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# Prevalence of PTSD Symptoms among the Offender Population

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# Prevalence of PTSD Symptoms among the Offender Population

by

Hilary Mueller, M.A.

MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work  
St. Catherine University and the University of St. Thomas  
St. Paul, Minnesota  
in Partial fulfillment of the Requirements for the Degree of

Master of Social Work

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Jillian Peterson, PhD  
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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Mather's thesis nor a dissertation.

### **Abstract**

Mental illness within the offender population raises issues on many different levels. Although many attempts at systems changes have occurred the difficulty in treating mental illness within the offender population cannot be denied. This research looked specifically at the presence of post-traumatic stress symptoms in the offender population. A secondary data analysis analyzed 138 subjects who completed a thorough interview and completed a life events calendar. This study found that symptoms of post-traumatic stress disorder are prevalent among the offender population. Intrusiveness symptoms are present in response to internal and external cues as well as nightmares, flashbacks and panic attacks. Avoidance symptoms can be found in high prevalence of substance use and arousal symptoms in acting out behaviors and hypervigilance. Dysfunction around affect regulation can also be seen in the prevalence of suicidal behaviors and self-harm. Events across the lifespan and environmental factors also raise significant concern. Social workers can use this information to effect change at the micro, mezzo and macro levels in order to provide effective care for offenders with mental illness and to uphold the integrity of the social work profession.

### **Acknowledgments**

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## Introduction

The involvement of mentally ill people in the criminal justice system has forced change in regards to how services are provided. Changes in the global provision of mental health care have left an impact on access to mental health care for the offender population. This paper will explore access and challenges to treating mental illness within the offender population, as well as exploring more specifically the nature and presence of post-traumatic stress disorder (PTSD) symptoms.

In this secondary data analysis qualitative data from variables that supported this research were analyzed. These variables included reporting of subjective experience of when symptoms of mental illness were first experienced, if there are specific people or events that make symptoms better or worse, and which started first, symptoms or getting into trouble. In addition to these variables, events reported on the life events calendar were also analyzed formulate a picture of exposure to traumatic events across the lifespan.

These variables were selected due to their relevance to the current study. When symptoms of mental illness were first experienced, the circumstances surrounding this and the subjects experience of what this was like was deemed valuable information for also identifying the presence of PTSD symptoms. Symptoms of PTSD; intrusiveness, avoidance and arousal as well as symptoms of complex PTSD; affect regulation, changes in level of consciousness, self-perception and systems of meaning can appear to be symptoms of other illness including bipolar disorder and psychosis. While the methods of this study do allow for determination of the presence of PTSD, the prevalence of PTSD symptoms suggests future exploration into the presence of PTSD in the offender population.

### **Review of Literature**

In order to provide a framework for exploring the prevalence of post-traumatic stress disorder (PTSD) symptoms in the offender population a review of literature was completed. The literature review will focus on the following themes; a) access and challenges to mental health care in the criminal justice system, b) understanding PTSD and c) what is already known about its presence within the offender population.

Large numbers of people with mental health concerns are involved in the criminal justice system. Deinstitutionalization of the nation's state mental hospitals during the 1960s brought about a considerable increase of mentally ill people within the criminal justice system. During the process of deinstitutionalization, the number of persons occupying state hospital beds decreased from 339 per 100,000 to 21 per 100,000. People who had been held in psychiatric institutions were released into the community without adequate psychiatric follow up care, skills for independent living or adequate support networks (Lamb & Bachrach, 2001). Psychiatric symptoms became worse without treatment and public displays of symptoms led to increased arrests of people displaying untreated mental health symptoms (Council of State Governments, 2002). People with mental illness flooded the criminal justice system and the system was not equipped to meet the needs of these people (Torrey, Zdanowicz, Kennard, Lamb, Eslinger, Biasotti, & Fuller, 2014).

Offenders with mental health concerns have complex needs. Homelessness, unemployment, substance use, past abuse history and poor support networks are more prevalent among offenders with mental health concerns. Longer sentences for offenders with mental health concerns due to rule violations and fights have also been noted (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2006). Among other psychiatric

illnesses, PTSD and the presentation of untreated symptoms may further a person's involvement with the criminal justice system.

### **The Nature of PTSD**

PTSD is characterized by damage to the "fight or flight" stress reaction following a traumatic event. This damage causes the individual to experience stress or fear even when there is no immediate threat (Foy & Goguen, 1998). PTSD can present as a disturbance in one's ability to self-regulate. This may be observed as over-activation or deactivation of emotions and interpersonal participation (Cloitre, Stolbach, Herman, van der Kolk, Pynoos, Wang & Petkova, 2009).

PTSD symptoms can be categorized into three main clusters: arousal, intrusion, and avoidance (Cozolino, 2002). Hyperarousal involves the dysregulation of the amygdala and the autonomic nervous system. This results in increase anxiety and awareness of surroundings. It is accompanied by physiological symptoms of increased heart rate, dilated pupils and shallow breathing. Intrusive symptoms include flashbacks, nightmares and panic attacks or other severe physiological distress in response to trauma triggers (Luxenberg, Spinazzola & van der Kolk, 2001). These symptoms are a result of a faulty interaction between mechanisms responsible for processing fear and memory. Often times there is a sense of disconnectedness or an uncertainty of where one is in time and space. Avoidance behaviors are an attempt to mediate the fear response. Behaviors may include withdrawal from others or isolation, avoidance of certain thoughts, people, places. Avoidance can also take the form of repression, dissociation and amnesia (Cozolino, 2002).

Experts in the field of trauma research have proposed that exposure to prolonged and inescapable violence and traumatic events results in a complex symptom presentation that has



become known as disorders of extreme stress (DESNOS) or complex posttraumatic stress disorder (complex PTSD) (Cloitre, et al., 2009; Cozolino, 2002; Herman, 1997). Six areas of functioning are impacted: affect regulation, altered consciousness, interpersonal relationships/disturbances in relationships, somatization, alterations in self-perception, alterations in the perception of the perpetrator, and disturbance in meaning (Blaz-Kapusta, 2008; Herman, 1997; Luxenberg, et al., 2001).

Affect dysregulation may present in terms of difficulty regulating emotions, having extreme responses to seemingly neutral stimuli. There is also an increased prevalence of self-destructive behavior as a means of attempting to regulate intolerable levels of distress. Altered consciousness refers to a fragmenting of experiencing. This includes dissociation but may also include a sort of separating from one's body (depersonalization) or a person may be observed to be "zoning out". A person may also experience amnesic episode where they can only remember parts of their experiences (van der Kolk, McFarlane & Weisaeth, 1996). People with complex PTSD may have an innate sense of worthlessness and may believe that they were/are the cause of their suffering. Disturbances in relationships may surface in the form of difficulty trusting others as a result of childhood traumas. Awareness of danger or signals of being mistreated do not register for people who have experienced childhood trauma. This puts them at risk for unhealthy relationships and a reinforcement of faulty core beliefs (Herman, 1997). Relationships may also be affected by the tendency to overvalue new relationships too quickly and the experience of devastation when the other party does not reciprocate the enthusiasm for the relationship. Somatization may be experienced in the form of chronic physical complaints that cannot be explained medically. This is related to the effects of trauma on the limbic system and hormone production. Chronic headache, constipation and immunosuppression are also common in people

with complex PTSD (van der Kolk, McFarlane & Weisaeth, 1996). Disturbance in meaning speaks to the lens through which people with complex PTSD view the world. Their negativity bias tends to win out and they take on a fatalistic, “what’s the point” outlook on life. Courtois (2008) points out the similarities of enduring traumatic histories, symptomology and the tendency to engage in high risk behaviors as a similarity between complex PTSD and borderline personality disorder (BPD). The author encourages clinicians to conceptualize BPD as a posttraumatic adaptation in order to build empathy and compassion. Many people with borderline personality disorder have experienced significant childhood abuse. (Herman, 1997)

