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The Effects of a Trauma-Informed Care Training Program on Mental Health Professionals Knowledge, Skills, and Attitudes with the SMI

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Philadelphia College of Osteopathic Medicine

Department of Psychology

THE EFFECTS OF A TRAUMA-INFORMED CARE TRAINING PROGRAM ON MENTAL
HEALTH PROFESSIONALS KNOWLEDGE, SKILLS, AND ATTITUDES WITH THE SMI
POPULATION

By: Angelina Pelletier, M. S.

Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Psychology

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**PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE
DEPARTMENT OF PSYCHOLOGY**

Dissertation Approval

This is to certify that the thesis presented to us by Angelina Pelletier on the 9th day of May, 2016, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

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Abstract

Trauma has been found to be highly prevalent among individuals diagnosed with SMIs. Mental health professionals have been reported to misdiagnose or avoid addressing trauma in this population. There is a need to provide information about trauma and to foster awareness among mental health professionals who are treating individuals diagnosed with SMIs. With a TIC approach, operating from a recovery-oriented philosophy, there have been interventions created to address trauma and SMIs with the aim of developing awareness about trauma and the impact it may have on someone's life. With these factors in mind, mental health professionals should be competent in TIC in order to provide effective treatment to this population in the future. This study investigated the impact of a trauma-informed care training program on mental health professionals' knowledge, attitudes, and skills regarding clients who have been diagnosed with SMIs and may have experienced trauma. Despite the small sample size, the study found a significant increase of mental health professionals' knowledge and attitudes from pre- to post-training evaluation. The results of this study suggest that the training had a positive impact on the professionals that attended and participated in this training. Implications and recommendations based on these findings were discussed.

Keywords: trauma-informed care, serious mental illness, recovery, competency

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Chapter 1

Introduction

Statement of the problem.

Serious Mental Illness (SMI) currently affects about 3.9% of individuals in the general population (National Institute of Mental Health [NIMH], 2011). Between 61% and 98% of individuals with SMIs are reported to have experienced a traumatic event at some point in their lives, contributing to comorbid diagnoses and poor treatment prognosis (Resnick, Bond, & Mueser, 2003; Subica, Claypoole, & Wylie, 2011). On a broader level, individuals with SMIs often experience life stressors and traumatic events such as homelessness, unemployment, and social rejection (LeVine, 2012). Those diagnosed with SMIs may also experience difficulties with daily functioning and care, such as decreased personal care skills, financial management, and stressed family interactions (Hopper, Bassuk, & Olivet, 2010; LeVine, 2012). Often when stressors and traumatic events occur, those diagnosed with SMIs have difficulty utilizing resources to cope with these stressors and events, due, at least partially, to a poorly perceived need for assistance (Mueser et al., 1998).

Trauma is defined as the experience of an unpredictable event, which is perceived to be a threat to one's sense of integrity or survival (Mueser et al., 2002). Community-based surveys find that 55% to 90% of people in the United States have experienced at least one traumatic event. On average, individuals report having experienced five traumatic events in their lifetimes (Harris & Fallot, 2001). Further, traumatic experiences tend to be more prevalent in clients who are diagnosed with SMIs (Assion et al., 2009).

Individuals with SMIs who are also diagnosed with Posttraumatic Stress Disorder (PTSD) have been shown to be high users of services, which consequently can cost agencies up to \$3 billion dollars annually (Grubaugh, Zinzow, Paul, Egede, & Frueh, 2011). Researchers have argued that there is a need for further studies regarding adequate treatment for the difficulties faced by comorbid trauma in the SMI population (Grubaugh et al., 2011; Mueser et al., 2002).

In order to provide adequate treatment it is important for mental health professionals to be cognizant of the high comorbidity between trauma and SMIs. Research indicates that trauma is significantly overlooked and under-documented in the treatment of clients who have been diagnosed with SMIs (Mauritz, Goossens, Draijer, & Achterberg, 2013; Mueser et al., 1998). Mueser et al. (1998) looked at lifetime prevalence of trauma in clients diagnosed with SMIs. This study showed that 98% of the individuals evaluated had experienced a traumatic event in their lifetimes. It was also found that more than 43% of clients met criteria for PTSD; however, a PTSD diagnosis was recorded for only 2% of these individuals. Further, the President's New Freedom Commission on Mental Health has outlined the fact that a comprehensive mental health system needs to operate along Trauma-Informed Care (TIC) principles (National Alliance on Mental Illness [NAMI], 2011). Since then, numerous TIC therapies have been proliferated, yet surveys have indicated that the actual translation from policy to clinical practice has lagged behind. The Commission recommends that research studies on TIC trainings in specific populations, such as SMIs, be conducted to evaluate services for this population (NAMI, 2011). Further, TIC is essential to the vision of recovery and transformation of mental health professionals' approach towards treatment for individuals with SMIs. Integrating trauma-informed approaches furthers efforts of the recovery movement by creating trauma awareness for

those working with individuals who are in recovery, and by continuing to change the way in which providers develop, envision, and deliver services (Abrahams, 2010). Therefore, it is important for trauma to be assessed, recognized, and addressed.

The reasons why trauma is often underdiagnosed in the SMI population include an overlap of symptoms between PTSD and SMIs, clinician fears about addressing trauma issues, as well the fact that many of those diagnosed with SMIs entered the mental health system many years ago, when the role of trauma in this population was less understood (Mauritz et al., 2013). When trauma symptoms are unrecognized, prognosis of treatment is often worse for those with SMIs (Mueser et al., 1998). It is important for mental health professionals to recognize when trauma is comorbid with SMIs in order to address the difficulties this population faces appropriately (Mauritz, 2013; Mueser et al., 2004). Research indicates that when clients and mental health professionals address trauma sufficiently in the SMI population, it results in improved treatment outcomes, including decreased depression, decreased trauma symptoms, increased self-rated health, and increased confidence in their mental health providers (Al-Saffar, Borga, Lawoko, and Hallstrom, 2004).

Trauma-informed care is in its infancy and there is a lack of research on effective implementation. Despite research indicating that TIC has been an effective approach to treatment for individuals diagnosed with SMIs and trauma, there is lack of research assessing effective dissemination of this approach. A study that assesses the acceptance and effectiveness of offering a TIC program for professionals may help to increase the awareness and use of this approach in agencies.

Purpose of the study.

The importance of trauma in the treatment of individuals with SMIs has gained attention in recent years; however, research on the dissemination of TIC for this population remains sparse. The main purpose of this study will be to evaluate a TIC training program for mental health professionals at an outpatient community mental health center. This study will assess mental health professionals' knowledge, skills, and attitudes of clients diagnosed with SMIs, who have experienced trauma prior to and following the training. The training program will address presentation of symptoms, assessment and diagnosis, intervention, and intended treatment prognosis for clients diagnosed with SMIs and trauma. It is hoped that the results of this study will increase mental health professionals' proficiency in providing and understanding TIC.

Chapter 2

Literature Review

Serious Mental Illness.

About 1 in 17 Americans live with SMIs (National Alliance on Mental Health [NAMI], 2011). SMI is most commonly defined as a diagnosable behavioral, mental, or emotional disorder of sufficient duration; it meets criteria specified in the DSM, and has resulted in serious functional impairment, which interferes with or limits one to several major life activities (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010). A diagnosis of a SMI is characterized by the following: a diagnosis of non-organic psychosis or personality disorder; duration in terms of prolonged illness and long-term treatment; and disability including three of eight criteria (NIMH, 1987). The eight criteria identified for SMIs are : (a) social behavior demanding a mental health intervention (b) limited ability to obtain assistance (c) impaired activities of daily living and basic needs (d) impaired social functioning (e) impaired performance in employment (f) non-work (homemaking) (g) vulnerability to stress, and (h) disability that causes dependency. Most often, SMI refers to a diagnosis of Schizophrenia, Bipolar Disorder, Obsessive-Compulsive Disorder, or Major Depression (Covarrubias & Han, 2011).

The criteria for SMIs list a variety of disabilities that may be experienced by these individuals in their daily living. In order to provide adequate services for this population, it is imperative that mental health professionals have an understanding of the various difficulties and barriers experienced by their clients. Individuals diagnosed with SMIs often experience impairments in their daily living, as well as stigma, and barriers to seeking treatment.

Those with an SMI diagnosis can, at times, experience significant impairment in daily functioning, such as living independently, employment, participating in social relationships or leisure activities, cognitive or physical disabilities, and self-care (LeVine, 2012; Mueser et al., 2008). As a result of these functional impairments, SMI clients often encounter problems obtaining independent housing, have a lack of economic resources and social support, and experience unstable lifestyles prone to frequent crisis (Mueser et al., 2008). Further barriers include social rejection, substandard housing, unemployment, isolation, loss of identity, poverty, loss of valued social roles, and loss of sense of purpose in life (Davidson, O'Connell, Tondora, Staeheli, & Evans, 2005; LeVine, 2012). Integration and full community participation is difficult for those diagnosed with SMIs. Integration requires reducing barriers between those with and those without mental illness and creating opportunities for participation in mainstream society (Bromley et al., 2013). In addition to encountering various difficulties with daily living, individuals diagnosed with SMIs often experience stigma from those around them (Corrigan, 2004; Covarrubias & Han, 2011).

Stigma or negative attitudes towards individuals with SMIs are prevalent among the general population (Covarrubias & Han, 2011). For those living with SMIs there are many detrimental effects of stigma. These effects include decreased quality of life, few opportunities for employment, refusal to seek treatment, decreased housing options, decreased self-esteem, and decreased quality of health care (Corrigan, 2004; Covarrubias & Han, 2011). Stigma can be responsible for rejection from employment due to the belief that individuals with SMIs cannot consistently hold jobs. Individuals may also experience rejection from housing authorities due to the belief that individuals may become violent or will not be able to pay their rent. These

encounters and repeated rejections are often correlated with lower the quality of life, as well as with lower self-esteem in individuals with SMIs.

In addition to stigmatized beliefs by the general public, mental health professionals may also hold negative beliefs about this population and these beliefs can have detrimental effects on treatment for individuals with SMIs. One example of stigmatized beliefs held by mental health professionals about their clients is the concept of the “clinician’s illusion.” Cohen and Cohen introduced the idea of the “clinician’s illusion”, which refers to the belief that people with SMIs will always be low functioning, will not be integrated into society, and will exhibit socially undesirable behaviors (Cohen & Cohen, 1984). Although this concept was created over 20 years ago, it unfortunately continues to ring true today for some mental health professionals. One of the effects of stigma by mental health professionals is that it creates a barrier to “help-seeking” and subsequently for receiving effective treatment (Covarrubias & Han, 2011).

Additional treatment barriers encountered by individuals with SMIs may include involuntary hospitalizations, forced medication use, and the receipt of treatments that are not evidence-based (Davidson et al., 2005; LeVine, 2012). Rather than increasing patient self-determination and promoting collaborative treatment relationships, these barriers often result in patients disengaging from treatment systems, rather than becoming more engaged and responsible for their treatment by being involved in all aspects of their treatment choices and decisions (Kreyenbuhl, Nossel, & Dixon, 2009). The U.S. Department of Health and Human Services (2007) estimated that only half of the individuals diagnosed with SMIs had received treatment during that year, and even fewer were seen by a mental health professional. Given the prevalence of SMIs, the lack of individuals receiving effective treatment is not only significant but also a serious concern. There is a need for increased awareness and dissemination of

effective treatment approaches for this population. The American Psychological Association (APA) has endorsed the concept of recovery in regard to SMIs in order to increase awareness of numerous difficulties this population faces, as well as to increase the utilization of consumer-centered, rather than provider-centered, goals (LeVine, 2012). With this in mind, a recovery-oriented approach is beneficial to the treatment of this population. The recovery model has become the prevailing framework of mental health care provision in the United States (Solomon & Stanhope, 2004). Given the need for a mental health system transformation outlined in the President's New Freedom Commission on Mental Health, recovery-oriented treatment approaches have also been emphasized (Anthony, 2000; Hogan, 2003). Considering the prevalence of SMIs in the U.S. population, utilizing the recovery model will help clinicians to provide better treatment for many individuals.

