between trauma and any of the offence types (violent or non-violent offence types). Additionally, no interaction effects of substance use and trauma on violent offending were found. As a result, there was no indication that for those offenders with co-occurring substance use the relationship between trauma and violent offending was stronger, in contrast to what was predicted.

This study was also interested in whether trauma was associated with substance use. A general measure of trauma was not associated with substance use, however, chronic trauma was. Further exploration revealed that specifically, self-report of physical and emotional abuse by offenders was associated with increased odds of substance use.

This concluding chapter will provide an overview of the current research findings in relation to previous literature, theoretical and clinical implication and methodological considerations. Following this, a report for the National Offender Management Service (NOMS) is included. A requirement for approved research through NOMS is a report upon completion that summarises the aims, key findings, and sets out the implications for NOMS decision-makers. Finally, a proposal for future research which would build on the current findings is provided.

4.2 Summary of Results in Relation to Previous Literature

4.2 1 Trauma substance use and violent offending

This study did not find any significant associations between a general measure of trauma and any of the offence types that were explored (violent/non-violent offences). Much of the literature reviewed has indicated a link between early trauma and abuse and later criminal offending and suggests a history of trauma and Post Traumatic Stress Disorder exists within the prison population (Ardino, 2011; Weeks & Widom, 1998; Goff, Rose, Rose & Purves, 2007). Specifically, in males experiences of physical abuse in early life have been linked to later violent offending (Welfare & Hollin, 2012). Inmates housed in maximum security prisons who generally commit the most serious of offences (including homicide and violence), have reported high rates of multiple forms of abuse, including sexual and physical abuse and neglect (Lisak & Beszterczey, 2007; Neller, Denney, Pietz & Thomlinson, 2006). The current findings did not support any of the previous literature or find any associations between trauma and offending behaviours within the sample. However, in comparison to previous studies (Lisak & Beszterczey, 2007; Neller, Denney, Pietz & Thomlinson, 2006) who found 75% and 96% respectively of participants in their sample reported some form of prior traumatic experience; the current study found only 18.6% reported experiencing trauma of some form in their lifetime. Potentially, this may have limited any ability to find a

relationship that is present. Alternatively, given the samples in the two studies above were drawn from maximum security prisons it may suggest that for those inmates who experience a greater number of traumatic experiences the potential for more serious offending may increase.

What is noteworthy in the present study was that substance use and age were both significantly associated with violent offending. Previous literature suggests that “alcohol and substance use may contribute to a person behaving violently” (Bolesa & Miotto, 2003, p 159). Additionally, White and Hansell (1998) reported that alcohol, compared to other drugs, such as marijuana and cocaine was more strongly related to violent offenses and physical fighting. However, in contrast to previous work the current study found that as substance use increased the odds of violence decreased. Given that the available data were not able to distinguish between alcohol and drug use these results may be limited by the fact there was no way of knowing whether participants were more likely to engage in either alcohol or drug use. Therefore, this limited the ability to draw any firm conclusion regarding this question. However, as age increased, the odds of violent offending decreased, this is consistent with much of the previous work on the age-crime relationship (Moffitt, 1993).

4.2.2 Co-occurring trauma and substance use

The literature that was reviewed suggested elevated rates of co-occurring substance use and trauma or PTSD have been found within the prison population in both male (Sindicich, Mills, Barrett, Indig, Sunjic, Sannibale, Rosenfeld & Najavits, 2014) and female offenders (Zlotnick, 1997). Additionally, co-occurring substance use and PTSD has been associated with an increased risk of violence (Proctor & Hoffman, 2012). The current study examined whether or not substance use moderated the effects of trauma and violence and whether or not

these co-occurring factors would make the association between trauma and violence stronger. No interaction effects of substance use, trauma and violence were found. In contrast to previous literature Barrett, Mills and Teesson (2011) reported for their sample that those who had committed a violent crime in the month preceding their study, also had high rates of childhood trauma compared to those who had not. However, again their sample reported high rates of trauma in comparison to the present study (93.8% vs. 18.6% respectively). Over half (54.7%) of their sample reported they had committed a crime involving violence in their lifetime which is comparable to the number of violent offenders in the sample (63.5%). However, again the current data was limited as it was unable to account for the recency of violence nor was it able to account for the number of previous violent offences.

That said, much of the literature on co-occurring trauma, PTSD, substance use and its association with violence has been documented using samples of juveniles (Mejia, Kliever, & Williams, 2006; Day, Hart, Wanklyn, McCay, Macpherson & Burnier, 2013) and patients from substance use treatment facilities (Barrett, Mills & Teesson, 2011; 2104; Parrott, Drobesa, Saladina, Coffey & Dansky, 2003). Hence this may limit the generalisability of these studies across populations. Those individuals seeking treatment for substance use may have a greater severity of alcohol and drug use, what's more, juveniles and substance use treatment seeking populations may not have committed such serious violence as those housed in prisons for their violent offences.

4.2.3 Substance use and trauma

In line with previous literature a significant relationship between trauma and substance use, specifically with chronic trauma. Additionally, a significant relationship between physical and emotional abuse and substance use was found. This finding is also consistent with

previous research that suggests individuals exposed to trauma are at increased risk for developing substance use disorders (Jacobson, Southwick & Kosten, 2001). In a report by Harlow (1999) it was found over half of male inmates (56%) reported childhood physical abuse. Additionally, emotional abuse, particularly abandonment, is also prevalent among incarcerated men (Wolff & Shi, 2010). One form of emotional trauma prevalent within offending populations is abandonment, this typically occurs when a caregiver deserts a child emotionally, physically, and/or financially (Henley, 1973). Again despite the data concurring with previous literature it was limited in available information on what age emotional abuse may have occurred.

Theories such as the self-medication hypothesis (Khantzian, 1985; 1987) suggest individuals suffering from trauma and PTSD may use substances as a form of coping to dampen trauma symptoms in the short term. Research has shown that regular use of alcohol and drugs is more typical in the lives of inmates who have previously been abused and exposure to childhood trauma has been associated with substance use (Wolf & Shi, 2012). Furthermore, exposure to childhood as well as adult traumatic events has been associated with self-reported substance abuse problems in both male and female prison inmates (Carlson, Shafer & Duffee, 2010). In line with previous literature the present study seems to corroborate their findings. Participants who experienced emotional and physical abuse in the study were at increased odds of substance use. However, given that no data were available on type of substance use (i.e. alcohol or illicit substances) the study was unable to clarify whether alcohol or drug use was more prevalent among those who had experienced prior abuse. This may be an area for future exploration.

4.3 Implications of Findings

4.3.1 Theoretical

The theoretical implications of the current findings from this research appear consistent with the self-medication hypothesis. According to the self medication hypothesis (Khantzian, 1985; 1997), individuals often use substances to self medicate in order to alleviate negative thoughts and feelings and psychological distress. Additionally, alcohol and/or drug abuse has been linked to social deviance, criminal behaviour and criminal recidivism (Yu & Williford, 1994). The self-medication hypothesis (Khantzian, 1985; 1997) also suggests that often trauma precedes substance use. Theoretically, the current study implies there was an association between substance use and chronic trauma and more specifically, physical and emotional abuse. These findings may suggest there is a possibility that inmates in the current sample may have used substances to self-medicate symptoms of trauma. Therefore, by helping the offender to reduce or manage symptoms of trauma, in particular those associated with physical and emotional abuse, the odds of using substances may in turn reduce. However, the study was unable to ascertain whether trauma preceded substance use or vice versa and again, due to limited information it is difficult to draw any firm conclusions. One can only speculate as to whether substances were used as a form of self-medication within the current sample and further exploration is warranted.

4.3.2 Clinical implications

The current research highlighted an association between chronic symptoms of trauma and substance use. In particular, a link between physical and emotional abuse was significant. These findings were in line with previous research (Harlow, 1999; Wolff & Shi, 2010; Henley, 1973) that suggests there is a high prevalence of physical and emotional abuse, particularly in male offenders.