Childhood exposure to violence, abuse and neglect have lifelong consequences on health and wellness. The Adverse Childhood Experiences (ACE) Study is the largest study to date exploring the effects of adverse child experiences on long term health and well-being. Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss and Marks (1998) explore the relationship between exposure to emotional, physical or sexual abuse and household dysfunction during childhood and risky health behaviors in adulthood. The study broke down childhood exposures to abuse and household dysfunction into 7 categories. The 7 categories were psychological abuse, physical abuse, contact sexual abuse, exposure to substance abuse, mental illness, violent treatment of mother or step mother, criminal behavior. The authors also selected 10 risk factors and disease conditions. These included smoking, severe obesity, physical inactivity, depressed mood, suicide attempts, alcoholism, any drug abuse, parenteral drug abuse, a high lifetime number of sexual partners and a history of having a sexually transmitted disease. After analysis, the authors report that an increase in both risk and prevalence occurs in all ten risk factors and disease conditions for people reporting 4 or more adverse childhood experiences.

Dube, Anda, Felitti, Chapman, Williamson and Giles (2001) use the data collected in the ACE study to examine the possibility of a relationship between adverse childhood experiences and suicide. This retrospective study surveyed 17,337 adults receiving services at a primary care clinic. The survey included questions about household dysfunction, childhood abuse, suicide attempts and other health related issues. The study concluded that there is a relationship between adverse childhood experiences and attempted suicide in childhood, adolescence and adulthood. The study also found that illicit drug use, depressed affect and alcoholism decreased the relationship. This may also be interpreted as attempts to self-medicate or avoid the pain of adverse childhood experiences.

The ACE study presents important data that demonstrates a relationship between people who have experienced adverse childhood experiences, the development of substance use disorders and the experience of chronic depressed affect. Mueser, Goodman, Trumbetta, Rosenberg, Osher, Vidaver, Auciello and Foy, (1998) looked at the prevalence of PTSD among people with severe mental illness. The study concludes that people with mental illness have a higher rate of exposure to traumatic experiences as compared to the general population. People involved in the criminal justice system also have a higher rate of exposure to traumatic events (SAMHSA, 2015). These two risk factors for exposure to trauma, when considered together, suggest there is a need for trauma focused treatment among the offender population and more specifically, among the mentally ill offender population. The needs of these people are great and cannot be overlooked. Literature focused on exploring trauma within the mentally ill offender population is scarce, however, there is an abundance of literature exploring the prevalence of PTSD among offenders in general.

### **Challenges to Working with Mental Health Problems in the Criminal Justice System**

Challenges to working with people who have mental health concerns have been identified within the criminal justice system (Torrey et al, 2014). People with mental health concerns who have alienated their families, exhausted public resources and refused mental health treatment may find their way into the criminal justice system because of public displays of symptoms related to untreated mental illness (Council of State Governments, 2002).

With the increase of incarceration of mentally ill people, unique challenges have come to light. Mentally ill people generally experience an increase in symptomology while incarcerated. This can occur for various reasons; increased stress in the environment, limited access to mental health treatment such as medicines or therapies, isolation and lack of adequately trained support people leading to increased rates of self-harm and suicide, as well as becoming targets of physical and sexual assault (Torrey et al, 2014).

In their paper on creating a trauma-informed correctional care model, Miller and Najavits (2012) describe the challenges of the prison environment and prison routines for people who have experienced trauma. The authors completed a review of literature comparing gendered responses, implications for men's facilities and the compatibility of trauma recovery goals and forensic programming goals. Within the environment, the lack of control experienced when shackled or held in overcrowded spaces, bright lights, and loud, unpredictable noises are known to be triggering of trauma responses. Being yelled at or patted down by officers can also be triggering. Correctional officers who are not aware of trauma triggers or are not trained on how to respond increase the risk for re-traumatization (Miller & Najavits, 2012). Behaviors related to re-traumatization and other poorly managed symptoms often lead to longer incarcerations for people with mental illness due to facility rule violations and technical violations (Torrey, et al.,

2014). The literature calls for ongoing evaluation and reform of mental health care provision within the criminal justice system.

### **The Criminal Justice System and Access to Mental Health Services**

Once mentally ill people become a part of the criminal justice system their access to treatment services and supports becomes increasingly limited. In an evaluation report by the State of Minnesota, services for mentally ill inmates are outlined and examined (Office of the Legislative Auditor, State of Minnesota, 2014). Upon placement at a correctional facility, mental health screening and assessment is completed by the Department of Corrections staff on site. If an offender is identified as having a mental illness and cannot live in the general population, a referral for the mental health unit is made. This evaluative report goes on to state that inmates may spend months to years waiting to be transferred to the mental health unit. During this time, they are kept in general population or in segregation, depending on their ability to remain safe. Mental health care in the segregation unit is considerably less than in the general population (Office of the Legislative Auditor, State of Minnesota, 2014).

The mental health unit, according to this evaluative report, has increasingly needed to provide crisis stabilization services rather than therapeutic, recovery focused interventions. The report recommends the Department of Corrections find ways to increase the therapeutic services available in the mental health unit and revise practices to decrease the amount of time and services provided to mentally ill offenders in segregation (Office of the Legislative Auditor, State of Minnesota, 2014).

Successful reentry has been studied within the general prison population. Creating connections between offenders and community services through collaborative case management services has been effective in reducing recidivism (Duwe, 2014). People with mental health

concerns need more specific treatment and assistance leading up to their release in order to achieve a successful reentry transition (Boutwell, Brockmann, Patel, & Rich, 2015). They may benefit from an expanded version of this approach that would include connection with community based mental health services, initiated while still incarcerated. (A study by Peterson, Skeem, Kennealy, Bray and Zvonkovic (2014) suggests that specific treatment focused on reducing recidivism may be helpful for offenders with mental health conditions to the same degree it is helpful for offenders without mental illness. This treatment approach is described as cognitive behavioral treatment focused on criminal cognition. The study used data collected from 143 offenders with serious mental illness using a 2 hour interview focused on mental health symptoms, past criminal behavior and any connection between the two. The data collected from the interviews, along with records review data, was used to rate the degree to which criminal behavior was related to psychiatric symptoms. The authors indicate a need for further studies focused on understanding the causal factors contributing to recidivism for offenders with mental illness.