Prevalence of SMIs. Many individuals treated by mental health professionals meet diagnostic criteria for SMIs. In 2008, about 3.5% of the U.S. adult population was diagnosed with a SMI (6.7 million people), and many of those individuals were under the age of 18 years (2.4 million) (Government Accountability Office, 2008). In 2010, an estimated 11.4 million adults over the age of 18 were diagnosed with a SMI (SAMHSA, 2010). Most recently an estimated 9.6 million adults were diagnosed with a SMI, which represented 4.1 percent of all U.S. adults (NIMH, 2012). From this data, the prevalence of SMIs has been increasing over the past few years, which could possibly be due to an increase in awareness of SMI symptoms and presentation among clinicians.

However, people may meet criteria for SMIs, but not all of those individuals are receiving any form of treatment. Data from the National Comorbidity Survey (NCS), estimated that in the period between 1990 and 1992, 5.4 million people in the U.S. household population

between ages of 18 and 54 years with a SMI diagnosis received little or no treatment (Mechanic, 2001). The reasons why individuals with SMIs may not seek treatment at all or become disengaged from treatment are complex and multiply determined. A few of the main areas that have been outlined are that individuals might not recognize or accept the fact that they have a SMI, that service systems are not meeting the perceived needs of the person or are not effective, and that the provided services are not perceived as collaborative (Kreyenbuhl et al., 2009).

Development of SMIs. SMIs often begin in adolescence, affecting individuals' early experiences of functioning in the world. Although it has been noted that symptoms often start in adolescence, there is not a clear understanding of what causes SMIs. There is not one simple answer to the causes of SMIs, but there are several factors that have been linked to the manifestation of these disorders (Kiesler, 2000). Causal factors may include varying degrees of psychopathological symptoms, environmental circumstances, or other mediating factors (Kiesler, 2000). The factors that contribute to one developing SMIs seem to be unique to each individual and may include biological, psychological, or social factors. Further, the course of SMIs may be chronic for many, but not for everyone. Early development of SMIs can cause an individual to find it difficult to build effective social and communication skills, and also difficult to develop skills needed to obtain employment (LeVine, 2012).

Diathesis-Stress Model. High rates of comorbidity between trauma and SMIs can be partially explained by the diathesis-stress model. The diathesis-stress model is also known as the vulnerability-stress model. This model hypothesizes that various forms of SMIs have both biological and environmental components (Grubaugh, Zinzow, Paul, Egede, & Frueh, 2011). There is an assumption that symptom severity and other characteristic impairments of SMIs have genetic and related biological bases determined early in life by a combination of genetic

predisposition and early environmental factors (Mueser, Rosenberg, Goodman, & Trumbetta, 2002). This model hypothesizes that everyone in the general population has some level of predisposing factors for various psychological disorders. But each person has a certain threshold for these factors; when crossed, they may develop a psychological disorder. According to this model the specific point where one may develop a disorder depends on the interaction between the degree to which risk factors exist and the degree of stress experienced by the individual (Ingram & Luxton, 2005). Further, stress is found to contribute to the development and course of psychopathology (Ingram & Luxton, 2005). Individuals who are predisposed biologically often experience an increase in symptomology when faced with environmental stressors. Further, vulnerability, either biological or environmental in nature, can predispose exacerbation of symptoms of SMIs when stressful situations are encountered (Ingram & Luxton, 2005). Significant stress and/or trauma experiences and vulnerability, paired together, provide an explanation for the severe symptoms, exposure to trauma, and difficulties in daily functioning experienced by individuals who have been diagnosed with SMIs.

Individuals diagnosed with SMIs have been found to experience higher rates of trauma in their lives, compared with the general population (Mueser et al., 2008). In the diathesis-stress model, a traumatic event would be an example of an extreme environmental stressor; therefore, the event has the potential to exacerbate SMI symptoms and severity (Grubaugh et al., 2011). From these findings it can be concluded that trauma likely plays a large role in the development, exacerbation and course of SMIs. Therefore, addressing the trauma during the treatment of SMIs seems paramount for effective treatment. However, research has indicated a lack of awareness of the prevalence and role that trauma plays in this population, as well as a lack of addressing trauma during treatment (Mueser et al., 1998).

Trauma.

Trauma is prevalent among individuals both in the general population and among those receiving mental health services. Research findings show that close to 3 of 4 individuals seeking mental health services have experienced some type of childhood abuse or neglect (Shi, 2013). These statistics indicate the need for attention to trauma throughout the course of treatment, regardless of presenting issue, by clinicians (Shi, 2013).

Defining trauma. Trauma refers to the experience of an overwhelming event that is perceived to be a threat to a person's sense of integrity of survival (Herman, 1992). A traumatic exposure, as defined by the DSM-5, involves a situation in which an individual directly experiences an event, directly witnesses an event, directly experiences repeated and intense exposure to the aversive details of the traumatic event, or learns that the trauma happened to a close friend or family member (*DSM-5*, APA, 2013). Trauma can refer to a single event or to multiple events. Further, it can refer to or set of circumstances experienced by an individual as emotionally and physically harmful or threatening and that has lasting undesirable effects on the individual's social, physical, emotional, or spiritual welfare (SAMHSA, 2012). The effect of a traumatic experience on one's life can be detrimental and create persistent adverse effects for that individual.

The impact of a trauma can be devastating and long-lasting; it can decrease the ability to self-regulate one's emotions, interfere with a person's sense of safety, disrupt one's sense of self, and lead to chaotic interpersonal relationships (Hopper et al., 2010). The event itself, as well as the individual's experience of the event, determines whether or not something is traumatic (SAMHSA, 2014). For example, two individuals may be exposed to the same event or type of event but their experiences and interpretations of these events may greatly vary. Experiences

vary due to various biopsychosocial and cultural factors (SAMHSA, 2014). As explained by the diathesis-stress model, one's predisposing factors, threshold for stressful events, and environmental factors play a role in the effect trauma can play in different peoples' lives. Some individuals experience trauma at greater levels of severity than others.

Prevalence of trauma. Individuals with histories of violence, abuse, and neglect from childhood onward make up the majority of clients served by public mental health and substance abuse service systems (National Center for Trauma Informed Care [NCTIC], 2008). The rate of trauma experienced by the general population is high, between 15-90 percent (Tagay, Herpertz, Langkafel, & Senf, 2005). Surveys of the general public propose that up to one half of adults in the United States have experienced one major traumatic stressor (Briere, 2012). However, people diagnosed with SMIs have been found to experience even higher rates of trauma, as compared with individuals in the general public, with some research indicating rates as high as 90 percent (Mueser et al., 2002; O'Hare, Ce Shen, & Sherrer, 2013; Resnick, Bond, & Mueser, 2003). Further, this population also experiences high rates of being victims of crime, also often experienced as traumatic. Research has found that up to 81 percent of individuals with SMIs have reported some type of victimization in their lifetimes (Mueser et al., 1998; Lu et al., 2013). Considering these rates of trauma and victimization in the SMI population, mental health professions who are providing treatment need to have an understanding of trauma, of the different types of trauma, and of effective ways to address trauma in treatment.

Types of Trauma.

Child Abuse. Developmental traumas are experiences that occur during various developmental stages, potentially influencing later adjustment, development, and mental and physical health (SAMHSA, 2014). Roughly one-fourth of children experience a traumatic event;

these events may include domestic, community, or school violence; neglect or foster care placements; physical or sexual abuse; and/or the traumatic death of significant others (Dvir, Denietolis, & Frazier, 2013). Childhood sexual and physical abuse, at varying levels of severity, includes fondling to rape and severe spankings to life-threatening beatings. Childhood physical and sexual abuse is quite prevalent in North American society (Briere, 2012). Up to 82 percent of individuals in psychiatric populations reported childhood physical abuse and up to 54 percent reported childhood sexual abuse (Reiff, Castille, Muenzenmaier, & Link, 2012). Individuals with SMIs report experiencing more abuse in childhood and are more likely than the general population to be victimized in adulthood (Briere, 2012; Chessen, Comtois, & Landes, 2011).

Child abuse and neglect produce significant, sometimes lasting, psychological maladjustment (Briere, 2012). Childhood abuse impacts individual's emotions, development, and behaviors (van der Kolk, 2005). One type of abuse, the experience of mistreatment within a family system, can lead one, continuously, to perceive harm or threat from others and/or re-experience the events (Richardson, Coryn, Henry, Black-Pond, & Unrau, 2012). Without early intervention to address these traumatic events, children may go on to experience even more severe psychological distress in adulthood. Childhood adversity is sometimes related to psychosis in adults (Read, Fink, Rudegeair, Felitti, & Whitefield, 2008; Reiff et al., 2012). Psychosis can be a response to trauma experienced in childhood and can lead to a vicious cycle of trauma and psychosis (Putts, 2012). It has been found that clients with a history of abuse in childhood and who later develop a psychotic disorder may have difficulty identifying the connection between their childhood trauma and the current psychotic disorder (Mueser et al., 2010; Putts, 2012). Childhood maltreatment has been suggested as a risk factor for psychosis and schizophrenia in adulthood (Dvir et al., 2013). The experience of childhood abuse is also related

to higher rates of major depression, PTSD, suicidal thoughts, and dissociation related to the experience of trauma (SAMHSA, 2014). It seems possible that the identification and treatment of trauma early in the individual's life could possibly reduce the symptoms experienced by individuals who later develop SMIs. This would also necessitate ongoing efforts to reduce the stigma related to mental health service-seeking. Efforts to increase awareness of the long-term effects of trauma could lead to an increase in individuals seeking therapeutic services earlier in their lives. This, in turn, may lead to a reduction or a buffering effect regarding the severity and difficulties experienced with SMI issues.

Trauma histories frequently impact the therapeutic treatment in adulthood. Individuals with childhood trauma histories often do not want to seek or to engage in therapeutic services (Bowie, 2013). Further, individuals who have experienced childhood hardships tend to be suspicious and vigilant in order to protect themselves from further trauma. Forming healthy relationships become difficult and violence often becomes prevalent in the lives of individuals who have suffered childhood trauma (Bowie, 2013). Mental health professionals need to have an understanding that their clients' presentations may be the result of such experiences and therefore, not label the clients as "difficult" or "resistant." It should be a working hypothesis for mental health professionals that these individuals may have experienced a trauma at some time in their lives and may find it difficult to trust the professional.

Interpersonal trauma. Interpersonal trauma refers to events that happen between people who are familiar with each other, such as parents and children or spouses (SAMHSA, 2014). Interpersonal trauma includes various types of physical, sexual, and/or emotional abuse. Individuals diagnosed with SMIs often have a history of interpersonal trauma that they experienced at some point in their lives (Spitzer, Vogel, Barnow, Freyberger, & Grabe, 2007).

Research indicates that that 48 percent to 81 percent of individuals diagnosed with SMIs have experienced physical or sexual interpersonal violence (Hutchings & Dutton, 1993; Zanville & Cattaneo, 2009). It is important to note that negative experiences with interpersonal relationships can lead to a pattern of interpersonal difficulties throughout one's life. These difficulties may also spread into the relationship between the mental health professional and client.

Physical abuse. Physical abuse has been defined as the action of causing or attempting to cause one physical pain or injury (Goodman, Rosenberg, Mueser, & Drake, 1997). Forms of physical abuse may include kicking, biting, punching, burning, beating, or harming one in other ways (Goodman, Rosenberg, Mueser, & Drake, 1997). A history of physical abuse is often common for individuals who later develop SMIs. Further, experience of a physical trauma has been associated with re-traumatization over the course of the lives of clients with SMIs (Mueser et al., 2002). The prevalence of physical abuse in this population ranges from 11.4 percent to 26.4 percent (Shi, 2013). In most studies, physical abuse is often reported along with sexual abuse, especially in childhood. It appears that these events experienced in childhood have severe effects on one's later mental health and the development of various disorders.

Sexual abuse. Sexual abuse is defined as forceful, inappropriate touching of breasts or genitals or forced intercourse (Goodman et al., 1997). Sexual abuse could be in the form of rape or sexual assault. Rape is defined as "nonconsensual oral, anal, or vaginal sexual penetration of a child, adolescent, or adult through the use of threat of physical force, or when the victim is incapable of giving consent" (Briere, 2012, p.7). Sexual assault is defined as any forced sexual contact short of rape; however, some establishments consider sexual assault to include rape (Briere, 2012). Research into sexual abuse in the SMI population has been conducted largely

with women. In one study evaluating interpersonal traumas experienced by those with SMIs, sexual abuse was found to be reported an average of 37 percent of the time (Mauritz, Goossens, Draijer, & Achterberg, 2012). Individuals with SMIs who have experienced either physical or sexual abuse, compared with individuals without a SMI diagnosis, tend to experience more severe symptoms, such as hallucinations, delusions, depression, suicidal thoughts and attempts, anxiety, interpersonal sensitivity, somatization, hostility, and dissociation (Briere et al., 1997; Mueser et al., 2002; Muenzenmaier et al., 1993).

