THE IMPACT OF TRAUMA NARRATIVE TREATMENT ON MANDATED SUBSTANCE ABUSE GROUPS

By

AIMEE SUZANNE HICKS

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AIMEE SUZANNE HICKS

Approved:

Suneetha Manyam, Ph.D. Date
Dissertation Committee Chair

David Lane, Ph.D. Date
Dissertation Committee Member

Paul Smith, Ph.D. Date
Dissertation Committee Member

Tyler Wilkinson, Ph.D. Date
Program Coordinator of Ph.D. in Counselor Education and Supervision

---

Karen Rowland, Ph.D. Date
Department Chair

Priscilla R. Danheiser, Ph.D. Date
Dean, College of Professional Advancement

DEDICATION

To all those we have lost and the ones that continue to suffer with substance use disorders:

In remembrance of Forrest Cooper Jr.

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I would first and foremost like to give thanks to God as only through his strength was I able to accomplish this task. To my dissertation committee, I am extremely grateful for your support throughout this process. Mercer University truly advocates for their students as evidenced by those many professors which have left an impression on my soul. Dr. Suneetha Manyam, you have been my guide throughout not just this dissertation, but my entire doctorate journey, and I am eternally thankful to have you in my corner. Dr. David Lane, thank you for never allowing me to give up on this journey. You have inspired me beyond words, and I will be forever grateful. I will always remember the Golden Rule in your honor. Dr. Smith thank you for joining my committee and providing support and feedback throughout the process. Dr. Donna Lane, for her support and guidance throughout this entire program and preparing me for this journey and discovering myself. Dr. Arthur Williams, I appreciate your support and guidance throughout the entire master's program and encouragement. To the awesome Mercer faculty and staff that have provided support throughout this process, thank you.

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Finally, to Mercer University for my amazing education and experience as I will forever in my heart be a "Triple Bear."

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ABSTRACT

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THE IMPACT OF TRAUMA NARRATIVE TREATMENT ON MANDATED SUBSTANCE ABUSE GROUPS
Under the direction of SUNEETHA B. MANYAM, Ph.D.

This paper discusses the comorbid condition of substance use disorders and trauma. Mandated DUI offenders are ordered by the courts to attend state treatment centers. Most mandated treatment centers do not have mental health professionals who are qualified to diagnose the severity of substance use disorders or comorbid conditions. The literature shows that many individuals suffer from co-occurring conditions of substance use disorder and trauma. The purpose of this study was to determine if introducing Trauma Narrative Treatment into mandated substance abuse groups would show a reduction in substance abuse symptoms and trauma symptoms. The sample consisted of 184 participants recruited using simple random sampling from state mandated substance use centers within the metropolitan Atlanta region covering multiple jurisdictions and was equally divided between the treatment group for those who agreed to participate in the intervention and the control group for those who did not. Participants were administered a Substance Abuse Subtle Screening Inventory (SASSI) and Trauma Symptom Checklist (TSC-40) before and six-months after the treatment. MANOVA and post-hoc ANOVAs were conducted to assess the potential effect of treatment on substance use and trauma symptoms. The results revealed a significant improvement in trauma symptoms after TNT was introduced over the course of the session. Also, there was a significant improvement in substance use symptoms after the session regardless of whether TNT was administered. Based on the results of this study, TNT should be integrated with an efficient version of substance use curriculum to address both trauma symptoms and substance abuse symptoms in mandated substance use groups.

CHAPTER ONE

INTRODUCTION

Driving under the influence (DUI) of alcohol or other substances is a serious public health concern. According to the U.S. National Highway Traffic Safety Administration (NHTSA, 2018), 10,511 people were injured or killed in alcohol-related crashes, and 29% of all motor vehicle fatalities involved alcohol-impaired drivers. Substance use disorders (SUD) are responsible for some of the costliest issues in society (DBHDD, 2020; Keating et al., 2019; Nelson et al., 2019; NHTSA, 2018; SAMHSA, 2020).

Nationwide, DUI offenders are routinely court ordered to undergo outpatient treatment mandated by the state. Treatment providers are approved by the state, and these offenders must enroll in treatment centers specified on the state registry to meet the requirements for department of driver services and the courts. DUI offenders are forced into state treatment centers. Most of these state-registered treatment centers are not equipped with qualified counselors who can identify/diagnosis the severity of substance use disorders or comorbid conditions in clients. To complicate the issue, most individuals suffering from a SUD have underlying issues compounding the problem of the substance use (Hayley et al., 2017; McMillian et al., 2008; SAMHSA, 2020).

Comorbidity exists when a person suffers from more than one disease. According to the *DSM 5* (2014) diagnostic criteria, in substance abuse, the term refers to the coexistence of psychoactive substance use disorder and a psychological disorder. Although many individuals with substance abuse may have various comorbid conditions, one of the most common conditions that coexists with substance abuse is trauma (Bishop & Reed, 2017; SAMHSA, 2020; Zatzick et al., 2012). When disorders co-occur, recovery from either co-occurring issue requires

simultaneous treatment for both conditions (Barrowclough et al., 2010; Drake & Mueser, 2004; Kelly & Daley, 2013; Sorsa et al., 2017).

Problem Statement

According to the literature, mandated substance abuse treatment programs are inadequate in addressing the comorbidity of substance abuse and trauma (ASAM, 2020; Corno, 2017; Coviello et al., 2013; Nelson et al., 2019). A primary reason for inadequate treatment is that the use of evidenced-based models is lacking. Although providers may have started the original curriculum with something close to an evidence-based model, it has either been altered or not delivered in the method consistent with treatment by untrained group leaders. As Farbee (2004) stated,

> We all assume that treatment is a real thing, but it is actually an inchoate array of services, which don't necessarily have any effect and can consist of anything from FDA approved interventions for substance abuse disorder to literally tarot card reading. (p.51)

According to a study by Coviello et al., 2013, research has shown that mandated clients have lower motivation for change. The use of evidenced-based theory is scarce in the programs as substance abuse counselors are required to obtain education or training in the various theoretical concepts of mental health (DBHDD, 2020; GACA, 2020; NAADAC, 2020). The group leaders are unaware of the potential harm they are causing. Many group leaders (treatment providers) are in recovery themselves and spend a great deal of the group session talking about their own struggles with addiction (Brenner et al., 2010). In many cases, treatment groups turn into psychoeducational groups due to a lack of group process training. Therefore, the group members are not getting exposed to therapeutic evidenced-based curriculum for substance abuse (ASAM, 2020; Forman et al., 2001). Those individuals with comorbid conditions are left

undiagnosed and often relapse. Evidenced-based, laymen curriculum is essential in streamlining the mandated group treatment centers (Clark, 2014; Keating et al., 2019; Nelson, 2019; Wallace, 1990). Good supervision in ensuring the use of evidenced-based curriculums is essential to quality treatment in the groups. Even with this simple solution, these modalities are not enough to address comorbid issues, such as traumas that are often fueling addictive behaviors (ASAM, 2020; Flynn & Brown, 2008; Forman et al., 2001; Gaume et al., 2009; Hachtel & Vogel, 2019).

Many mandated substance abuse treatment groups are led by individuals with little training in mental health (DBHDD, 2020; GACA, 2020; ICRC, 2020; NAADAC, 2020). In many cases, substance abuse treatment providers are trained in-house or may hold certifications ranging from a trainee to an individual with some informal education around substance use (Department of Health and Human Services, 2018). Many group treatment leaders are interns under individuals holding only a credential in substance abuse or someone who is in recovery themselves (DBHDD, 2020; Department of Health and Human Services, 2018; Doumas et al., 2018; Humphreys et al., 1996; Kerwin, et al, 2006). Although substance abuse certifications offer some training and internship for substance use disorder treatment, they lack the education and extensive mental health training of a licensed professional counselor (LPC) or licensed clinical social worker (Alcohol & Drug Abuse Certification Board of Georgia, 2020; International Alcohol and Drug Abuse Certification Board of Georgia, 2020). Due to the lack of mental health training, most mandated treatment groups are substance abuse specific and other mental health concerns remain undiagnosed, decreasing recovery odds (Cosci & Fava, 2011; Cosci et al., 2012; Drake & Muser, 2004; Keating et al., 2019; McMillian et al., 2008). Due to the nature of resistance from mandated clients, and the lack of qualified treatment in the group, clients often complete the process without any real intervention having occurred. Substance

abuse treatment can be a favorable therapeutic alliance with positive outcomes if clients receive quality treatment. According to Yasgur (2018),

> I certainly feel comfortable saying that we should not coerce people into something of unknown efficacy, and much more emphasis should be placed on the effectiveness of what we are coercing people into, not only the mechanism through which we are getting them into treatment. (p.4)

Individuals with SUD may have various comorbid conditions. One of the most common that coexists with substance abuse is trauma (Bishop & Reed, 2017; SAMHSA, 2020; Zatzick et al., 2012). Trauma is a risk factor for nearly all behavioral health and substance use disorders (National Council for Community Behavioral Healthcare, 2020). According to the American College of Surgeons (2012), over 70% of patients at a trauma center demonstrated one or more illegal drug and posttraumatic stress disorder (PTSD) symptom comorbidity. Due to the high rate of comorbidity between SUD and trauma, integration of brief interventions is essential to the recovery process (ASAM, 2020).

Purpose of the Study

This study is being conducted to explore the impact on substance use symptoms and trauma symptoms when introducing Trauma Narrative Treatment (TNT) into mandated substance abuse groups. The narrative approach to this therapy allows the client to tell his/her own story while the counselor incorporates therapeutic techniques within the group. Trauma narrative therapy has been implemented in different clinical settings successfully (Clark, 2014; Ford, 2006). Although most of those clinical settings were supervised by a clinician with a higher level of education, the TNT model was designed to be used by individuals who have little to no training (Lane & Lane, 2018). The TNT brief intervention model was developed as a

culturally specific narrative model that can be used by individuals with little to no training in mental health (Lane & Lane, 2018). This is important for substance abuse counselors, as many are not trained in mental health or trauma interventions. This is equally important for clients as they can be exposed to TNT in addition to the standard substance abuse curriculum in the treatment center.

Using a quantitative research design, the researcher will perform a multivariate analysis of variance (MANOVA) repeated measures statistical test comparing the data at pretreatment and follow-up posttreatment intervals. The study will seek to determine if Trauma Narrative Therapy has an impact on the treatment group over time.

Theoretical Framework

The study will be viewed through the lens of the transtheoretical model (TTM). This theoretical framework is the foundation for substance abuse treatment and is often integrated with other treatment modalities with success (Prochaska & Norcross, 2014). The TTM posits that health behavior change involves progress through six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination (Corno, 2017). These different stages are important for substance abuse treatment. This theory is flexible as different constructs can be applied where they are most effective during treatment (Corno, 2017). This theory is a framework for understanding intentional behavioral change, and it has been used in many studies concerning treatment of SUD. As Velasquez (2009) stated,

> The TTM offers a solid theoretical foundation upon which innovative substance abuse treatments can be developed and the major dimensions of this model (stages of change, processes of change, decisional balance, and self-efficacy) have proven to be important

constructs in understanding and facilitating the process of intentional behavior change. (p.7)

Other models of behavior change focus exclusively on certain dimensions of change (e.g., theories focusing mainly on social or biological influences). The TTM seeks to integrate key constructs from other theories into a comprehensive theory of change that can be applied to a variety of behaviors, populations, and settings—hence, the name transtheoretical. Introducing GTNT into prime solutions curriculum (motivational interviewing techniques) should be highly effective in mandated substance abuse groups (Prochaska & DiClemente, 1983; Prochaska et al., 1992).

Research Questions

Is there an impact on substance abuse symptoms when introducing Trauma Narrative Treatment (TNT) into mandated substance abuse groups?

Is there an impact on trauma symptoms when introducing Trauma Narrative Treatment (TNT) into mandated substance abuse groups?

Research Hypotheses

There is a significant impact on substance abuse symptoms when introducing Trauma Narrative Treatment (TNT) into mandated substance abuse groups.

There is a significant impact on trauma symptoms when introducing Trauma Narrative Treatment (TNT) into mandated substance abuse groups.

Definition of Terms

This section will show some common terms used frequently throughout this paper. Terms to be defined are DUI offenders, comorbid, SUD, mandated substance abuse groups, LPC,

CADCI, CADCII, CCS, MAC, APC, trauma, SASSI, TSC-40, and transtheoretical model (TTM).

DUI offenders are defined as individuals who are convicted of driving under the influence of drugs and/or alcohol. First-time DUI offenders are individuals who have only been convicted one time within a 10-year period. Multiple DUI offenders are individuals who have been convicted multiple times, usually within a 5-10-year period; however, this does vary nationwide. DUI offenders are defined as any individuals driving under the influence of any substance that can impair them while driving. This includes prescribed medications that are controlled substances and over the counter medications that can influence the driver (DBHDD, 2020).

Comorbid conditions are defined as two or more conditions occurring simultaneously (American Psychiatric Association [APA], 2013). When two or more disorders are present, the individual is dealing with multiple conditions at the same time. Polysubstance abuse is when an individual is abusing more than one drug at a time (SAMHSA, 2014). This includes a combination of street and prescribed drugs.

Substance use is defined by the *DSM-5* by severity of the disorder. The following criteria are assessed to determine the severity according to the *DSM-5* (2014):

1. Taking the substance in larger amounts or for longer than meant to.
2. Wanting to cut down or stop using the substance but not managing to.
3. Spending a lot of time getting, using, or recovering from use of the substance.
4. Cravings and urges to use the substance.
5. Not managing to do what should be done at work, home, or school because of substance use.

6. Continuing to use, even when it causes problems in relationships.
7. Giving up important social, occupational, or recreational activities because of substance use.
8. Using substances again and again, even when it puts a person in danger.
9. Continuing to use, even when a person knows he or she has a physical or psychological problem that could have been caused or made worse by the substance.
10. Needing more of the substance to get the effect wanted (tolerance).
11. Development of withdrawal symptoms, which can be relieved by taking more of the substance.

If an individual experiences two to three of these criteria, they are considered to have a mild SUD. If an individual experiences four to five of these criteria, they are considered to have a mild SUD. If an individual experiences six or more criteria, they are considered to have a severe SUD. Clinicians can also add in early remission, or sustained remission, if the individual meets those criteria (ASAM, 2020; APA, 2013).

Mandated substance abuse groups are defined as treatment ordered, motivated, or supervised substance abuse treatment groups under the criminal justice system (DBHDD, 2020). Words used interchangeably for mandated are often coerced, compulsory, and criminal justice. Individuals are not given a choice to attend a mandated group; either they attend or they violate their probation. In addition, many are required to complete treatment to reinstate their driver's license privileges (Department of Behavioral Health and Developmental Disabilities [DBHDD], 2020; Georgia DUI Law, 2020).

LPCs are required to obtain a formal education, internship, and supervision under a licensed supervisor. In addition, they are required to pass a national examination of competence to exemplify their ability to conduct mental health treatment in the area they wish to work in.

To obtain a Certified Alcohol and Drug Counselor-Level 1 (CADC1), an individual only needs a high school diploma and 300 hours of education. These educational hours only must be "certificate" level through a credentialing agency. The internship required for this certificate is through another credential individual from the same or similar agency. The internship is not supervised by a qualified licensed mental health supervisor. The term counselor is used by these agencies loosely. The internship and required education are not CACREP or college-level approved courses. The individuals qualified to conduct the supervision are not counseling supervisors through the state, but their own agency.

The Association for Addiction Professional (NAADAC) does have a certification Master Addiction Counselor (MAC) that requires the following:

1. Master's degree or higher in SUD/addiction and/or related counseling subjects (social work, mental health counseling, marriage & family, psychology, medical doctor) from a regionally accredited institution of higher learning.
2. Current credential or license as a SUD/addiction counselor or professional counselor (social worker, mental health, marriage & family therapist, psychologist, medical doctor, LAP-C) issued by a state or credentialing authority.
3. At least 3 years of full time or 6,000 hours of supervised experience as a SUD/addiction counselor.
4. At least 500 contact hours of education and training in SUD/addiction.
5. Must include at least 6 hours of ethics training within the last 6 years.

6. Must include at least 6 hours of HIV/other pathogens training within the last 6 years.
7. A passing score on one of the following exams: (a) MAC exam through NCC AP, (b) MAC exam through the National Board of Certified Counselors (NBCC), (c) NCE exam through the NBCC, or (d) AADC exam through the International Certification & Reciprocity Consortium.

The National Association of Alcoholism Counselors and Trainers (NAADAC) was founded in 1972. Their primary objective was to develop a field of professional counselors with a professional qualification and background (The Association for Addiction Professionals, 2020).