The use of diversion programs such as mental health courts for offenders with mental illness has been increasing in numbers due to successful reduction of rates of new arrests among offenders with mental illness (Moore & Hiday, 2006). When a person with mental illness is adjudicated for a crime they are diverted to participation in mental health court rather than incarceration. Mental health court, while various models exist, most commonly requires offenders to appear individually before a single judge. They are also assigned to probation officers and case managers who specialize in work with mentally ill offenders. The judge and staff at all levels receive training on mental illness and participate in planning and consultation for each case. The foundation of these programs is the communication and collaboration between

all involved staff and the offender with mental illness (Staton & Lurigio, 2015). Sanctions and rewards are used to engage the offender. Incarceration or detainment is not used as a sanction (Council of State Governments Justice Center, 2008). Understanding and consideration of mental health symptoms and management seem to have a large impact on offender success within mental health court programs. Skeem, Manchak and Peterson (2011) analyzed the effectiveness of current models of practice, including mental health courts. Using exhaustive literature search methods, the authors identified current program types and reviewed literature specific to these programs to explore evidence of program effectiveness. This integration of theory and research was used to suggest possibilities for changing practice models and introduces a new conceptual framework for use with offenders who have mental illness. Their findings suggest that mental health courts alone have little to no effect on recidivism rates. However, one small study in their sample suggests that mental health court in combination with an emphasis on criminal thinking may be promising in reducing recidivism. The authors also point to social factors such as poverty and social learning as general risk factors for crime. These risk factors are more prevalent among offenders with mental illness.

### **The Presence of PTSD in the Offender Population**

The presumption of exposure to violence within the criminal justice system requires further examination of the literature in order to create a useful framework of knowledge. The literature supports these assumptions and provides valuable data relevant to the current study. Criminal behavior and its relationship to PTSD has been noted in studies with male and female juvenile offenders (Burton, Foy, Bwanausi, Johnson & Moore, 1994; Cauffman, Feldman, Waterman, & Steiner, 1998; Erwin, Newman, McMackin, Morrissey & Kaoupek, 2000). In their study of 91 male juvenile offenders of inner city upbringing, Burton et al. (1994) sought to

identify whether PTSD symptoms occurred within this population. They also hypothesized that rates of exposure to trauma would positively correlate with intensity of PTSD symptoms. 21 of the 43 items on the self-report questionnaire were characteristic of PTSD criteria as outlined in the DSM III-R. 24% of subjects met the criteria for diagnosable PTSD. A significant correlation between exposure to violent trauma and occurrence of PTSD. Erwin et al. (2000) studied the prevalence of PTSD among criminally involved adolescent males. The researchers differentiated between lifetime trauma (met criteria for PTSD at any time in the past) and current PTSD (meet criteria for PTSD within the last month). They found nearly 1 in 5 participants met criteria for current PTSD and half met criteria for lifetime PTSD. These studies support the growing concern of risk for PTSD among incarcerated juvenile males.

Cauffman et al. (1998) studied a similar concern among incarcerated female juvenile offenders. The researchers hypothesized that female juvenile offenders would have higher rates of PTSD as compared to the general female population as well as compared to male juvenile offenders. They also hypothesized that males and females with PTSD would demonstrate different adjustment styles than those incarcerated without PTSD. A sample of 96 incarcerated female offenders was used with a comparison group of 93 incarcerated male offenders. Both groups were representative samples of the California Youth Authority population. The authors differentiate between current PTSD and lifetime PTSD. Current PTSD is defined as experiencing symptoms that meet the criteria within the past month while lifetime PTSD is defined as meeting the criteria but the symptoms occurred more than 3 months before the interview. Sixty-five percent of subjects experienced lifetime PTSD while 48.9% were currently experiencing PTSD. Compared to the male sample, female offenders are 50% more likely to be experiencing current PTSD. Female juvenile offenders are 6 times more likely to experience PTSD compared to the



general female population. These astounding numbers support the need for further development of care for juvenile offenders.

Widom (1989) used a prospective cohorts design and a matched sample of 908 subjects with abuse and neglect in childhood. Of the 908 subjects with abuse and neglect in childhood 667 were matched with a control subject. Nonmatches occurred when complete information could not be located such as in the case of name change after adoption, out of state birth record, or elementary school closure. The study found that childhood abuse is significantly related to criminal behavior in adulthood, although the nature of this relationship is complex and the notion of the “cycle of violence” dramatically oversimplifies this phenomenon. Widom and Maxfield (2001) further expand the literature in the area of childhood abuse and criminal behavior with an update on the cycle of violence. The authors reviewed updated arrest records 6 years after Widom’s original study (1989) and re-examined the data using the same matched sample approach as in the original study. The authors also clearly operationalized definitions of abuse and neglect. As a result of their study, the authors suggest that females who have experienced abuse or neglect in childhood are also more likely to be arrested for offenses as a juvenile or an adult, as compared to the control group females. The study concludes that in addition to childhood abuse, childhood neglect also has a significant relationship to violent criminal behavior in adulthood.

Weeks and Widom (1998) explored the prevalence of self-reported early childhood victimization among incarcerated adult male felons. Three hundred and one convicted felons in a New York State medium-correctional facility were selected using random sampling. Data was collected before subjects were moved to general prison housing to reduce the possibility of contagion of knowledge. The subjects were offered no incentive for participation and 95% of

those asked agreed to participate. Criminal record review was used to categorize subjects into violent offender and sex offender categories. Data was collected using self-report instruments with known psychometric properties. The aim of the study was to understand the extent to which childhood victimization was present in adult male offenders in order to better inform policymakers and corrections workers in the selection of the best possible treatment options. Fifty-eight percent of subjects reported childhood physical abuse, 30% reported childhood sexual abuse and 16% reported childhood neglect. The authors conclude, with the significance of these rates of self-reported childhood abuse, any signs of traumatic stress disorder in inmates should be addressed with mental healthcare.

Gibson et al. (1999) hypothesized high rates of childhood abuse would be a common precursor to PTSD in incarcerated adult males. Two hundred and thirteen randomly selected male inmates from across a rural New England state made up the sample. For the purpose of this study, lifetime PTSD is defined as the occurrence of PTSD symptoms at any point during a participant's life and current PTSD is defined as experiencing symptoms of PTSD within the preceding 6 months. Thirty-three percent of participants met criteria for lifetime PTSD while 21% met criteria for current PTSD. Traumatic events reported included seeing someone killed or hurt (34%) rape (25%) and being physically assaulted (17%). Earliest onset of PTSD symptoms was age 8.4 years with an average age onset of 16.5 years. The percentage of rape and physical assault were significantly higher than those gathered from the general population. Similar results were found in Spitzer, Dudeck, Liss, Orlob, Gillner and Freyberger's (2001) study of 53 forensic inpatients. This study used a structured interview including use of the Modified PTSD Symptom Scale, the Dissociative Experiences Scale and the revised version of the Symptom Checklist-90. The authors found 36 % of subjects met their criteria for lifetime PTSD and 17% met criteria for

current PTSD. The most common trauma reported was childhood physical abuse (33% of all reported traumas). Nine percent of subjects reported severe emotional neglect in childhood further supporting the hypothesis of high rates of childhood abuse as a precursor to incarceration.