Emotional abuse. Emotional and psychological abuse can involve isolated incidents, as well as a pattern of failure over time on the part of a one's support system to provide a developmentally appropriate and supportive environment (Norman et al., 2012). Acts in this category may have a high probability of damaging an individual's physical or mental health, or his/her physical, mental, spiritual, moral or social development. Abuse of this type includes the following: the restriction of movement, patterns of belittling, blaming, threatening, frightening, discriminating against, or ridiculing; and other non-physical forms of rejection or hostile treatment (Norman et al., 2012). Emotional abuse experienced as a child, has been found to be the strongest predictor of trauma symptoms in adulthood (Shi, 2013).

Combat trauma. Combat trauma involves a wide range of traumatic and violent behaviors, including physical injury, threat of death, witnessing death or injury of others, and the possibility of killing or injuring others (Briere, 2012). Further, trauma related to combat may include witnessing multi-causality incidents, ambushes, encountering improvised explosive devices, and excessive violence (Kelly, Boyd, Valente, & Czekanski, 2014). Further, men and women in the military may become victims of military sexual trauma (MST). Women often experience higher rates of MST, including sexual assault (21 to 25 percent) and sexual

harassment (24 to 60 percent) (Kelly et al., 2014). In addition to experiencing trauma, veterans may have predisposing SMIs. It is possible that SMI symptoms may not become apparent until after combat trauma is experienced (Elbogen et al., 2008).

Research on the effects of combat on soldiers with SMIs is sparse. Individuals with SMIs and/or any type of acute SMI may screen out of joining the military. However, younger recruits that have not experienced significant mental health problems, but are predisposed to mental health problems might be at high-risk for the development of serious trauma symptoms following combat. One study found that the impact of trauma experienced in relation to combat exacerbated symptoms of SMIs, possibly carrying the highest risk for long-term mental health consequences in this population (Jovanovic et al., 2010). Veterans diagnosed with SMIs have also been found to have violence risk factors, which include earlier age of onset of mental disorders, treatment nonadherence, active psychotic symptoms, and a recent history of homelessness (Elbogen et al., 2008; Swanson et al., 2002). These risk factors should be considered during the course of treatment in order to provide veterans with more effective care both for SMIs and for trauma.

Continuum of trauma. Trauma, which may include one event to multiple events, affects every individual differently. There are different trauma symptoms, experiences, and presentations that each individual may display. Reactions to trauma can vary from temporary and acute to severe, prolonged, and enduring (SAMHSA, 2014). Furthermore, the impact of trauma may last a few hours to a few days, or it can be more pervasive and last months to years. Therefore, it is important to look at trauma and trauma disorders as part of a continuum of experiences.

Trauma can affect an individual's emotional, physical, cognitive, behavioral, and existential symptoms. Emotionally, individuals can experience a range of reactions. For example, helplessness, emotional numbness, sadness, and anger are reactions that individuals often face immediately after being exposed to a traumatic event. Delayed emotional reactions can include depression, shame, mood swings, and emotional detachment (SAMHSA, 2014). Physical reactions to a traumatic experience can include nausea, fainting, and depersonalization (SAMHSA, 2014). Also, more severe physical symptoms, such as somatization and hyperarousal symptoms may develop (Grubaugh et al., 2011). Cognitive responses to trauma can include distorted thinking, difficulty with concentration, and rumination or racing thoughts can occur immediately after an event. Delayed cognitive responses can include self-blame, generalizing triggers, and suicidal thoughts (SAMHSA, 2014). Avoidance, difficulty sleeping, and a startle response are physical reactions to trauma. Overall, there are many reactions that one can experience either immediately after a traumatic event, or later after some time has lapsed following the occurrence of the event. In addition to these various reactions, there are several trauma-related disorders that can develop.

Trauma-related disorders include Acute Stress Disorder (ASD) and Posttraumatic Stress Disorder (PTSD). ASD occurs after the exposure to a traumatic event and symptoms usually last 3 days to 1 month (*DSM-5*, APA, 2013). ASD is distinguished from PTSD because it occurs within 4 weeks of the trauma and does not last more than 4 weeks. Symptoms of ASD can include intrusive symptoms of distressing memories or dreams; negative mood, such as irritability; dissociative symptoms, which refers to an altered sense of reality about oneself or one's surroundings and difficulty remembering different aspects of the trauma; avoidance symptoms; and arousal symptoms, such as sleep difficulties and problems with concentration

(*DSM-5*, APA, 2013). Although ASD occurs when an individual has experienced a traumatic event and feels overwhelmed by the event, which is similar to PTSD, these symptoms do not last long. If reactions to a traumatic event occur past 4 weeks then PTSD should be considered.

PTSD is the most commonly reported trauma-related disorder (SAMHSHA, 2014). Similar to ASD, PTSD can develop after the experience of a traumatic event. Symptoms of PTSD include intrusive symptoms, avoidance of stimuli related to trauma, negative alterations in mood and cognitions, and alterations in reactivity and arousal (*DSM-5*, APA, 2013). These symptoms may be present shortly after the experience of a trauma, but an individual may not experience any symptoms for months or years after the traumatic event occurs (SAMHSHA, 2014). Considering this delay of trauma responses, clinicians should create a safe environment that allows the client to explore his or her traumatic experiences and become educated about trauma. Overall, there are many reactions one can have after a traumatic event. These reactions can be acute or pervasive. Those diagnosed with SMIs who have experienced a traumatic event will also present with varying symptoms related to trauma. Therefore, it is helpful for clinicians to be aware of the various trauma reactions that can present during the treatment of SMIs so that trauma can be better identified and treatment can be more effective.

Comorbidity of SMIs and Trauma.

People with SMIs tend to experience rates of trauma that are higher than those in the general population (Mueser et al., 1998; Mueser et al., 2008; O'hare & Sherrer, 2009). The comorbidity prevalence of trauma and PTSD in SMI populations ranges from 19% to 43% (Mueser et al., 1998; Subica, Claypoole, & Wylie, 2012). Those diagnosed with SMIs are more likely than the general population to develop PTSD after experiencing a traumatic event (Mueser et al., 2002). Considering the high comorbidity rates, mental health professionals are often faced

with the task of treating both SMI symptoms and trauma symptoms simultaneously.

Unfortunately, research has found that mental health professionals are experiencing difficulties addressing all of these factors, especially trauma, when treating clients with these comorbid diagnoses (Mueser et al, 1998; Mueser et al., 2002). These difficulties that have been reported by mental health professionals in treating clients are due to an overlap in symptomology between various SMIs and trauma, a lack of trauma assessment, a lack of awareness regarding how trauma impacts SMI symptoms, and various barriers to treatment, such as stigma that can affect treatment adherence (Mueser et al., 2002). Therefore, it is imperative that mental health professionals receive training to be able to provide treatment more effectively for this population.

Presentation of symptoms. Symptoms of trauma or trauma-related disorders and various SMI disorders often can overlap or mirror each other (Mueser et al., 2002). Individuals with comorbid trauma and SMI diagnoses often experience poor quality of life or greater illness severity, increased substance abuse and dependence, greater dissociation, and poor cognitive functioning related to attention and memory (Grubaugh et al., 2011). This population is more likely to have transient living conditions and/or be homeless, report more psychosocial problems including negative self-perceptions, and experience alienation. These individuals also present with inexplicable somatic symptoms and general hypochondriasis, have higher disability ratings, can experience high rates of criticism from others, present with delusional or paranoid hostility, and distorted perceptions about illness (Grubaugh et al., 2011).

In addition to similarities or overlaps in symptomology, trauma and SMIs can have bidirectional effects on each other. These effects include social difficulties, vulnerability and higher rates of re-traumatization, substance use, and hypervigilance symptoms (Mueser et al., 2002).

Social difficulties experienced in the SMI population can include social isolation, which can be exacerbated by the presence of a trauma history, and lack of social supports (Mueser et al., 2002). These social difficulties can lead to higher hospital utilizations (Avison & Speechley, 1987). An increase in hospitalizations may be due to a misinterpretation of physical symptoms or possibly may be due to the fact that hospitalization gives people a chance to be in a social environment. Also, symptom relapse can occur due to the lack of opportunities for this population to check in with people around them regarding positive symptoms, such as hallucinations and delusions (Mueser et al., 2002).

Those with comorbid trauma and SMIs may also be characterized as an especially vulnerable population, known to experience re-traumatization more often than those without a SMI diagnosis (Mueser et al., 2002). The diathesis-stress model explains the mutually reinforcing patterns between trauma and SMIs. Clients diagnosed with PTSD or clients who have experienced trauma tend to re-experience flashbacks and/or nightmares (*DSM-5*, APA, 2013). The experience of flashbacks may be misinterpreted, or overlap with the experience of hallucinations. One study of individuals with schizophrenia who had at least one traumatic event in their lives, found that there was a relationship between the content of the person's positive symptoms and the content of past trauma (Lommen & Restifo, 2009). This indicates that hallucinations are not necessarily random or meaningless, but that their content can be a manifestation of actual past experiences. Furthermore, when experiencing re-traumatization, individuals diagnosed with SMIs may find it difficult to recognize environmental threats, which may put them at risk to re-experience past traumas or additional types of trauma (Kammerer & Mazelis, 2006).

A third effect that can occur between trauma and SMI symptoms is the overutilization of drugs and alcohol. Clients who have experienced trauma sometimes use substances to cope with trauma. Furthermore, individuals diagnosed with SMIs have been found to have a higher prevalence of substance use (Mueser et al., 1990). From these reports of substance use in each population it can be concluded that individuals with comorbid SMIs and trauma may have even higher rates of substance use. It is important to consider substance abuse when treating this comorbid population because the presence of a substance may distort presenting symptoms.

Finally, a fourth common effect that trauma can have on SMI symptoms is the experience of hypervigilance, including anxiety, feeling on edge, or paranoia (*DSM-5*, APA, 2013). Hypervigilance symptoms may exacerbate negative SMI symptoms in a number of ways. A foreshortened sense of the future may lead to retraumatization because individuals do not have the ability to prevent or anticipate negative events (Mueser et al., 2002). Without the ability to anticipate future events, such as events that could be traumatizing, individuals may re-experience traumas, which often lead to a vicious cycle of experiences and symptomology. Over arousal symptoms experienced by SMI clients has been linked to worse treatment prognosis (Mueser et al., 2002). Overall, co-morbid SMIs and trauma symptoms can have detrimental effects for individuals if these are not identified, understood, and effectively addressed in treatment.

Conceptualizing trauma in clients with SMIs. The relationship between SMIs and trauma can have significant implications for change in the treatment process provided by mental health professionals. Furthermore, understanding the effects that trauma can have on the presentation of symptoms and on the prognosis for a SMI diagnosis is paramount to understanding this population. In order to treat this population effectively, mental health professionals must increase their awareness regarding the relationship between trauma and SMIs.

Conceptual models for explaining the relationship between SMIs and trauma were lacking until Mueser's research on the interaction between these mental health disorders. Mueser's model is an extension of the diathesis-stress model. This model proposes that PTSD or trauma influences psychiatric symptoms both directly and indirectly (Mueser et al., 2002). PTSD often serves as a mediating role for the negative effects of trauma on SMIs. For example, PTSD has been associated with generally low self-esteem, impaired interpersonal skills, and pervasive feelings of shame, which can lead to social conflicts and isolation (Cresswell, Kuipers, & Power, 1992; Macias et al., 2000). PTSD influences the course of SMIs, both directly by worsening psychiatric symptoms and indirectly through retraumatization, substance abuse, and interpersonal problems (Mueser et al., 2002). The influence of trauma or PTSD is an important factor to consider during the course of treatment for those with SMIs because of the various effects of trauma experienced by the individual. Understanding trauma may allow the mental health professional to better understand thoughts and/or behaviors exhibited by the client and therefore also may result in better working alliances (Mueser et al., 2008).