Trauma is defined by the *DSM-5* (2014) as "actual or threatened death, serious injury, or sexual violence" (p.289). Trauma can be past, present, or assumed. It is believed that about 80% of adults in the United States will experience at least one traumatic event in their lifetime (Simiola et al., 2015). Trauma distorts time so that individuals respond in the present "as if" they were in the past. As experts have explained in the literature, trauma takes away a person's voice, choice, and power (Lane, W. & Lane, D., 2018; Ford, J. D., 2006; Osborn, 2020).

The Substance Abuse Subtle Screening Inventory (SASSI) is an assessment used to identify individuals who may have an SUD and indicates the severity of the disorder. The SASSI measures nine different variables of an individual's life to include face valid alcohol, face valid other drugs, symptoms, obvious attributes, subtle attributes, defensiveness, supplemental addiction measure, family versus controls, and corrections. This screening can be administered in paper or electronic format. SASSI identifies high or low probability of SUD and includes a prescription drug scale that identifies individuals likely to be abusing prescription medications.

The Trauma Symptom Checklist (TSC-40) is a forty item, self-report questionnaire assessing symptoms on six subscales: anxiety, depression, dissociation, sexual abuse trauma,

sexual problems, and sleep disturbance. Originally developed as an assessment instrument to evaluate the impact of childhood sexual victimization in women (Whiffen, et al., 1997), this assessment is a valid instrument to measure trauma symptoms. The questionnaire measures symptoms associated with childhood or adult traumatic experiences occurring within the past two months. Frequency of symptoms determine rating along a 4-point scale, ranging from *never* (0) to *often* (3), with a possible 120 points (Ghee et al., 2010; Whiffen et al., 1997). The internal consistency for the original study by Elliott and Briere (1992) had a Cronbach's alpha of .93, and the measurement has been validated through clinical and nonclinical trials (Ghee et al., 2010).

The TTM of change posits that health behavior change involves progress through six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination. These different stages are important for substance abuse treatment. It is important to remember that TTM is not a theory but a model. Moreover, different theories and constructs can be applied to various stages of the model where they may be most effective (Corno, 2017).

Limitations

Limitations to this study include whether the participants, being in a court-mandated treatment program, felt obligated to appear favorable on the SASSI, TSC-40, or to participate in the study. Another limitation is variation in the treatment approach of various group leaders administering TNT into the substance use groups. Various teaching styles, along with level of expertise, could affect the quality of the TNT implementation in the group. The few individuals who may not have experienced trauma in his/her lifetime may not benefit from or understand the purpose of the TNT. Those few mandated treatment centers with LPC supervision or higher may choose to implement different trauma evidenced-based approaches that should not be facilitated by untrained individuals. Some treatment centers may be hesitant to use the TNT due to the lack

of understanding of comorbidity and SUDs, therefore continuing only the substance abuse treatment. Assumptions include the center directors understanding the comorbid of the SUD and trauma, but not wishing to combine the treatment due to policy within the center or lacking expertise in the field of trauma. Many individuals may not understand or want to understand the laymen approach to TNT. Another assumption is the time to administer both the substance abuse assessment and TNT within the group. Some groups may not be long enough to fit both treatments in at the same time. Group leaders may be hesitant to incorporate TNT for fear of running out of time or not getting to both in the same group meeting.

Significance of the Study

This study was designed to measure the impact on substance abuse symptoms as reported on the SASSI and trauma symptoms as indicated by the TSC-40. It is significant because driving under the influence (DUI) of alcohol or other substances is a serious public health concern (NHTSA, 2018). Mandated clients are not given a choice for treatment. Furthermore, the individuals leading the groups are not recognizing the comorbid conditions among the clients which is fueling the substance use disorder. To enhance the mandated group treatment for the client, introducing Trauma Narrative Therapy into the prime solutions curriculum may improve treatment efficacy. This study is significant because more research needs to be done to ensure mandated group treatment is as efficacious as mental health treatment (ASAM, 2020; Brenner et al., 2010; Cameron, 2002; Clark, 2014). Equally important, tighter restrictions need to be placed on mandated group treatment programs to ensure quality care for participants. Mental health has advanced since the Community Mental Health Act in 1963; however, substance abuse treatment has been an afterthought for most. As a growing public health concern, more attention must be brought to the significance of evidenced-based treatment.

Summary

Substance use disorders are a growing concern worldwide, especially in the United States. As the National Institutes of Health (2020) stated, “A use of tobacco, alcohol, and illicit drugs is costly to our Nation, exacting more than $740 billion annually in costs related to crime, lost work productivity and health care” (para.2). Substance abuse is a growing epidemic and the least researched area of mental health. To combat this issue, more needs to be done to enhance/improve the efficacy of mandated substance abuse treatment (Bell & McCutcheon, 2020).

Most state-mandated substance abuse treatment centers do not include treatment for comorbid conditions. Trauma is prevalent among those with substance use disorders and Trauma Narrative Therapy is a step in the right the direction for enhancing mandated substance abuse treatment group therapy. In a pilot study conduct by Hicks et al. (2019), Trauma Narrative Therapy had a positive impact on the mandated substance abuse group treatment. This study will continue the research in this area to determine if introducing TNT into substance abuse groups has a positive impact on treatment outcomes over time.

CHAPTER 2

LITERATURE REVIEW

The treatment of substance abuse is an anomaly within the mental health field (Bertholet et al., 2013; DBHDD, 2020; GACA, 2020; NAADAC, 2020; Taxman & Bouffard, 2003). Substance abuse counselors have historically been recovering addicts with little to no formal education in mental health treatment. Personal experiences of those counselors were heavily relied upon versus empirical findings (Miller et al., 2010). Unfortunately, this has not changed in the mandated substance abuse treatment centers regulated by state agencies (Department of Health and Human Services, 2018). Many of these agencies have rules that allow non-credentialed interns to work under substance abuse counselors that only hold basic credentials in the field (Georgia DUI Intervention Program, 2019). These interns are providing the substance abuse group treatment for DUI clients mandated to Level 1 ASAM outpatient treatment. Although the State of Georgia recommends the use of the Prime for Life curriculum (evidenced-based), only sixty-three individuals working in centers locally actually utilize it (DBHDD, 2020). As a result, various treatment models are being used and manipulated by substance abuse counselors responsible for the treatment.

According to Lane and Lane (2018), "Almost everyone, by the time they reach adulthood, has experienced some form of trauma in their lives." Most individuals suffering from a substance use disorder have underlying issues compounding the problem of the substance use (Hayley et al., 2017; McMillian et al., 2008). According to Bishop & Reed (2017), one of the most common conditions that coexists with substance abuse is trauma. The literature has shown that when these disorders co-occur, recovery from either requires simultaneous treatment for both conditions (ASAM, 2020; Barrowclough et al., 2010; Drake & Mueser, 2004; Kelly &

Daley, 2013; Sorsa et al., 2017). There is a need for treatment models such as Trauma Narrative Therapy which can be integrated with current substance abuse curriculum and facilitated by individuals with little to no experience in mental health (Lane & Lane, 2018). As outlined in this literature review, there is a growing need for an integrated approach to treatment for substance abuse clients with trauma.

Mandated treatment centers using existing treatment models may not effectively treat substance abuse and trauma. Although various models have shown some effectiveness in the realm of substance abuse treatment, the efficacy is decreased when substance abuse and trauma are comorbid. The same is true for trauma. Various models have shown efficacy in the treatment of trauma alone; however, when substance use is comorbid, the efficacy decreases. This literature review will discuss the history and evolution of substance use treatment, history and evolution of trauma treatment, current landscape of substance abuse credentials, and the efficacy of integrated treatment approaches for substance abuse and trauma.

History of Substance Abuse Treatment

Although more attention has been called to the problem, nothing much has changed. According to Wendt and Gone (2018), "in spite of increased attention to research-based interventions for SUD, a formidable research-practice gap impedes the implementation of evidence-based treatments" (p.1). Addiction training curricula within traditional programs still lag behind those devoted to clinical mental health disorders. One of the reasons for the stagnated system is that psychologists primarily view addiction through the lens of a separate problem from presenting mental health issues (Bell & McCutcheon, 2020). Many individuals agree that there is a need for training mental health professionals in SUD; however, it has been a slow-moving process (Burrow-Sanchez et al., 2020; Martin et al., 2020; McCarty et al., 2020;

Pedersen & Sayette, 2020). According to Pedersen and Sayette (2020), health service providers receive little training in SUD, ultimately leading to inadequate care.

Historically, the treatment of substance abuse has been an anomaly within the mental health field (Forman et al, 2001; Gaumeet al., 2009; Taxman & Bouffard, 2003). Substance abuse counselors have historically been recovering addicts with little to no formal education in mental health treatment. Personal experiences of those counselors were relied upon versus empirical findings. The history of substance abuse treatment dates from 5,000-year-old Egyptian reports as well as Greek and Roman sources. Egyptians recommended that those suffering from alcohol addiction should be cared for in private homes. Ancient Greek and Romans recommended treatment for alcohol in public asylums (Henninger & Sung, 2014). According to White (1999), "Early images of slaves attempting to treat the suffering of their addicted masters with massage and various purgative and potions suggest the presence of physical methods for alcoholism from the earliest periods of recorded history" (p.3).

1790s-1830s

In the United States, the recognition of alcohol addiction emerged between 1790-1830 (White, 1999). Known as the "forty-year-binge" and the "discovery of addiction era" this period was a benchmark in American history. Individuals began drinking distilled spirits instead of cider and wine. Americans drank more alcohol per capita than at any time before (Siff, 1980). Saloons and taverns opened across the country (White, 1999).

Around 1784, Dr. Benjamin Rush and Dr. Samuel Woodward called attention to the topic of inebriety (i.e., alcoholism). Dr. Rush was one of the most prominent medical professors of his time. His efforts included writing educational pamphlets about the dangers of excessive drinking and advocacy efforts to Congress and President John Adams, to prohibit the distilling and

consumption of spirits (Katcher, 1993). Dr. Rush and Dr. Woodward were the first to conceptualize alcoholism as a disease (White, 1999).

1840s-1890s

New York State Inebriate Asylum was the first treatment center to open in 1864 for alcoholism. This asylum used physical methods to treat the clients. Drug therapies, aversion therapy, hydrotherapy, and electrical stimulation were all used in the treatment of alcoholism. There was no definitive treatment plan or length of stay; the client remained until cured (White, 1999). These first inebriate asylums were modeled after state-operated insane asylums.

The temperance movement played a significant role in addiction treatment. The reformers, many of them in recovery themselves, formed mutual aid societies and reform clubs. They were instrumental in establishing the Washingtonian Homes in Boston (1857) and in Chicago (1863). These inebriate homes operated on the premise that alcoholism was a moral issue and individuals must be reformed to recover. The first addiction-related professional association and journal was established by the managers of the inebriate homes and inebriate asylums. A stark difference existed in treatment modalities between clients in the asylums and in the homes (White, 1999).

In 1872, the Water Street Mission was opened by Jerry McAuley. He and his wife were alcoholic missionaries active in the religion-based inebriate homes serving skid row alcoholics. These efforts were the beginnings of the Salvation Army and other urban mission programs. Alcoholism was perceived to be a religious issue and that the individuals were in need of spiritual rebirth to recover (White, 1999).

During the second half of the 19th century, addiction treatment branched into two separate approaches: private for-profit and addiction treatment institutes. The institutes were

franchised across the United States, including private treatment centers for clients. The private sector promoted tonics or cures to individuals to use at home. A market for the private sector was to stay-at-home wives who were promised that tonics would cure their husbands of addiction (White, 1999).

1900s-1950s

The goal of Prohibition was to make the distribution and transportation of alcohol illegal in an attempt to eliminate alcohol use in the United States. Alcohol shifted from being perceived as a medical problem to being perceived as a moral problem. Prohibition did not have the intended effect since drinking increased. Although religious groups continued to provide treatment for alcoholism, institutional treatment disappeared until the late 1940s (Henninger & Sung, 2014).

As a result of high opiate use in the United States, the first morphine maintenance clinics opened in 1912. To control the epidemic, The Harrison Act of 1914 was passed, which regulated access to opiates, cocaine, and other drugs to everyone (including medical doctors). A paradigm shift in substance abuse treatment resulted. Now that possession of illicit substances was criminalized, and treatment shifted from a public health model to a criminal justice model (Henninger & Sung, 2014). When government limited access of these substances to physicians, all of the morphine maintenance clinics closed. Jails were flooded with addicts being prosecuted for possession of illicit substances. Instead of being weaned off drugs and alcohol, individuals were now put in jail for addiction with limited access to treatment. Many of the surviving substance abuse treatment modalities were experimental in nature and modeled after state insane asylums during this era. Inappropriate treatments, along with invasive methods, were often used, such as electroconvulsive therapy, aversion therapy, insulin-induced comas, lobotomy, and

serum therapy (Henninger & Sung, 2014). This cycle marked a setback for addiction treatment in the United States.

In 1923, Sigmund Freud published *The Ego and the Id*. His theory of psychoanalysis began to grow among members of the medical profession. Historically, psychoanalytic therapists have viewed drug use as a symptom of severe psychopathology (Berger, 1991). This is not surprising, as Shedler (2010) stated, "This therapy was dominated by hierarchical medical establishment that denied training to non-MD's and adopted a dismissive stance toward research" (p.99). Only doctors had access to treatment training and they did not prioritize research to improve the treatment modalities of addiction.

The founding of Alcoholics Anonymous (AA) by Wilson and Smith in 1935 formed an industry-standardized belief system that is still strong today (Aase et al., 2008). They developed a 12-step program and published the book *Alcoholics Anonymous*, also known as the Big Black Book. AA maintained early on that "only an alcoholic can help an alcoholic." Although AA provides a great support system, the 12 steps do not include clinical treatment. The entire concept is built and run by recovering addicts (Dennis et al., 2013).

Professional organizations, the military, and academia began to advocate for substance abuse education, treatment, and recognition in the early 1950s. In 1954, Ruth Fox established the New York City ASAM. The Minnesota State Civil Service Commission became the first in the United States to approve a state job classification for counselor on alcoholism. The Veterans Administration developed alcoholism treatment within its network of hospitals in 1957, and Fordham University was the first university to offer alcoholism as a college course (White, 1998).

1960s-2000s

In 1963, President John F. Kennedy signed the Community Mental Health Act, which was a major landmark in the United States history of mental health rights. This act inspired a shift from large institutions towards community-based mental health treatment. Grants were established for the construction of community mental health centers and these centers were required to provide five essential services: consultation and education on mental health, in-client services, out-client services, emergency response, and partial hospitalization. In 1965, Congress passed the Medicaid Act, which paid higher rates for community-based care (Sheffield, 2013). As new evidenced-based treatments and psychiatric medication became available, experts began to question the efficacy of institutionalized care. The growing awareness of unethical treatment in these institutions and the lack of qualified staff were evident (Horgan, et al., 2001). By 1980, the in-client population at public psychiatric hospitals had declined by 75% as a result of the Community Mental Health Act. The era of deinstitutionalization, another government initiative, began but it did not achieve the desired goals. Although the initial plan was to move towards community-based centers, insufficient alternatives to institutionalization were available (Simmons et al., 2009). Agencies struggled to stay afloat financially and with adequate staffing. Homelessness, SUD, suicide, and incarceration of those individuals without access to care increased. Although President Kennedy had the vision to change mental health treatment in the United States, his dream was not adequately realized (Sheffield, 2013).

The ASAM (2013) standardized treatment placement criteria for substance abuse through the Coalition for National Criteria. As a result, guidelines for diagnosis of SUD and treatment were created. The first edition of these guidelines was the Client Placement Criteria for the Treatment of Psychoactive SUD, published in 1991. The Coalition met annually, and placement criteria evolved over the years. ASAM improved the intake and assessment process for

identifying levels of care with substance abuse clients. Through a six-dimensional approach, a level of care is recommended to clients. The biopsychosocial assessment elements are causally related to those components affecting SUD outlined in the ASAM guidelines. Although great strides have been made in the substance abuse treatment arena, there is a gap in the literature surrounding integrative techniques and approaches to mandated substance abuse treatment.