Browne et al. (1999) explored the prevalence and severity of lifetime physical and sexual victimization among incarcerated females. Results demonstrate significant levels of exposure to traumatic events over the lifetime. Seventy percent reported severe physical abuse in childhood by a caregiver, 59% reported sexual abuse during childhood, 75% reported severe physical violence by intimate partners in adulthood and 77% reported they had been the target of victimization by a “non-intimate” person in adulthood. This study demonstrates the prevalence and severity of exposure to traumatic events over the lifespan. The study does not speak to the prevalence of PTSD symptoms in the sample, however, this is worthy of further investigation.

Kubiak (2004) further discusses the presence of traumatic histories, incarceration as a new trauma, the prevalence of substance use disorders among incarcerated individuals and the lack consideration for the impact of trauma symptoms on treatment adherence, drug relapse and criminal recidivism. Within the sample group of 199 state prisoners (60 women and 139 men), 55% met the criteria for lifetime PTSD. Drug relapse was significantly higher among women with PTSD. The conclusion of the authors is that neglecting to treat PTSD symptoms negates the effectiveness of substance use treatment. Of interest is the finding that there were no statistical differences between men and women in meeting criteria for PTSD. This differs from the general population of which women are twice as likely to be diagnosed with PTSD. Discussion also highlights that treatment for co-occurring disorders may be beneficial for the inmate but also fiscally in terms of reducing the costs associated with incarceration.

### **Assessing PTSD in the Offender Population**

Innate challenges exist when attempting to assess and diagnose PTSD within the offender population. Offenders may not disclose necessary information because their confidentiality is not always guaranteed. Another common problem, in the case of co-occurring disorders, is misinterpretation of mental health symptoms and withdrawal from substances. And yet another issue may be the relational dynamic between the clinician and the offender. Extending time for assessment is recommended in order to allow for accurate assessment, diagnosis and treatment determination (Edens, Peters & Hills, 1997).

Roach (2013) describes an alternative presentation for PTSD within the offender population based on his experience working in jails, prisons and hospital emergency rooms. He describes the concept of historical racial trauma and the effects of growing up in impoverished circumstances and/or in high violence areas. He describes offenders from this context as “blended perpetrators” or both victims and perpetrators of violent acts. He suggests this repeated exposure to violence leads to a different presentation of trauma symptoms or diagnostic picture than what is outlined in the Diagnostic and Statistical Manual, 5<sup>th</sup> Edition. The author notes there is no specifier for “callous subtype secondary to continuous trauma exposure.” The author’s observations have led him to identify an alternative presentation of PTSD among offenders and others who remain in continuous traumatic environments. He suggests anxiety is not an acceptable presentation due to the ongoing threat of danger. In this population, anxiety is replaced with anger, callousness. The author postulates that anger replaces fear in this model of posttraumatic stress. He explains that because of the nature of the environment, one in which showing anxiety or fear may cause more harm to the individual, angry outbursts, hostility and emotional glibness may become adaptive ways to manage in continuously dangerous environments. The prevalence of limited emotional range or empathy is descriptive of criminal

psychopathology. The author suggests that perhaps it is not only reflective of criminal psychopathology but also an indicator of PTSD.

Kessler, Sonnega, Bromet, Hughes and Nelson (1995) in their study, report the National Comorbidity Survey results of lifetime prevalence of PTSD among adult Americans as 7.8% with women being twice as likely as men to experience PTSD at some point in their life. According to the literature, the prevalence of PTSD increases among incarcerated individuals. Browne, Miller and Maguin (1999) report that 70% of the adult female inmates in their study experienced childhood violence from caregivers and severe physical violence from an intimate partner in adulthood. The rates for PTSD among incarcerated men are 33% for lifetime PTSD and 45% for current PTSD (Gibson et al., 1999). The prevalence for PTSD among juvenile offenders is also significantly higher than the general population. Cauffman et al. (1998) found that 65% of female juvenile offenders met the criteria for lifetime PTSD while Burton et al. (1994) reported that 24% of male juvenile offenders met the criteria for PTSD. Despite concerns about the ability to accurately identify PTSD in offender populations, the literature suggests current rates are significantly higher than the general population.

## **Conceptual Framework**

Trauma theory provides a framework for the discussion of prevalence of PTSD symptoms in the offender population. Trauma theory includes consideration of developmental theory, attachment theory and current research and findings within neuroscience. Taking a systems approach to understanding the prevalence of PTSD in the offender population is necessary. The theoretical frameworks informing this study seek to understand the individual in the environment at various stages of the lifespan. Through this approach we begin to see the interplay of environment and experience and how this interplay impacts the internal system.

### **Developmental Theory**

Erikson's developmental stages has become one of the most well-known frameworks for understanding the development of personality. Erikson's stages are laid out according to chronological age. Each stage is associated with a conflict, which becomes the catalyst for moving through that particular stage of development. (Erikson, 1997) In the case of developmental theory and trauma, it is important to be aware of developmental stages at the time of trauma as well as developmental stages in which a person may be stuck as a result of trauma. Erikson's stages present important considerations for effective trauma work.

Piaget contributed to the body of literature in the area of developmental theory with his study of cognitive development. Similar to Erikson, Piaget developed stages for development and noted that movement through the stages was linear, with certain steps being required in order to move to the next stage. (Lefmann & Combs-Orme, 2013) Piaget began to connect brain development to developmental task performance, as best he could with what was known at that time. Changes in the brain are also a significant factor in understanding trauma. Understanding

brain changes in the context of typical development is crucial to identifying the impact of traumatic events on brain functioning in people who have experienced trauma. Thom Spiers (2001) describes these changes as developmental wounds; an individual's way of adapting to the environment in an attempt to survive. When new challenges arise in the environment, people tend to utilize the strategies that have worked to keep them safe in the past. In this way, changes in the brain leading to trauma symptoms are seen as a means of survival.

### **Attachment Theory**

Attachment theory was developed by Bowlby and Ainsworth and states that in order to thrive, a child must have a secure and consistent attachment figure. In the early development of attachment theory, Bowlby considered the impact of development and the environment on the ability to form a secure attachment. As attachment theory has developed over the years, there is now consideration of developmental psychopathology including families with depression, families experiencing low social support and children with behavior problems (Bretherton, 1992). Ainsworth's focus on individual differences influencing attachment have expanded the application of this theory. Attachment theory can be applied to understanding the impact of trauma on the individual. As equally important, attachment theory can also be applied to further understanding of the individual over time and the systems within which the individual lives.

### **Neuroscience**

As technology allows for a better understanding of the brain, the body of research around brain functioning following traumatic events continues to grow and inform clinical practice. The limbic system is largely involved with the experiencing and processing of emotions. The amygdala is the center of emotion while the hippocampus is the processor of memories. Another

brain structure of the limbic system, the hypothalamus, regulates homeostasis (heart rate, blood pressure, breathing, etc.) and hormone release from the pituitary and adrenal glands (hormones that activate us to escape danger). How these brain structures interact is very important in the amelioration of traumatic stress symptoms. These brain structures are the connection between experiences, emotions, and physical sensations in time, and in the case of trauma, despite time. (Rustin, 2013; van der Kolk, McFarlane & Weisaeth, 1996).

Understanding trauma requires consideration of developmental theory, attachment theory as well as neuroscience. Applying these theoretical frameworks within a systems perspective informs this study and its exploration into the prevalence of trauma symptoms in the offender population.