Barriers to treatment. Research has shown that trauma is clearly related to increased negative treatment outcomes in persons with SMIs (Mueser et al., 1998). However, although individuals may seek treatment, research has indicated that they often do not receive adequate treatment (Mueser et al., 1998; Mueser et al., 2008). There are many barriers experienced by individuals diagnosed with SMIs during their recovery; these can include lack of awareness about the presence of, or existence of trauma, agency restrictions, interactions between provider and client, and other challenges related to mental health professionals' knowledge and experience.

Trauma and PTSD remain largely untreated among individuals with SMIs (Frueh, Grubaugh, Cusack, & Elhai, 2009). One major explanation why trauma is often overlooked is related to assessment and documentation by mental health providers (Mueser et al., 1998; Macias et al.; 2000). A lack of recognition and treatment of trauma or trauma symptoms may weaken the effectiveness of services provided to clients seeking treatment (Switzer et al., 1999). The overlap of symptoms has been found to be associated with a lack of documentation and underestimation of trauma and PTSD within mental health treatment populations (Macias et al., 2000). For example, studies have shown underreporting of serious trauma in routine psychiatric settings because mental health professionals often fail to inquire about and detect traumatic experiences (Al-Saffar, Borga, Lawoko, Edman, & Hallstrom, 2003; Lipschitz et al., 1996). Davidson and Smith (1990) found that in a sample of newly referred clients, 82 percent of those individuals had been exposed to at least one lifetime traumatic event and that 31 percent exhibited some prior or current symptomatic evidence of PTSD; however, a PTSD diagnosis was never given as a reason for referral. Studies like these clearly indicate that trauma and PTSD are experienced by more individuals than what is indicated and documented their charts. With these concerns in mind, mental health professionals should have better access to information about trauma and SMIs. In order to increase recognition of trauma and PTSD in clients diagnosed with SMIs, mental health professionals should use assessment and treatment protocols focusing on PTSD and trauma, and also monitor and integrate treatment of comorbid disorders (Subuca et al., 2012).

Another explanation for the underdiagnosis of PTSD is related to the agencies where individuals seek treatment. One reason for this underdiagnosis may be a lack of funding. Many community mental health clinics are not reimbursed for primary diagnoses of PTSD because it is

not considered to be SMI (Zanville & Cattaneo, 2009). With this barrier in mind, mental health professionals are not able to focus fully on trauma or are not addressing the experience of trauma with individuals diagnosed with SMIs.

Another reason for the poor recognition of trauma in individuals with SMIs is that many mental health professionals have been cautious to focus on traumatic experiences in the populations with SMIs because they believe that this may be harmful to their clients by causing further distress, re-traumatization, or impairment (Mauritz et al., 2012). A further problem for providers is the minimal investigation of standard trauma treatments among the SMI population (Chessen et al., 2011). Often clients will not report traumatic events that they have experienced unless they are specifically asked about those events in a non-judgmental, supportive context (Briere, 2012). In turn, many mental health professionals have reported having little or no training about how to bring up, discuss, and treat trauma effectively in this population (Chessen et al., 2011). Regardless of a strong therapeutic alliance, it seems that without proper training in the identification and assessment of trauma, the impact of trauma on individuals' lives and on their recovery continues to be neglected during the course of treatment. One way that agencies and providers can appropriately approach these challenges would be through the implementation of TIC.

Trauma-informed care and the recovery model.

Recovery is an important concept in the treatment of individuals who have been diagnosed with SMIs. Recovery can be defined as an active process of integrating mental health care with daily existence, creating a purposeful life regardless of diagnosis. SAMHSA has identified a working definition of recovery, which identifies recovery as a progression of change

through which individuals live a self-directed life, improve their health and wellness, and strive to reach their full potential (SAMHSA, 2011).

Recovery has been described as a dynamic, strengths-based, and individualized process that is guided by the individual and the mental health system (Scheyett, DeLuca, & Morgan, 2013). The goal of recovery is to generate a meaningful life of empowerment and dignity in which the individual defines his or her personal life choices and options and works toward a worthwhile and vital existence, regardless of symptomology or setbacks (Scheyett et al., 2013). Four dimensions of recovery have been identified; these include *health*, or the ability to overcome and manage ones' disease and live in an emotionally and physically healthy manner; *home*, including finding a safe and stable place to live; *purpose*, which includes the ability to engage in meaningful daily activities; and *community*, which includes relationships and social networks that provide the individual with support, friendship, hope, and love (SAMHSA, 2014). There are also several key concepts that are important to the recovery movement. These concepts are empowerment, self-determination, and the importance of the individual wellness experience (Scheyett et al., 2013).

Trauma-Informed Care (TIC) is an approach, similar to recovery, which allows both the mental health professional and the client to address the impact and treatment of trauma for individuals with SMIs. Individuals who do not adequately address the role that trauma has played in their lives are often less likely to experience recovery from SMIs in the long-run (SAMHSA, 2014). Therefore, adopting a TIC approach to treatment is imperative in providing recovery-oriented services for individuals in this population.

Trauma-Informed Approach.

Many individuals who seek mental health services have a history of trauma; however, the significant effects of trauma in one's life are often overlooked. Both patients and mental health professionals may overlook the impact of trauma in a client's life for various reasons. Clients may not connect their trauma history with current presenting problems or they may engage in avoidance regarding the topic of trauma. Mental health professionals may avoid questions that elicit a client's trauma history, feel unprepared to address trauma concerns, or may find it difficult to address trauma sufficiently due to agency constraints (SAMHSA, 2014). However, with awareness and training in the TIC approach, mental health professionals can potentially provide a safe environment for clients who have struggled with traumatic experiences.

Definition of trauma-informed care. TIC refers to a treatment approach that addresses a philosophical and cultural level of awareness to the impact of trauma (Hopper et al., 2010). TIC is a strengths-based service delivery approach “grounded in an understanding of and responsiveness to the impact of trauma, and emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment” (Hopper et al., 2010, p.82). It also involves mental health professionals becoming mindful of institutional processes and individual practices that could possibly retraumatize individuals who already have histories of trauma (NCTIC, 2008). Trauma-informed services are not designed to treat specific diagnoses or symptoms related to trauma (NCTIC, 2008). TIC involves anticipating, understanding, and responding to expectations, issues, and special needs that victims of trauma may have experienced (Hopper et al., 2010).

Goals of TIC include decreasing symptoms experienced after a traumatic event and facilitating recovery, as well as avoiding harm and retraumatization to clients (Hopper et al., 2010). To provide adequate trauma-informed services, all members of an organization including

the receptionist, to the direct care workers, to the board of directors should understand how violence impacts the lives of the individuals being served, so that every interaction coincides with the recovery process and decreases the possibility of retraumatization (Elliot, Bjelajac, Falot, Markoff, & Reed, 2005). Failure to understand the impact of trauma in a client's life is comparable to denying the existence of and significance of trauma in the individual's life (Elliot et al., 2005). An organization, in order to adopt a TIC approach, may be required to make a paradigm shift. Further, those in an administrative position have to be committed to the integration of knowledge about violence and abuse into the service delivery practices of the agency (Elliot et al., 2005).

Trauma-Informed philosophy and principles. TIC is an organizational and intervention approach that aims to understand how trauma affects an individual's life, including his and her response to mental health services from prevention through treatment (SAMHSA, 2014). The three key elements of TIC are: (1) becoming aware of the prevalence of trauma, (2) recognizing how trauma affects all individuals involved with the program, organization, or system, and (3) responding by putting knowledge into practice (SAMHSA, 2012).

Further, there are four components to TIC, which include: (1) developing trauma-awareness, (2) creating safety, (3) rebuilding control, and (4) working from a strengths-based approach. These themes can aid mental health professionals in their treatment of individuals struggling with the impact of trauma. Trauma-awareness includes altering the perspectives of mental health professionals, as well as improving their understanding of client symptoms and behaviors. To help mental health professionals make these alterations, staff training, consultation, and supervision may be beneficial (Hopper et al., 2010). Clients who have experienced one or more traumatic events in their lives may feel unsafe or may actually be in

danger, depending on the type of trauma they have or are experiencing. Therefore, creating a physical and emotional safe environment for clients can decrease individuals from perceiving that they are in danger (Hopper et al, 2010). TIC also aims to provide clients with opportunities to build control in their environment. Whether the individual being treated is homeless or feeling disempowered, the TIC approach aims to increase the person's control of his or her situation. Finally, TIC is a strength-based approach that focuses on individual strengths and the development of coping skills, instead of focusing on deficits and symptoms. Overall, TIC follows the ethical principle of doing no harm to the individuals served by mental health professionals (SAMHSA, 2014).

In addition to the overarching themes of TIC, there are ten principles underlying trauma-informed services. When these principles are implemented and an organization is taking a trauma-informed approach, then services will be more effective and more accessible to trauma survivors (Elliot et al., 2005). The principles of TIC are:

Principle 1: Trauma-informed services recognize the impact of violence and victimization on development and coping strategies

Principle 2: Trauma-informed services identify recovery from trauma as a primary goal

Principle 3: Trauma-informed services employ an empowerment model

Principle 4: Trauma-informed services strive to maximize a woman's choices and control over her recovery

Principle 5: Trauma-informed services are based in a relational collaboration

Principle 6: Trauma-informed services create an atmosphere that is respectful of survivors' needs for safety, respect, and acceptance

Principle 7: Trauma-informed services emphasize women's strengths, highlighting adaptations over symptoms, and resilience over pathology

Principle 8: The goal of trauma-informed services is to minimize the possibilities of retraumatization

Principle 9: Trauma-informed services strive to be culturally competent and to understand each woman in the context of her life experiences and cultural background

Principle 10: Trauma-informed agencies solicit consumer input and involve consumers in designing and evaluating services (Elliot et al., 2005).

Benefits of Trauma-Informed approach to treatment. The integration of TIC into behavioral health services can lead to many benefits for clients, their families and communities, for behavioral health service organizations, and for staff (SAMHSA, 2014).

When an individual is struggling with SMIs, he or she often experiences difficulties in his or her social interactions, and trauma can increase these struggles. TIC services create awareness about trauma's pervasive influence on one's well-being (SAMHSA, 2014). Working from this approach has been found to increase therapeutic alliances and improve treatment outcomes for those diagnosed with SMIs (O'Hare & Sherrer, 2009). Creating a positive working alliance between mental health professionals and their clients can lead to reduction in high risk behaviors, increased perceived support, and can allow clients to experience an empathic trusting relationship (Mueser et al., 2002; O'Hare & Sherrer, 2009). Considering the lack of support systems that many individuals with SMIs often face, mental health professionals are often the sole providers of emotional support (O'Hare & Sherrer, 2009). Another important benefit of the TIC approach is an increase in communication between clients and providers, which can prevent misunderstandings regarding the presentation or history of trauma (SAMHSA, 2014). TIC also

emphasizes treating the client's individual's experiences instead of applying general treatment approaches (SAMHSA, 2014).

A co-morbid SMI and trauma diagnosis affects not only the individual, but also families and support systems as well. Individuals with SMIs may live at home under the care of family members due to various barriers to living independently. There are several concerns related to family members acting as caregivers to their loved ones who struggle with SMIs, including the experience of burden, significant stress, and receiving little or no assistance from mental health professionals (Saunders, 2003). Considering the benefits of TIC for individuals and mental health professionals, families and support systems may also benefit from knowledge about TIC in order to provide safe and helpful environments for their family members, as well as to decrease their own distress related to their role as caregivers.

Mental health professionals working directly with clients, as well as support staff that comes into contact with clients on a daily basis can benefit a great deal from the implementation of TIC. Trauma-informed services can lead to improved screening and assessment processes, better treatment planning, and placement (SAMHSA, 2014).

Organizations benefit from implementing a TIC approach because it may lead to providing more cost effective services by effectively addressing trauma and decreasing unnecessary service utilization. TIC is a critical component in organizational risk management, because it strengthens the commitment to the implementation of decisions that will enhance therapeutic outcomes and reduce adverse effects on the client and, ultimately the organization (SAMHSA, 2014).

Empirical evidence for Trauma-Informed care. There are many reasons for the mental health community to advocate for trauma-informed service approaches. These reasons

include the pervasive presence of trauma and the impact of trauma on clients' lives, as well as the impact of trauma on mental health professionals who may experience secondary traumatization through hearing about their clients' trauma histories (Fallot & Harris, 2009).

Studies have revealed a strong association between subsequent mental health disorders and trauma exposure (Clark & Power, 2005; Mueser et al., 1998). Two influential studies with regard to development of TIC are the Adverse Childhood Experience (ACE) Study and The Women, Co-Occurring Disorders and Violence Study (WCDVS).