Current Substance Abuse Treatment Models

A review of the literature shows existing treatment models do not effectively treat the comorbidity of substance abuse and trauma. The foundation of cognitive therapies (CT, CBT, and Rational Emotive Behavior Therapy) is based on cognitions of rational, logical thought (Driessen et al., 2017). Much controversy surrounds CBT due to the omission of emotions, life experience, culture, and spirituality. Individual thought patterns are classified into two categories: normal or needing to be normalized. CBT requires intransigent, robotic adherence to the therapy for optimal results (Folke et al., 2017). This therapy model is not effective for all groups. CBT does not consider the individual from a holistic viewpoint, and it inhibits true self-worth. The CBT theoretical model encourages phycological repression by excluding desires and impulses from a person's consciousness, insight, lack of multicultural consideration, crystalized intelligence, and religious belief system. From a historical perspective, CBT was formed in the early 1950s and the "normal" thought processes were set by the counseling pioneers during that time (Thoma et al., 2015). Most of these individuals were White males. Moreover, thought processes were vividly different from modern times (Thoma et al., 2015). Logical, rational thought today is different from the era of development for CBT. For instance, Aaron Beck founded cognitive therapy in the 1960s and Albert Ellis founded rational emotive therapy in the 1950s (Thoma et al, 2015). Both Eillis and Beck were White males in a time where segregation

was a prominent issue in the United States. These cultural backlashes could have led these men to develop an idea of normalcy based on what they believed as correct social behavior. However, the third wave of CBT transformed the model somewhat with therapies such as acceptance and commitment therapy, dialectical behavior therapy, and mindfulness-based cognitive therapy. This third wave included revising interventions of CBT that allow for further growth (Halldorsdottir & Ollendick, 2016). CBT may not be effective for all cultures, and it has characteristics of social repression for some groups. According to Amouroux (2017), "In France, behavior therapy was viewed as ethically problematic and dangerous" (p. 313). "Many French intellectuals have a marked hostility towards the United States and perceived these therapies to be 'manifestations of American imperialism'" (Amouroux, 2017, p. 314). To cure what is considered in the Western world as irrational thoughts, CBT can be damaging to individuals with different belief systems (Amouroux, 2017). Individuals from different cultures may often feel misunderstood or guilty during CBT therapy. Although culture assimilation can be important, clients should not be expected to give up their belief systems and cultural backgrounds.

According to Benuto and O'Donohue (2015), CBT therapy with Hispanic cultures was found to be just as effective as other therapy models. However, the participants were not categorized by country of origin, such as Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish cultures. As a result, this article did not have enough external reliability. Cultures cannot be grouped together and normalized solely on a logical/illogical basis decided from one "dominant" culture. Strict adherence to the program/therapy of CBT has shown positive results in the treatment of bulimia nervosa and PTSD for children (Folke et al., 2017; Nixon et al., 2016). In the study by Nixon et al. (2016), three phases of treatment were administered to the clients. CBT was proven effective if the therapist rigidly followed the model

during the first two phases of treatment. However, even when techniques were rigidly followed, results have shown a decline over the past decade for the treatment of depression (Johnsen & Fiborh, 2015; Waltman et al., 2016). In Driessen's (2017) study, the CBT therapists followed the model strictly and found the treatment to be just as effective as other therapies. However, when they combined CBT with other therapies, they found it not to be as effective (Driessen et. al., 2017). Two primary dilemmas with CBT are (a) therapists may not be compliant with the protocols and effectively administer the therapy (b) and it may not be suitable for all cultures.

Humans enter the world as blank slates: born innocent and without life experiences. Their environment and life experiences mold or shape them along the way. According to Johnson (2013), young men exposed to violence showed desensitization to danger and their belief systems were altered. These young men interviewed already had a modified belief system triggered by their environments. Johnson's study had low trustworthiness due to the limited sampling of participants and the qualitative approach used. Although CBT may create behavior change on a short-term basis, thought processes/behaviors may not change permanently unless the violent environment changes. Many of these individuals are in a survival or fight/flight state-of-mind, with a heightened sense of awareness. By reducing the perceived threat level in the environment, the behaviors may normalize. As evidenced in the literature, psychoeducational models alone are inadequate to address substance abuse addiction, grief, and trauma.

Psychoanalytic/psychodynamic therapies are grounded in the earliest months of a life (Bowlby, 1982). These therapies are critical to the foundation of other models or building blocks for other evidenced-based approaches (Hamilton, 1989). As Prochaska and Norcross (2014) suggested, "Without a guiding theory or system of psychotherapy, clinicians would be vulnerable, directionless creatures bombarded with literally hundreds of impressions and pieces

of information in a single session" (p.4). "Psychoanalytic therapies are important when collecting history from our clients as they provide a starting point and background on our clients" (Prochasksa & Norcross, 2014, p. 4).

Although these therapies are important for the client during the assessment phase, they do not address the here and now of the presenting problem with the client Prochasksa & Norcross, 2014). These therapies were developed during the Victorian age, and during this time, therapy was designed for the wealthy and could last for years. Secure attachment to a parent or caregiver reduces the chance of problematic behavior as an adult (Pallini et al., 2019). However, Western culture views on attachment are not universal which presents an issue with the model of attachment in general (Rothbaum et al., 2000). As Sentse, et al. (2010) suggested, parental rejection or lack of attention has been shown to cause vulnerability to some forms of psychopathology. Ainsworth (1969, 1970) showed that when an infant feels they are in a secure relationship to a parent or caregiver, behavior is normalized. These behaviors continue throughout their life span (Main, 2006). On the contrary, as Clancy (1986) and Doi (1973) pointed out, other cultures' parents (i.e., Japan) have a different approach to meeting the needs of their children. Japanese caregivers tend to anticipate the needs of the children and meet them in advance (Miyake et al., 2000). Individual focus is not placed on striving for autonomy and individuation; therefore, the Japanese culture would find this therapy model less effective.

Forming secure attachments as a child can decrease the chance of mental health disorders later in life (Bowlby, 1982). Shorey and Snyder (2016) suggested that attachment styles can often predict adult psychopathology. Birns (1999) stated that individuals can form secure attachments later in life, which decreases the likelihood of mental health conditions. Birns disagreed with Bowlby (1982), stating that he did not prove the damage from an insecure

attachment was irreversible. Slater (2007) suggested that attachment is a requirement for healthy development. Therefore, future mental disorders are common with insecure attachments (Shorey & Snyder, 2006). In comparison of attachment diversity among human beings in different family systems or cultures, scholars have found that some level of human relationship is essential to survival (Miyake et al., 2000). However, these attachment differences can be problematic in romantic relationships (Hepper & Carnelley, 2012). As Doron et al. (2010) stated, diversity in attachment patterns have been essential to the span of human evolution. However, insecurely attached individuals have problematic relationships as adults (Hepper & Carnelley, 2012).

Psychodynamic therapy can be beneficial in the treatment of depression (Hoyer et al., 2017). Two trials were completed that found psychodynamic therapy was at least as efficacious as CBT in reducing depression (Driessen, et al., 2016). However, for it be an effective treatment for depression, it must be administered early in therapy. According to Chronis-Tuscano et al., (2017), psychodynamic therapy has proven successful for children diagnosed with attention-deficit/hyperactivity disorder (ADHD). However, it is difficult to determine if the therapy is successful as ADHD is frequently misdiagnosed and over-diagnosed in children (Manos & Giuliano, 2020). Chronis-Tuscano et al., (2017) showed positive outcomes in most cases for treatment of the parents and children for ADHD. However, Manos & Giuliano (2020) is clear that ADHD is over-diagnosed in children; therefore, the results of the psychodynamic therapy for parents are not reliable.

Psychoanalytic/psychodynamic therapies must be combined with other evidenced-based models to be effective. Psychoanalytic/psychodynamic therapies focus more on what an individual may need to change about themselves instead of helping them determine how to make those changes. These therapies should be one of many tools that can be integrated into a

complete treatment plan (Prochasksa & Norcross, 2014). Most individuals seek therapy with a general idea of what they want to change in their lives; they just do not know how to incorporate the change. Psychoanalytic therapies cannot stand alone and meet the client's needs for substance use and trauma combined (Bolch-Elkouby & Knopf, 2016).

According to Rogers (1957), the core conditions are all that are needed for human beings to grow and move towards self-actualization. These necessary and sufficient conditions are unconditional positive regard, empathy, and congruence. Client autonomy is of the highest importance, and therapists are nondirective in their approach. As a result, the client makes all of their own decisions while the therapist simply plays the role of an engaged observer. However, this therapy has limitations as all human beings may not be wired to strive for continuous growth and self-improvement or even understand the concept of "good" behavior. This is especially true with substance abuse clients. External factors and sociopolitical mechanisms influence the human condition and how individuals view the world. As evidenced in the literature, the core conditions may or may not be necessary or sufficient for all individuals. The relationship is the primary focus with a person-centered therapy (Kirschednbaum & Jourdan, 2005; Rogers, 1957). Three primary core conditions of being are all that are needed for a client to grow and reach self-actualization. These conditions are necessary and sufficient, allowing complete client autonomy (Bozarth & Moon, 2008; Khan, 1999; Knight, 2007; Quinn, 2008). According to Kirschenbaum and Jourdan (2005), "When a therapist demonstrates the 'core conditions' of unconditional positive regard, empathic understanding, and congruence and when the client perceives there at least to a minimal degree, then its positive correlates are inevitable" (p.3). The heart of person-centered therapy is always the relationship and the ability for the therapist to remain nondirective with clients. For instance, clients with gender dysphoria, or trauma victims, may benefit from a

nonjudgmental therapist who just listens to them with unconditional positive regard. However, according to Knutson (2018), person-centered therapy neglects the politics of sexuality and gender altogether.

Limitations with person-centered therapy include problems and experiences that are not discussed during therapy which can be damaging to some clients. As stated by Khan (2012), "However useful the other things a therapist does may be, if the therapist can't hear, the person is left alone inside" (p.108). Although these techniques may be effective for some individuals in therapy, they have limitations with certain populations (Kensit, 2000; Weaver, 2008). Accordingly, the core conditions may not be sufficient as evidenced by Khan (1999), "It is impossible for a therapist to be consistently nondirective" (p.109). Namely, it could be harmful if a therapist does not offer redirection to a client who may have destructive behaviors in session. This model has limitations as all human beings may not understand the concept of nondestructive behaviors. Furthermore, these core conditions are not sufficient as outlined by Knight (2007): "Some clients may want a directive approach and may not return to therapy with a therapist using this method" (p.110). This therapeutic approach limits the therapist from introducing content from his or her framework or redirecting maladaptive thoughts.

Individuals with a strong locus of control may benefit from person-centered therapy. According to Bozarth and Moon (2008), "Client-centered theory is based on a radical assumption about the client's capacity and right for self-direction and self-development" (p.9). Some individuals may benefit from the person-centered model as the client can explore and develop their internal locus of control. According to Maslow's hierarchy of needs, the primary motivation or drive of human beings can change based on current need. This theory includes five levels of human need, with self-actualization being the highest level of human accomplishment. This

model has limitations because not all human beings may be using their internal locus of control. Due to sociopolitical and environmental factors, some individuals may be lower on the hierarchy of needs, or in the deficiency need area. As a result, they may be operating primarily from an external locus of control. For instance, an individual going without food may look for instant self-gratification by making choices that would not be consistent with their highest and best self. This therapy model has limitations as certain individuals may not have the capacity for self-direction and self-development while operating in a deficiency.

Because the nature of primal instinct pushes human beings towards survival, person-centered therapy is not an effective model to treat the comorbid condition of substance abuse and trauma. Humans are fundamentally a society of disunity due to the lack of understanding of sociopolitical factors across economic and environmental boundaries. Furthermore, therapists cannot be congruent with individuals whose behaviors are destructive. Person-centered therapy is an outdated model written from an androcentric framework that does not work today. Ethically, therapists are bound to provide help to their clients, and when they say and do nothing at all, clients may be harmed so that the helping process is damaged. This therapeutic approach limits the therapist from introducing content from his or her framework or redirecting maladaptive thoughts. As evidenced in the literature, the person-centered approach may or may not be the appropriate therapy model for clients suffering from substance abuse and/or trauma.

Prime for Life curriculum uses a risk-reduction, motivational interviewing approach to treatment. This treatment model was created for use primarily with mandated DUI offenders in an outpatient setting. Prime for Life is the state-approved preferred program used in twenty-eight states with mandated DUI clients (Prime for Life, 2020). It is focused on reducing high risk choices with drugs and alcohol. It is divided into three units: exploring unit, reflecting unit, and

protecting unit. The phases are consistent with beginning stages, coping skills, and maintenance. The treatment was designed for an open group format with eighteen total lessons (Prime for Life, 2020). Open group format is when participants start and complete treatment at different times. For example, a participant could be starting treatment on the same night another participant is graduating. Treatment is delivered in a group setting once a week for a three-hour session. Each session, a different lesson is covered based on the rotation schedule outlined by the clinical director. The session delivery should be formatted to ensure individuals mandated to short term or long-term treatment all get exposed to the three different units prior to graduation. One of the limitations of this model is any individual can get certified for this treatment model. Individuals with no background in substance abuse or mental health are eligible for certification through a five-day workshop and given a level-1 credential for substance abuse group treatment. Individuals can attend additional workshops and receive level-11 credentials. Another limitation is the lessons do not usually take three-hours to complete and the group leader must fill the rest of the time with information they create (Prime for Life, 2020).

Motivational Interviewing arose through a convergence of science and practice (Miller & Rollnick, 2017). Clinical trials and thirty years of research have proven this method highly effective with substance abuse groups (Miller & Rollnick, 2017). The concept of Motivational Interviewing evolved in the experience of problem drinkers. This theory is based on the underlying reasons that affect behavioral changes (Borasri, 2016). It has a positive client centered approach, which allows the individual to engage in self-assessment. This technique has two specific components: 1) relational component; which is focused on empathy and the relational spirit and 2) technical component; involving the differential evocation and

reinforcement of client change talk (Miller & Rollnick, 2017). Based on the research the relational component is the heart of Motivational Interviewing (Prime for Life, 2020).

Motivational interviewing is a person-centered approach that focuses on the therapeutic relationship with the client (Miller & Rollnick, 2017). Eliciting client change talk is the heart of motivational interviewing (Rosengren, 2009). Research shows motivational interviewing techniques have been successful with clients, especially in group settings (Miller & Rollnick, 2017). To gain a better understanding of motivational interviewing, one must first understand the righting reflex. Helpers normally have mastered the "righting reflex," and it is a natural technique for most counselors. The concept is the desire to fix what seems wrong with our clients and tell them what to do, or what is best for them. In some cases, this can be an effective approach, such as in cognitive behavioral therapy. However, in motivational interviewing, counselors must refrain from the righting reflex with clients. To gain a better understanding of motivational interviewing techniques, styles must be further explained. Three primary styles of communication with clients are the directing style, following style, and guiding style (Miller & Rollnick, 2017). The directing style of commination is when the helper provides information, instruction, and advice to the client. The counselor has the approach of knowing what the person needs to do and how they need to do it. It is much like a director would act for a television show. This style insists on client obedience or compliance (Miller & Rollnick, 2017). A following style is on the opposite end of the spectrum. The counselor practices good listening skills and allows the client work out the problem in his/her own way. Following is listening as a human companion and offering no direction. This style is often ineffective in group settings. The guiding style requires good listening skills and offers expertise where needed. A good example of the guiding style would be just like a guide you hire to tour a foreign country: not providing

too much help, but guiding when needed (Miller & Rollnick, 2017). This style is highly effective with groups. Therapists are using the guiding style of therapy when they are utilizing MI techniques in group settings (Miller et al., 2103).

The primary function of motivational interviewing is to illicit change talk from the client. To fully understand the concept of eliciting change talk, you must first understand the difference between change and abstain talk (Rosengren, 2009). Ambivalence is prominent in groups. Ambivalence is wanting and not wanting to change something at the same time (Miller & Rollnick, 2017). Picture ambivalence as a debate inside one's own head about a subject, there is always two sides to the coin. The two sides are change talk and sustain talk. "Change talk is when the persons own statements that favor change, often called self-motivational statements" (Miller & Rollnick, 2017). On the other hand, sustain talk is a person's internal arguments about not changing. These are natural internal debates for all humans (Rosengren, 2009). A counselor using the righting reflex will reinforce the sustain talk without knowing it to the group while members may be debating the opposing side internally (Miller & Rollnick, 2017).

Motivational interviewing techniques include listening for the change talk with our clients and eliciting more change talk from the client. This type of therapy requires practice and close observation of the group. The internal conversation for the client then becomes answering your open-ended question and encourages more change talk. The concept behind this is the more change talk the client has internally and externally, the more likely they are to act on these changes. As Miller and Rollnick (2017) have said, "Clients tend to believe themselves and trust their own opinions more than those of others. If you are arguing for change and your client is arguing against it, you have got it exactly backwards." Motivational interviewing has the highest efficacy in substance abuse groups based on current research (Miller & Rollnick, 2017). In a

study conducted by Prime for Life (2020), group counseling intervention was delivered to seventy-two individuals with alcohol and drug related disorders. Questionnaires were given to the participants at two different intervals during the group sessions: baseline (pre-group) and post (after group). Participants showed improvement during Prime Solutions being delivered in the group sessions. Understanding tolerance, knowledge of what constitutes a standard drink, and perception of quantity of alcohol that creates risks were some key factors communicated in the initial stages of group sessions (Prime for Life, 2020).