## Methods

This study was a secondary data analysis of data collected by Peterson, et al. (2014) in a Midwestern city with offenders with serious mental illness. Qualitative data was collected from a portion of the larger data set that focused on the relationship between symptoms and criminal behavior. Demographic information was also used to describe participants. The data is used with permission from the original researchers. The research question was: What is the prevalence of post-traumatic stress disorder symptoms in the offender population?

## Sample

Peterson et al. did a study exploring the connection between criminal behavior and mental illness symptoms (2014). Participants were recruited through the use of flyers distributed to mental health court defendants as well as to probation officers and social workers affiliated with the mental health court. In order to be eligible to participate in the study, participants had to be involved in the mental health court, be over the age of 18 and have a diagnosis of serious mental illness (major depression, bipolar disorder, schizophrenia spectrum disorder). The most common diagnoses among participants was schizophrenia spectrum disorder (31%), bipolar disorder (44%) and major depression (21%). Eighty-five percent of participants had co-occurring substance use disorders. Of the 143 participants, 64.1% were male, 42% Caucasian, 42% African American and 16% identified as Other. The original researchers report no significant difference between the study sample and the population from which it was drawn in sex, ethnicity or primary diagnosis. They do note a significant difference in age. The average age of study participants is 40 years while the median age of the population from which the sample was drawn is 35 years.

For the current study, only complete data sets were used. One hundred and thirty-eight offender interviews were used for this study. Items for the current study were selected based on relevance to the current study.

### **Data Collection and Procedures**

In Peterson et al.'s study data was collected from 143 offenders with serious mental illness. At the time the data was collected, participants completed a 2-hour interview focused on past criminal behavior, mental health symptoms and the connection between the two. The study interview used the following tools: Consent/Test of Understanding, Demographics, Criminal History, Mental Health, Colorado Symptom Index, Parents Scale, Modeling, Neighborhood, Family/Individual, Responding to Situations, Attention, Social Support, Childhood Behavior, SASSI, Childhood Treatment, Thinking, Locator Sheet.

This project selected items within Peterson et al.'s data set that were relevant to the current study. Items were selected for inclusion based on relevancy to the following categories: Demographics, Symptoms of PTSD: arousal, avoidance and intrusiveness (American Psychiatric Association, 2013), and Symptoms of complex PTSD: affect regulation, consciousness, self-perception, perception of perpetrator, relationships, system of meaning (Herman, 1997). Operational definitions were determined for each symptom category. Intrusiveness is defined as distressing memories, flashbacks, nightmares (difficulty staying asleep) and intense and prolonged psychological distress or physiological response to triggers (internal or external). Avoidance is defined as efforts to avoid internal (thoughts, memories, feelings) and external (people, places, activities, situations) reminders of the traumatic event. Substance use was included in the avoidance symptom category. Arousal is defined as irritable behavior or angry outbursts with little or no provocation, reckless or self-destructive behavior, hypervigilance,

exaggerated startle response, sleep disturbance (difficulty falling asleep). Affect regulation is defined as the presence of suicidality, self-injurious behavior, explosive or extremely inhibited behavior, compulsive or extremely inhibited sexuality. Consciousness is defined by the presence of amnesia, transient dissociative episodes and/or depersonalization/derealization. Self-perception is defined as a sense of helplessness or paralysis of initiative, the presence of shame, guilt and self-blame, persistent and exaggerated negative beliefs about self. Perception of the perpetrator is defined as a preoccupation with the perpetrator. Relationships was defined as withdrawal or isolation from others, disruption of intimate relationships, persistent distrust. System of meaning is defined as having a sense of hopelessness and despair.

Relevant items from the larger data set were identified by both the researcher and a colleague. These items were also reviewed with the principle investigator from the original study. The following items were selected within each area: Demographics (3 of 7 items included), Mental Health (7 of 13 items included), and the Life Events Calendar. Data that did not speak specifically to these categories was excluded. Specific information regarding criminal behavior and criminal thinking was excluded because all participants are involved in the county mental health court, thus meeting the criteria for offender population. All identifying information was removed from this private data set by the original researcher prior to the current researcher gaining access.

Data was collected for this secondary data analysis using the following steps:

1. The current researcher had direct access to the de-identified quantitative and qualitative data as well as demographic information.
2. Each item was reviewed by the current researcher and a colleague and relevant items were selected.

3. Selected items were reviewed with Jillian Peterson.
4. Selected items were pulled from the de-identified data and copied to an Excel workbook.
5. The researcher accessed the following information on each participant:
  - a. Demographics items #1 (What is your age?), #3 (Which of the following best describes your racial background?) and #7 (During the last six months, which of the following describes your employment status most of the time?).
  - b. Mental Health items #1 (What is your current diagnosis?), #2 (Have you had any other diagnoses in the past?), #4 (What were your first symptoms? Who noticed them?), #9 (Are there events or people in your life that make your symptoms better or worse? What are they? How do those people or events affect your symptoms and your functioning?), #10 (What was it like when you first started experiencing symptoms? Did you know they were symptoms? How did you react? When did you figure out that you had a mental illness?), #11 (Which started first, your symptoms or getting into trouble?) and #13 (What services would be most helpful to you right now? What are the biggest problems that you are facing? What sorts of things would help you avoid being arrested and staying out of jail?).
  - c. Life Events Calendar
6. Data analysis was completed on the de-identified data.

### **Protection of Human Subjects**

In order to ensure protection of confidentiality all identifying information was removed from the data set by the original researcher prior to the current researcher gaining access. The

principle investigator for the original research gave written permission to use this data. Data used for this secondary data analysis was stored as a computer file on a password protected computer. Informed consent was obtained by the original researchers. Expedited review process was requested through the St Thomas IRB and the project was approved.

### **Data Analysis**

Qualitative data analysis was used to answer the following question: What is the prevalence of PTSD symptoms in the offender population? A deductive approach was used to categorize the qualitative data by symptom of PTSD or complex PTSD. Responses in each category were reviewed to identify themes or possible commonalities or prevalence of specific symptom presentations. Quantitative data analysis was performed on demographic information.

## **Findings**

### **Demographics**

One hundred and thirty-eight participants were used in this study. Age ranged from 19 years old to 65 years old with a mean of 39.57 years. Sixty-five percent of subjects identified as male while 35% identified as female. Forty-two percent identified as Caucasian while 41% identified as African American, 7% as American Indian/Alaskan Native, 2% as Asian/Pacific Islander, 1% as Hispanic and 6% as Other. Four subjects (3%) described their employment status as full time, 16 (12%) were employed part time and 118 (86%) were unemployed.

Categorizing the qualitative data according to PTSD or complex PTSD symptom allowed a greater understanding of the prevalence with which certain symptoms exist as well as themes around how symptoms manifest within the mentally ill offender population. Themes and prevalence are discussed here according to symptom. Life Events data is included following the symptom categories.