The ACE study, involving over 17,000 individuals in the United States, is the largest study that has assessed the association between childhood maltreatment and later-life well-being, health risks, healthcare costs, and life expectancy. (Bloom, 2008; Rosenberg, 2011). This study provides a recognized connection between childhood exposure to violence and other traumatic experiences and later physical disorders, psychiatric disorders, and substance abuse (Bloom, 2008). (SAMHSA, 2014). Further, this study provides solid evidence that mental health professionals need to pay attention to the role that traumatic experiences play in their clients' lives, as well as the need for trauma-informed interventions and staff (Bloom, 2008).

A second study, WCDVS, focused on the interrelatedness of trauma, violence, and co-occurring substance use and mental disorders; the role of interpersonal and other traumatic stressors among women; and the incorporation of trauma-informed and trauma-specific principles, models, and services (SAMHSA, 2014). Initiated by SAMHSA, this study aimed to increase knowledge about effective approaches for helping women with substance abuse, histories of trauma, and mental illness (Clark & Power, 2005). This study emphasized the idea that a trauma-informed approach and knowledge about the impact of trauma on women with

mental health disorders and substance abuse may lead to more effective treatment (Clark & Power, 2005).

Evidence from these studies indicates that the use of TIC and the integration of substance abuse treatment, mental health treatment, and attention to trauma, simultaneously, can lead to improved outcomes among this comorbid population (Clark & Power, 2005). A TIC approach can be implemented by mental health professionals who have an understanding of trauma and the consequences of trauma in the lives of individuals diagnosed with SMIs. Considering the findings of the ACE study and WCDVS, it can be hypothesized that training in TIC can lead to a better understanding of clients by mental health professionals, and to more effective outcomes for individuals who have experienced the impact of trauma in their lives.

Training in Trauma-Informed Approaches. Trauma-informed training programs have been created and are evolving; however, not all mental health professionals who attend these programs are utilizing the information in their daily practices (Greenwald et al, 2008). TIC training should include all employees, including administration and support staff members (SAMHSA, 2014). The necessity for comprehensive and effective graduate training programs is significant, considering that traumatized individuals do not get the care they need in the immediate post-event context, during weeks and months later, or even across the life span after experiencing a trauma (Kessler, Sonnega, Bromet, Hughes, & Nelson 1995; Litz & Salters-Pendneault, 2008).

More recently, attention has been paid to trauma-informed interventions during training programs in agencies; however, training on trauma-informed case formulation and treatment planning is often neglected (Greenwald et al., 2008). It is important for mental health professionals to be sensitive to a range of possible responses that suggests trauma during the

assessment process, so that the professional can recognize possible trauma and provide the individual with safety during the treatment process (Courtois, 2008). Some symptoms will be obvious; others are subtle and seem to overlap with symptoms of other disorder, especially SMI disorders. Unfortunately, many mental health professionals are not trained to recognize specific symptoms and can miss them during assessment and treatment (Courtois, 2008). Providing information on case formulation and treatment planning during trauma-informed trainings would likely create an impact on a client's success in treatment (Greenwald et al., 2008). Further, mental health professionals working with clients diagnosed with SMIs who have experienced trauma may have problems with treatment engagement. Therefore, it seems that a better understanding of case conceptualization and treatment planning under a TIC approach will be especially beneficial with this population.

There are several TIC topics that all mental health professionals should learn about in trainings. These topics include: (a) screening and assessment of substance abuse and trauma-related disorders, (b) the relationships among trauma, substance use disorders, and mental disorders, (c) how to understand difficult client behaviors through a trauma-informed lens, (d) how to avoid retraumatizing clients in a clinical setting, (e) the development of personal and professional boundaries unique to clinical work with traumatized clients, (f) how to identify the signs of secondary traumatization in themselves, and (g) how to develop a comprehensive personal and professional self-care plan to prevent and/or ameliorate effects of secondary trauma in the workplace. Further, all clinical staff should receive additional training in promising practices and evidence-based treatments of trauma (SAMHSA, 2014).

Trauma-specific evidence-based interventions. Treatment programs and interventions that have been designed for trauma survivors consistently support the needs of the clients, which

include the need for information, respect, connection, and hope, the recognition that symptoms are adaptive, and the need to work collaboratively to empower the clients (NCTIC, 2008). TIC supports the use of Trauma-Specific Services (TSS), which includes interventions that have been designed to address the impact of trauma directly, facilitate recovery, and decrease symptoms (Hopper et al., 2010; Falot & Harris, 2002). TSS may be incorporated into a TIC program or as a separate service.

Therapy specifically aimed to stimulate hope, self-determination, self-efficacy, and empowerment can greatly enhance the recovery process for individuals with a trauma history (LeVine, 2012; Lysaker, Lancaster, & Lysaker, 2003). Evidence-based interventions can include cognitive-behavioral strategies to manage positive symptoms, supportive employment, assertive community treatment, family based services, skills training, psychosocial intervention for alcohol and substance use disorders, token economy, and psychosocial interventions for weight management (Dixon et al., 2010; LeVine, 2012). Furthermore, there are several evidence-based models that have been specifically created for the treatment of comorbid SMIs and trauma.

Trauma recovery and empowerment model (TREM). Trauma Recovery and Empowerment Model (TREM) was developed by Dr. Maxine Harris and the Community Connections Trauma Work Group to address long-term emotional, cognitive, and interpersonal consequences of physical and sexual abuse. TREM is a group intervention that was created specifically for women who have survived trauma and who also have been diagnosed with SMIs (Falot & Harris, 2002). This intervention combines elements of recovery skills, cognitive-behavioral techniques, and psychoeducation (NCTIC, 2008). Further, TREM emphasizes peer support, which has been found to be highly effective in working with trauma survivors (NCTIC, 2008). There are four core assumptions to trauma recovery involved in the TREM approach.

The four core assumptions are: (1) some current dysfunctional behaviors and/or symptoms may have originated as legitimate coping responses to trauma, (2) women who have experienced repeated trauma in childhood were deprived of the opportunity to develop certain skills necessary for adult coping (3) traumatic events, specifically sexual and physical abuse, sever core connections to one's family, one's community, and ultimately to one's self, and (4) women who have been repeatedly abused feel powerless and unable to advocate for themselves.

TREM emphasizes the development of recovery skills. In addition to the four core assumptions, eleven areas of skill development essential to recovery from the impact of prolonged trauma have been identified (Fallot & Harris, 2002). These skills include self-awareness, self-protection, self-soothing, relational mutuality, accurate labeling of self and others, sense of agency and initiative taking, consistent problem-solving, reliable parenting, possession of a sense of purpose and meaning, and judgment and decision-making (Fallot & Harris, 2002).

TREM studies have focused on consumer satisfaction, retention of participants, effectiveness, and fidelity of implementation. Thus far, this intervention has shown very high intervention retention rates, over 70%, as well as high consumer satisfaction rate, over 90% (NCTIC, 2008). Further, in addition to the decreasing symptoms related to trauma, implementing TREM has also found to decrease high-risk behaviors and reduce intensive services, such as hospitalizations (NCTIC, 2008).

Seeking Safety. Seeking Safety was developed by Dr. Lisa M. Najavits, with the intention to provide clients with a greater sense of safety in their lives (NCTIC, 2008). Seeking Safety is focused in the present and is designed to be hopeful and inspiring (NCTIC, 2008). This intervention aims to aid in the recovery of individuals who have experienced trauma, PTSD and

substance abuse (SAMHSA, 2014). There are five principles to Seeking Safety that have been identified. These principles include: (1) safety, (2) integrated treatment, (3) a focus on ideals, (4) includes four content areas: cognitive, behavioral, interpersonal, and case management, and (5) attention to clinician processes.

Seeking Safety has been the most frequently, empirically studied TIC treatment model known thus far (NCTIC, 2008). Results from the four randomized controlled trials, seven pilot studies, one controlled nonrandomized trial, two multisite controlled trials, and one dissemination study have consistently shown encouraging outcomes on the decrease of trauma symptoms, substance abuse, and other domains (e.g., social functioning and problem solving) and has consistently outperformed treatment as usual (NCTIC, 2008). Further, Seeking Safety has shown results equivalent to the gold-standard treatment, relapse prevention, as well as consistent high satisfaction both from clients and from mental health professionals (NCTIC, 2008).

Trauma affect regulation: Guide for education and therapy (TARGET). TARGET, developed by Dr. Julian Ford (NCTIC, 2008) utilizes a seven-step psychoeducational skills approach emphasizing FREEDOM: Focus, Recognize triggers, Emotion self-check, Evaluate thoughts, Define goals, Options, and Make a contribution (NCTIC, 2008). This treatment was specifically designed to treat comorbid SMIs and PTSD (Zanville & Cattaneo, 2009). TARGET provides a practical skill set that can be used by trauma survivors and their families to de-escalate and regulate extreme emotional states in order to manage intrusive trauma memories in daily life, and to restore the capacity for information processing and autobiographical memory (NCTIC, 2008). TARGET has been evaluated in private, nonprofit community mental health and addiction treatment settings, as well as in the public sector, and has been found to be a

beneficial approach to treating trauma (NCTIC, 2008). Results from three randomized clinical trial studies and one two-year field trial have found TARGET to be superior to Social Problem-Solving Therapy. Further, research found improvements in emotion regulation, PTSD symptoms, and remission from PTSD symptoms (NCTIC, 2008).

Additional considerations for treating SMIs and trauma. In addition to evidence-based interventions for individuals diagnosed with SMIs who have experienced trauma, there are other treatment factors that should be considered. For example, many adults with SMIs experience significant transportation barriers, substance abuse, disorganization, and medical illnesses, impaired cognitive functioning, and burdens from healthcare needs (Grubaugh et al., 2011). Interventions may need to include strategies to overcome these barriers in order to improve treatment retention and adherence with this population. Examples of interventions for these barriers include transportation assistance and contingency management (Grubaugh et al., 2011). With this in mind, although interventions or treatment approaches have been created, there remain numerous barriers to overcome in order to provide adequate treatment for this population. One of the biggest barriers seems to be a lack of awareness about these treatment programs and interventions.

Dissemination of Trauma-Informed Therapy.

Most research on the treatment for trauma and PTSD has been conducted in general populations. The treatment of trauma with the SMI population has been less researched due to concerns about the clinical fragility of those diagnosed with SMIs (Lu et al., 2012). Training programs for TIC are available; however there is a need for dissemination of these programs. Dissemination, in this case, refers to the process of informing treatment providers of an efficacious treatment, i.e. the TIC approach to treating individuals diagnosed with SMIs. There

is still little understanding about how successful treatment of PTSD will affect recovery with the SMI population (Grubaugh et al., 2011); however, it is important for mental health professionals to be aware of the evidence-based intervention options that have been created specifically for this comorbid population.

In addition to the dissemination of TIC among practicing professionals, doctoral students should receive training in these interventions as well. Doctoral students are expected to have the skills, knowledge, and attitudes to provide competent services to diverse populations (Yutrzenka & Naifeh, 2008). However, prominent trauma researchers and clinicians within multiple mental health disciplines have contended that the standard graduate training curriculum does not usually provide adequate training to prepare students to work therapeutically with individuals with complex trauma-related symptom presentations (Courtois & Gold, 2009; Layne et al., 2011). However, a report by the APA Division 56 Education/Training Committee Report (2007) pointed out that opportunities for trauma training are becoming increasingly available in the psychology curriculum in the form of specialized tracks, externships, and internships, but many reflect the interests of one or more faculty members and are not generally embedded in the core curriculum in the manner that ensures continuity (Layne et al., 2011). Although competence is expected, it seems that mental health professionals are not always gaining knowledge and skills in their training programs in TIC.

Competence.

Mental health professionals should be competent in the delivery of TIC. Competency refers to groupings of skills, knowledge, attitudes, abilities, clinical judgments, and behaviors that facilitate professional activities (Hoge et al., 2007). Skills develop through clinical experiences, which could include experiences in practica and internships. Knowledge is usually

gained either in graduate school training or in additional trainings on certain topics outside of the school. Attitudes can develop, based on mental health professionals' personal experiences and trainings with various topics, populations, etc. The development of competencies in this field begins during an individual's academic training and continues into the individual's independent practice (Rodolfa et al., 2013). Having attained competency in one area of the field does not mean that mental health professionals would be competent in other areas of psychology. Therefore, mental health professionals are required to continue to participate in continuing education credits, seek out other training experiences, engage in supervision, and continue to read current literature. The inability of the profession of psychology to define, assess, and regulate competencies could put the profession at risk for failing (Rodolfa et al., 2013). Furthermore, there are ethical guidelines created by the APA that mental health professionals are mandated to follow regarding competencies.