In a recent study, motivational interviewing techniques were used in group with at risk adolescents recently mandated by the court for treatment. The group leaders continued to emphasize change talk and reduce sustain within the group and the study. Change talk was associated with the most positive effects: positive being associated with fewer days of alcohol use in the past month for the group (Amico, 2014). Allowing adolescents to work through ambivalence during the group session and make lower risk choices was the guiding principle to this study. This is the very heart of the motivational interviewing process. Many of these group members were participating in risky sexual behaviors while using substances. D'Amico states, "many homeless youth exhibit high rates of alcohol and other drug use and sexual risk behaviors." In fact, one recent study shown that 69% of homeless youth met the diagnostic criteria for substance use disorder (D'Amico, 2015). Most of these mandated youths had comorbid problems of risky sexual behavior and substance abuse disorders. This study was conducted to find a brief treatment that may address both problems at the same time. Group motivational interviewing showed positive results for both disorders. In fact, the group leaders even benefited during this study, showing a more positive approach in general. By asking open

ended questions, and providing reflections to the group, a readiness to change was observed (D'Amico, 2015).

The goals of existential therapy is the importance of meaning, responsibility, awareness, freedom, and potential (Gladding, 2013). The strengths of the existential approach come from an intentional confrontation of individual responsibility. Making the covert-overt is critical in a group setting (Lane, 2016). Confrontation is an effective method during the group process to understand false beliefs that individuals hold about themselves and the world around them (Gladding, 2013). Existential anxiety is a leading contributor to substance abuse beginning as early as the adolescent stage of life (Karavalaki, 2016). Another strength of the existential treatment approach derives from recognizing some forms of anxiety as a positive motivating influence by understanding that, group members can re-visit their previous choices. The principal of universality helps individuals to understand their consecutiveness with others experiencing similarly distressing situations (Gladding, 2013). Per Grant, (1996), "With addiction there is a quote unquote dark power to trauma that sometimes functions like a god (p.11)." Challenges occur when one feels the world is neither safe nor predictable. Feeling victimized versus freedom of choice, isolation versus creating intimacy with others, meaninglessness versus a purpose, doom of death versus acceptance of death and the hereafter are key elements of Existential therapy. Grant echoes these ideals in his description of addition and spiritualty and faith (Morgan O. J., 2009).

Medications

According to the National Institute on Drug Use (2020), a range of care along with tailored treatment programs are essential to the recovery from a substance use disorder. Many

different treatment modalities are available for substance use disorders although behavioral counseling is the first option, medication is sometimes necessary.

Antabuse (disulfiram) was the first medicine approved for the treatment of alcohol abuse. This medication would cause a severe adverse reaction (severe vomiting) if the individual taking it consumed alcohol. Currently, there are four medications approved by the Food and Drug Administration (FDA) for use in treating alcohol dependence: disulfiram (Antabuse), oral naltrexone (Revia), acamprosate (Campral), and intramuscular injection Vivitrol (U.S. Food & Drug Adminstration, 2020). In a study by Pettinati & Willenbring (2006), an overview of the largest pharmacotherapy study to date for treating alcohol dependence was reviewed. In the COMBINE study, alcohol dependent patients were randomly assigned for four months to placebo pills and one or two medications given in combination as 3g/day of acamprosate and/or 100mg/day of naltrexone (both FDA approved). The results concluded that some of the patients benefited by participating in the study because all nine groups had a substantial reduction in drinking during the four-month study. The best statistical drinking outcomes after sixteen weeks of outpatient treatment had received naltrexone with counseling alone or had received the placebo pills and counseling. There was no advantage found in COMBINE study for adding acamprosate to either the treatment or control groups (Pettinati et al., 2006).

Traditional medication treatment strategies have focused on agonists to replace the effects of the abused substance (Collins et al., 2018). New medication treatments have targeted receptors, such as serotonin receptors, which can indirectly modulate dopamine neurotransmission. The development these drugs may be effective at reducing abuse-related drug effects across the board. In an article by Collins et al. (2018), a review of the medication lorcaserin and the preclinical evidence supporting the efficacy was discussed. Although

lorcaserin was originally developed to treat obesity, it has shown promise in the treatment of substance use disorders.

In 2018 the FDA approved the first generic versions of Suboxone sublingual film. This medication was developed to treat opioid use disorders. According to the FDA (2018), medications are most effective when coupled with other social, medical, and psychological services for opioid dependence. Through the medication assisted treatment (MAT) approach to opioid treatment, common medications used to treat opioid disorders include methadone, buprenorphine, and naltrexone.

A life-saving opioid overdose reversal medication, NARCAN (naloxone HCI), is currently available to first responders and healthcare workers. However, it is also available to the public if requested. NARCAN is a nasal spray that can be purchased without a prescription from the pharmacy and is also covered by most health insurance plans (NARCAN, 2020). According to Multum (2020), NARCAN blocks or reverses the effects of opioid medication, including extreme drowsiness, slowed breathing, or loss of consciousness. Although NARCAN can be used to stop an opioid overdose, it is not treatment for opioid abuse (Multum, 2020). Many different medications are available to treat substance use disorders, but they all require managed care by a physician during treatment and may not be a long-term solution to sobriety. To be effective, they must be combined with behavioral counseling (ASAM, 2020).

History of Trauma Treatment

First-generation approaches to trauma and recovery were focused on PTSD. Trauma was historically recognized in World War II military recruits as shell shock. It was closely related to homesickness with soldiers and was viewed as a character flaw (SAMHSA, 2014). Military recruits were screened to identify those who were afflicted with “moral weakness” that would

prevent them from entering military service. The U.S. Department of Veterans Affairs started developing PTSD group (talk) therapy during the Korean and Vietnam wars (Greene et al., 2004). The social revolution of the 1960s, combined with the women's movement, brought more attention to victims of interpersonal violence and crime-related trauma (Figley, 2002; Kramer, 1997). In the 1980s, the *DSM-III* created a new diagnosis- PTSD. The military began to treat soldiers and veterans with talk therapy because of this new diagnosis.

In 1994, the *DSM-IV* modified the definition of trauma to include a broader interpretation of the identified stressor (APA, 2013). As a result, PTSD was removed from the anxiety disorders category. This made the diagnostic category a common focus of the disorder relating to adverse events. Other disorders included in this diagnostic category are adjustment disorder, reactive attachment disorder, disinhibited social engagement disorder, and acute stress disorder. Although trauma treatment has evolved over time, most treatment involves direct focus on the trauma itself, and not comorbid issues that could be associated with it, like substance use.

The second-generation approach to trauma treatment included psychosocial education and empowerment models. These therapy models were designed to provide a social context for care. Trauma-informed care became the new paradigm for public health services for individual and group treatment. Individuals are empowered to set their goals and manage progress towards those goals. This new approach is considered cost effective and person-centered towards trauma-informed care (Bishop & Reed, 2017; Figley, 2002).

Current Trauma Treatment

Exposure-based therapies are known to be one of the most effective forms of treatment for trauma (Killeen et al., 2011: Lane & Lane, 2018), with a substantial amount of evidence supporting narrative therapies as effective in reducing trauma symptoms (Bowen et al., 2010;

Lane & Lane, 2018; Zang et al., 2013). Exposure-based therapy was developed to help individuals confront their fears. There are several variations of exposure therapy which include in-vivo exposure, imaginal exposure, virtual reality exposure, and interoceptive exposure. As outlined by the APA (2020), exposure therapy has been scientifically demonstrated to be an effective treatment with phobias, panic disorder, social anxiety disorder, obsessive-compulsive disorder, post-traumatic stress disorder, and generalized anxiety disorder. In a study by Rauch et al., (2010), exposure therapies were proven to be highly effective in reducing PTSD symptoms associated with a variety of traumas, including combat, noncombat, and military sexual trauma. Exposure therapies have been referend to as the "gold standard" for trauma treatment (Rauch et al., 2012).

Research has shown that combining TNT with other treatment modalities reduces trauma symptomology and improves the overall quality of life for participants (Hicks et al., 2019: Lane et al., 2016). In a study by Robjant et al. (2019), ninety-two female former child soldiers who had been forcibly recruited during the M23 insurgency in Eastern DRC and who were found to have PTSD were randomized into groups. Using an adapted form of narrative exposure therapy, the participants were placed into treatment and control groups. Outcomes for PTSD, appetitive aggression, depression, and social outcomes were assessed. High levels of trauma, historical perpetration of extreme violence and ongoing violent behavior were found within this group. The treatment intervention was found to be superior to treatment as usual at three, four, and nine months follow-up. Moderate to large effect sizes were found for PTSD, aggression, and depression (Robjant et al., 2019).

Trauma Narrative Treatment enables clients to author their own story after a traumatic event. According to Lane, et al., (2016), natural disasters can also leave individuals and

communities left experiencing severe mental health symptoms: including PTSD, anxiety, depression, and sleep problems. In a meta-analysis by Cenat et al., 2020, a study was conducted to provide data of the prevalence of PTSD, depression, or anxiety symptoms among the participants. All the participants in the study were survivors of the 2010 Haitian earthquake. Studies were analyzed to include twenty-two from Haiti, three in the United States, and three elsewhere (i.e., Dominican Republic, Israel, and online). According to Cenat et al., 2020, "The meta-analysis synthesized these studies to determine the prevalence of PTSD, depression, anxiety, psychological distress and disturbance, suicidal ideations, and increased alcohol consumption among survivors of the January 12, 2010 earthquake in Haiti" (p.81). PTSD, depression, and anxiety were the most common factors among the participants. This was the first study that synthesized results of symptoms of the Haitian earthquake survivors.

Clients can work through experiences and reauthor/rewrite their stories (Lane, W. & Lane, D., 2018). According to Szafranski et al. (2017), integrated exposure-based treatments assist clients in decreasing symptoms of both trauma and substance use. In a pilot study done in 2019, that introduced Trauma Narrative Treatment into mandated substance abuse groups, Hicks et al. (2019) showed a decrease in trauma symptoms. This research points to the efficacy of TNT treatment among the comorbid condition of trauma and substance abuse.

Trauma and Narrative Treatment was created because of devastation after the Haitian earthquake by Dr. David Lane and Dr. Donna Lane. Multiple groups of pastors, teachers, community workers were trained in Haiti on the TNT model and given the companion story of Gold Stone. The story resonated with the Haitian people and is still widely used today (Lane & Lane, 2014). Trauma Narrative Treatment and Gold Stone are now used worldwide to treat trauma. The efficacy of TNT has proven effective in the response to traumatic events among

different populations and the comorbid condition of substance use. Hypotheses from literature are that exposure-based therapies are the "gold standard" of care for trauma (Rauch et al., 2012; Robjant et al., 2019: Szafranski et al., 2017).

Eye Movement Desensitization and Reprocessing (EMDR) is a trauma-focused psychotherapy treatment. EMDR is based on the theory of adaptive processing. According to this theory, individuals process new experiences by connecting and integrating them with related emotions and information in existing memory networks. According to The National Center for PTSD (2020), Eye Movement Desensitization and Reprocessing (EMDR) is one of the most effective treatments for trauma. In a pilot study by Tarquinio (2012), victims of domestic violence were treated with EMDR. The purpose of the study was to determine the effectiveness of EMDR in reducing PTSD symptoms, anxiety, and depression. Thirty-six women participated in this study: twelve were treated with EMDR, twelve were treated with eclectic psychotherapy, and twelve were assigned to the control group. The results showed the women in the EMDR condition showed significantly reduced PTSD and anxiety compared to those in the eclectic psychotherapy condition (Tarquinio, et al., 2012).

Cognitive Processing Therapy (CPT) is based on cognitive theory. The foundation of this theory is that individuals organize information into schemas to make sense of the world and to interpret new information (Galovski et al., 2020). Major tenants of this theory include clients that get stuck in assimilation and over-accommodation phases. In other words, they accept the trauma was something they deserved. This therapy can be administered in a group or in combined group formats. Primary goals are cognitive restriction and helping the client find an accurate, more balanced interpretation to the traumatic event. According to Galovski et al. (2020), there have been over twenty randomized controlled trials (RCT) of CPT with more in progress, and ten

meta-analyses (p.3). Research suggests that CPT produces large treatment effects regarding reduction of trauma symptoms (U.S. Department of Veterans Affairs, 2020).

Studies suggest that exposure therapies and EMDR have greater effects on relieving trauma symptoms than medications (Jeffreys, 2020). Evidence for trauma pharmacology is strongest for specific selective serotonin reuptake inhibitors (SSRIs); Sertraline (Zoloft), paroxetine (Paxil), and fluoxetine (Prozac) and one serotonin norepinephrine reuptake inhibitor (SNRI): venlafaxine (Effexor). Since trauma carries high comorbidities with substance use disorders, medication treatment may a negatively impact (U.S. Department of Veterans Affairs, 2020).

Substance Abuse Credentials

The current landscape of substance abuse counselor credential requirements varies from state-to-state. Most states require individuals to meet a set of minimum standards of practice to work as a substance abuse counselor (ICRC, 2020). It is important to understand most of these substance abuse credentials do not require formal education or a degree in mental health. According to eligibility requirements for the Alcohol and Drug Abuse Certification Board (2020), the first level of certification requires the following: GED or high school diploma, a 300-hour practicum with a substance abuse counselor, 100 hours of addiction courses, and reference letters (ADACBGA, 2020; GACA, 2020; ICRC, 2020). This is vastly different from the requirements for a licensed professional counselor which requires a master's degree in clinical mental health from a CACREP institution or course equivalent, a post-degree supervised internship (under another LPC) of three years, references, and an acceptable score on the National Counselor Examination (Secretary of State, 2020).

Locally, individuals are listed on the state registry to be approved as a state mandated treatment center location (Georgia DUI Intervention Program, 2019). The state registry requires the individual to hold a professional designation or a credential from either GACA, NAADAC, or ICRC as a substance abuse counselor. The problem is that many mandated substance abuse treatment centers allow interns to facilitate the group treatment (DBHDD, 2020). These interns may not hold any credentials or have any education in substance abuse. Locally, this is allowed as the rules and regulations only require a treatment provider to be listed on the registry, and those treatment providers can hire anyone they chose to administer the Level 1 ASAM group treatment (Georgia DUI Intervention Program, 2019). Many states follow this same model (Department of Health and Human Services, 2018).

According to the DBHDD Rules (2019), individuals listed on the registry should have an evidence-based program or use the recommended Prime Solutions curriculum. However, this state recommended curriculum is costly to the providers. Prime for Life requires a five-day training prior to obtaining access at a fee of $550. This training course must be completed before workbooks and training materials can be purchased. Workbooks cost $25 each and must be purchased in bulk lots of fifty. A new workbook must be purchased for each client (Prime for Life, 2020). Due to the low-income range for substance abuse treatment professionals, many centers opt out of the state recommended Prime Solutions curriculum and use an alternative program. Even if these programs started out using an evidence-based program, it is often watered down over time and often not facilitated therapeutically during treatment. The Georgia DUI Intervention program maintains an online registry for mandated treatment providers. Of those mandated treatment providers on the state registry, only sixty-three of those providers are using the approved Prime Solutions curriculum (Georgia DUI Intervention Program, 2020). As a result

of lax qualifications for substance abuse credentials and state rules, many substance abuse counselors are undertrained and therefore need more programs such as Trauma Narrative Therapy.

Efficacy of Integrated Treatment Approaches

Trauma Narrative Therapy and Prime Solutions were integrated into a mandated substance abuse treatment program in IRB approved (# H1810249) cross sectional study by Hicks et al., (2019). The researcher of this study is also the owner/director of the mandated treatment center (setting). This study included a treatment and control group. The standard treatment for this mandated treatment center was the Prime Solutions curriculum. Although Trauma Narrative Therapy can be utilized by laymen individuals (Lane W. L., 2018), the researcher provided extensive training to the group treatment leaders. All trainees were provided the Trauma Narrative Treatment workbook and the Goldstone story. The researcher trained the group leaders on each of the six sessions in the workbook. Mock sessions were conducted between the trainings to ensure a complete understanding of how to administer the sessions. The researcher monitored the treatment groups for compliance of the integrated treatment plan. The weekly group sessions were three hours long, and the standard treatment (Prime Solutions) only took one hour to complete. Trauma Narrative Treatment was implemented in the treatment group immediately after the standard treatment was delivered. Participants were measured at pre-treatment and post-treatment intervals. This study is a continuation of this work to determine outcomes at follow-up treatment.