As a consequence, the current findings may support a need to address co-occurring trauma and substance use in order to facilitate a reduction in substances use. If those individuals who experience trauma use substances to cope with symptoms of trauma, then addressing substance use alone may not be sufficient to reduce the risk of re-offending. The offender may return to criminality upon release as they return to the use of substances to cope. Additionally, given the availability of substances within prisons the offender may continue to use substances while incarcerated. It seems clear from the current study that there is a need for treatment that addresses trauma in this highly vulnerable population (Matheson, 2012). Despite finding no significant relationships between a general measure of trauma, the study did find that 18.6% of the sample reported experiencing trauma of some form in their lifetime. The estimates of trauma within this population were lower than those found in previous studies (Wolff & Shi, 2010; Henley, 1973). Despite this, the current figure of those reporting trauma within the sample is still higher than those general population studies who report estimates for trauma and PTSD of between 2% - 2.8% (Stein, Walker, Hazen & Forde, 1997; Kessler, Sonnega, Bromet, Hughes & Nelson, 1995).

Additionally, 18% reported prior use of substances; this figure is again low in comparison to previous work (Singleton & Meltzer, 1998) however as mentioned earlier in section 3.5 this may be due to measurement variability and the current study having limited types of data (i.e. self-report dichotomous data). Despite this, a significant finding of the study was that chronic trauma, as well, as emotional and physical abuse was significantly related to substance use.

Therefore, the current findings may highlight the need to screen for and treat trauma related symptoms, particularly in relation to substance use. It may also be beneficial for prison

services to incorporate access to trauma-informed interventions as a means to reduce substance use. Additionally, given the high prevalence of trauma within the prison population, as evidenced throughout the literature, it may also be plausible to suggest a need for staff training to increase awareness of trauma within the criminal justice system. This in turn would allow prison staff to be better equipped to respond to symptoms of trauma such as a numbing of general responsiveness, persistent symptoms of increased arousal (APA, 1994) and aggressive outbursts and violence in relation to the re-experiencing of traumatic events (Miller & Najavits, 2006).

Miller and Najavits, (2006, p1) suggest introducing trauma informed principles within the criminal justice system will allow staff to “play a major role in minimizing triggers, stabilizing offenders, reducing critical incidents, deescalating situations, and avoiding restraint, seclusion or other measures that may repeat aspects of past abuse”. Furthermore, they suggest the use of present-focused programmes such as the Seeking Safety programme developed by Najavits in the early 1990’s may help to stabilize inmates with PTSD and substance use problems (Miller & Najavits, 2006).

4.4 Methodological Considerations

4.4.1 Strengths

First the study had a large sample size ($n = 790$). GPower analysis indicated a sample size of 618 was required. This suggested the sample size for the current study was adequate. This allowed for confidence in accepting or rejecting the null hypotheses within the current sample.

Secondly, the study was able to distinguish between specific offence categories. Had any significant results between trauma and offending behaviours been found (violent/non-violent) this would have allowed for more specific predictions about whether or not trauma was related to specific types of offending. However, due to non-significant results this was not possible. Further research in this area may be able to substantiate this link between trauma and offending behaviours with a more thorough investigation of specific trauma symptoms and associations to offence categories.

Thirdly, the study was able to distinguish between different types of abuse (emotional, physical and child sexual abuse) and establish associations with increased odds of substance use which was consistent with previous research (Wolf & Shi, 2012). Understanding the specific underlying mechanisms which contribute towards increased substance use may have implications for treatment for offenders with co-occurring symptoms.

4.4.2 Limitations

The cross-sectional design of the study did not allow for any causal interpretations to be drawn from the current results. The lack of information on age at which abuse occurred or its duration did not allow the study to distinguish between early childhood maltreatment and later abuse.

Participants were drawn from a male only category B and C prison therefore the results may not be generalisable to other populations, in particular female offending populations who in general display higher rates of child sexual abuse than their male counterparts (Ouimette, Kimerling, Shaw & Moos, 2000). Additionally, the results may not generalise across offending populations, particularly those offenders housed in high secure prisons who may

have committed more severe offence types. Finally, it may be difficult to compare results from the current study to those from previous work that has explored the experiences of juveniles. “It is well established that antisocial and criminal activity increases during adolescence, peaks around age 17 (with the peak somewhat earlier for property than for violent crime), and declines as individuals enter adulthood” (Monahan, Steinberg, Cauffman & Mulvey, 2009, p 1654). Therefore, given that the mean age for the current study sample was 37.8 years (SD = 8.8) this may suggest their propensity to commit violence may have begun to decline.

The study was also limited by the lack of information on type and number of previous offences as well as the age of their first offence. However, what the study was able to do was distinguish between different offence categories. Furthermore, the study was only able to categorise offenders within the current sample into the violent and non-violent offending group based on their current offence. Information on participants’ previous offending may have revealed a past history of violence, for example some who were currently serving sentences for non-violent offences have had previous convictions of violence, however, again this information was not available.

Participants in the sample were recruited from a service where they were referred for symptoms of psychological distress, therefore at the time of the initial clinical interview other symptoms may have skewed their ability to recall specific information in relation to previous trauma (e.g. experiencing psychological distress due to their reactions to trauma). This may explain the lower prevalence rates of trauma found in this sample in comparison to previous samples.

A further limitation was the inability to make a distinction between substance use or dependence. Additionally, the study was limited in the ability to measure whether or not chronic trauma and emotional and physical abuse was related to more severe misuse of substances. Furthermore, it was not able to differentiate between alcohol and substance use. Having information on the above factors may have allowed the current study to draw more substantial inferences on associations between severity of use of substances and associations between types of abuse in relation to particular substances.

Finally, measurement variability across all of the literature that was reviewed made it difficult to make and firm comparisons between the current study and previous studies. In particular a limitation of the current study was the lack of available information on trauma. A general measure of trauma was used in the hope of expanding previous work related to childhood maltreatment and violence (Widom & Ames, 1996), however, no significant results in relation to a general measure of trauma and any offence categories was found.

While acknowledging the limitations of the current study, overall it has provided a better understanding of the underlying mechanisms in relation to trauma and substance use. Whilst there was a lack of an association between trauma, substance use and violence as predicted in the current study, the above limitations explore why this may have been. In addition, the study has identified a need for further exploration of the core distress that male offenders may experience in relation to trauma and abuse and how this may be associated with their propensity to offending and use substances.

4.5 Feedback report to the National Offender Management Service²

Trauma, substance use and violent offending in adult male offenders: Do trauma and substance use predict violence?

The professional workforce within the prison system is tasked with the role of rehabilitating offenders, and thus, reducing the risk of re-offending upon release. Prisons across the UK offer a wide array of rehabilitative programmes specifically aimed at addressing an offender's criminogenic needs. Criminogenic needs are those risk factors correlated with the risk of offending behaviours and include dynamic risk factors such as drug and alcohol misuse, education, and unemployment as factors amenable to change.

A concern for many decades has been the number of prisoners entering the prison system with drug and/or alcohol use or dependence. Often substances are used to manage distressing symptoms of trauma and Post Traumatic Stress Disorder (PTSD). Additionally, responses to trauma may include anger and aggression towards others. These behaviours may lead to criminal involvement or lead to excessive risk taking behaviours which ultimately may increase the risk of arrest. Research on substance use and criminal offending has consistently found that heavy drug use, as well as alcohol use may increase the likelihood of being involved in crime, particularly violent crime. A recent review of Post Traumatic Stress Disorder within the prison population also suggested that trauma and PTSD is widespread within this population. Despite a wealth of previous literature that links early abuse and maltreatment with later substance use and violent behaviour in both juveniles and adult

² If research is approved by NOMS a requirement of obtaining permission is that upon completion you are asked to submit a research summary (approximately three pages; maximum of five pages); which (i) summarises the research aims and approach, (ii) highlights the key findings, and (iii) sets out the implications for NOMS decision-makers. The report must use language that a lay person would understand. It must be concise, well organised and self-contained. The conclusions must be impartial and adequately supported by the research findings.

offenders there seems to be a lack of understanding of these factors in relation to violent offending. Additionally, the likely effects of trauma and co-occurring substance use within this population seem to be overlooked in terms of rehabilitation. This may be due to a lack of understanding, limited evidence base within the literature and limited number of appropriate interventions to address co-occurring trauma and substance use.