The APA views competencies by psychologists to be an ethical imperative. The APA Code of Ethics has established two standards that directly address competency. These two standards are 2.01 Boundaries of Competence and 2.03 Maintaining Competence. Boundaries of competence refer to psychologists providing services to their clients within the boundaries of their competence (APA, 2002). This portion of the APA Ethics Code includes six sections that cover a range of ethical issues (e.g., relevant education and training, engaging in supervision, and delegation of responsibilities). Maintaining competence refers to psychologists making ongoing efforts to develop and maintain competencies (APA, 2002). The discipline of psychology is continuously expanding; this expansion can include techniques, treatment approaches, and theories. Therefore, clinicians are responsible for making efforts to learn and practice these new additions to the field. Furthermore, in order for psychologists to maintain competencies, their

knowledge, skills, and attitudes regarding various topics should be evaluated on a regular basis by the licensure board.

With these ethical considerations in mind, mental health professionals would benefit from training and assessment of their knowledge, skills, and attitudes regarding TIC. There are several identified areas of competency for professionals. These areas include: (a) characteristics and terminology of various types of trauma, (b) the impact of trauma, (c) effects of trauma in different population groups, such as mental health issues or intellectual disability groups, (d) understanding of trauma in various cultural backgrounds, (e) assessment options, approaches, and treatment tools, (f) attitudes and values regarding trauma in various behavioral health and other settings, (g) stages of and key elements of recovery, which includes understanding the process of and goals for recovery from trauma, (h) vicarious trauma, parallel process, and organizational stress, including mental health professionals' understanding how providing treatment for individuals recovering from trauma may impact their own lives, (i) trauma and youth, including how early trauma may affect brain and personality development, as well as abilities to self-regulate, and (j) trauma and delinquency, including behaviors and symptom patterns (Abrahams et al., 2010). These competencies need to be addressed, disseminated, and assessed if an agency aims to be trauma-informed. Literature and information about TIC is growing. There have been various professional organizations and agencies (e.g., APA and DBHIDS) that have endorsed the need for training on TIC in mental health facilities. Nevertheless, the dissemination of this approach seems to have received little attention. There needs to be a focus on integrating trauma-informed principles, philosophy, and services in order to provide clients with effective treatment.

This study investigated the change in knowledge, skills, and attitudes of outpatient mental health professionals regarding trauma experienced by the SMI population. A TIC training program was provided to inform participants about trauma, trauma's co-morbidity with SMIs, and evidence-based interventions that have been found to be effective in treating this co-morbidity, ; pre and post assessments of knowledge, skills and attitudes were also measured.

Chapter 3

Research Questions

This study aimed to assess changes in mental health professional's knowledge, self-perceived skills, and attitudes towards clients with SMIs after participating in training on TIC and SMIs. The following questions guided the study:

1. Will general knowledge about trauma improve after a TIC training? This was assessed by providing the Trauma-Informed Care Organizational Self-Assessment for Consumer-Run Recovery Organizations (Sections A and B).
2. Will trauma treatment self-perceived skills improve after a TIC training? This was assessed by providing the Trauma-Informed Skills Assessment.
3. Will attitudes about trauma and SMIs improve after a TIC training? This was assessed by providing the Psychiatrists View of Combat Related PTSD Questionnaire?
4. Is there a correlation between attitudes toward recovery and attitudes regarding trauma and SMIs? This was assessed by using the Recovery Self-Assessment Questionnaire, and comparing results with the Psychiatrists View of Combat Related PTSD Questionnaire.

Chapter 4

Methods

Overview.

Considering the high rates of comorbid trauma and SMI diagnoses, it is important that mental health professionals participate in trainings about trauma-informed care (TIC). Further, mental health professionals need to acquire adequate skills, knowledge, and attitudes towards a TIC methodology for those diagnosed with SMIs in order to deliver effectively, the evidence-based treatment that relieves suffering. The current study evaluated changes in mental health professional's knowledge, attitudes, and self-perceived skills after participating in a TIC for SMI training in a community outpatient facility. Approval was obtained from the Philadelphia College of Osteopathic Medicine Institutional Review Board on July 23, 2014, and study recruitment began thereafter.

Design and justification.

The current research was a pre-post repeated measures design. The research evaluated changes of knowledge, attitudes, and self-perceived skills of mental health professionals at a community outpatient site before and after receiving training about TIC for client populations diagnosed with co-occurring SMIs and trauma histories. Further, in consideration of findings that the recovery movement has been found to be a significantly positive approach to treating the SMI population, this study compared attitudes about recovery with attitudes about trauma. This design was chosen to assess the effects of the study over time, by using the same participants and same measures from pre- to post-training. Another benefit to using the repeated measures design is that it will control for factors that would normally cause variability between subjects. This

design also calls for fewer participants to be needed in the study to detect the desired effect size for statistical significance.

Participants.

Participants were outpatient mental health professionals who volunteered to participate in this study. Participants included psychiatrists, psychologists, master's level therapists, case managers, receptionists, peer specialists, and administrative staff from a community mental health agency. A power analysis was conducted using the computer program "G power," to determine the number of participants necessary to obtain 80% power and an effect size of $f^2 = .15$ in the current study. The results suggested that approximately 78 participants were needed for this study. A smaller sample size, smaller than proposed, was collected because participants did not complete pre- and post- training surveys; this will be discussed further in the limitations section.

Inclusion and exclusion criteria.

Inclusion criteria. Individuals were eligible to participate in this study if they were over the age of 18 and were employed by Central Montgomery MH/MR Center. Mental health professionals who may interact in their professional capacity with individuals diagnosed with comorbid SMIs and trauma were invited to take part in this study. Last, employees who reported speaking English, who demonstrated an ability to give informed consent to participate in the training, and who demonstrated an ability to read and complete the study instruments were included.

Exclusion criteria. Individuals were excluded from the current study if they were not able to attend training or complete both the pre- and post-training measures.

Recruitment.

An email was sent through the company's email to inform all employees at Central Montgomery MH/MR Center of this training opportunity. Potential participants who met inclusion criteria were asked to respond to the email to indicate their interest in the training. Participants were then sent a reminder email indicating the time and date of the training.

Data collection occurred over the course of three months and through five trainings between March, 2015 and May, 2015. Participants completed pre-training measures, and these data were collected two weeks prior to the training. Next, participants attended the TIC trainings, and were provided with didactic information via PowerPoint and lecture/discussion. Next, a copy of the PowerPoint slides was sent out to participants after the training. Finally, data, which contained the participants' completed post-training measures, were collected within two weeks after the training. Reminder emails regarding the survey information was sent out two times before and two times after the training. Participants were verbally encouraged to complete post-training measures at the end of each training session. All individuals who participated in the training were informed that participation in this study was voluntary.

Measures.

A training program on TIC and SMIs was used to disseminate information to mental health professionals who participated in the current study. A socio-demographic survey was developed to obtain information about the training program participants' demographic information such as job title, education, age, gender, years in practice, number of clients seen on a weekly basis, and previous TIC training. Additionally, one measure consisting of three components was used to assess change in self-perceived skills, knowledge, and attitudes from pre- to post-training. These measures included: Trauma-Informed Organizational Toolkit,

Trauma-Informed Skills Assessment Questionnaire, Psychiatrists View of Combat Related PTSD Scale, and the Recovery Self-Assessment Scale.

Trauma-informed Organizational Toolkit (Guarino, Soares, Konnath, Clervil, & Bassuk, 2009). This is a self-assessment that measures individual's knowledge about trauma, the effects of trauma for patients and also for staff working with these patients. The Self-Assessment was initially created for use in programs serving women and children as a measure to assess organizational sensitivity and responsiveness to persons who have experienced trauma. The authors, however, indicated that it might also be appropriate for use in mixed gender settings. The Trauma-informed toolkit is a 64-item Likert-type questionnaire. It is composed of two sections, each with two subcategories. For the purposes of this study, only the first section was used. It included 25 questions about staff training, education, supervision, support, and self-care. One sample question is: "I have received training in the following topics: What traumatic stress is, and how working with trauma survivors impacts staff." Answers are recorded on a Likert scale ranging from strongly agrees (1) to strongly disagree (4), with options to check off N/A or Not Sure. The second section, which included questions about the physical environment and safety, were excluded because they did not pertain to the training provided in the current study. There was no reliability and validity information available for this instrument, and therefore, the authors noted that these questions were not a *measure* or *instrument* in the traditional sense. It was also reported that these questions should be used in organizations in which staff has some limited knowledge of trauma. This measure was chosen due to the breadth of general knowledge about trauma and trauma-informed care that is included with the toolkit. Furthermore, no specialized training was needed to implement information from this toolkit.

Trauma-Informed Skills Assessment. This survey was developed specifically for this study. This survey assessed mental health professionals' self-perceived skills for TIC. A set of nine statements was compiled with reference to trauma-informed competencies that were created by Abrahams (SAMHSA, 2014). Sample statements include "Identify clients' strengths, coping resources, and resilience," and "Maintain clarity of roles and boundaries in the therapeutic relationship." For each statement, the participants were asked to rate how well they felt they were trained in this competency during the TIC training. Participants also rated how important they believed each competency to be to their practices. There was an existing limitation because this is the first time this instrument would be used in a research study; there was no reliability or validity statistics completed for this instrument.

Psychiatrist's view of combat related PTSD (Bras, et al., 2012). This assessment contained 14 statements that are rated on a dichotomous answer key (agree/disagree). This scale was originally developed for psychiatrists to assess their attitudes and beliefs towards patients; however, in this study the scale was used with other mental health professionals. For the purposes of this study, the term *PTSD* was replaced with *trauma*. Sample items from the 14-items measure were "PTSD patients get too much attention" and "I can understand problems that PTSD patients face in society". This scale was administered to 259 psychiatrists but was not factor analyzed. Scores were additive; the lowest score a respondent could have was zero and the highest score was 14. No reliability or validity data was reported.

Recovery Self-Assessment Scale (RSA) (O'Connell, Sells, & Staeheli, 2003). This assessment was developed to evaluate various aspects of recovery from the perspective of the provider; the aims were to identify strengths and target areas of self-improvement while striving towards a recovery-oriented care model. The RSA is composed of 32 items rated on a 5-point

Likert scale ranging from strongly disagree (1) to strongly agree (5), with the options to circle Not Applicable or Don't Know. Sample items from this scale included "Staff encourage program participants to have hope and high expectations for their recovery" and "Staff help program participants to develop and plan for life goals beyond managing symptoms or staying stable." A pilot study was conducted in 2002. From this study, face validity was supported for the RSA. Further, internal consistency was found to be excellent on all factors measured. Interrater reliability measures and quantitative indicators of validity are currently pending.

Procedure.

Participants were recruited from an outpatient mental health agency through the company email. A first email was sent from the outpatient director, stating that all mental health professionals have the opportunity to participate in the TIC training. Recipients of the email were informed that there would be a study, but that they had the option of whether or not they wish to participate in the study, in addition to the training. A second email was sent a week prior to the date of the training to remind individuals about the training, as well as to inform participants of the time and location of the training. This email included the link to SurveyMonkey™ so that those who planned to participate in the study could complete the post-test measures.

The TIC training was presented to mental health professionals; the possibilities were a four-hour training seminar at Central Montgomery MH/MR Center during the course of one day, or 2 separate two-hour trainings, delivered on two different days in the same week. Information about TIC was obtained from the Trauma-Informed Toolkit. The presentation about TIC included definitions of trauma, prevalence of trauma, effects of trauma, guidelines for working with trauma survivors, effects of treating trauma for mental health providers, components of

trauma to consider for the SMI population, the relationship between TIC and the recovery model, an introduction to TIC and its components, and TIC interventions. The first hour consisted of a presentation of the information on trauma and trauma components. The second hour covered information about trauma in regard to the SMI population, as well as information about the recovery model in relation to TIC. During the third hour of training, participants were introduced to the TIC approach, its goals, philosophy, evidence and research supporting TIC, and benefits to treatment. During the fourth hour of training, TIC dissemination, evidence-based interventions, and practices were discussed, as well as how to implement interventions into practice effectively.