In a study by Wusthoff et al. (2013), integrated treatment proved effective in treating patients with substance use disorders co-occurring with severe mental health disorders. This was a group randomized clinical trial in a community health center. It divided patients into treatment

and control groups. A linear multilevel model was used. Both the treatment and control groups showed a reduction in alcohol and substance use disorders during the trial; however, no change was reported in psychiatric symptoms. At twelve months post treatment, the treatment group showed an increased motivation for substance abuse treatment after twelve months (Wusthoff & Grawe, 2014).

In a multi-site cluster-randomized trial by Shaul et al. (2020), participants in a mandated treatment center were divided into treatment and control groups. The treatment group received integrated treatment including motivation interviewing and normal treatment combined. The control group only received the normal treatment. Data was measured at pre-treatment, post-treatment, and twelve months follow-up. Findings did not significantly differ between offenders that received integrated treatment and those that did not (Shaul et al., 2020).

According to Hien et al (2020), a study, "Women and Trauma", had a national impact on advancing specific approaches in community substance use treatment and research. This analysis was the first to demonstrate that trauma severity reductions were associated with substance use disorder improvement. Women with more severe baseline SUD severity had greater reduction in trauma severity scores and in substance use scores with this integrated treatment (Hien et al, 2020).

In a study conducted by Crisanti et al. (2019), this randomized control non-inferiority trail explored the effectiveness of Seeking Safety delivered by peer providers compared to its delivery by licensed behavioral health clinicians. The study enrolled 291 adults with trauma and substance use disorders. Data was collected at three and six months after starting treatment. Trauma symptoms decreased by 5.1 points and coping skills increased by 5.5 points in the clinician led groups (Crisanti et al., 2019).

Summary

There is need for future research discussing the efficacy of Trauma Narrative Therapy among participants with comorbid disorders, particularly substance abuse. Consequences for the ineffective approach of substance abuse modality include recidivism and relapse. One of the underlying causes of relapse is lack of treatment for comorbid conditions in mandated substance abuse groups. By introducing Trauma Narrative Treatment into mandated substance abuse groups, many individuals will receive the treatment they need to heal and learn to re-author their stories.

CHAPTER 3

METHODOLOGY

The purpose of this cross-sectional study was to determine if there is a significant impact on trauma symptoms or substance abuse symptoms when introducing Trauma Narrative Therapy in mandated substance abuse groups over time. The present study attempted to answer the following research questions:

Research Question 1: Is there an impact on substance abuse symptoms when introducing TNT into mandated substance abuse groups over time?

Research Question 2: Is there an impact on trauma symptoms when introducing TNT into mandated substance abuse groups over time?

Research Hypothesis 1: There is a significant impact on substance abuse symptoms when introducing TNT into mandated substance abuse groups over time.

Research Hypothesis 2: There is a significant impact on trauma symptoms when introducing TNT into mandated substance abuse groups over time.

Introduction

The researcher's worldview is a traditional, postpositive lens. As a result, the methodological approach chosen for this study was a quantitative approach. A true experimental design was conducted with the participants. Taking an empirical approach, the scientific method was followed. The six steps in an empirical research approach were followed: purpose/question, research, hypothesis, experiment, data/analysis, and conclusion. Post positivist researchers hold a deterministic philosophy that causes effects or outcomes (Creswell & Creswell, 2018). Developing numeric measures of observation and studying the behavior of the individuals within

the study is paramount for this research design and approach. This design allowed the researcher to measure the findings using SPSS when the data collection was completed.

Although researchers have examined the relationship between trauma and substance use, little research has been done on incorporating Trauma Narrative Therapy into mandated substance abuse groups. This design helped determine if symptoms of substance use and/or trauma are decreased within the experimental groups over time. This study is expected to add to the body of literature surrounding the comorbidity of trauma and substance use disorder treatment. It has implications for positive social change through improved treatment options in mandated substance abuse groups. By introducing Trauma Narrative Therapy into mandated substance abuse treatment, individuals can receive treatment for both trauma and substance use simultaneously, therefore decreasing recidivism and improving overall quality of life.

Chapter Organization

This chapter presents the methodology used in the study. The chapter will begin with a discussion of the participants including the inclusion criteria, recruitment, and selection. This section will also clarify the number of participants. Next, the instruments section will provide an explanation of the demographic questionnaire as well as the instruments used in the study including the Trauma Symptom Checklist (TSC-40) and the Substance Abuse Subtle Screening Inventory (SASSI). This section will justify the use of these instruments by discussing reliability, validity, appropriateness, and how each links to the dependent variables. Then the procedures section will outline the IRB process including confidentiality, recruitment, and data collection method. Finally, the data analysis section will discuss the rationale for using a repeated measures multivariate analysis of variance (MANOVA).

Setting

The setting included state registered substance abuse treatment facilities which held weekly American Society of Addictive Medicine (ASAM) Level 1 treatment groups mandated by Georgia Department of Developmental Disabilities, DUI division, for those clients sentenced for DUI offenses. Groups are facilitated weekly at five different locations throughout the Atlanta metropolitan region and attendees are required to attend one three-hour session weekly. These treatment groups used a standardized state-approved curriculum called Prime Solutions, which is designed to help people with substance use disorder; particularly those with the high-risk behaviors associated with the disorder, such as drinking and driving (Prime Solutions, 2019). The curriculum is administered in the facility as outpatient treatment in which attendees are required to complete at least six weeks and up to seventeen weeks of treatment. Length of substance use treatment is determined by initial term set out by the court appointed clinical evaluator, compliance with the program, treatment progression, and the DBHDD's response to non-compliance.

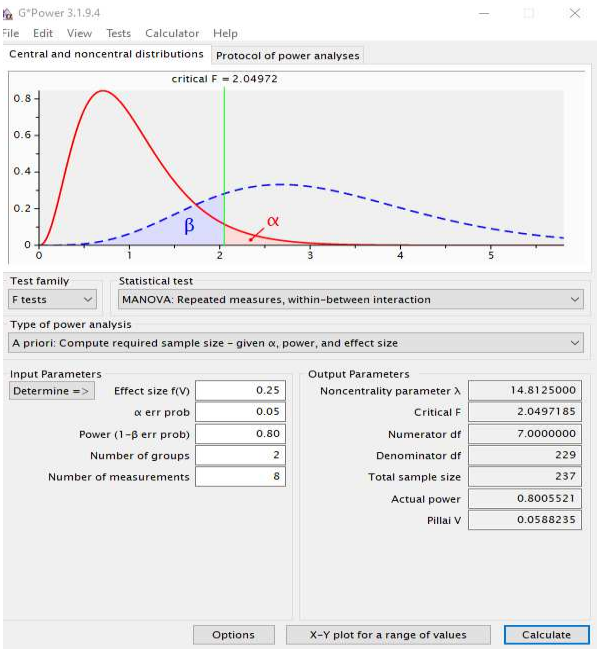
Sampling

The population of interest included individuals sentenced for DUI offenses to court-mandated substance use treatment who attended state registered centers in the Atlanta metropolitan region. The sampling frame included all offenders enrolled at the five treatment centers owned by the researcher who is required by the state to be a registered clinical provider and to train group leaders who would facilitate the treatment at these centers (DBHDD, 2020). The clinical providers are barred by the state from leading substance use treatment (DBHDD, 2020). Each treatment center offered different days and times for the convenience of the attendees. It was determined that two different treatment centers would be selected to ensure that a group leader was available at each location and that the participants had at least one day and

time that they would be able to attend. The participants were excluded if they had previously participated in the study. Participants who were excluded in this way from the study were assigned to the exclusion group and attended a pre-designated treatment center for the remaining duration of their treatment. Each of these two treatment centers were selected from the five that were available using simple random sampling. Although the participants at each of the selected treatment centers may have been attending due to geographical proximity, referrals from the probation officers, or from their family and friends, the random selection of the centers increased the likelihood that different DUI court jurisdictions would be represented (Steinberg, 2011). An initial application for this cross-sectional study was submitted in December 2018 and approved with IRB tracking number, H1810249 for pre-treatment data collection. A power analysis was conducted in G*Power (version 3.1.9.4) to determine the sample size needed for a repeated measures between-within subject interaction (see Figure 1). Based on the calculation, the

Figure 1

*G*Power Analysis*



total sample size of 237 was required for this study with the effect size of f(V) = .25, power (1-β) = .80, and α = .05.

A total of 436 participants were selected for the study over eight sequential six weeklong modules from January 2019 to December 2019. Of these, 212 participants volunteered for the integrated treatment program and were assigned to the treatment group that was held at a pre-designated treatment center, while the remaining 224 participants were assigned to the control group which was held at a different pre-designated treatment center.

Instrumentation

Instruments were chosen to measure trauma symptoms and substance abuse symptoms. The instruments used in this study include a demographic questionnaire, the Trauma Symptom Checklist (TSC-40), and the Substance Abuse Subtle Screening Inventory (SASSI).

A demographic questionnaire was included to gather information about participants for data analysis. The researcher asked for information pertaining to age, employment status, marital status, gender, race, and education level (see appendix).

Trauma Symptom Checklist (TSC-40)

Trauma Symptom Checklist (TSC-40) was used to measure trauma symptoms. TSC-40 was originally developed to evaluate the victimization in women (Whiffen et al.,1997). It is a questionnaire with forty items of self-assessment. Symptoms are assessed on six subscales: anxiety, depression, sexual abuse trauma, sexual problems, and sleep disturbance. The questionnaire measures symptoms associated with childhood or adult traumatic experiences occurring within the last two months. Frequency of symptoms determine rating along a 4-point scale, ranging from *never* (0) to *often* (3), with a possible 120 points (Ghee et al., 2010; Whiffen et al., 1997).

The internal consistency for the original study by Elliott and Briere (1992) had a Cronbach's alpha of .93 and the measurement has been validated through clinical and non-clinical trials (Ghee et al., 2010). The TSC-40 is a useful instrument to determine the number and frequency of trauma related symptoms in comorbid populations and to provide a baseline for the population. The TSC-40 can be administered at any time to participants. However, for the purpose of this study, clients were measured at pretest and follow-up.

Substance Abuse Subtle Screening Inventory (SASSI)

The SASSI is a psychological questionnaire designed to screen individuals for SUD. According to Lazowski and Geary (2016), the primary findings of this research were as follows:

1. Test-retest stability coefficients for the SASSI-4 scale scores ranged from.78 to .99, and findings indicated overall internal consistency (coefficient omega) of .97.

2. The overall accuracy of the SASSI-4 in distinguishing respondents with mild, moderate, or severe SUD from those diagnosed as not having a substance use disorder was 92%.

3. The accuracy of the SASSI-4 screening results was found not to differ significantly across six diverse types of assessment settings. Overall accuracy in these settings ranged from 91% to 95%.

4. Logistic regression was used to evaluate whether SASSI-4 accuracy was affected by client gender or demographic variables. The accuracy of the SASSI-4 screening results was found not to be significantly affected by respondents' gender, ethic group, age, educational level, marital status, or employment status.

Laskowski and Geary (2016) described research on the development and validation of the SASSI-4 with a sample of 1,245 participants from all nine US Census Bureau regions and two Canadian providences. The SASSI-4 is a reliable and valid measurement tool for diagnosing

SUD and the severity of them (Lazowski & Geary, 2016). The SASSI uses a complex combination of direct (face-valid) and indirect (subtle) subscales. Test-retest stability coefficients for the SASSI-4 scale scores ranged from .78 to .99, and findings indicated an overall internal consistency of .97 (The SASSI Institute, 2016). Overall, the SASSI showed good reliability and validity with individuals from various populations. It measures subscales that combine to determine whether the individual may or may not be suffering from a substance use disorder as well as the severity of the disorder. The SASSI provides scores/information about SUD in individuals (The SASSI Institute, 2016).

The SASSI measures substance abuse symptoms at intervals of the entire client's life, the past six months, six months prior to the event, six months since the event, and the past twelve months. For the purpose of this study, clients were measured prior to treatment for the entire client's life and follow-up over the last six months.

Data Collection

The ASAM group instructors at the facilities were trained in TNT during a workshop led by two senior group leaders and the treatment program director. Group leaders were given the TNT materials, including the stimulus story, Gold Stone (Lane & Lane, 2014), and the Trauma Narrative Treatment Manual (Lane & Lane, 2018), that consists of an overview on trauma, information for group leaders, and instructions for each of the six group meetings in the model. Each week, the group leader of the treatment group integrated TNT sessions into the regular group meeting consecutively for six weeks. Prior to the first group meeting, specific instructions and procedures outlined in the IRB were reviewed with the group, informed consent was signed, and members were advised that they could opt out or withdraw participation at any time during the six-week period. After the initial 436 participants signed the informed consent, they were

administered a demographic survey, SASSI, and TSC-40. Upon completion of each six-week module, participants were administered a post-treatment TSC-40. However, a total of 100 participants from the treatment groups were removed due to incomplete data or attrition, leaving a total of 112 participants with useable, complete data. Also, total of 111 participants from the control groups were removed due to incomplete data or attrition leaving a total of 113 participants. As a result, at the end of December 2019, complete and usable data from a total of 225 participants was collected.

For the follow-up phase of this cross-sectional study, an application was submitted to the Mercer University Institutional Review Board (IRB) in October 2020 for approval. The IRB approved the study on November 11, 2020 and provided an IRB approval number H2011280. The researcher explained the follow-up phase of the study and guided each of the 225 participants through the consent form ending with the electronic acknowledgment of their rights as participants in this phase of the study. Then survey links were provided to the participants via email for both the TSC-40 and the SASSI. Interested participants received two different links: one for the TSC-40 and one for the SASSI. One of the instruments, the TSC-40, was created as a survey in an online web-based format on Qualtrics. These two active anonymous survey links for the TSC-40 and SASSI were included in the email invitation to participate. When interested participants clicked the first link, they were directed to the study survey on Qualtrics. The second link took them directly to the SASSI website to complete the survey. Each survey took approximately 15-20 minutes each to complete. Data was collected from November 11, 2020 to December 2, 2020 from participants. Out of the 225 participants who received the follow-up surveys, 189 completed the TSC-40 survey, but only 184 completed the SASSI. As a result, only

184 participants, equally divided between the treatment and control groups, had completed both surveys and were included in the final analyses.

Participant data was protected throughout the study. The data collected from Qualtrics was entered into an SPSS file which was protected by security firewalls and two-factor authentication requiring login and password information twice to prevent confidentiality breaches. The data collected from the SASSI survey was collected through the SASSI website which requires two-factor identification and password to prevent confidentiality breaches. Participants were assigned a numerical code through the SASSI link to further protect confidentiality. Further, no identifying information was collected from the participants and each participant received a numerical code for identification.

Participants were required to provide informed consent, had the right to withdraw from the study anytime, and were not asked to provide identifying information to maintain anonymity. The data has remained confidential and will be protected using the measures mentioned above. The participants were given the researcher's and the faculty advisor's information on the informed consent should they need any resources to deal with emotional discomfort caused by the questionnaires.

Variables

A total of four components were examined in this study: two dependent variables and two independent variables (see *Table 1*). This first dependent variable is trauma symptoms and the second dependent variable is substance abuse symptoms. The first independent variable is time, which had two groups: pre-treatment and follow-up treatment. The second independent variable is intervention with two groups: treatment and no treatment.

As a result of the study having two dependent variables, a repeated measures MANOVA with a between subject variable analysis were used to determine the results of the study. A total of eight measurements were analyzed in the statistical analysis.

Table 1

Variables

Dependent Variables	Independent Variables
Trauma Symptoms	Time (pre-test and follow-up)
Substance Use Symptoms	Intervention (treatment and no treatment)

Note. Dependent and Independent variables for the MANOVA with a between subject variable design.

Data Analysis

The collected data was analyzed using IBM SPSS (Statistical Package for the Social Sciences) version 25. Descriptive statistics such as the measures of central tendency (mean), dispersion (standard deviation), and distribution was used to analyze the demographic data. A repeated measures MANOVA were used to answer the research questions to determine whether there was an impact on substance abuse symptoms when introducing TNT into mandated substance abuse groups over time or whether there was an impact on trauma when introducing TNT into mandated substance abuse groups over time. MANOVA has numerous assumptions including normal distribution, linearity, and homogeneity of variances (Steinberg, 2011). MANOVA relies on approximations based on the F-distribution with means equal to zero since a MANOVA is an extension of a common ANOVA (analysis of variance). Additionally, in a case where data collected consists of unequal sample sizes among the groups, SPSS would be able to make an adjustment for unequal sample size in MANOVA using the equality of covariance matrices using Box's M test or Levine's Test of Equality of Error Variances (Steinberg, 2011).

Limitations to MANOVA include robust to modest amounts of skewness in data caused by outliers. Data was screened for outliers and normality tests and plots were used to determine the normality assumption.