4.5.1 Research Aims and approach

Previous research has suggested there may be a link between trauma and violence and substance use and violence, therefore, understanding the effects of trauma and substance use may be of particular importance for those working within the criminal justice system. A clearer understanding of the effects of substance use and trauma may facilitate a better appraisal of prisoner need and treatment planning for those offenders entering the criminal justice system. Additionally, for those prisoners with co-occurring trauma and substance use entering the criminal justice system the study was also interested in whether or not reliance on substances may contribute further to interpersonal difficulties and emotion dysregulation, hence influencing the type of offending behaviours observed in prisoners.

Much of the previous research on trauma and the link with later substance use and offending behaviours has mainly focused on early childhood maltreatment and victimization. What the study aimed to do was explore a general measure of trauma and substance use within a population of male offenders and whether or not this had any likely effects on the type of offences they committed or whether trauma was related to the likelihood of offenders using substances. I hoped that by using a general measure of trauma and abuse it would allow us to extend the previous findings relating to early childhood maltreatment and later violent offending, and thereby test for the presence of a link between trauma experiences in general and associations to specific offence types, with particular reference to violent offending.

Additionally, the study aimed to look at whether or not there was an interaction effect of substance use on trauma and violent offending. Specifically, the objective was to investigate whether or not for those offenders who had co-occurring trauma and substance use the relationship to violent offending was stronger or weaker.

Therefore, the specific hypotheses for the current study were:

- Trauma and substance use will be related to a greater risk of violent versus non-violent offending behaviour.
- There will be an interaction between trauma, substance use and violent offending, with substance use acting as a moderator between trauma and violent offending, whereby trauma would have a stronger relationship with violent (versus nonviolent) offending in those with co-occurring substance use problems.

Furthermore, given that previous research has already demonstrated a link between trauma and substance use I was also interested in whether or not in the current sample of male offenders this link was also demonstrated.

Participants were 790 male offenders from a North-West of England category C and B prison. Participants had been referred to the prison's Primary Care Psychological Service (PCPS) due to experiencing elevated levels of psychological distress. I explored data from an existing NHS database that had been previously collected by clinical staff within the service.

Participants within the sample who had experienced trauma, substance use, or co-occurring trauma and substance were of particular interest. Trauma and substance use was assessed by way of a structured clinical interview. Presence of physical, emotional and sexual abuse was also recorded and whether or not trauma symptoms resulted from one specific incident or multiple or prolonged incidents of trauma and abuse (chronic trauma). Index offence was also recorded and participants were allocated to either a violent group (serious

violence/murder; violence against the person; sexual offences; firearms/offensive weapon) or a non-violent group (possession of drugs; dealing drugs; fraud; car crimes/theft/driving offences; burglary; shoplifting; breach of specific licence/order; other).

4.5.2 Key Findings

- 1). No significant relationship between trauma and any of the offence categories (serious violence/murder; violence against the person; sexual offences; firearms/offensive weapons; non-violent offences) was found.
- 2). Trauma did not make any significant contribution to the likelihood of violent offending. However, substance use and age were both significantly related to violent offending. As substance use increased the likelihood of violence decreased. As age increased the likelihood of violence decreased.
- 3). There was not an interaction effect of substance use and trauma on violent offending.
- 4). There was a significant relationship between chronic trauma and substance use. For participants who experienced chronic trauma the odds were twice they would use substances.
- 5). Physical and emotional abuse was significantly related to substance use, although child sexual abuse was not. For participants who experienced physical abuse the odds were twice they would use substances than for those who did not experience physical abuse; for participants who experienced emotional abuse, the odds were nine times they would use substances than for those who did not experience emotional abuse.

4.5.3 Implications for NOMS

The findings did not as expected reveal a direct association between a general measure of trauma and violent offending. However, a significant association between substance use and chronic trauma, and particularly, in terms of physical and emotional abuse was established. Consequently, there appears to be a need to address symptoms of abuse that may lead an offender to engage in substances. If individuals use substances to self-medicate following

experiences of physical and emotional abuse, and abuse is related to substance use, then something to consider within the criminal justice system may be a treatment for co-occurring trauma and substance use.

The present-focused approach of the Seeking Safety (SS) programme addresses distress associated with both substance use and trauma simultaneously. Research has shown it to be effective with offenders without causing further distress (Najavits, 2006). The SS addresses trauma in terms of current impact, symptoms, related problems (e.g., substance abuse) and increasing safe coping skills whilst staying present-focused, thus, avoiding the exploration of past memories and minimizing distress. Additionally, staff training on trauma and trauma-informed care may lead to more meaningful staff support for offenders given that in general within the prison population trauma is the expectation, not the exception. Thus a better understanding of the effects of trauma within prisons may facilitate a reduction in critical incidents that may be related to past incidents of abuse (Miller & Najavits, 2102).

4.6 Proposed Future Research

4.6.1 Introduction

Adults and adolescents with PTSD are as much as eight times more likely than those without PTSD to have a substance use disorder (Giaconia, Reinherz, Hauf, Paradis, Wasserman & Langhammer, 2000). Common risk factors for delinquency, PTSD, and both internalizing (e.g., depression, suicidality) and externalizing (e.g., substance abuse) disorders include: victimization (e.g., sexual or physical abuse or neglect; exposure to or witnessing of violence), absence of supportive parental monitoring and positive peer relationships, and family history of emotional or behavioural disorders (Ford, Chapman, Mack & Pearson, 2006)

Exposure to childhood trauma and abuse leads to later substance use through various mechanisms such as, a maladaptive coping strategy, self-medication, or self-destructive impulses stemming from low self-esteem (Widom, Weiler & Cottler, 1999). The findings from the current study in relation to these mechanisms are limited by virtue of the lack of information in relation to trauma that lead to psychological distress and their likely effects on substance use and subsequent offending. Therefore further research could gather more informed data on specific type of psychological distress, usage and dependence of specific substances and any likely relationship with violence.

4.6.2 Aims

The proposed study aims would be to explore specific mental health diagnosis in relation to specific substances as well as past/current use and dependence in relation to violent and non-violent offending. Of particular interest would be the PTSD - substance dependence – violent

offending pathway. The study would aim to collect data from both male and female offenders to allow for comparisons across groups.

4.6.3 Design

A cross-sectional between and within groups design would allow us to look at individual differences within the population as well as make comparisons between each of the groups (male and female offenders) in relation to substance use, psychological distress in relation to trauma and the likely effects on violence.

4.6.4 Hypotheses

- PTSD and co-occurring substance dependence will be associated with a greater likelihood of violent offending in comparison to non-violent offending.
- Reported experience of sexual, physical and emotional abuse will be associated with a greater likelihood of substance dependence than for those who experience depression, anxiety or self-esteem difficulties alone.
- Emotional abuse will be related to substance dependence in males, whereas, sexual abuse will be related to substance dependence in females.

4.6.5 Analysis

Path analysis is a statistical technique uniquely constructed to test theoretical models.

Because the independent variables would be dichotomous, the software program Mplus would accommodate the following model to conduct path analysis (Mplus version 3.01; Muthen & Muthen, 2004)

Level one variables would focus on psychological variables such as: anxiety, depression, self-esteem, personality problems, past abuse (sexual, physical and emotional), and PTSD. Level

two variables would focus on substance use such as: alcohol, marijuana, solvents; opiates, cocaine, past use; current use; dependence. Level three would comprise the variables, at least two previous violent offences, more than two violent offences, serious violent offences (i.e. murder) and non-violent offending. The model would be completely inclusive, meaning that it would examine relationships between all psychological variables, all substance use variables and violent and non-violent variables.

This model would allow a test of whether or not specific psychological variables are associated with specific substances and whether or not it predicted the likelihood of violence in male and female offenders.

4.7 Overall conclusions

No relationships between trauma and violence was found, nor any interaction effects of co-occurring trauma and substance use on violence. However, a significant relationship between trauma and substance use was identified. While acknowledging the limitations, the findings from the current study have highlighted an association in relation to trauma and substance use which may suggest further exploration is necessitated. Additionally, the need to address trauma related symptoms in relation to substance use within the prison service may seem plausible. The potential benefits of addressing both factors may add to a reduction in re-offending given that many offenders return to substance use upon release from prison as well as many who continue their substance use whilst incarcerated. If offenders are equipped with better coping skills to manage their traumatic experiences the likelihood of returning to or reducing their use of substances to cope may lessen.