### **Intrusiveness**

One hundred nine subjects spoke of psychological distress in response to internal and external cues. Internal cues described by 39% of subjects included feeling “uncomfortable and anxious,” feeling scared or hurt, thoughts of self-blame, sweating, shortness of breath, increased heart rate, headaches, nervousness, sweaty palms and tingling hands. External cues triggering psychological distress were equally as prevalent in that 40% of subject described external cues. These included being around family or friends that have harmed them in the past, being around violence or aggressive behavior, abusive relationships, being in crowded or unfamiliar places, media and other cues related to war, and anniversary or other memorable dates.

The experience of nightmares, flash backs and panic attacks were also identified as a theme. Eighteen percent of subjects identified nightmares, flashbacks or panic attacks as symptoms. One subject stated, “I thought I should be able to control it.” The record of his response goes on to state that “not until he was 12 years old and saw a therapist for the first time did he understand that the panic attacks were not his fault.” The record of another subject’s report stated “trouble sleeping, nightmares, anxiety and panic attacks, he didn’t like people in general and didn’t trust people.” Subjects reported that they avoid external cues in order to also avoid flashbacks. For example, one subject stated “being around the same stuff he used to be around/old friends” makes his symptoms worse. He specifically noted flashbacks as a symptom.

### **Avoidance**

Themes identified in the category of avoidance included, most notably, substance use reported by 50 subjects (36%) isolation reported by 34 subjects (25%) and withdrawal reported by 27 subjects (20%) from people and environments that increase distress. In the original data gathering subjects were asked to report on a) their first symptoms, b) events or people that make the symptom better or worse and c) to describe what their experience was like when they first started experiencing symptoms. A common theme that ran through the subjects’ answers was substance abuse. Fifty subjects mentioned the use of substances for symptom management or for escaping/avoiding distress. One subject reported “drinking to hide paranoia about fear of being shot again” while another subject describes her experience of years of sexual abuse by her stepfather and denial by her mother even after she became pregnant by her stepfather. She states that she “turned to drugs to escape the pain and anxiety.” When subjects were asked; “Which started first, your symptoms or getting in trouble, 54% stated that they experienced symptoms first. Nineteen percent of subjects reported they used substances specifically to manage

symptoms. Twenty percent of subjects reported experiencing a traumatic event and 7% reported experiencing at least one traumatic event and using substances to manage symptoms related to the traumatic event(s).

### **Arousal**

Arousal was mentioned by 90 subjects (65%). Acting out in a violent way was reported by 34 subjects (25%) and hypervigilance by 33 subjects (24%) were predominant themes in the symptom category of arousal. Acting out in a violent way was mentioned both in childhood and adulthood. One subject's recorded response stated "as a child wanted attention, acted out, ran away, fighting, swearing, throwing stuff" while other responses seemed related to a specific event in childhood. For example, one subject responded that he "started tearing shit up, not sleeping, no appetite, using drugs, getting into trouble; started when dad left at age 11." The description of another subject's report states "he is so angry at his brother that he fears himself. His brother's abusive behavior is also the source of his trauma." Acting out in a violent way in adulthood also occurs in less provocative situations. For example, one subject reports "little things would just pop [her] off" while another subject reported acting out due to feeling "edgy, jumpy, afraid a lot." Acting out in adulthood seems related to the experience of hypervigilance.

Thirty-three subjects (24%) mentioned symptoms that describe hypervigilance. Hypervigilance was described in response to the environment; unsafe neighborhoods, exposure to war and being around unsafe people. One subject described feeling "afraid someone would snatch me because my brother died by accidental shooting and I was almost kidnapped." She goes on to state "it might not have been as bad if things hadn't kept happening, deaths, etcetera."

### **Affect Regulation**



The most predominant theme in this symptom category is the frequent mention of suicidal and self-harm behavior. Suicidal behavior is mentioned by 22 subjects (16%) and 2% report multiple suicide attempts. Self-harm behavior is mentioned by 10 subjects (7%) with cutting and taking pills being the predominant method for self-harm. Subjects report initially feeling “horrible” or “sad and depressed and just wanted to end my life.” Throughout the symptom categories familial distress was noted as a common stressor. Five percent of subjects reported they attempted suicide in response to family distress or dysfunction. One subject reported two suicide attempts in prison after his family abandoned him. Another states “she tried to commit suicide at age 16. Her mom didn’t bring her to the hospital, just bandaged up her arms and told her to hide it from the neighbors.” Other behavioral indicators of affect dysregulation such as sexual promiscuity and not eating (in the context of an eating disorder) were mentioned rarely.

### **Changes in Level of Consciousness**

As defined for this study, the symptom category of changes in level of consciousness includes experiences described as amnesia, dissociation, depersonalization or derealization. Five subjects (3%) reported some form of change in level of consciousness. One subject reported that he “would wake up in jail and people would be telling [him] what he did.” Another subject reported feeling “fuzzy in the head and constantly disoriented with his surroundings” while another subject described “not being able to find her car in the parking lot even though it was right in front of her.” Another subject’s report stated “he didn’t feel like he was in his body.”

### **Self-Perception**

Two subjects described experiences that fell within the symptom category of self-perception. Descriptions centered around feelings of worthlessness, lack of motivation, lack of

enjoyment from previously pleasurable activities and a sense that the individual was somehow “bad.” One subject’s response was recorded as “he felt there was something inside of him that made them think that it was okay to treat him badly, there was something different about him, he wanted to hide that part without knowing what it is that he needed to hide.” Another subject described how it felt to be alone in the world, a world where no one can understand you.

### **Preoccupation with the Perpetrator**

There were no indications of this symptom category in the qualitative data.

### **Relationships**

The most predominant theme in the data in this symptom category was around the disruption of intimate relationships. Twenty subjects (15%) reported significant disruption in intimate relationships. One subject notes “my ex-boyfriend brings out my PTSD” while another subject’s report states “his girlfriend makes symptoms worse but he loves her.” Seven percent of subjects (10 subjects) reported their significant other makes their symptoms worse.

Another theme within this symptom category was withdrawal or isolation from others. Twenty-five percent of subjects (34 subjects) report isolation or withdrawal from others. There is a sense that being around people makes symptoms worse and that being alone is the only option. One subject states “I’m better when I’m alone” while another subject’s report states “he keeps to himself so he stays out of trouble.” One subject’s response gives us good insight into her experiences. Her report to the researcher states “being around people too long makes it worse- she feels disgusted and snappy, her stomach churns and she sometimes even gets hives. Being at home or in a park by herself makes it better. Going to classes is hard.”