A repeated measures MANOVA was an appropriate analysis for this study because this study consisted of two dependent variables, trauma symptoms and substance use symptoms, both of which were measured on a continuous scale being measured over time. The study also consisted of two categorical independent variables: 1) time, consisting of two groups: pre-treatment and follow-up treatment; and 2) intervention, consisting of two groups: treatment and no treatment that are being measured over time. A post hoc was done as a follow-up analysis to determine which specific variables were affected. Another reason MANOVA was selected for this study is that it reduces the chance of the researcher making a Type 1 error (Steinberg, 2011).

The data collected during 2019 was analyzed in January 2020 and some of the participants were removed due to lack of complete data or the client not finishing the program. A total of 100 participants from the treatment groups were removed leaving a balance of 112 participants with useable, complete data. A total of 111 participants from the control groups were removed leaving a balance of 113 participants, with usable, complete data.

Follow-up data was collected as the final phase of this cross-sectional study. Informed consent, TSC-40, and a SAASI was administered to each of the 225 participants. Responses were collected for a period of thirty days. Then the data was analyzed at pre-test and follow-up using a repeated measures MANOVA.

One threat to internal validity is that the researcher is also the owner of the counseling centers in which the study is being conducted which may have resulted in participants feeling coerced or obligated to participate in the study. If participants felt if though they were forced to

participate, it may have a negative effect on the validity of their responses as they may not be genuine which is likely to in turn effect the internal validity of the results when attributing the change in the responses to the treatment. Although measures were taken to ensure the structure and methodology of the study, this could be a potential threat. One threat to external validity is that this study is being done with a mandated substance abuse group population and may not relate well to real-world substance abuse groups.

This study will determine if introducing Trauma Narrative Therapy into mandated substance abuse groups decreases substance abuse or trauma symptoms over time. Future research should include additional studies and efficacy of treatment modalities into mandated substance abuse groups.

CHAPTER FOUR

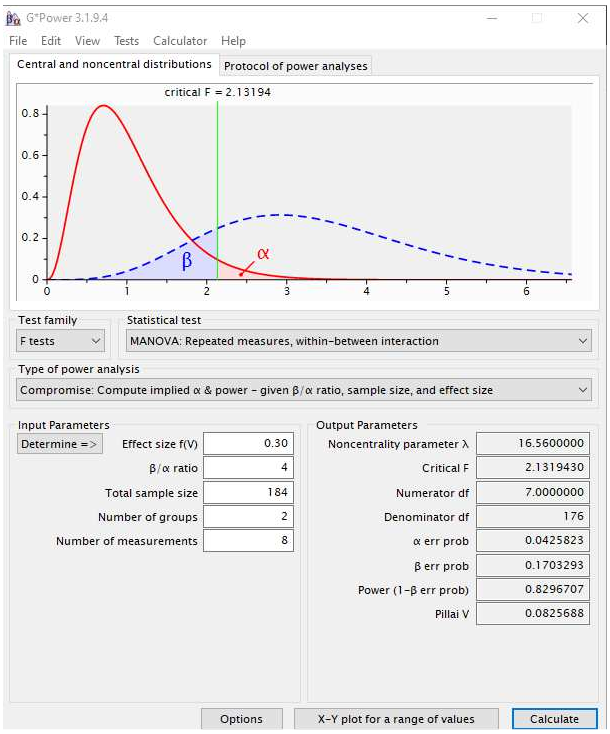
RESULTS

The purpose of this cross-sectional study was to determine if there is a significant impact on trauma symptoms or substance abuse symptoms when introducing Trauma Narrative Therapy in mandated substance abuse groups over time. This chapter summarizes the results of the statistical analyses used to evaluate the research questions and hypotheses mentioned in the previous chapters. The first section includes descriptive statistics, which will look at the demographic variables, including information pertaining to age, employment status, marital status, gender, race, and education level. The second section includes inferential statistics derived from the results of the repeated measures MANOVA and ANOVA.

A power analysis was conducted to determine sample size with a confidence interval level of .05. using Cochran's formula. It was determined that a sample size of 184 (See *Figure 1*) participants was needed for this study to have a power of 83%, with ninety-two individuals in the treatment group and ninety-two individuals in the control group. *Figure 1* shows the required number of participants for the study.

Figure 2

*Observed G*Power*



Descriptive Statistics

The participants were recruited in the original 2019 cross sectional study using a simple random sampling method. The data collected during 2019 was analyzed in January 2020 and 211 of the 436 participants were removed due to a lack of complete data, resulting in an attrition rate of 48.39%. A total of 100 participants from the treatment groups were removed leaving a balance of 112 participants with useable, complete data. A total of 111 participants from the control groups were removed leaving a balance of 113 participants, with usable, complete data. An invitation to complete the two online follow-up surveys was sent to the participants, including a total of 112 participants from the treatment group and 113 participants from the control group. The online surveys were made available on November 11, 2020 and closed on December 2, 2020. Although 189 participants completed the TSC-40 survey, five of them did not complete the

SASSI. As a result, only 184 participants, equally divided between the treatment and control groups, had completed both surveys and were included in the final analyses. A power analysis was conducted to determine sample size with a confidence interval level of .05. Using G*Power version 3.1.9.4, a sample size of 184 participants yielded a power of 0.83 (83%), which is higher than the default value for power in G*Power for a MANOVA sample size analysis. Thus, it is considered sufficient in this case (Buchner, et al., 2007). Additionally, it yielded the effect size in terms of the Pillai's V of .3 (Steinberg, 2011). A demographic questionnaire was created to examine different variables. These variables included: age, employment status, marital status, gender, race, and education level. Participants were only included in the study if they were current clients in the mandated treatment center. *Tables 2*, *3*, *4*, *5*, and *6* present the descriptive statistics including frequencies and percentages for the different demographic variables.

Demographics

The youngest participant was 18 years old and the oldest participant was 69 years old. Individuals 35-44 years old made up the largest percentage of participants (*n*= 48, 26.1%). The second largest age range of individuals was 45-54 years old (*n*= 47, 25.5%). The third largest group consisted of individuals from 25-34 years old (*n*= 44, 23.9%). Individuals 55-64 years old were the fourth largest percentage of participants (*n*= 26, 14.1%). Individuals in the 65-74 ranked sixth (*n*= 5, 2.7%). The smallest group of individuals was 18-24 years old (*n*= 13, 7.1%). One participant preferred not to provide the age (*n*= 1, .05%). In terms of gender, 137 (74.5%) participants were male and 46 (25.0%) were female. One participant preferred not to provide their gender (0.5%). In terms of employment status, the largest category of participants was employed (*n*= 114, 62.0%). The second largest group of participants was out of work and seeking employment (*n*= 27, 14.7%). The smallest percentage of participants was out of work

and not looking for employment (*n*= 1, .05%). In terms of education, the largest category was high school graduates (*n*= 21, 11.4%). The second largest group of participants had some college (*n*= 31, 22.3%). The smallest group of participants reported no school (*n*= 3, 1.6%). In terms of marital status, the largest group of participants reported single (*n*= 78, 42.4%). Seven participants reported widowed (*n*= 7, 3.8%). Two participants preferred not to answer the martial status question (*n*= 2, 1.1%).

Figure 3

Age Range of Participants

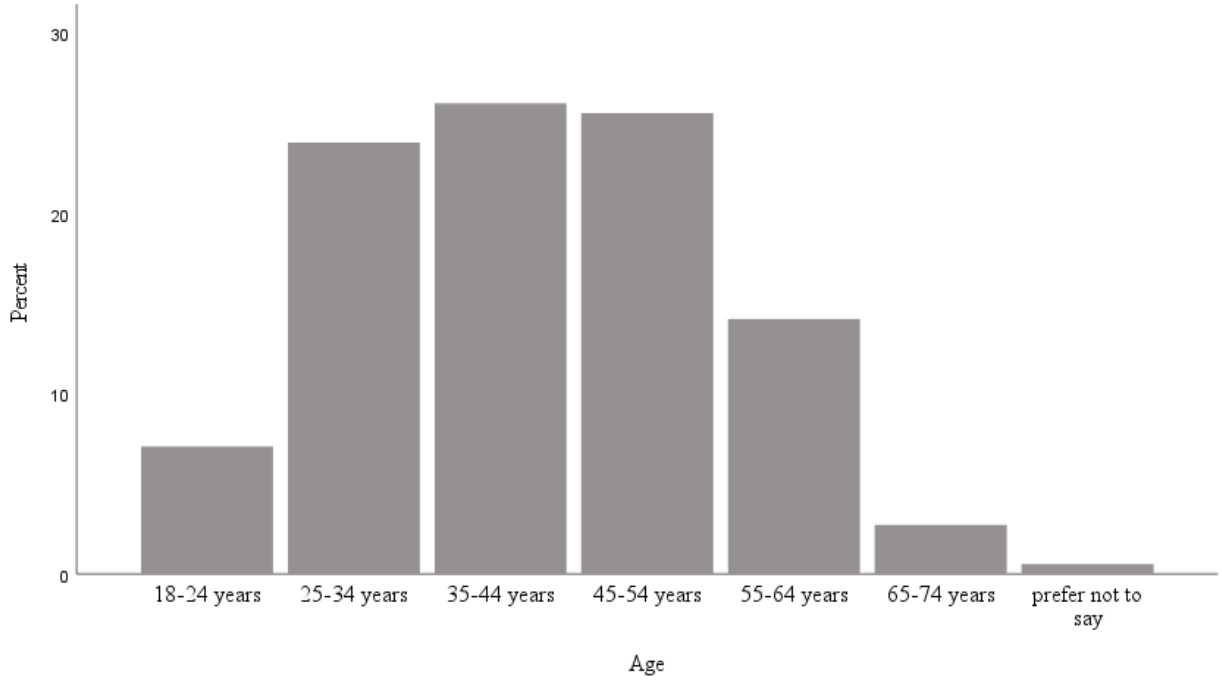
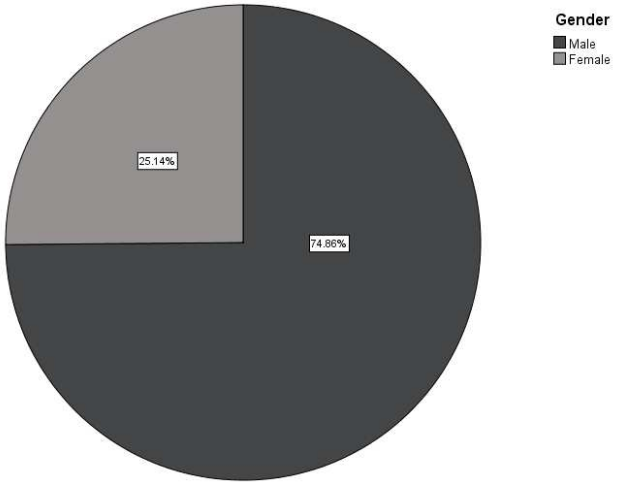


Figure 4

Gender Distribution



Note: one participant preferred not to provide their gender and was not included in the pie chart.

Figure 5

Employment

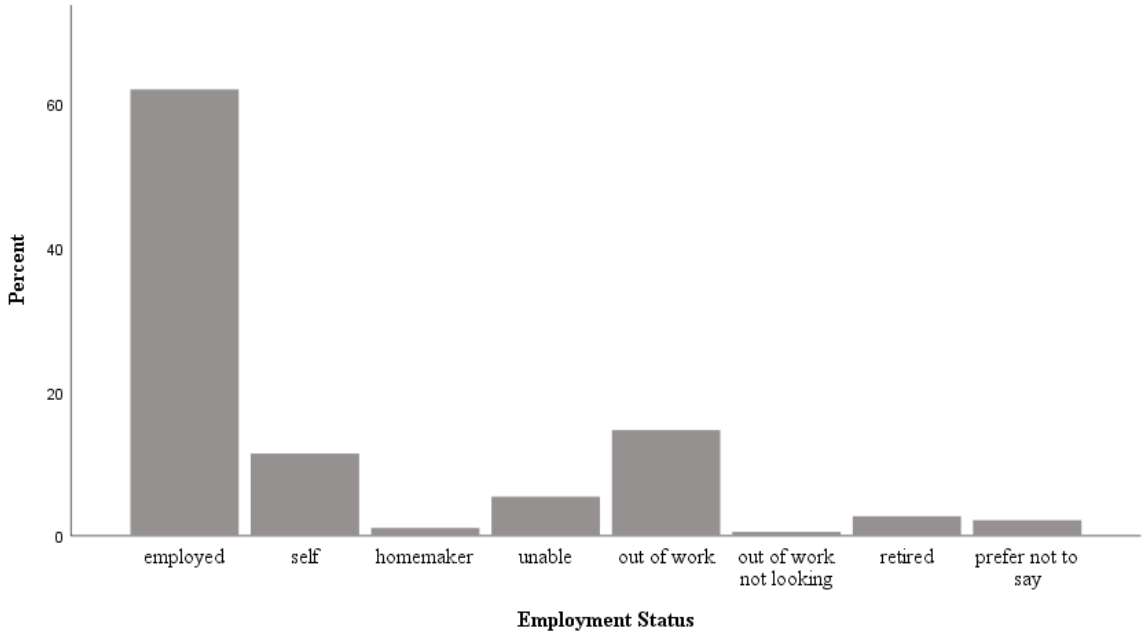


Figure 6

Education

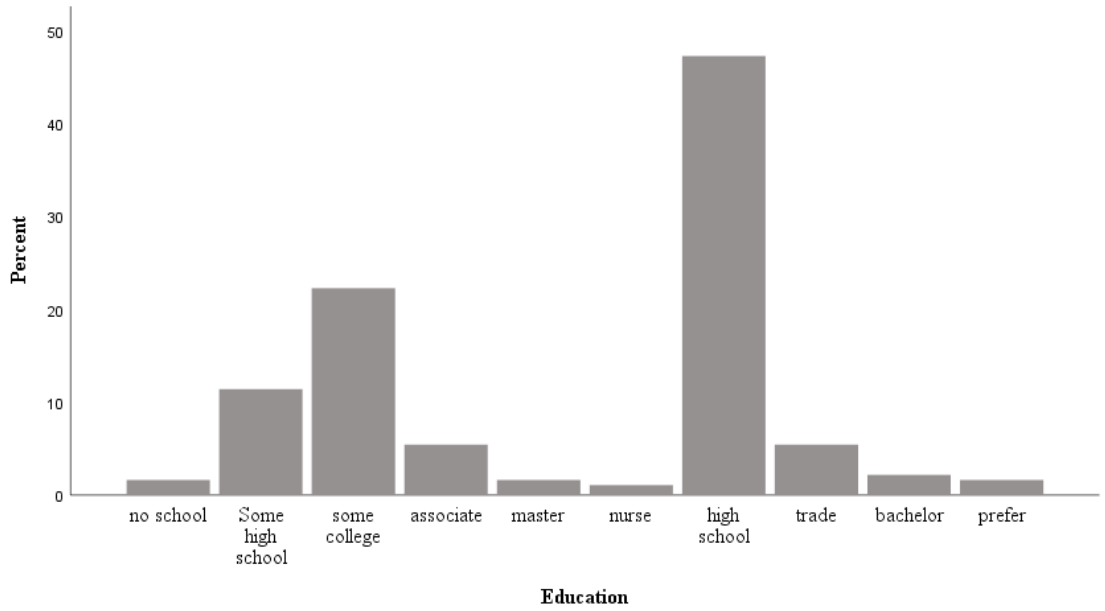
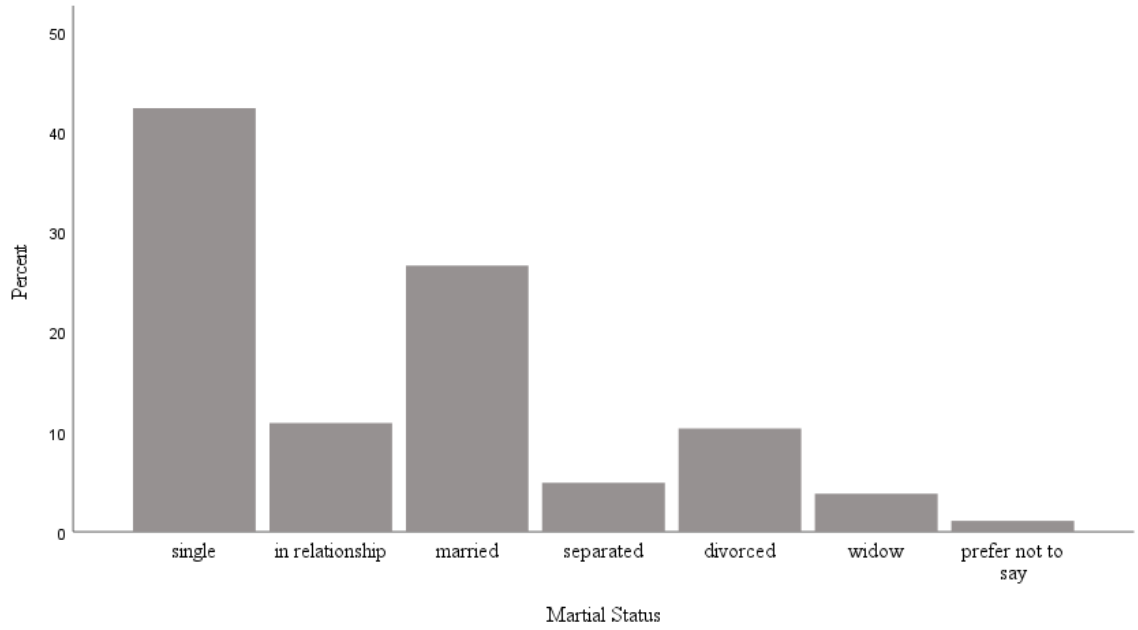