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Appendix one

Appendix 1

The Journal of Forensic Psychiatry & Psychology

Instructions for authors

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Manuscript preparation

1. General guidelines



- Manuscripts are accepted only in English. Any consistent spelling style may be used. Please use single quotation marks, except where 'a quotation is "within" a quotation'. Long quotations of 40 words or more should be indented without quotation marks. Always use the minimum number of figures in page numbers, dates etc., e.g. pp. 24-4, 105-6 (but using 112-13 for 'teen numbers) and 1968-9.
- A typical manuscript will not exceed 5,000 words not including references. Manuscripts that greatly exceed this will be critically reviewed with respect to length. Authors should include a word count with their manuscript. Review papers (e.g. systematic reviews, meta-analyses, law reviews) and some empirical studies may require greater length and the Editors are happy to receive longer papers. We encourage brevity in reporting research. Brief reports should be no more than 2,000 words in length, including references. Normally, there should be a maximum of one table.
- Manuscripts should be compiled in the following order: title page (including Acknowledgements as well as Funding and grant-awarding bodies); abstract; keywords; main text; references; appendices (as appropriate); table(s) with caption(s) (on individual pages); figure caption(s) (as a list).
- Please supply all details required by any funding and grant-awarding bodies as an acknowledgement in a separate Funding paragraph as follows:

For single agency grants

This work was supported by the <Funding Agency> under Grant <number xxxx>.

For multiple agency grants

This work was supported by the <Funding Agency #1> under Grant <number xxxx>; <Funding Agency #2> under Grant <number xxxx>; and <Funding Agency #3> under Grant <number xxxx>.

- [Abstracts](#) of 150 words are required for all manuscripts submitted.
- Each manuscript should have 3 to 6 [keywords](#).
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- Section headings should be concise.
- All authors of a manuscript should include their full names, affiliations, postal addresses, telephone numbers and email addresses on the cover page of the manuscript. One author should be identified as the corresponding author. Please give the affiliation where the research was conducted. If any of the named co-authors moves affiliation during the peer review process, the new affiliation can be given as a footnote. Please note that no changes to affiliation can be made after the manuscript is accepted. Please note that the email address of the corresponding author will normally be displayed in the article PDF (depending on the journal style) and the online article.
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- Biographical notes on contributors are not required for this journal.
- Authors must also incorporate a [Disclosure Statement](#) which will acknowledge any financial interest or benefit they have arising from the direct applications of their research.
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- When using a word which is or is asserted to be a proprietary term or trade mark, authors must use the symbol ® or TM.
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- All figures must be numbered in the order in which they appear in the manuscript (e.g. Figure 1, Figure 2). In multi-part figures, each part should be labelled (e.g. Figure 1(a), Figure 1(b)).
- Figure captions must be saved separately, as part of the file containing the complete text of the manuscript, and numbered correspondingly.
- The filename for a graphic should be descriptive of the graphic, e.g. Figure1, Figure2a.

Appendix two

Appendix 2



Emerald Group Publishing

Journal of Forensic Practice

Author Guidelines

Manuscript requirements

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Article Length

- Articles should be between 3000 and 8000 words in length.

Article Title

- A title of not more than eight words should be provided.

An Article Title Page should be submitted alongside each individual article using the template provided. This should include:

- Article Title Author Details (see below)
- Acknowledgements
- Author Biographies
- Structured Abstract (see below)
- Keywords (see below)
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Author Details

Details should be supplied on the **Article Title Page** including:

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Authors must supply a structured abstract on the Article Title Page

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- Design/methodology/approach (mandatory)
- Findings (mandatory)
- Research limitations/implications (if applicable)
- Practical implications (if applicable)
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Maximum is 250 words in total (including keywords and article classification, see below)

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Please provide up to 10 keywords on the Article Title Page, which encapsulate the principal topics of the paper

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Categorize your paper on the Article Title Page, under one of these classifications:

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- Case study
- Literature review
- General review.

Headings

- Headings must be concise, with a clear indication of the distinction between the hierarchy of headings.
- The preferred format is for first level headings to be presented in bold format and subsequent sub-headings to be presented in medium italics.

References

- References to other publications must be in **Harvard style** and carefully checked for completeness, accuracy and consistency. This is very important in an electronic environment because it enables your readers to exploit the Reference Linking facility on the database and link back to the works you have cited through Cross Ref.

Appendix three

Appendix 3

**PRIMARY CARE PSYCHOLOGICAL SERVICES
for
PEOPLE WITH MILD-MODERATE MENTAL HEALTH NEEDS
In**

[illegible]

CHAPTER 2 OPERATIONAL SPECIFICATION AND PROTOCOL

CHAPTER 3

**Version October 2009
(Equality Impact Assessment
September 2009)**

1. Vision

The purpose of the Prison In-reach Primary Care Psychological Service is to ensure that men in >>>>>>>>>> with mild-moderate mental health needs, are able to access the same type and quality of resources and effective intervention available to people in the community.

In this respect, the aim is that all people in prison, irrespective of their age, cultural background, sexual orientation, ability level, mental health status or any other factor, are not discriminated against in terms of their access to good mental health care.

The psychological service will provide a range of skills and resources in recognition that the prison population has higher levels of mental health need and cognitive impairment than the wider community, and that prison itself constitutes a stressful and distressing experience.

The service will work in partnership with other relevant prison staff and services to ensure good communication and seamless care.

2. Philosophy and Principles of Service Provision

In addition to the general aims above, the Primary Care Psychological Service has been commissioned to complement the Prison In-Reach CMHT, which provides mental health care for people with more severe and complex mental health problems.

Specialist (CMHT) services in >>>>>>>>>> are basing many service improvements on the Recovery approach which emphasises the possibility of restoring valued social roles and activities, even if psychiatric symptoms persist. This model also fosters the active involvement in all aspects of their care, of people using services and those close to them.

People accessing primary care psychological services would not normally be reliant upon practical care and support from families or others, or expect such people to be routinely involved in the services they access. However, the Recovery approach is still relevant in shifting the emphasis away from focussing on illnesses, and onto restoring activities and relationships. The benefits are recognised of actively involving people in making informed choices about the help they engage with, which may range from basic self-help materials to formal psychotherapies such as Counselling, Cognitive-Behaviour Therapy (CBT) and Cognitive Analytic Therapy (CAT).

Primary care psychological services are increasingly employing a Stepped Care model of service provision which aims to offer the least intensive intervention at the initial stage of seeking help, with the option of 'stepping up' as individual need requires. The present service will be adopting the principles of this approach, ensuring that this does not delay or create barriers to meeting specific needs.

The Psychological Service is committed to the core values and principles set out in the (1999) National Service Framework for Mental Health, which have been slightly re-worded to reflect the current service:

- ❖ Involve service users and all involved in their care in planning and delivery of care
- ❖ Deliver high quality equitable psychological care which is known to be effective and acceptable
- ❖ Be well suited to those who use them and non-discriminatory
- ❖ Be accessible so that help can be obtained when and where it is needed
- ❖ Promote their safety and that of the prison community and the wider public
- ❖ Offer choices which promote independence
- ❖ Be well coordinated between all staff and agencies
- ❖ Enable delivery of continuity of care for as long as this is needed
- ❖ Empower and support staff and all those involved in their care *
- ❖ Be properly accountable to the public, service users and carers
- ❖ To promote mental health for all prisoners working with individuals and the prison community.
- ❖ Combat discrimination against individuals/groups with common mental health problems
- ❖ To work with the safer custody and prison staff to prevent suicides

3. Objectives and purpose

The Primary Care Psychological Service will:

- ❖ Employ a range of staff with the appropriate expertise and skill-mix to deliver a wide range of services relevant to the needs of people with mild-moderate mental health needs.
- ❖ Ensure appropriate governance arrangements including clinical supervision
- ❖ Work in partnership with the specialist mental health in-reach team, prison staff, primary health care practitioners, and other agencies and individuals concerned

with the health and well-being of prisoners to create seamless internal pathways.

- ❖ Review and evaluate the service at agreed intervals.
- ❖ Ensure appropriate systems of case-management, communication and record-keeping and record and monitor activity and outcomes.
- ❖ Liaise with community providers to ensure appropriate pathways between local services and the prison.
- ❖ Utilise a Stepped Care approach in the delivery of services and management of resources.