### **System of Meaning**

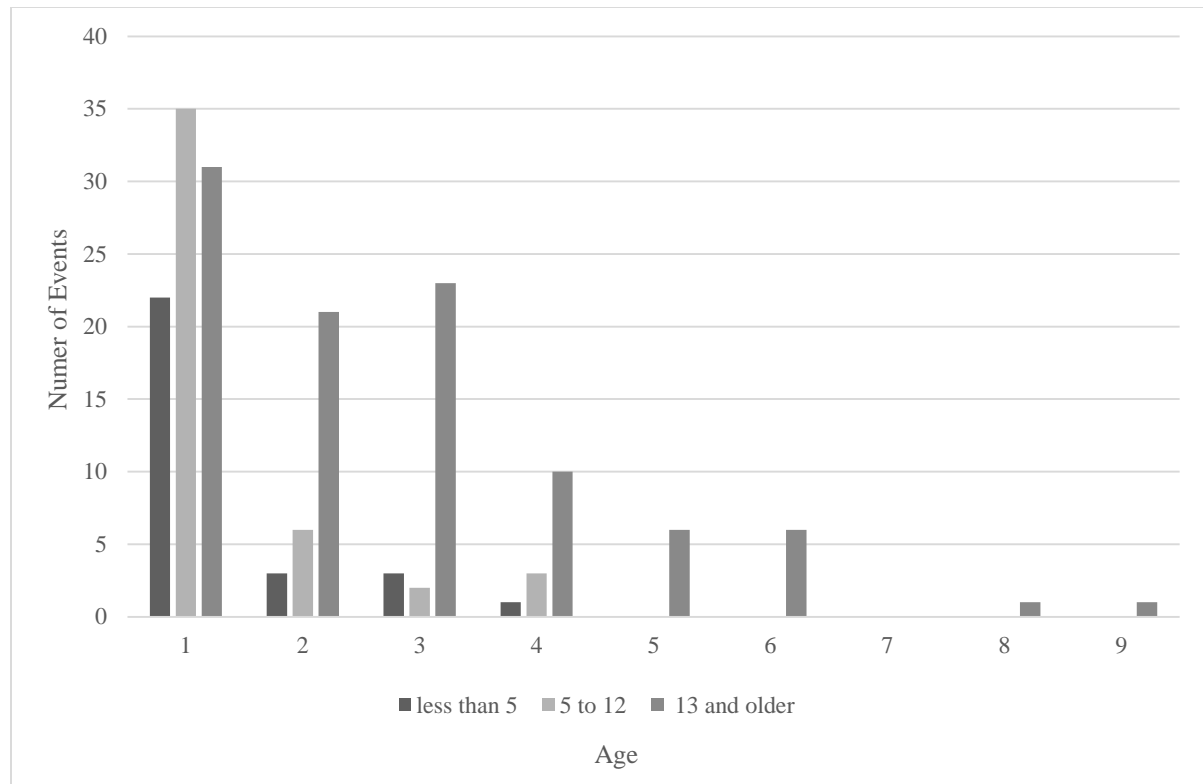
Two subjects (1%) specifically mentioned feelings of despair. One subject felt despair about the world and about his life. The other subject only stated “felt despair.” This symptom category is closely linked to the Affect Regulation symptom category, specifically in terms of suicidality. Subjects whose responses better fit into the Affect Regulation symptom category were placed there.

### **Life Events Calendar**

In the original data gathering subjects were asked to record significant life events. They were asked to record as many life events as they could recall. Subjects recorded between 0 and 13 events. Each event was reviewed and traumatic events were categorized according to age when event occurred, context in which the violence/abuse occurred and whether there was an unexpected loss.

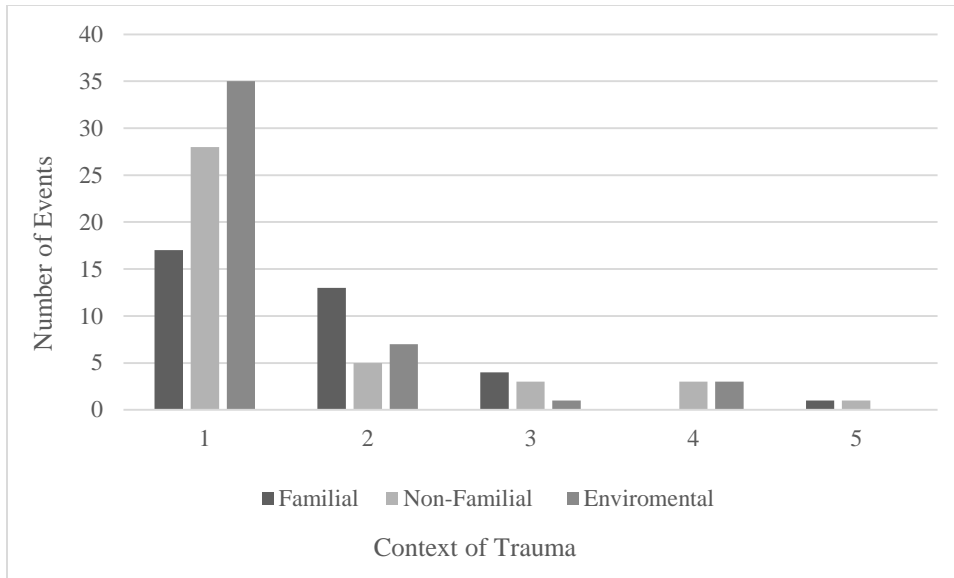
Figure 1 describes the number of subjects who experienced traumatic events in each age group. One traumatic life event was experienced by 22 subjects when they were under 5 years of age, 35 subjects experienced one traumatic event between the ages of 5-12 years old and 31 subjects experienced one traumatic life event at age 13 or older. Three traumatic life events occurred for 3 subjects under the age of 5, 2 subjects between the ages of 5-12 years old and 23 subjects in the age category of 13 years and older. Five or more traumatic events occurred for subjects in the 13 and older category.

Figure 1: Age of Exposure to Traumatic Events



Life events data was also categorized into violent or abusive events that occurred within the family, between non-familial persons and within the environment. Exposure to violence or abuse within the family was defined as occurring between immediate and extended family members, foster parents or siblings, step-parents. Non-familial exposure was defined as events that involved friends, strangers and significant others. Environmental exposure was defined as exposure to environments or lifestyles in which violence is known to be prevalent; including prison/detention centers, gangs, prostitution, exposure to war (military or refugee), and homelessness. Figure 2 describes how many subjects were exposed to violence or abuse within the family, non-familial and environmental contexts. The greatest number of exposures occurred in the environmental context (46 traumatic events). Eighty subjects experienced at least one traumatic event across all three categories.

Figure 2: Context of Exposure to Violence and Abuse



Life events data was also analyzed to identify incidences of unexpected loss. Unexpected loss was defined as unexpected death of a significant person, divorce, foster care/adoption and separation from a significant person. Events included death of a loved one by suicide or sudden onset illness, being removed from the parental home and significant person being incarcerated. Of the life events categorized as traumatic, 209 events involved some form of unexpected loss.

## Discussion

### Summary of Findings

This research intended to examine the prevalence of PTSD symptoms among the offender population. Secondary data analysis of a large sample (N=138) was useful in identifying various themes around how PTSD and complex PTSD symptoms may present within the offender population.

The symptoms of PTSD, intrusiveness, avoidance and arousal are clearly represented in the sample group. Intrusive symptoms show up in terms of internal and external cues, as well as nightmares, flashbacks and panic attacks. More subjects mentioned experiences related to internal and external cues than specifically mentioning nightmares, flashbacks and panic attacks. This could be related to the level of education and access to healthcare. Perhaps these subjects did not have the language to describe their experiences in terms of nightmares, flashbacks and panic attacks. One must also consider environmental factors. The data supports a significant amount of exposure to violence and abuse within the environment. Under these conditions, symptoms of PTSD may be experienced as normal ways to survive within unsafe environments.