Figure 7

Marital Status



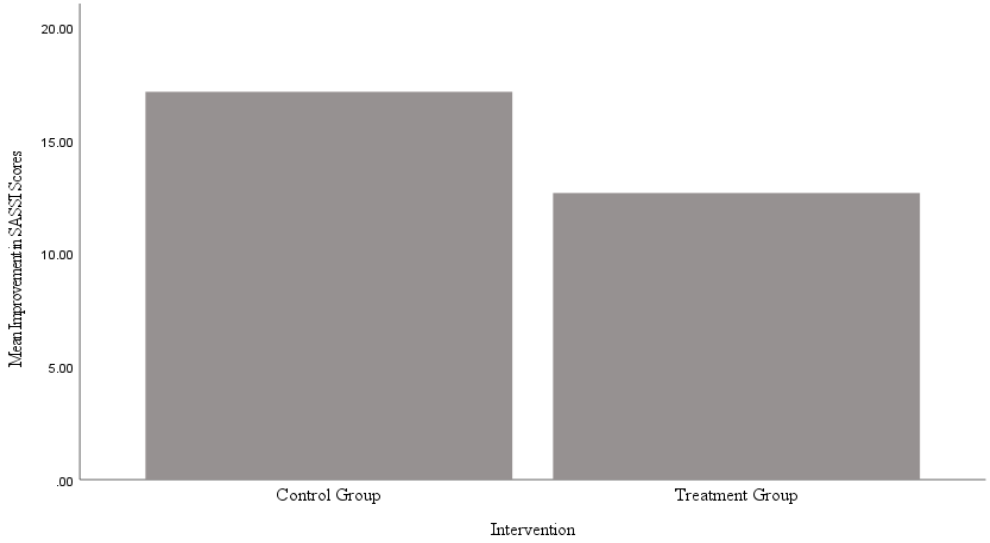
Independent and Dependent Variables

A total of four components were examined in this study: two dependent variables and two independent variables (see *Table 1*). The dependent variables included the severity of the substance abuse symptoms measured as SASSI scores and the severity of the trauma symptoms measured as the TSC-40 scores. One of the independent variables was time, which had two groups: pre-treatment and follow-up treatment. The other independent variable was intervention with two groups: treatment and control. The improvement in the SASSI and TSC-40 scores over time was derived by subtracting the SASSI and TSC-40 scores obtained at one year follow-up from corresponding scores obtained before the intervention. The descriptive statistics, namely mean (*M*) and standard deviation (*SD*), were also calculated for those in the control and treatment groups before and after the intervention in terms of the SASSI and the TSC-40 scores.

As seen in *Figure 5*, the mean level of improvement in the SASSI scores was higher (M = 17.15, SD = 24.26) for those in the control group than that for those in the treatment group (M = 12.67, SD = 24.34). Additionally, as seen in *Figure 6*, the mean level of improvement in the TSC-40 scores was higher (M = 5.11, SD = 6.80) for those in the treatment group than that for those in the control group (M = 3.43, SD = 7.38).

Figure 8

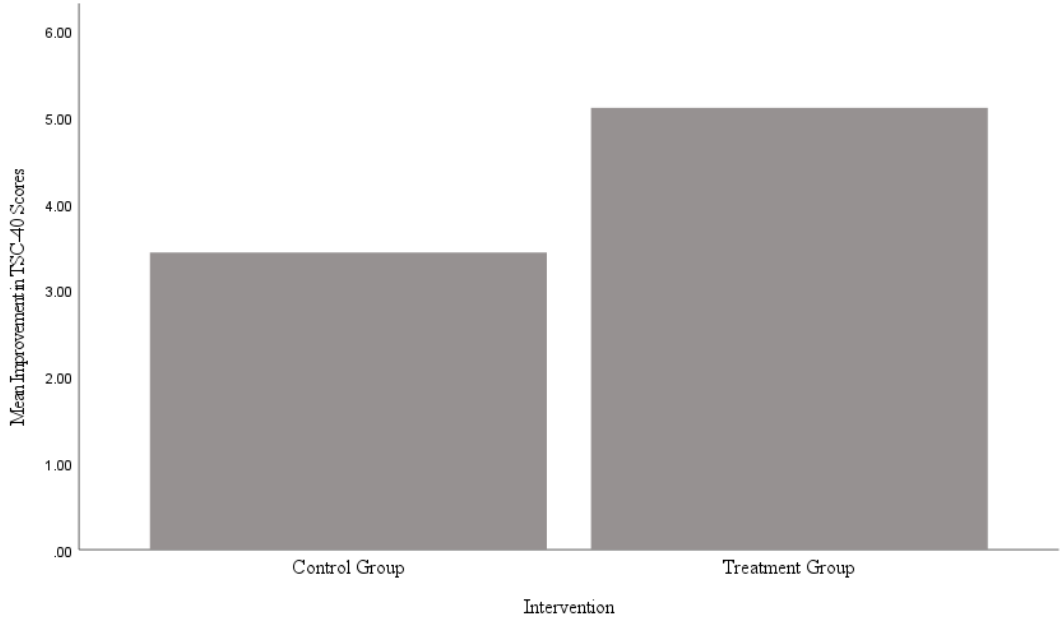
Mean Improvement in SASSI Scores Between the Control and Treatment Groups



Note. Control group had higher mean level of improvement in the SASSI scores than the treatment group.

Figure 9

Mean Improvement in TSC-40 Scores Between the Control and Treatment Groups



Note. Treatment group had higher mean level of improvement in the TSC-40 scores than the control group.

Inferential Statistics

A repeated measures multivariate analysis of variance (MANOVA) was performed to examine the impact on trauma symptoms and substance abuse symptoms when introducing Trauma Narrative Therapy in mandated substance abuse groups over time. The study consisted of two continuous dependent variables and two categorical independent variables. The dependent variables were trauma symptoms and substance use symptoms which were measured over time. The independent variables, time, and intervention each consisted of two groups. Time was divided into pre-treatment and follow-up while intervention was divided into treatment and control.

Shapiro-Wilk test of normality revealed a significant departure from a normal distribution for the distribution of pre and post SASSI and TSC-40 scores for both control and intervention groups. Shaprio-Wilks test of normality has good power properties over a wide range of asymmetric distributions and therefore there is a relatively greater probability that a Shaprio-Wilks test will be able to detect a significant departure from normality (violation of the normality assumption) compared to other test of normality for the same data (Yap & Sim, 2011).

Box's Test of Equality of Covariance Matrices is used to test the variability in multivariate samples for the equality of covariance matrices assumption (Friendly & Segal, 2018). Specifically, Box's Test was used in this study to test the variability in the multivariate combination of the TSC-40 and the SASSI scores between time and intervention. The equality of covariance matrices assumption was not satisfied, $p < .001$. Since the observed covariance matrices of the dependent variables was not equal across groups, Pillai's Trace, a more robust and conservative test, was used to assess potential multivariate differences. Pillai's Trace is used as a test statistic in MANOVA and is a positive valued statistic ranging from 0 to 1. Increasing

values mean the effects are contributing more to the model so the researcher should reject the null hypothesis for large values. Pillai's Trace is the most powerful and robust statistic for general use, especially for departures from assumptions (Glen, 2020). Since Pillai's Trace protects against the violation of equality of covariance assumption, the result of the MANOVA can still be considered valid.

A repeated measures multivariate analysis of variance (MANOVA) based on Pillai's Trace was conducted to assess within subject differences between pre-test and follow-up and between subject differences between treatment and control groups in terms of TSC-40 and SASSI scores. The MANOVA revealed a significant within subject main effect of time on the TSC-40 and SASSI scores, F (2, 181) = 50.84, $p < .001$, Pillai's Trace = .36, $\eta^2_{partial} = .36$, indicating a large effect of time on the TSC-40 and SASSI scores (see *Table 5*). Also, the MANOVA revealed a significant within and between subject interaction between time and intervention in terms of TSC-40 and SASSI scores, F (2, 181) = .03; $p = .045$, Pillai's Trace = .03, $\eta^2_{partial} = .03$ indicating a small interaction effect of time and intervention on TSC-40 and SASSI scores (see *Table 8*). Additionally, the MANOVA did not reveal an effect of intervention on TSC-40 and SASSI scores, F (2, 181) = 1.22, $p = .298$, Pillai's Trace = .01 (see *Table 5*).

Table 2

Two-way MANOVA Pillai's Trace Time, Intervention, and Interaction

Effect			Value	F	Hypothesis df	Error df	Sig.
Between Subjects	Intervention	Pillai's Trace	.013	1.217[b]	2.000	181.000	0.298
Within Subjects	Time	Pillai's Trace	.360	50.841[b]	2.000	181.000	0.000
	Time * Intervention	Pillai's Trace	.034	3.159[b]	2.000	181.000	0.045

a. Design: Intercept + Intervention
Within Subjects Design: Time

b. Exact statistic

c. Computed using alpha = .05

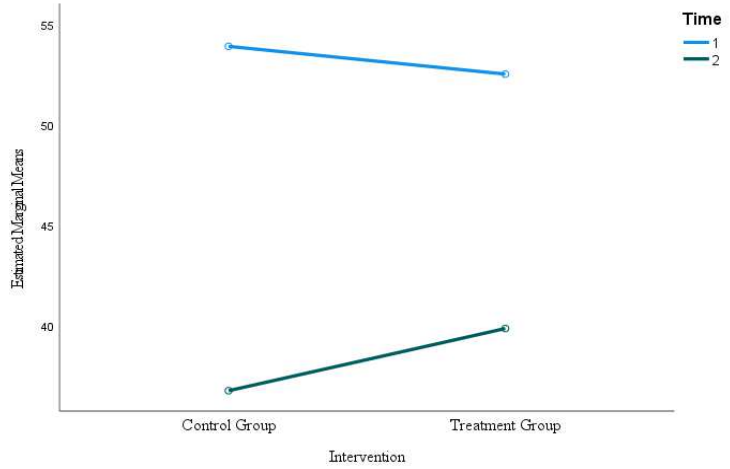
Hypothesis 1

The first research hypothesis stated that there is a significant impact on substance abuse symptoms when introducing TNT into mandated substance abuse groups over time. The potential within subject differences in each of the two dependent variables measured before and after the treatment were assessed using the univariate repeated measures ANOVA. Prior to this analysis, Mauchly's Test of Sphericity was performed to assess the sphericity assumption for each of the two dependent variables (Armstrong, 2016). Sphericity refers to the equality of variance of the differences between each pair of values which in this case were pre-treatment and follow-up SASSI scores (Beauducel & Haverkamp, 2017). Specifically, Epsilon - Greenhouse-Geisser statistics were used to determine if the sphericity assumption was met where a value close to 1.0 would indicate that the assumption was satisfied. Since the Greenhouse-Geiser statistic was 1.0, sphericity could be assumed. There was a significant main effect of time on the

SASSI scores, $F(1, 182) = 69.29$, $p < .001$, $\eta^2_{partial} = .28$, indicating a large effect of time on the SASSI scores (see *Table 9*). There was no interaction effect of time and intervention on SASSI scores, $F(1, 182) = 1.56$, $p = .213$, $\eta^2_{partial} = .01$ (see *Figure 10* and *Table 9*). Therefore, the null hypothesis was supported.

Figure 10

No Interaction Effect of Time and Intervention on SASSI



Note. There is a relatively greater amount of change in the SASSI scores between time 1 and time 2 for those in the control group than for those in the treatment group.

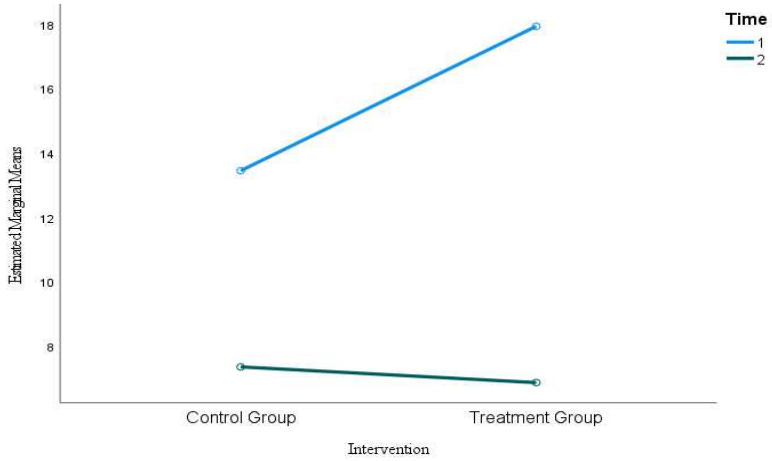
Hypothesis 2

The second hypothesis stated that there is a significant impact on trauma symptoms when introducing TNT into mandated substance abuse groups over time. The potential within subject differences in each of the two dependent variables measured before and after the treatment were assessed using the univariate repeated measures ANOVA. Prior to this analysis, as in hypothesis 1, the sphericity assumption was tested using Mauchly's Test which assesses the equality of the difference between each value pair (Armstrong, 2016). In this case, Mauchly's test was used to assess the equality of the difference between the pre-treatment and follow-up TSC-40 scores. Specifically, Epsilon - Greenhouse-Geisser statistics were used to determine if the sphericity

assumption was met where a value close to 1.0 would indicate that the assumption was satisfied. Since the Greenhouse-Geiser statistic was 1.0, sphericity could be assumed. When the results for the two dependent variables were considered separately, there was a significant effect of the interaction between time and intervention on the TSC-40 scores, $F(1, 182) = 3.96$, $p = .048$, $\eta^2_{partial} = .02$, indicating a small effect of the interaction between the time and intervention on the TSC-40 scores (see *Table 9* and *Figure 11*). Based on this result, the null hypothesis was rejected, and the alternative hypothesis was supported. Additionally, there was a significant main effect of time on the TSC-40 scores, $F(1, 182) = 47.10$; $p < .001$, $\eta^2_{partial} = .21$ indicating that there was a large effect of time on the TSC-40 scores (see *Table 9*).

Figure 11

Interaction Effect Between Time and TSC-40 Scores



Note. There is a significantly greater amount of change in the TSC-40 scores between time 1 and time 2 for those in the treatment group than for those in the control group, $F(1, 182) = 3.96$, $p = .048$, $\eta^2_{partial} = .02$.

Table 3

Univariate Test Time and Interaction in Terms of SASSI and TSC-40

Source	Dependent Variable	Sphericity	df	F	Sig
Time	SASSI	Sphericity Assumed	1	69.294	0.000
	TSC40	Sphericity Assumed	1	47.098	0.000
Time * Intervention	SASSI	Sphericity Assumed	1	1.562	0.213
	TSC40	Sphericity Assumed	1	3.957	0.048
Error (Time)	SASSI	Sphericity Assumed	182		
	TSC40	Sphericity Assumed	182		

a. Computed using alpha = .05

Summary

This chapter presented the results of the demographic, descriptive, and inferential analyses of the study data. The results revealed significant within subject effects of time, but no between subject effect of intervention on the SASSI and TSC-40 scores. Additionally, there was a significant between and within subject interaction effect of time and intervention on the TSC-40 scores. However, there was no interaction effect of time and intervention on the SASSI scores.

CHAPTER FIVE

DISCUSSION AND FUTURE RECOMMENDATION

This chapter provides a summary of the research while describing the results and conclusions, the limitations of the research, and the recommendation for future research. The current study explored the impact on trauma symptoms and substance abuse symptoms when introducing Trauma Narrative Therapy (TNT) into mandated substance abuse groups over time. A repeated measures MANOVA was conducted to analyze the data collected using the TSC-40 and the SASSI instruments. Two research questions were investigated through two hypotheses.