The Primary Care Psychological Service will work in partnership with all other relevant services within and external to HMP Liverpool to:

- ❖ Ensure the service is well-targeted to assist people appropriately and effectively and make best use of resources.
- ❖ Utilise best practice evidence in relation to clinical interventions and service delivery.
- ❖ Provide an appropriate response to requests for input, within agreed timescales
- ❖ Fully involve all service users in decisions about input to be provided, seeking their informed consent and clarifying the nature, frequency and timescale of services to be provided. Involve them in regular reviews of the input and obtain feedback about their satisfaction with it.
- ❖ Assess and report risk, and where appropriate contribute to the monitoring and management of risk.
- ❖ Raise awareness of mild to moderate mental health problems with prison staff and help to increase skills in working with prisoners with these difficulties.

The Primary Care Psychological Service will work closely with prison primary and secondary health care staff to:

- ❖ Ensure that people with mild to moderate mental health problems gain access to appropriate psychological interventions through seamless internal pathways.
- ❖ Inform staff of the types of interventions available, who may benefit from what type in accordance with the stepped care model and whether the primary care model is suitable for the client.
- ❖ Continue to assess the needs of both the service users and the referrers in order to achieve the above and identify any barriers that may be preventing this process.

- ❖ Raise awareness of mild to moderate mental health problems with primary and secondary care staff and help to increase skills in working with prisoners with these difficulties.

4. Who is the service for?

The Primary Care Psychological Service is commissioned to work with prisoners with mild-moderate mental health needs, sometimes referred to as 'common mental health problems'.

These would include depression, anxiety, obsessive behaviour, post-trauma and bereavement reactions, adjustment to physical ill-health and disability, etc. Men with anger problems will also be assessed as this may mask underlying mental health problems that some men may find harder to present with initially.

Services will be provided to people who:

- ❖ Are seeking help for identified concerns
- ❖ Understand what kind of provision is available
- ❖ Are capable of collaborating with a team member to work on their issues
- ❖ Are able to engage in a time-limited psychological intervention

(All interventions will be adapted in order to meet an individual's needs and all efforts will be made to accommodate clients in an environment that is accessible to them).

Services are not appropriate for any client who is unable to engage in a time limited intervention such as:

- ❖ People in immediate crisis
- ❖ People whose level of risk (i.e. risk to self or others) mean they are currently unable to engage in a psychological intervention
- ❖ People for whom substance misuse problems are ongoing and prevent them from engaging in psychological interventions.
- ❖ People already receiving comparable input from another service.

5. Access to the Primary Care Psychological Service

The Stepped Care model as applied to community services aims to bring psychological resources as close as possible to where people present first with mental health needs (usually their GP), and to remove barriers and delays often associated with sending written referrals on to specialist services. This has been adapted to meet the needs of men with mild to moderate mental health problems within the prison setting (please see Diagram 1). We have adopted a model that incorporates both a stepped and a stratified model of referral.

Step 1 therefore involves close working practices between GPs and other primary health care staff. Once a person has been referred to the GP for mild to moderate mental health problems the GP will offer general advice on improving health and well-being and monitor how the person responds for a period of two weeks (watchful waiting). If it is believed that the service user would benefit from further input the GP

will refer to the Graduate Primary Mental Health Care Worker who will take referrals directly from the wing GP and primary care nurses and self referrals via applications from prisoners. All referrals will be processed through the Single Point Referral Meeting.

All referrals will be processed through the Prison Mental Health Single Point Referral Meetings and will need to take account of capacity for such work, as well as individual need, in order to avoid waiting times developing.

Step 2 The Graduate Worker will offer a range of interventions and resources such as guided self-help, psycho education and signposting to support groups or activities that could benefit the individual, offers assessment and possible interventions for Brief wing-based psychological interventions based on the CBT model. The individual can be referred on to Step 3 or higher, via the Single Point Referral (SPR) Meeting if the individual's needs will be clearly better met by more specialist input eg. Learning Disability Services, Scott Clinic Forensic services etc. Other referrers can refer directly to the SPR meeting if they believe the service user needs formal psychological interventions and would not benefit from steps one to two on this occasion. This employs the stratified model of referral.

Step 3 Counselling, CBT assessments and short CBT groups based mainly in the Health Care building.

Step 4 offers access to more specialist assessment and therapy mainly delivered by the Cognitive Behavioural psychotherapist and the Consultant Clinical Psychologist delivering Cognitive Analytic Therapy (CAT). The Clinical Psychologist may also undertake some work at this step in assessing individuals e.g. whose cognitive capacity is uncertain and whose needs are potentially more complex than has been identified. or where personality issues may make formal therapy sessions less straightforward to deliver.

Step 5 is Secondary Care and the Primary Care Psychological Services team will liaise with the in-reach Community Mental Health Service, the inpatient service and the Criminal Justice Team to ensure the seamless transition between primary and secondary care.

6. Referral Process

All referrals are processed through the Single Point Referral Meeting via the Single Point Referral Form. Referrals allocated to PCPS will then be discussed at their weekly meeting and allocated to the appropriate clinician/step (please see Referral Process Form Appendix I).

- ❖ An assessment will be completed to decide whether the prisoner will benefit from a psychological intervention at this moment in time and if so which level of intervention will be most appropriate for him (please see Appendix III)
- ❖ All prisoners will complete a consent form and be given an information leaflet regarding the type of psychological intervention they will receive. All clients will be asked to complete the CORE and other psychometrics will be administered pre and post therapy as appropriate.
- ❖ The date sessions are offered, outcome (including reasons for DNAs), length of sessions, location of sessions, time liaising with staff, time escorting and finding space and any other barriers identified will all be recorded on the referral process form.

7. Prioritising Referrals

The Primary Care Psychological Service will aim to not be operating a waiting list. As part of the initial scoping exercise we assessed both demand for our service and capacity given possible barriers to delivering services within a prison setting. Now this is determined we will ask other professionals to prioritise prisoners they think need to be referred if demand outstrips our capacity. Guidance for prioritising could include an exacerbation of distress if a client is not seen within a short period of time, a decreased level of functioning due to their mental health problems and increased isolation. We will also prioritise high risk prisoners such as those on remand and foreign nationals.

8. Types of Intervention and other resources to be available

Please see Diagram 1, pg 7 for Stepped Care Pathway and Appendix II for the Guidance on Referral Pathways Form.

9. Case management and Record Keeping

All contacts will be recorded electronically within 24 hours of the session. This will include a brief update on how the prisoner is engaging in the intervention and any other relevant information.

Entries will be made in prisoner's System One records and a report provided for it at its completion with a prisoner's consent.

Separate psychological notes will be kept for interventions in line with current Clinical Psychology professional guidance in order to aid the therapy process. Information from these notes will be summarised and included in the final summary letter which will be completed within two weeks from the final session, with the client's consent.

All interventions and outcomes will also be recorded on the client's referral process form.

10. Risk management

All clients will complete a consent form (Appendix III) informing them of the distress that can be caused by engaging in therapy and informing them of issues of confidentiality. A risk assessment will also be conducted as part of their initial assessment (Appendix III)

Clients will be informed that any information they discuss in therapy could be shared with other professionals/staff involved in their care if necessary. Familiarity with Trust and Prison Policies regarding risk to self and others should be gained.

All primary care psychological services staff will attend both Trust and Prison inductions in issues of security and risk.

All primary care psychological services staff will find out about the client's index offence and any current areas of risk prior to seeing the client and complete a Lone Working Risk Assessment Form (see Appendix III). They will be seen by two members of staff if necessary.

As risk is dynamic it will constantly be assessed. When working on the Prison Wings the primary care staff member should inform wing staff they have arrived. They consult the NOMIS records on the prison IT system prior to consultation and if there are concerns re client following action should be taken. If necessary they can request that a uniformed member of staff can stand outside the interview room or come into the room. They should also make themselves familiar with where the alarm bells are and position themselves safely. If at anytime they do not feel safe to see the client for whatever reasons they should terminate the interview. They should always inform wing staff when they are leaving and if they have any concerns regarding the client. Entries made in obs book and wing sheets as appropriate. If the client is considered to be a risk for whatever reason a risk management plan will be discussed and completed by the PCPS team at their weekly meeting.