Participants completed a pre-test that included measures to evaluate knowledge, self-perceived skills, and attitudes regarding TIC and SMIs. The measures took less than one hour to complete. Those who completed the pre-test were able to participate in the training session. Three of the training sessions took place for four hours, one time in the morning. Two of the training sessions took place for two hours in the morning on two separate days in one week. After the training session, those who had participated completed the post-test forms, which assessed knowledge, self-perceived skills, and attitudes about TIC and SMIs. The post-test forms were the same forms that the participants had completed during the pre-test.

Chapter 5

Results

Analytic Plan.

The current study used five one-way univariate Analysis of Variance's (ANOVA) to assess TIC knowledge, self-perceived skills, and attitudes that various mental health professionals have regarding their clients who have been diagnosed with a trauma and SMIs. Additionally, a Pearson correlation coefficient was conducted to determine if there was a high, linear correlation between perceptions about the recovery model and attitudes towards trauma.

Power Analysis.

A power analysis was conducted to determine the number of participants necessary to obtain 80% power and an effect size of $f^2 = .15$ in the current study. The results suggested that approximately 78 participants were needed for this study. There were 188 employees at Central Montgomery MH/MR Center at the time of this study; 60 employees attended the training. However, this study had a sample size of 32 participants, which was due to participants not completing both pre- and post- training surveys, despite reminders before, during, and after the training.

Descriptive Statistics of Sample.

Thirty-two currently employed mental health professionals from a community outpatient agency volunteered to participate in the current study and completed the pre- and post-training questionnaires. Most participants were between the ages 30 and 39 ($N = 13$). All participants reported their gender; 29 were female and 3 were male. Participants also reported their current levels of education; most had completed a bachelor's degree ($N = 15$) and two participants reported not having a college degree. Participants reported their current positions, with most

individuals reporting that they are currently employed as recovery coaches or case managers (N=12). Participants also reported their current theoretical orientation; most participants did not identify with a specific theoretical orientation (N = 11), but those who did identify with a theoretical orientation primarily chose behavioral (N = 6). Last, eighteen individuals reported that they had not received previous TIC training and thirteen reported that they have had previous TIC training, with one individual not reporting either yes or no.

Table 1. Demographic Characteristics

| Characteristic | N | % |
|---------------------------------------|----|------|
| Age | | |
| Below 17 | 0 | 0 |
| 18-20 | 0 | 0 |
| 21-29 | 10 | 31.3 |
| 30-99 | 13 | 40.6 |
| 40-49 | 2 | 6.3 |
| 50-59 | 5 | 15.6 |
| Above 60 | 2 | 6.3 |
| Gender | | |
| Female | 29 | 90.6 |
| Male | 3 | 9.4 |
| Education Level of Participant | | |
| Ph.D. | 1 | 3.1 |
| Psy.D. | 0 | 0 |
| Ed. D. | 1 | 3.1 |
| MA/MS | 13 | 40.6 |
| Bachelors | 15 | 46.9 |
| Associates | 0 | 0 |
| No Degree | 2 | 6.3 |
| Job Title | | |
| Therapist | 11 | 34.4 |
| Psychologist | 0 | 0 |
| Psychiatrist | 1 | 3.1 |
| Recovery Coach | 12 | 37.5 |
| Administrator | 5 | 15.6 |
| Receptionist | 1 | 3.1 |
| Peer Specialist | 0 | 0 |

| | | |
|----------------------------------|----|------|
| Other | 2 | 6.3 |
| Theoretical Orientation | | |
| Behavioral | 6 | 18.8 |
| CBT | 5 | 15.6 |
| Integrative | 0 | 0 |
| Eclectic | 3 | 9.4 |
| Psychodynamic | 4 | 12.5 |
| Biological | 0 | 0 |
| Interpersonal | 1 | 3.1 |
| Systems | 1 | 3.1 |
| Cognitive | 0 | 0 |
| Humanistic | 1 | 3.1 |
| N/A | 11 | 34.4 |
| Other | 0 | 0 |
| Previous TIC Training Experience | | |
| Yes | 13 | 40.6 |
| No | 18 | 56.3 |

Hypotheses One through Three.

In order to examine if there was a significant increase in knowledge, in self-perceived skills, and attitudes from pre-training to post-training regarding Trauma-Informed Care (TIC), five univariate ANOVAs were used. The independent variable was *time* with two levels (*pre-training* and *post-training*). The dependent variables were *knowledge*, *self-perceived skills*, *recovery attitudes*, and *attitudes regarding trauma*. Thus, this test was used to determine if mental health professionals' knowledge, self-perceived skills, and attitudes towards trauma and SMIs differed significantly from pre- training to post-training. Because five univariate ANOVAs were conducted on the same set of data to reduce the likelihood of a Type 1 Error, Bonferroni corrections were employed. Setting alpha at the .05 level and dividing by the number of significance test performed (5), a more stringent alpha level was employed, which is $p < .01$.

Knowledge. A one-way univariate Analysis of Variance (ANOVA) was conducted to test the first hypothesis, i.e., whether or not there would be a significant change in knowledge and education about trauma, as a result of the training. Descriptive statistics, including means and standard deviations, are described in Table 2. The test of the within subjects changes from pre- to post - test was significant ($f(1,29) = 12.17, p=.002$), revealing that there was a significant increase in knowledge from pre- to post-training.

Table 2. (Knowledge of Training and Education)

| | Mean | Standard Deviation | N |
|--------------|---------|--------------------|----|
| TE PRETOTAL | 49.6667 | 8.83466 | 30 |
| TE POSTTOTAL | 56.1333 | 5.65370 | 30 |

To test Hypothesis Two, a one-way analysis of variance was conducted. The univariate ANOVA was used to determine if there was a significant change, as the hypothesis predicted, on the staff supervision, support, and self-care variable. The means and standard deviations from pre- to post-test are found on Table 3. The change in staff supervision, support, and self-care from the pre- to the post-training was not found to be significant ($f(1,30) = .416, p=.524$).

Table 3. (Knowledge of Staff Supervision, Support, and Self-Care)

| | Mean | Standard Deviation | N |
|---------------|---------|--------------------|----|
| SSS PRETOTAL | 30.0323 | 7.04081 | 31 |
| SSS POSTTOTAL | 31.1935 | 6.51552 | 31 |

Self-Perceived Skills. A univariate repeated measures ANOVA was conducted to evaluate Hypothesis Two, i.e., that there would be a significant increase in training preparation from the pre- to the post-test after receiving the training. Descriptive statistics, including means and standard deviations, are described in Table 4. The findings reveal a significant increase from the pre-test to the post-test ($f(1, 29) = 11.507, p = .002$). This result indicates that there was a significant result in the training preparedness from pre- to post-training.

Table 4. (Skills: Training Preparedness)

| | Mean | Standard Deviation | N |
|---------------|---------|--------------------|----|
| TPP RETOTAL | 21.0313 | 4.90874 | 32 |
| TPP POSTTOTAL | 23.9688 | 2.96740 | 32 |

To evaluate participants' perceptions of training importance, a one way repeated ANOVA was conducted on the importance of the training from pre- to post- training. The means and standard deviations are found on Table 5. The ANOVA revealed a significant change in the rated importance of training from pre- to post-test ($f(1, 31) = 14.087, p = .001$). Participants rated the importance of the training higher on the post-test, relative to the pre-test.

Table 5. (Skills: Training Importance)

| | Mean | Standard Deviation | N |
|-------------|---------|--------------------|----|
| I PRETOTAL | 22.1250 | 3.15973 | 32 |
| I POSTTOTAL | 24.4063 | 3.37791 | 32 |

Attitudes. A univariate repeated measures ANOVA was conducted to test the third hypothesis, that attitudes would be significantly more positive from pre- to post-training. On this measure, lower scores indicated more positive attitudes. Consistent with the hypothesis, the results of the ANOVA revealed a significant change from pre- to post-training ($f(1,31) = 7.524, p=.01$), revealing that attitudes were more positive on the post-test.

Table 6. (Attitudes about Trauma)

| | Mean | Standard Deviation | N |
|-------------|---------|--------------------|----|
| A PRETOTAL | 16.4063 | 1.58337 | 32 |
| A POSTTOTAL | 15.4688 | 1.64580 | 32 |

Hypothesis Four.

It was predicted that mental health professionals who score high on the Recovery Self-Assessment (RSA) measure will have significantly more positive results on the Psychiatrist's View of Combat Related PTSD Questionnaire, measuring attitudes about trauma. To test this

hypothesis, a Pearson Product Moment Correlation Coefficient was calculated between RSA pre-total and PTSD Questionnaire measure on the pre-training measures only. This analysis revealed that there was a non-significant relationship ($r(31) = -.103$ $p = .083$), as found on Table 6. This finding reveals that RSA scores on the pre-test were not associated with attitude scores on the pre-test.

Table 7. (Recovery Attitudes Compared to PTSD Attitudes)

| | | RSA PRETOTAL | A PRETOTAL |
|--------------|---------------------|--------------|------------|
| RSA PRETOTAL | Pearson Correlation | 1 | -.083 |
| | Sig. (1 – tailed) | | .328 |
| | N | 31 | 31 |
| A PRETOTAL | Pearson Correlation | -.083 | 1 |
| | Sig. (1 – tailed) | .328 | |
| | N | 31 | 32 |

Chapter 6

Discussion

This study sought to determine the influence of a TIC training program on mental health professionals' knowledge, self-perceived skills and attitudes regarding patients who are diagnosed with SMIs and who have experienced trauma.

Summary and Explanation of Findings.

Clinical competence focuses on mental health professionals' knowledge, self-perceived skills, and attitudes. The current literature is explicit in stating that provider competencies related to the treatment of trauma, especially with the SMI population, needs to be improved. Several specific aspects to the staff training program that was used for this study were considered to be vital to improvement of competencies for those who are working with individuals who have experienced trauma and who have been diagnosed with SMIs. These considerations included: knowledge about the experience of trauma and how trauma affects individuals' daily activities, self-perceived skills to provide the best therapeutic care possible, and positive attitudes that lead to instillation of hope and empowerment. The results from this study indicated that creating awareness about the benefits and various applications for TIC may improve mental health professionals' treatment practices with their patients. Specifically, there were significant findings for an increase in knowledge, self-perceived skills, and attitudes regarding trauma treatment for individuals with SMIs.

Knowledge. This study examined participants' knowledge about trauma, trauma-informed practices, staff support, staff supervision, and self-care practices. Knowledge of information related to trauma significantly increased from pre- to post- training. This increase in knowledge indicated that participants reported that they felt they had a better understanding of

general trauma principles (e.g., what traumatic stress is, how it effects an individual's mental health, the relationship between trauma and substance use, etc.) and symptom presentation (e.g., cognitive, emotional, physical, interpersonal, etc.) after participating in this training. It is likely that having a better understanding of how trauma can affect one's thinking, bodily sensations, behaviors, and relationships can help mental health professionals who are working with these patients to address each of their unique needs effectively. Often, symptoms of trauma have been misinterpreted as personality disorder traits, mood disorders, or symptoms related to substance use. Therefore, trauma has often been overlooked and not directly addressed in therapy as a core part of the treatment plan. Trauma that was overlooked has led to years of ineffective treatment for many individuals. Additionally, research has shown that addressing trauma may be uncomfortable for some mental health professionals due to their unfamiliarity and uninformed biases or assumptions, and therefore may have been avoided. When knowledge about trauma increases, it is assumed that those working with trauma patients will feel better equipped and empowered by addressing trauma when the patient is ready to do so.

Consistent with best practices for the delivery of trauma-informed care, it is also important for mental health professionals to participate in adequate supervision, to receive support from other staff members, and to engage in self-care practices. The measures used in this study asked participants to rate whether or not they believed that they had received supervision related to trauma, if trauma-related information has been presented by their service delivery organization, if they had felt supported during a crisis, and if they had been asked for feedback by the organization. Participants also answered questions about their own self-care on this measure. Knowledge did not increase from pre- to post-training regarding staff supervision, support, and self-care. This indicates that participants may have found these topics to be

important; however, staff supervision, support, and self-care did not appear to be addressed by their organization on a regular basis. However, the TIC training emphasized the importance of these considerations. If mental health professionals feel they are receiving adequate supervision and support, they should be better able to engage in their daily activities at work. Furthermore, TIC emphasizes the importance of self-care activities so that mental health professionals will be better prepared, mentally, emotionally, and physically, to care for their patients.