Research Questions

Is there an impact on substance abuse symptoms when introducing TNT into mandated substance abuse groups over time?

Is there an impact on trauma symptoms when introducing TNT into mandated substance abuse groups over time?

Research Hypotheses

There is a significant impact on substance abuse symptoms when introducing TNT into mandated substance abuse groups over time.

There is a significant impact on trauma symptoms when introducing TNT into mandated substance abuse groups over time.

The results from the repeated measures MANOVA revealed a significant effect of the interaction between time and intervention on the combination of SASSI and TSC-40 scores. Specifically, there was a significant effect of time on the combination of SASSI and TSC-40 scores. There was no significant effect of intervention on the combination of SASSI and TSC-40

scores. Based on these results, while the interaction effect of time and intervention and the main effect of time was further investigated for SASSI and TSC-40 scores separately using the univariate within subject ANOVA, the between subject effect of intervention did not need any further investigation.

Discussion

The current study explored the impact on trauma symptoms or substance abuse symptoms when introducing Trauma Narrative Therapy into mandated substance abuse groups over time. Driving under the influence (DUI) of alcohol or other substances is a serious public health concern (DBHDD, 2020; Keating et al., 2019; Nelson et al., 2019; NHTSA, 2018; SAMHSA, 2020). Most DUI offenders are mandated to state-approved substance abuse treatment facilities as part of the court order upon conviction. Many of the staff at the mandated treatment centers consist of substance abuse counselors that do not require nearly as rigorous training as that required for Licensed Professional Counselors (LPC). As a result, co-occurring conditions may go undiagnosed among substance abuse clients. Since trauma is one of the most prevalent co-occurring conditions among these populations, mandated treatment centers need to integrate TNT into mandated substance abuse programs nationwide. The results of this study add to the literature demonstrating that TNT may help reduce trauma symptoms when it is integrated into substance abuse groups over time (Bishop & Reed, 2017).

Mandated substance abuse clients have a lower motivation for change and are often experiencing co-occurring conditions (Coviello et al., 2013). They often self-medicate to reduce co-occurring symptoms and one disorder feeds into the other. The literature has shown that one of the most common conditions that co-occur with substance abuse is trauma (Bishop & Reed, 2017). This study provides data showing a significant effect of the interaction between time and

intervention on the TSC-40 (trauma assessment) scores. The results of the inferential analysis supported the second hypotheses indicating that there was a significant impact over time on trauma symptoms when introducing TNT into mandated substance abuse groups. Specifically, there was a reduction in the severity of substance abuse symptoms at the end of the session regardless of whether clients attended the ASAM or the integrated session. However, the clients who attended the integrated session did not have a significant reduction in their substance symptoms compared to those who attended the ASAM session.

According to Lane and Lane (2018), "Almost everyone, by the time they reach adulthood, has experienced some form of trauma in their lives" (p.12). Even if an individual has not suffered from trauma prior to the DUI conviction, the arrest, court procedures, probation, embarrassment, and shame may create a traumatic event in and of itself. Consequences of the DUI conviction for the client include job loss, family issues, child custody issues, and financial burdens. According to Prime for Life (2020), a DUI conviction is expensive and can result in a more than $15,000 burden for the offender. Probation officers require monthly visits to their office, which can be demoralizing, while family members may shame the individual. Insurance rates are often increased after a DUI charge and the client must obtain a high-risk auto policy. Most clients are left with a criminal charge on their record which often leads to job loss and an inability to obtain gainful employment in the future. Although first offender DUI (alcohol) charges are usually not classified as a felony, controlled substances are classified as felony charges in most states (DBHDD, 2020). Clients often feel defeated when convicted of a DUI charge and do not realize they are experiencing a loss which can result in trauma symptoms.

According to McMillian et al. (2008), co-morbid conditions are often underdiagnosed among mandated DUI offenders. As a result, individuals suffering from a substance use disorder

(SUD) and trauma often do not get treatment for undiagnosed trauma. A wealth of literature supports the claim that if an individual does not receive simultaneous treatment for both conditions, the likelihood of them recovering from either disorder is low (Barrowclough et al., 2010; Drake & Mueser, 2004; Kelly & Daley, 2013; Sorsa et al., 2017). Substance abuse has a low rate of recovery which could be attributed to the lack of co-occurring diagnoses among the population (DBHDD, 2020; NIH, 2020). Individuals suffering from SUD and trauma may show short term improvement from substance use disorders to remain compliant with a court order, but then relapse as a form of self-medication to alleviate their trauma symptoms (Sorsa et al., 2017). If the trauma symptoms are left unaddressed in this way, it could contribute to the high rate of recidivism and repeat DUI offenses.

Trauma Narrative Treatment is effective as it enables clients to take ownership of their personal story after a traumatic event. Clients can work through experiences and re-author/rewrite their stories (Lane, W. & Lane, D., 2018). Trauma Narrative Treatment has been used in various situations with clients that have experienced trauma. Individuals that are mandated to substance abuse treatment are often victims of trauma. In the first study of its kind on the topic, a meta-analysis by Cenat et al. (2020) examined the prevalence of PTSD, depression, and anxiety symptoms among the participants that included survivors of the 2010 Haitian earthquake. After the earthquake, more than a quarter of the individuals reported severe symptoms of PTSD, more than a third of the individuals reported severe symptoms of depression, and more than a fifth of the individuals reported severe symptoms of anxiety, along with the observed cases of psychological distress and disturbance, suicidal ideations, and increased alcohol consumption (Cenat et al., 2020). Additionally, while the severity of

depression and anxiety symptoms improved over time, there was no significant improvement in the PTSD symptoms over time (Cenat et al., 2020).

However, TNT is not designed to specifically address substance use which is consistent with the lack of support from the inferential analysis for the first hypotheses. This indicates that there was no significant impact over time on substance abuse symptoms when introducing TNT into mandated substance abuse groups. The clients felt better in terms of their substance abuse symptoms at the end of the session; regardless of whether they attended the ASAM or the TNT session. However, the clients who attended the TNT session did not feel any better than those who attended the ASAM session in terms of their substance abuse symptoms.

Additionally, to maintain the court-mandated duration of the treatment, TNT was integrated with the regular curriculum to keep the total duration of the treatment the same as for those in the control group. This could have resulted in clients in the treatment group getting less exposure to the substance abuse group than those in the control group which may explain the lack of effect of the intervention over time on the severity of the substance abuse symptoms. This may also explain the descriptive statistics of the control group having a greater mean level of improvement in substance use severity over time than of those in the treatment group.

The literature has shown that combining Trauma Narrative Therapy with other treatment modalities reduces trauma symptomology across various populations and cultures (Lane et al., 2016: Robjant et al, 2019). Although the current study was specific to mandated substance abuse groups, the participants varied across age, gender, race, marital status, education, and employment status. The current study adds to the literature that Trauma Narrative Therapy reduces trauma symptoms over time when integrated with other treatment modalities for clients across various demographics. Although only about a quarter of the participants in the current

study were females, at least one previous study has demonstrated the effectiveness of exposure-based therapies in reducing trauma symptoms in females. Specifically, Hien et al. (2020), examined the effectiveness of an integrated treatment program that combined trauma informed care with substance abuse treatment. It found that women with greater baseline SUD severity had greater reduction in trauma severity scores and in substance use scores (Hien et al., 2020).

In a study conducted by Crisanti et al. (2019), this randomized controlled non-inferiority trial explored the effectiveness of Seeking Safety delivered by peer providers compared to its delivery by licensed behavioral health clinicians. The study enrolled 291 adults with trauma and substance use disorders. Data was collected at three and six months after the start of treatment. Trauma symptoms decreased by 5.1 points and coping skills increased by 5.5 points in the peer and clinician led groups (Crisanti et al., 2019). The current study had a similar sample size (n = 184) and showed reduced trauma symptoms over time with treatment.

Limitations of the Study

There are a few limitations for this study. First, the researcher owns the clinics in which the participants were sampled from and the participants may have felt coerced or required to participate in the follow-up study. This could be a potential threat to internal validity as the participant may have linked their participation in the study with their obligation to attend the court-mandated treatment sessions. Since one of the major purposes of a criminal justice system is to make actions that are harmful to society less socially desirable, it stands to reason that court-mandated treatment would be considered a less socially desirable position for the clients. Then it would make sense for them to take all necessary steps to regain their social desirability. However, in aggregating the results for each participant to assess the effectiveness of TNT in terms of TSC-40 and SASSI scores, the underlying assumption is that the level of engagement

with the treatment program among the participants is approximately the same. Additionally, fear of negative consequences with probation or the courts could have increased the participation size of the study and the desire to come across favorably on assessments. One threat to external validity is this study is being done with a mandated substance abuse group population and may not relate well to real-world substance abuse groups. Another limitation is the self-report instruments. Self-report data can be impacted by the social desirability effect in the way the participants responded to each question. The respondent bias may have also played a role in how the participants answered each question because the informed consent made the participants aware of the purpose of the study. Lastly, the researcher could not control the testing environment of each participant due to the research being conducted via the internet. Although this provided the participants with greater flexibility while filling out the surveys, it could have negatively affected the validity of the responses. Specifically, participants may not have had the same level of sincerity as when filling out these surveys when compared to the baseline. Additionally, since they have completed their court-mandated program at the time of the follow-up surveys, they have no reason to feel obligated to fill out the surveys which could have negatively affected the validity of the responses. Lastly, most of the participants were male in the study (n= 175, 74.5%) and more research needs to be done with female mandated clients. Even though this sample was biased towards male participants, it is approximately representative of the gender distribution among DUI offenders nationally which comprises of more than 75% males (NHTSA, 2020). Therefore, this sample can be considered fairly generalizable.

Implications

Driving under the influence (DUI) of alcohol or other substances not only inflicts a serious cost for those immediately involved in the incident, but also represents a serious burden

on the criminal justice system and the public at large. According to the U.S. National Highway Traffic Safety Administration (NHTSA, 2018), 10,511 people were injured or killed in alcohol-related crashes and 29% of all motor vehicle fatalities involved alcohol-impaired drivers. This problem is exacerbated when the first-time offender re-offends. The DUI incident is thought of as an outcome of a pattern of behavior involving substance abuse by experts and policy makers (DBHDD, 2020). As a result, treatment that addresses the substance use is a commonly accepted solution in the criminal justice system for DUI offenders. However, many individuals with substance abuse may have various comorbid conditions. One of the most common conditions that coexists with substance abuse is trauma (Bishop & Reed, 2017; SAMHSA, 2020; Zatzick et al., 2012). When disorders co-occur, recovery from either co-occurring issue requires simultaneous treatment for both conditions (Barrowclough et al., 2010; Drake & Mueser, 2004; Kelly & Daley, 2013; Sorsa et al., 2017). Often when the underlying trauma is unaddressed, DUI offenders may resort to self-medicating which may spiral into a dangerous pattern of behavior resulting in recidivism.

However, the current treatment for DUI offenders only addresses substance use symptoms and not the underlying trauma. It is not surprising then that despite the court-mandated ASAM program, the national recidivism rate for DUI offenses stands at 38% and at 26% in Georgia (DeMichele et al., 2020; Fell et al., 2011). Every DUI offense indicates a significant cost to the state, the offender, and society at large. An effective treatment modality that simultaneously addresses both trauma and substance abuse can have a significant positive impact on reducing the recidivism rate for DUI offenses representing significant savings for the state and significant contribution to the public good. The results of this study demonstrate the effectiveness of TNT in helping to reduce the severity of trauma symptoms and has significant

implications for improvement in the recidivism rate for DUI offenses when integrated with a substance abuse treatment program.

Specifically, the results of this study demonstrate that this integration needs to be ground-up from the content level. In this study, the six week-long TNT and ASAM programs were compressed into a single program. As a result, the time for participants to reflect on ASAM activities was cut short which may have had a negative impact on its effectiveness in terms of substance abuse symptoms. Past studies have shown that not all the contents of ASAM are equally effective and that some content can stand to be removed to create an efficient and effective program (Prime for Life, 2020). Based on the results of this study, TNT can be integrated with this efficient version of ASAM to address both trauma symptoms and substance abuse symptoms. Moreover, this program can deliver over the current minimum court-mandated sentencing period for DUI offenses.

Future Recommendations

Additional research should be focused on improving required treatment curriculums for mandated substance abuse groups across the nation. By integrating TNT with more effective content to address substance use, both trauma and substance use can be addressed in the same duration as that for the court-mandated level 1 out-patient treatment. The efficacy of this integrated treatment model should be shared with state officials and integration with mandated curriculums should be encouraged. Future research should include development of treatment curriculum to include Trauma Narrative Therapy and more tests to show the efficacy of the model. More needs to be done to combat the serious public health concern of substance use disorders to reduce recidivism and to improve overall quality of life. Specifically, it would be beneficial to conduct a study comparing the recidivism outcomes for DUI offenders who

attended an integrated TNT and substance abuse program with those who only attended the ASAM program.

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APPENDICES

APPENDIX A

DEMOGRAPHIC QUESTIONARE

Identification (last four of your social & year of birth):

Gender:

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer

Age:

- ☐ Under 12 years old
- ☐ 12-17 years old
- ☐ 18-24 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65-74 years old
- ☐ 75 years or older
- ☐ Prefer not to answer

Race/ethnicity:

- ☐ Caucasian/White
- ☐ African American/Black
- ☐ Asian / Pacific Islander
- ☐ Other _____
- ☐ Hispanic or Latino
- ☐ Native American or American Indian
- ☐ Multiracial
- ☐ Prefer not to answer

Education: (What is the highest degree or level of school you have completed? *If currently enrolled, highest degree received*.)

- ☐ No schooling completed
- ☐ Some high school, no diploma
- ☐ Some college credit, no degree
- ☐ Associate degree
- ☐ Master's degree
- ☐ Doctorate degree
- ☐ Nursery school to 8th grade
- ☐ High school graduate, diploma or the equivalent (for example: GED)
- ☐ Trade/technical/vocational training
- ☐ Bachelor's degree
- ☐ Professional degree
- ☐ Prefer not to answer

Marital Status:

- ☐ Single, never married
- ☐ In a committed relationship, never married
- ☐ Married or domestic partnership
- ☐ Separated
- ☐ Divorced
- ☐ Widowed
- ☐ Prefer not to answer

Employment Status:

- ☐ Employed for wages
- ☐ Self-employed
- ☐ A homemaker
- ☐ Military
- ☐ Unable to work
- ☐ Out of work and looking for work
- ☐ Out of work but not currently looking for work
- ☐ A student
- ☐ Retired
- ☐ Prefer not to answer

APPENDIX B

IRB APPROVAL LETTER

MERCER UNIVERSITY

Institutional Review Board
For Research Involving Human Subjects

Wednesday, November 11, 2020

Ms. Aimee Suzanne Hicks
3001 Mercer University Drive, Suite 214
Counseling & Human Sciences
Atlanta, GA 30341

RE: The Impact of Trauma Narrative Treatment on Mandated Substance Abuse Groups (H2011280)

Dear Ms. Hicks:

On behalf of Mercer University's Institutional Review Board for Human Subjects Research, your application submitted on 04-Nov-2020 for the above referenced protocol was reviewed in accordance with the 2018 Federal Regulations 21 CFR 56.110(b) and 45 CFR 46.110(b) (for expedited review) and was approved under category(ies) _7 per 63 FR 60364.

Your application was approved for one year of study on 11-Nov-2020. The protocol expires on 10-Nov-2021. If the study continues beyond one year, it must be re-evaluated by the IRB Committee.

Item(s) Approved:
New Application to Determine the efficacy of Gold Stone Grief and Trauma therapy when integrated into Substance Abuse Groups.

NOTE: You **MUST** report to the committee when the protocol is initiated. Report to the Committee immediately any changes in the protocol or consent form and **ALL** accidents, injuries, and serious or unexpected adverse events that occur to your subjects as a result of this study.

We at the IRB and the Office of Research Compliance are dedicated to providing the best service to our research community. As one of our investigators, we value your feedback and ask that you please take a moment to complete our Satisfaction Survey and help us to improve the quality of our service.

It has been a pleasure working with you and we wish you much success with your project! If you need any further assistance, please feel free to contact our office.

Respectfully,

Ava Chambliss-Richardson, Ph.D., CIP, CIM.
Director of Research Compliance
Member
Institutional Review Board

"Mercer University has adopted and agrees to conduct its clinical research studies in accordance with the International Conference on Harmonization's (ICH) Guidelines for Good Clinical Practice."

Mercer University IRB & Office of Research Compliance
Phone: 478-301-4101 | Email: ORC_Mercer@Mercer.Edu | Fax: 478-301-2329
1501 Mercer University Drive, Macon, Georgia 31207-0001