It will be made clear to professionals that we do not operate a crisis management service and will not be able to attend meetings at short notice due to our appointments system.

Incidents will be reported to the PCT and >>>>>>>> NHS Trust if they occur in healthcare and the prison service and >>>>>>>> NHS Trust if they occur on the wings. It is acknowledged that clinical decisions can be overruled by the prison system if necessary. However, clear and accurate record keeping is of special importance should this occur and there are concerns regarding risk.

A multi-professional approach should be implemented when working with asylum seekers and a meeting should be held with Prison Race Relations staff to devise a care plan in order that all aspects of an individual's needs are taken into account.

11. Discharge

When clients complete an intervention a report will be completed and sent to the referrer and client (in an appropriate format) with a copy put on System One with their consent. If other professionals are still involved in their care they will be informed and information shared with them as necessary. If clients are transferred to other prisons or their sentence ends before the intervention is complete, every effort will be made to follow them up to attempt to ensure continuity of care.

12. Staff/Line management

Staff will be managed to ensure that professional and clinical governance standards are met and that their skills and time are optimised.

13. Operational management

The Operational Specification will be implemented in order to deliver the Service Level Agreement. Systems will be implemented and monitored to ensure that they are working and will be under constant review.

14. Supervision Arrangements

All staff will have separate clinical and line management supervision in accordance with the Local Psychological Services Supervision Policy. This will be a reflective process to support staff and ensure safe practice.

15. Collection and use of information

All information will be collected via the referral form, the assessment form and the referral process form (**Appendices I & III**) and transferred to a data base. This will be used to monitor the uptake of the service, the process and outcomes of psychological interventions and continually assess the activity and efficacy of the service.

16. Service Evaluation & Outcomes

Scoping exercises have been completed for the first six months of service delivery (July to December 2007 and January to December 2008) in order to identify the demand and capacity of the Primary Care Psychological Service and identify other unmet needs. Efficacy and efficiency will continue to be monitored as an ongoing process following this date. The whole of the prison mental health pathway has been evaluated by the Sainsbury Centre Project Team. The PCPS stepped care model has been independently evaluated as part of a joint research project between PCPS and >>>>>>>>>>>>, >>>>>>>>>>>> and we are awaiting its publication.

APPENDIX I

The Referral Process Form & The Single Point Referral Form



**Primary Care Psychological Services
Referral Process Form**

Name _____ DOB _____

Prison Number _____

Location _____ Status: Remand/Convicted

Chapter 4 Date Referral Received _____

Name/Title/Location of referrer _____

Chapter 5 Date discussed/recorded at single point meeting _____

Name of Assessor(s) _____

Date of Assessment _____

Outcome of Assessment (If no further intervention please state reason)

Letter to Referrer: _____

Chapter 6 Date of first session _____

Chapter 7 Consent form completed _____

Information leaflets given _____

Results of Psychometrics (all to use CORE, use others as appropriate)

Pre Measures			Post Measures		
Date	Tool	Score	Date	Tool	Score

				Client Satisfaction	
--	--	--	--	---------------------	--

Interventions

[illegible]

Chapter 8 If held by Primary Care Graduate Mental Health Worker length of time/number of sessions _____

Consent for research form completed _____

Chapter 9 Date discharge letter/report completed_____

Date sent to GP and referrers if appropriate _____

If transferred to another prison or discharged record details/any further contact



Mental Health Single Point of Referral Form

PLEASE COMPLETE IN FULL AND IN BLOCK LETTERS OTHERWISE THIS MAY LEAD TO A DELAY

Date Referred	Referred By
Surname	Forename
D.O.B.	Location:
Prison No:	Offence:
	Subject to MAPPA (Y or N) :
General Practitioner:	Next Court Date:
Remand/Convicted:	Earliest Release Date:

Current problems/concerns?

Medication:

ACCT Currently Open - Yes / No		Is the Prisoner aware of this referral Yes / No	
---------------------------------------	--	--	--

Currently known to Mental Health Services Yes / No		Previous Hospital Admissions Yes / No	
---	--	--	--

Any special concerns e.g. security issues or guidance for lone worker?

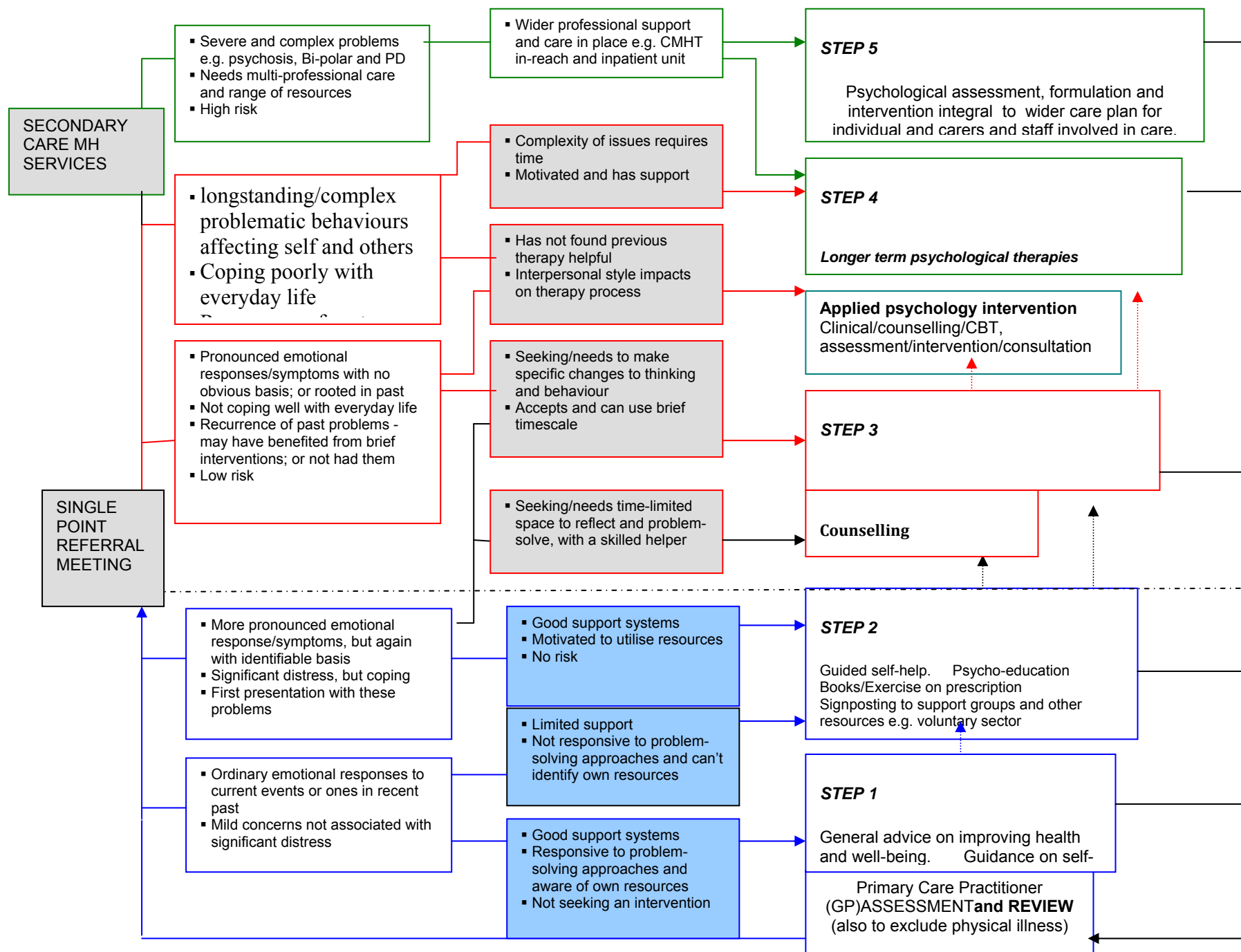
Received By:	Date Referral Received:-
---------------------	---------------------------------

Please Return in a Sealed Envelope to PCPS on M2, for Single Point of Referral Meeting, Held on Monday 10:45am in the Health Care Centre