After the training in this study anecdotal information was also observed by this writer and the staff psychiatrist. It was reported by the staff psychiatrist that trauma was addressed in greater depth in the clinical interview, that patients were receiving a diagnosis of PTSD in addition to an SMI or other diagnosis that was clinically relevant, and that staff were more openly discussing the topic of trauma. Several staff members asked for additional resources and information so that they could better conceptualize the patients they have been working with and also to provide patients with helpful information to better understand their own experiences. From these observations, it can be noted that a short, four hour training about TIC influenced the staff at the agency. If this training made an impact on several employees, then additional trainings that may be longer and in greater depth could lead to an organizational transition that incorporates TIC policies and procedures, as well as practices. These observations also may mean that other agencies might use trauma-trainings to better inform their employees, and therefore, clients will receive better care.

Self-Perceived Skills. This study also evaluated pre- and post-training staff preparedness to address trauma, as well as their perceptions regarding the importance of addressing trauma. Awareness of specific skills related to trauma treatment, as well as perceptions of the importance of these skills increased after participants had participated in the trauma training.

In regard to preparedness to address trauma concerns, participants were asked to rate their own abilities to work and empower clients struggling with trauma, to maintain healthy therapeutic boundaries, competently screen and assess for trauma symptoms, collaborate on treatment options that address the clients trauma, demonstrate general trauma-informed care counseling strategies, and to engage in a self-assessment of their own self-care needs. Participants rated these abilities significantly higher on the post-training measure. It may be difficult for mental health professionals, who do not have the experience or knowledge about patients presenting with symptoms related to trauma, to address these symptoms. Therefore, they may not be implementing TIC practices, which could contribute to their clients continuing to struggle with these trauma symptoms. Mental health professionals who have learned TIC skills would be more likely to ask their patients about trauma and subsequently address trauma-related concerns, as appropriate, to the patient's wishes and motivation. It is important to ask general questions about trauma when the individual comes in for an intake evaluation so that the mental health professional is aware of all possible contributions to the symptom constellation and can then address these with the patient. A holistic case conceptualization, which would include trauma, is a necessary precursor to the delivery of trauma-appropriate care during the individuals' treatment.

This study also evaluated participants' perceptions of importance regarding the skills related to treating trauma that were presented in the training. The rating concerning the importance of trauma skills was significantly higher on the post-training measures, which indicates that participants did not find some of these skills important enough to consider before the training occurred. If mental health professionals do not consider the trauma treatment options or if they do not find these options to be important, it is likely that clients who are

struggling with current or past trauma will not feel heard. This concept of not considering trauma as an important construct to address may be related to the mistaken belief that talking about or addressing trauma will make the client's experience of trauma symptoms worse, which research has demonstrated to be untrue (Mauritz et al., 2012).

In addition to increasing the skills of mental health professionals treating trauma, TIC calls for an overall organizational change in how services are delivered. If an agency is to become trauma-informed, it needs to encourage or incentivize their employees to gain skills, but they also need to create an environment that is trauma-informed. By transforming the culture of agencies to become more significantly trauma-informed they may save money and decrease unnecessary service utilizations, which is consistent with the literature on the benefits of TIC (SAMHSA, 2014). Furthermore, providing trainings to increase the skills of the mental health professionals helps the agency to provide consistent interventions and care to address trauma with all of their patients. These skills can start when a client initially walks in the door and is greeted by a receptionist who has had trainings on TIC. Receptionists will be better prepared to greet clients with the thought that every person walking through the doors may have experienced a trauma in his or her lifetime. These skills (e.g., not responding to yelling or screaming in a negative manner, escalation tactics, etc.) can decrease the potential of mental health professionals triggering a negative reaction from their clients. Improving skills related to trauma-informed care can lead to an overall better experience for clients entering and seeking treatment through an agency.

Attitudes. Mental health therapist attitudes were also evaluated. There was a significant increase in positive attitudes towards trauma and PTSD, from pre- to post-training. This increase in positive attitudes indicates that the training contributed to participants' ownership of better

understanding and of more accepting attitudes towards individuals who have experienced trauma. By expanding their understanding about the experiences one may have suffered as a result of going through a traumatic event, the participants acknowledged more positive attitudes towards treating individuals who have experienced trauma and who have been diagnosed with SMIs. The significant increase in knowledge, self-perceived skills, and attitudes regarding trauma and SMIs after participating in a TIC training demonstrates the importance of informing mental health professionals through trainings, with the potentially direct result of increased efficacy of treatment and outcomes.

Trauma-informed care interventions can be utilized as an evidence-based practice for treating trauma for individuals who also have a co-morbid serious mental illness. There are also TIC interventions that address trauma issues that are specific to women, specific to men, and co-morbid substance use. These interventions have been studied in inpatient and in outpatient settings. Therefore, if mental health professionals can add these interventions to their skill set, they may feel more empowered and confident when working with individuals who are struggling with trauma symptoms. Also, TIC interventions can provide hope for both mental health professionals and their clients. TIC interventions address trauma specific needs of the clients and will provide a better understanding and therefore better attitudes towards prognosis.

Participating in training for TIC supports the ethical imperative for mental health professionals to continue to improve upon their core competencies, especially as these relate to the patient population whom they serve. In addition to encouraging awareness and competency, the results of this study support the need for further dissemination about the basic knowledge, self-perceived skills and attitudes relevant to the delivery of trauma-informed care. It would be beneficial to include TIC trainings as a regular part of graduate school and professional training

in order to increase awareness and understanding about the relationship between trauma and SMIs, as well as effective interventions for this co-morbid diagnosis. Finally, research indicates that trauma is often an avoided topic during the course of treatment for the SMI population due to the fear of retraumatization (Mauritz et al., 2012); therefore, this study has raised awareness about practical trauma-informed interventions that mental health professionals can use in order to increase treatment effectiveness.

Limitations.

This study was exploratory in nature. Therefore, several limitations need to be considered. One limitation to this study was the short timespan between pre-test, training, and post-test. Due to the short amount of time, the long-term effects of the training could not be observed. Further, the methodology used in this study was not designed to have the sample followed over time in order to evaluate how much of the information was retained and also to determine if there were any long-lasting changes that have occurred as a result of this training. This may be especially true for the *skills* section of the study. It would have been beneficial to longitudinally evaluate mental health professionals' effectiveness of utilizing new TIC skills learned in the training over a period of a several months.

In addition, the skills section of the training and assessment was not based on actual samples of observable behavior. Rather, information was delivered about the types of skills that would be considered trauma-informed, and there was no actual hands-on training in those skills, nor was the assessment an actual outcome- driven competency assessment. Rather, the assessments asked about the participants' *perceptions* of their skills. In reality, it is entirely possible that participants may overestimate or underestimate their skill levels, and without actual samples of behavior as outcomes, it is very difficult to assess actual skill competency. In point

of fact, the assessment of skill could be more accurately described here as *beliefs about skills*, rather than actual skills, per se.

Another limitation to this study was the lack of a multi-method assessment. The measures used in this study were self-reports, which have been known to be a less reliable method of collecting data and can affect the validity of the outcomes (Robins, Fraley, & Kruger, 2007). Considering the format of these measures, it is possible that participants did not answer questions in a forthcoming manner because they did not want to disclose certain information, therefore risking threats to the validity of the assessment. Further, in addition to self-reports, it would have been beneficial to have used other measures to assess the skills learned in order to gain more insight into what was learned from the training. One example of assessing the skills taught in the training would be to videotape the intervention sessions, which could then be rated on a scale that is anchored to the competencies that were being measured.

A third limitation was that information obtained about the effectiveness of this training was one-sided, meaning it was assessed only from the mental health professionals' viewpoint. In addition to assessing mental health professionals' competencies, it would have been beneficial to assess the patients' perspectives about TIC to assess whether or not the skills learned and changes in mental health professionals' attitudes positively affected the therapeutic alliance and progress in treatment.

Another limitation in regard to the measures used was that several of the measures had not been used in previous studies, and therefore had undetermined psychometric properties in terms of validity and reliability of the measures. There were very few measures found that assess mental health professionals' attitudes towards trauma in the SMI population. Also, there were no specific measures to assess skills of a mental health professional regarding TIC.

Therefore, a measure had to be designed by the researcher in order to evaluate desired skills that should be obtained during the TIC training.

A final limitation to this study was that the training was conducted only in one outpatient agency, which decreased the external validity and generalizability of the results because this was a small sample of convenience.

Future Directions and Implications.

Considering that TIC practices, especially with the SMI population, seem to be underutilized, there are many avenues that future research could explore for this population. The results of the current study indicated that there are benefits to implementing TIC practice, and consequently, future research should focus on dissemination and training mental health providers in TIC, in a variety of agency settings (e.g., prisons and jails, and medical settings) with a broad cross section of staff members (e.g., support staff and administrators). Further, trainings on TIC may be delivered in different formats, such as electronically or online. Developing an online TIC training program could allow for further dissemination of this approach so that more individuals could easily access this information.

Another future direction for the dissemination of TIC would include a longitudinal study and involvement of patients. It would be beneficial to the field to see how TIC practices affect the therapeutic relationship and treatment progress over time and assess how training actually improves skills, using psychotherapy outcome methodology. To evaluate whether or not skills learned during the training have been utilized and beneficial over time, future studies should evaluate therapy outcomes, such as prognosis, including both therapist and client perceptions on the skills used.

Last, it would be helpful to evaluate whether or not TIC-specific methods, techniques, and practices are noticed and preferred by patients. Future studies could include a training or seminar regarding TIC interventions and information regarding trauma so that patients have a better understanding of their experience, feel more confident in their treatment, and can work towards building better working relationships with the mental health professionals who are providing support for them. TIC offers a number of great benefits to mental health professionals, organizations, and their patients. All levels of mental health agencies would benefit from learning about trauma-informed care. Some of these benefits include feeling empowered, patients and employees learning that they have a choice and a voice, and feeling supported overall. This transition in care has taken many different factors into consideration so that individuals, who provide, as well as those who receive services, feel heard and supported.

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Appendix A Demographic Questionnaire

Please complete the following demographic information:

Age: _____

Gender: _____

Highest level of education completed:

- Ph.D.
- Ph.D./J.D.
- Psy.D.
- Ed.D.
- MA/MS

Occupation:

- Psychologist
- Psychiatrist
- Master's Level Therapist
- Recovery Coach/Case Manager
- Other _____

Indicate the number of years you have been providing psychotherapy: _____

Indicate your primary theoretical orientation:

- Behavioral
- Integrative
- Eclectic
- Psychodynamic/Psychoanalytic
- Biological
- Interpersonal
- Systems
- Cognitive Behavioral
- Humanistic/Existential
- Other (specify): _____

Approximately how many clients do you see a week? _____

How many of those clients have been diagnosed with:

- Schizophrenia _____
- Major Depressive Disorder _____
- Bipolar Disorder _____
- Posttraumatic Stress Disorder _____
- Obsessive - Compulsive Disorder _____
- Schizoaffective Disorder _____

Have you ever participated in a Trauma-Informed Care Training? Yes No

Appendix B
Self-Perceived Skills Measure
Trauma-Informed Skills Assessment

Rate Each:

Training Prepared Me: *Disagree, Somewhat Agree, Agree*

How Important is this to my Practice: *Not Important, Somewhat Important, Important*

1. Expedite client-centered choice and demonstrate a willingness to work within a mutually empowering power structure in the therapeutic relationship
2. Maintain clarity of roles and boundaries in the therapeutic relationship
3. Demonstrate competence in screening and assessment of trauma history
4. Identify clients' strengths, coping resources, and resilience
5. Facilitate collaborative treatment and recovery planning with an emphasis on personal choice and focus on clients' goals and knowledge of what has previously worked for them
6. Respect clients' ways of managing stress reactions while supporting and facilitating taking risks to acquire different coping skills that are consistent with clients values and preferred identity and way of being in the world
7. Demonstrate general trauma-informed counseling strategies
8. Identify signs of secondary traumatic stress reactions and take steps to engage in appropriate self-care activities that lessen the impact of these reactions on clinical work with clients
9. Recognize when the needs of clients are beyond his or her scope of practice and/or when clients trauma material activates persistent secondary trauma or countertransference reactions that cannot be resolved in clinical supervision