Substance use was another common method for managing symptoms. It seems to be a strategy for avoiding the experience of difficult emotions and intrusive symptoms. The corrections system has taken the treatment of substance use among the offender population very seriously in the development of programs for treatment while incarcerated as well as careful transition planning during the process of re-entry (National Institutes of Health, 2014). Substance use disorders are treated as brain diseases with the understanding that the brain has changed since substance use and any successful treatment approach must consider and address this. The results of this study suggest that these programs may fall short of effectiveness by not

considering the changes that occur in the brain as a result of trauma. Data in this study exploring the use of substances to manage symptoms, including symptoms specific to trauma suggests that effective treatments need to address brain changes as a result of trauma and substance use.

Acting out behavior was the major theme within the symptom category of arousal. Acting out or violent behavior among the offender population is often seen as part of their criminal behavior. In the assessment of PTSD in the general population, symptoms of arousal typically fall more into the areas of hypervigilance and difficulties with concentration and sleep. This is not the case among the offender population. This difference in presentation of symptoms of arousal may be a barrier to accurate diagnosis and treatment of PTSD.

Affect regulation symptoms presented with most prevalence in the area of suicidal and self-harm behaviors. The prevalence of these behaviors as well as the context in which exposures to violence and abuse occur (Life Events data) paints a picture of hopelessness. Subjects experience exposure to violence in their environment. Their brain is not capable of managing such overwhelming experiences and they are left feeling “crazy.” With no one in their immediate circle to educate or guide them, they are left with only one option. Given all of this, the level of despair noted in the data was surprising in that subjects seemed to turn to avoidance or suicidal/self-harm behaviors to cope. Understanding why the level of despair remains so low may be an area for future research. The seemingly low experience of changes in level of consciousness may also be an important area for future research.

The impact on relationships is also an important phenomenon to consider when thinking about PTSD among the offender population. Intimate relationships were significantly impacted in that relationships ended or interpersonal distress led to increased symptom experiencing. Interpersonal difficulty is often a key feature in borderline personality disorder.

Herman (1997) suggests that people diagnosed with borderline personality disorder, histrionic personality disorder and antisocial personality disorder may better fit the cluster of symptoms consistent with complex PTSD. Roach (2013) suggests that offenders may have a different diagnostic picture for trauma responses. He speaks to the presence of historical racial trauma and to the phenomenon of a person being both victim and perpetrator. He goes on to propose a different presentation of PTSD in offenders, a presentation more closely resembling conduct disorder. He explains that a person in continuous danger needs to be ready for action. He explains that over time, with repeated exposure to violence and traumatic events anger replaces fear, emotions are muted and approach to danger replaces avoidance. He is theorizing based on his clinical observation and review of relevant literature. Despite the limited amount of empirical evidence to support his position it seems worthwhile for future consideration.

### **Contribution to Social Work Practice**

This study reveals several important implications for social work practice on the micro, mezzo and macro levels. Micro level practice implications include assessment and diagnosis of PTSD and complex PTSD among the offender population. There may be an entirely different presentation of PTSD symptoms that manifest in offenders who have had continuous exposure to violence and traumatic events throughout the course of their lifetimes, as suggested by Roach (2013). Consideration of these differences may significantly impact how social workers diagnose and provide treatment for people who have offended.

Implications for mezzo level practice encompass programming changes within correctional facilities, mental health courts and other diversion programs. Social workers have a unique position in their ability to see the interplay between systems and the impact these systems can have on any one individual system. When programs are developed to address individual



systems they must also consider the larger context in which the individual survives. Macro level implications lie in community justice initiatives to mediate historical racism and the prevalence of violence and abuse within the environment.

As social workers providing mental health care we need to consider the implications of putting men and women who have symptoms of PTSD in to traumatizing environments such as the prison environment. The National Association of Social Workers (NASW) Code of Ethics (2008) describes social workers ethical responsibilities to clients, as professionals and to the broader society. The NASW Code of Ethics states the social workers' primary responsibility is to the wellbeing of clients. This can be achieved by maintaining high standards of integrity within the profession through diligent review of current research and thoughtful integration of new knowledge into practice. It is our responsibility as social workers to utilize knowledge of the impact of trauma and the effects of re-traumatization to effect change within the criminal justice system. Treating PTSD symptoms in the offender population will promote the "general welfare of society, from local to global levels, and the development of people, their communities, and their environments" (NASW, 2008, p. 16).

### **Limitations of the Current Study**

Although this study showed valuable information about the prevalence of PTSD symptoms among the offender population there are some limitations of the study. The sample population includes offenders who also have a diagnosis of a major mental illness. This may not be a reflective sample of offenders in general. It is also known that people with mental illness have a higher risk of exposure to traumatic events (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2006). This may falsely inflate the data and not be reflective of the larger offender population.

Another limitation of this study is that research design. This study is a secondary data analysis. Data was collected within the context of a study exploring the interplay between symptoms of mental illness and criminal behavior. For this reason, the data does not directly address the research question of this study. Data was analyzed and inference was used to categorize the data according to PTSD symptoms. This may affect the validity of the study.

### **Ideas for Future Research**

This study can be viewed as a starting place for further exploration of the prevalence of PTSD among the offender population. Future studies may expand the sample to include offenders who are not diagnosed with mental illness. It may also be beneficial to include family and other significant people in the perceived prevalence of PTSD in their communities. Focusing on the prevalence of PTSD while inquiring about criminal behavior may encourage greater disclosure as subjects would not be in the context of the correctional system where there may be perceived negative consequences to honest reporting.

### **Conclusion**

The purpose of this study was to explore the prevalence of PTSD symptoms in the offender population. This study found that PTSD symptoms are prevalent among the offender population. These symptoms may also take on a different presentation as compared to the presentation of PTSD symptoms in the non-offender population. Specifically, the presentation of arousal symptoms focused more around acting out behavior. This study also explored the context in which traumatic events occurred in the lives of offenders. A significant number of subjects experienced six or more traumatic events throughout the course of their lives. In considering the prevalence and presentation of symptoms of PTSD and the lens through which the offender population is currently viewed, this study identifies implications for changing how we evaluate and treat offenders with mental illness who may also present with symptoms of PTSD. Change is necessary at the micro, mezzo and macro level and there is hope for future research to continue to explore and address these areas of need.

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**Appendix A: Letter of Permission for Use of Data**

December 22, 2015

University of St. Thomas  
Institutional Review Board  
2115 Summit Avenue  
St. Paul, MN 55105

Dear University of St. Thomas Institutional Review Board,

This letter is to provide permission to Hilary Mueller to use my dataset for her Masters' degree research project. The dataset includes de-identified data of 142 offenders with serious mental illness, which was collected in Hennepin County in 2011.

Hilary Mueller will be using demographic items including age, race and employment status. Other items will be selected based on their relevance and assigned to one of three categories: arousal, avoidance and intrusiveness. The majority of items will be taken from the Colorado Symptom Index and the SASSI.

The data will be analyzed to fulfill the Master's degree requirement, and will not be published for other purposes. If you have any questions, please feel free to contact me by email ([jpeter68@hamline.edu](mailto:jpeter68@hamline.edu)) or phone (651-434-9427).

Thank you.

Sincerely,

Jillian Peterson, Ph.D.  
Assistant Professor of Criminology and Criminal Justice  
Hamline University