APPENDIX II

Guidance on Referral Pathways for Primary Care Psychological Services

>>>>>>>>>>>>>>>>>>>



APPENDIX III

**Lone Working Risk Assessment for
1st Contact**

Consent Form

Initial Assessment Form

Presenting Problems List

Risk Assessment Form

Risk Management Form

CORE 10 Evaluation Form

System One Discharge Summary

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Primary Care Psychological Services
Lone Working Risk Assessment for 1st Contact
(Risk to be continuously monitored)

Name _____ Prison Number _____

Index Offence _____

No.	Indicators/areas to check	Issues (Yes, No or Not Checked)	No.	Indicators/areas to check	Issues (Yes, No or Not Checked)
1	NOMIS Security Markers		6	Adjudication History	
2	TAB P/V Register		7	Single Point of Referral Staff Concerns	
3	Wing History Sheet		8	Residential Staff/Personal Officer Concerns	
4	Cell Sharing Risk Assessment		9	Core Record Concerns	
5	ACCT Register		10	Check SystmOne entries	

No.	Concerns

Safety Measures Needed	Please Tick all That Apply
-------------------------------	-----------------------------------

Be assessed by two staff	
Be seen by male assessor	
Be seen by female assessor	
To only be seen in Health Care Centre	
Local Monitoring/Passing Cover	
To only be seen in observable interview room (bubble)	
To arrange telephone safety checks	
Discipline staff to be present in room	
Discipline staff to be present in room	
Discipline staff to be present outside room	
Discipline staff to support escorting	
Radio required (wing based work)	
Other (please specify)	
Other (please specify)	

Any Other Information or Concerns
<div></div>

Assessed by _____ Date _____

Signed _____

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Chapter 10

PRIMARY CARE PSYCHOLOGICAL SERVICES

CONSENT FORM

Prisoner Agreement to Psychological Intervention

Name of Prisoner..... Wing:

A. Statement of Psychological Therapist

I have explained the nature and purpose of the psychological intervention to the client whom, I believe, understands that he has the right to decline to be seen.

YES [☐] NO [☐]

I have described the nature of psychological intervention, and the benefits and any potential risks e.g. psychological distress etc that may arise from such an intervention.

YES [☐] NO [☐]

Confidentiality has been explained to the client.

YES [☐] NO [☐]

Risk to Self explained

YES [☐] NO [☐]

Risk to Others explained

YES [☐] NO [☐]

Child Protection explained

YES ☐ NO ☐

Undisclosed Offences explained

YES ☐ NO ☐

The patient has received relevant information leaflets.

YES ☐ NO ☐

Medical Hold

YES ☐ NO ☐

B. Statement of Interpreter (if appropriate)

I have interpreted the relevant information to the client to the best of my ability and in a way in which I believe is understood.

YES ☐ NO ☐

COPY LETTERS:

The NHS has an obligation to involve patients in decisions about their health care and communicate with them. Copying Letters which can be in an appropriate format is an effective way of keeping patients up to date with their diagnosis and treatment and demonstrates a commitment to good communications and valuing patients.

Do you wish to receive copies of letters written about you by Psychological Services?

Yes ☐ No ☐

C. Statement of Client

I agree to see the Psychological Therapist. I understand what I am consenting to, and that I can ask to stop the process at any time.

Name of client: (please print)

Client's signature: Date:

Name of Psychological Therapist: (print)

JobTitle:

Therapist's Signature: **Date:**

Copies of consent form to:

Consent form to be used in conjunction with
>>>>>>>>>> NHS Trust policy on consent.

End of Therapy.

I agree that I can be approached for up to a year after my intervention has ended to find out how I am coping for research purposes.

NAME OF CLIENT: (PLEASE PRINT) _____

CLIENT'S SIGNATURE: _____

DATE: _____

Background Information *(Social support, work, education, contact with friends/family on the outside, relevant personal history/childhood, interests, strengths)*

Substance Misuse *(Alcohol, drugs, solvents, past use, current use, treatment)*

Other Treatment *(Past treatment in and out of prison, current treatment, anyone else involved in care)*

Assessed by _____ Date _____

Signed _____

Name:

Presenting Problems Tick List (only tick if changes in presenting problems)

Date:

Abuse (emotional)
Abuse (physical)
Abuse (sexual)
Addiction Problems (alcohol)
Addiction Problems (drugs)
Anger
Anxiety
Bereavement
Cognitive Difficulties
Depression
Developmental Disorder
Esteem
Life Events
Low Mood
OCD
Panic
Personality Issues
Prison Issues
Relationship difficulties
Self-harm
Sleep Problems
SMI
Stress
Suicidal Ideation
Trauma (Chronic)
Trauma (Specific incident)
Other (please specify)

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Primary Care Psychological Services

Psychological Intervention Plan

Name..... Prison Number..... DOB.....

Target Problems:

Goals for Psychological Intervention:

Psychological Intervention Plan:

Review Date and Outcome:

Signed by Client Date.....

Signed by Therapist..... Date.....

NAME: _____

EQUAL OPPORTUNITIES MONITORING

To be completed by prisoner

ETHNIC CATEGORIES: Please ✓

(Please indicate the ethnic group to which you feel you belong)

The Health Service needs to know the ethnic group of patients for the purposes of planning. This is to ensure that all sectors of the community have equal access to the services provided. Ethnic group describes how you see yourself and is a mixture of culture, religion, skin colour, language, the origins of yourself and your family. It is not the same as nationality.

- | | | | |
|----------------------------------|--------------------------|--|--------------------------|
| a. White | | b. Mixed | |
| British | <input type="checkbox"/> | White and Black Caribbean | <input type="checkbox"/> |
| Irish | <input type="checkbox"/> | White and Black African | <input type="checkbox"/> |
| White European | <input type="checkbox"/> | White and Asian | <input type="checkbox"/> |
| Any other White background | <input type="checkbox"/> | Any other mixed background | <input type="checkbox"/> |
| | | | |
| c. Asian or Asian British | | d. Black or Black British | |
| Indian | <input type="checkbox"/> | Caribbean | <input type="checkbox"/> |
| Pakistani | <input type="checkbox"/> | African | <input type="checkbox"/> |
| Bangladeshi | <input type="checkbox"/> | Somali | <input type="checkbox"/> |
| Any other Asian background | <input type="checkbox"/> | Any other Black background | <input type="checkbox"/> |
| | | | |
| e. Other Ethnic Groups | | f. Do you consider yourself to be a Foreign National | <input type="checkbox"/> |
| Gypsy/Romany | <input type="checkbox"/> | | |
| Irish Traveller | <input type="checkbox"/> | | |
| Traveller of Irish Heritage | <input type="checkbox"/> | | |
| Chinese | <input type="checkbox"/> | | |
| Arab | <input type="checkbox"/> | g. I do not wish to answer | <input type="checkbox"/> |
| Any other ethnic group | <input type="checkbox"/> | | |

YOUR RELIGION: Please ✓

- | | | | | | |
|-------------------------|--------------------------|----------------------|--------------------------|-------------------|--------------------------|
| Atheism | <input type="checkbox"/> | Buddhism | <input type="checkbox"/> | Church of England | <input type="checkbox"/> |
| Confucianism | <input type="checkbox"/> | Hinduism | <input type="checkbox"/> | Judaism | <input type="checkbox"/> |
| Jehovah's Witness | <input type="checkbox"/> | Methodist | <input type="checkbox"/> | Muslim | <input type="checkbox"/> |
| Presbyterian | <input type="checkbox"/> | Roman Catholic | <input type="checkbox"/> | Sikhism | <input type="checkbox"/> |
| Taoism | <input type="checkbox"/> | United Reform Church | <input type="checkbox"/> | | |
| I do not wish to answer | <input type="checkbox"/> | | | | |
| Other (Please specify) | | | | | |

YOUR SEXUAL ORIENTATION:

Heterosexual ☐

Gay ☐

Bi-sexual ☐

Trans ☐

I do not wish to answer

☐

DISABILITIES:

The Disability Discrimination Act (DDA) defines a person with a disability as someone who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities.

Do you feel that you have a disability: **Yes** ☐ **No** ☐

If yes, please indicate ✓

Aspergers/ Autism	<input type="checkbox"/>
Blind/ Partially Sighted	<input type="checkbox"/>
Deaf/ Hard of Hearing	<input type="checkbox"/>
Dyslexia	<input type="checkbox"/>
Learning Difficulties	<input type="checkbox"/>
Mental Health Difficulties	<input type="checkbox"/>
Unseen Disability (e.g. Diabetes)	<input type="checkbox"/>
Wheelchair/ Mobility	<input type="checkbox"/>
Multiple Disabilities	<input type="checkbox"/>
History of any Head Injury	<input type="checkbox"/>
Other	<input type="checkbox"/>

LANGUAGE:

In order to provide a quality service, it would help us if you could provide us with the following information:

Preferred Language

British Sign Language? **Yes** ☐ **No** ☐

Do you have any difficulties in speaking or understanding English: **Yes** ☐ **No** ☐

Do you require the use of an interpreter for therapy **Yes** ☐ **No** ☐

Do you have any literacy problems (reading/writing) **Yes** ☐ **No** ☐

Signature of Assessor.....

Signature of Prisoner

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Primary Care Psychological Services

Risk Assessment

Name _____ Prison Number _____

Is there currently an ACCT open _____

Have they been on an ACCT document in the past? _____

Is there a current risk of suicide or deliberate self harm? (*Suicidal thoughts, thoughts of self harm, intensity of thoughts, frequency of thoughts, plans, intent, access to method, protective factors.*)

Is there a past history of suicidal thoughts, thoughts of self harm, attempted suicide or actual self harm? (*Planned or impulsive, method, past self harm patterns etc.*)

Is this person engaging in risky behaviour? (*Substance misuse, health risks, neglect.*)

[illegible]

Signed _____

CORE 10 SCREENING MEASURE

Name: _____

Date: _____

IMPORTANT- please read this first!

This form has 10 statements about how the client has been over the last week. Please read each statement and ask the client to think how often he/she felt that way last week.

OVER THE LAST WEEK.....	Not at all	Only occasionally	Sometimes	Often	Most/ all of the time
1. I have felt tense, anxious or nervous (2)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
2. I have felt I have had someone to turn to for support when needed (3)	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
3. I have felt able to cope when things go wrong (7)	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
4. Talking to people has felt too much for me (10)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
5. I have felt panic or terror (15)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
6. I have made plans to end my life (16)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
7. I have had difficulty getting to sleep or staying asleep (18)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
8. I have felt despairing or hopeless (23)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
9. I have felt unhappy (27)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
10. Unwanted images or memories have been distressing me (28)	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

TOTAL (clinical score*)

Procedure: Add together the item scores, then divide by the number of questions completed to get the mean score, then multiply by 10 to get the Clinical Score.

Quick method for CORE-10 (if all items completed): add together the item scores to get the Clinical Score

***PLEASE NOTE, THE ORIGINAL CORE 10 IS FROM A PDF FILE and LOOKS SLIGHTLY DIFFERENT TO THE ABOVE**

Discharge Summary

Primary Care Psychological Services

Full Name of Client Prison Number

Date of birth D D / M M / CCYY

Last Home Address

Home GP

Date of Commencing Assessment / Therapy with PCPS D D / M M / CCYY

Date of Discharge from PCPS D D / M M / CCYY

Presenting Psychological Issues Physical Health Issues

Type of Therapy / Therapies Provided Responsible Clinician and Contact Details

Reason for Discharge Any Follow-Up or Referral-on Information

Any Risk Issues Detail of Relevant Professional Currently Involved

Any other Comments

***PLEASE NOTE – THIS DISCHARGE SUMMARY HAS A ‘SYSTMONE’ FORM VIEW THAT LOOKS DIFFERENT FROM THE ABOVE.**

Risk Management Plan for Mr _____

Risk to be Managed:

Signs and Symptoms

Physical e.g. poor sleep, anxiety, low mood, poor appetite
Behavioural e.g. anger, social withdrawal, irritability, lack of self care
Thoughts/feelings e.g. hopelessness, despair, worthlessness

Triggers

What things/situations make you feel this way?

Support Network

Protective Factors, who can help?

Coping Mechanisms

What has worked in the past? New coping skills? What I can do if I feel worse.

Signed _____

Date _____

Team Discussion

Signed_____	Date_____	Signed_____	Date_____
Signed_____	Date_____	Signed_____	Date_____
Signed_____	Date_____	Signed_____	Date_____

Appendix four

Appendix 4

Offence categories from the current database

Violent offending- murder/manslaughter; rape; robbery; violence (ABH/GBH/domestic violence/violence against the person); sexual offences; offensive weapon; arson.

Non violent offending- possession of drugs; dealing drugs; fraud; car crimes/theft/driving offences; burglary; shoplifting; breach of specific licence/order; other)

The following offences are all those offences for participants listed on the database we used for analysis.

VIOLENT

1. Theft/Assault
2. Robbery/Armed robbery
3. Assault
4. Kidnapping
5. Wounding/Indecent assault
6. Affray
7. Actual bodily harm
8. Rape/Buggary/Child rape/Child cruelty/assault by penetration
9. Firearms
10. Murder/Attempted murder /Manslaughter
11. Common assault/Battery
12. Wounding
13. Manslaughter/Arson
14. Offensive weapon/Possession of weapons

15. Grievous bodily harm
16. Arson/Arson with intent
17. Aggravated Burglary
18. Hostage taking
19. Inciting a child for sex/Indecent images/Child porn
20. Racially aggravated offence/inciting racial hatred
21. Threats to kill/Threatening behaviour/Putting a person in fear of violence
22. Sexual offences/Indecent exposure
23. Domestic violence
24. False imprisonment

NON VIOLENT

25. Possession Class A drugs
26. Reckless driving/ Death by dangerous driving
27. Possession of drugs with intent to supply
28. Theft
29. Fraud
30. Burglary/Going equipped
31. Trespassing
32. Conspiracy to supply/Importing drugs
33. Breach of restraining order
34. Deception
35. Harassment
36. Public disorder
37. Criminal damage
38. Breach of bail
39. Dangerous driving
40. Breach of suspended sentence
41. Breach of supervision order

42. Produce of drugs/Cultivation of cannabis
43. Driving whilst disqualified
44. Obstructing a police officer
45. Impersonating a police officer
46. Theft from a vehicle
47. Shoplifting
48. Perverting the course of justice
49. Aggravated vehicle taking /Unauthorised vehicle taking
50. Intimidating a witness
51. Public disorder
52. Managing a brothel
53. Fail to comply with conditions
54. Breach of ASRO
55. Breach of non-molestation order

There were a lot of variables and different offences so after discussion with supervisors the offences were collapsed into the following smaller categories/variables for the purpose of analysis:

Violent offences

Murder/Attempted murder /Manslaughter	Serious violence/Murder	1
Manslaughter/Arson		
Arson/Arson with intent		
Theft/Assault	Violence against the	2
Robbery/Armed robbery	person	
Assault		
Wounding/Indecent assault		
Affray		
Actual bodily harm		
Common assault/Battery		
Wounding		
Grievous bodily harm		
Aggravated Burglary		
Racially aggravated offence/inciting racial hatred		
Threats to kill/Threatening behaviour/Putting a person in fear of violence		
Domestic violence		
Kidnapping		
Hostage taking		
False imprisonment		

Inciting a child for sex/Indecent images/Child porn Rape/Buggary/Child rape/Child cruelty/assault by penetration Sexual offences/Indecent exposure	Sexual Offences	3
Firearms Offensive weapon/Possession of weapons	Weapons	4

Non violent offences

Possession Class A drugs Possession of drugs with intent to supply Conspiracy to supply/Importing drugs Produce of drugs/Cultivation of cannabis	Drug offences	5
Theft Fraud Burglary/Going equipped Shoplifting	Burglary/theft	5
Reckless driving/ Death by dangerous driving Dangerous driving Driving whilst disqualified Aggravated vehicle taking /Unauthorised vehicle taking Theft from a vehicle	Motor offences	5
Breach of restraining order Breach of suspended sentence Breach of supervision order Breach of ASRO Breach of non-molestation order Fail to comply with conditions Breach of bail	Breach of order	5
Trespassing Deception Harassment Public disorder Criminal damage Intimidating a witness Public disorder Managing a brothel Obstructing a police officer Impersonating a police officer Perverting the course of justice	Other minor	5

All of the non violent offences were categorised into one variable, namely non-violent offending.

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