

Coping, Meaning in Life, and Posttraumatic Growth in Incarcerated Women

by

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Abstract

The purpose of this study was to examine treatment results for incarcerated women in a southern-US women's prison system who have participated in *Beyond Trauma: A Healing Journey for Women* (BT). Research indicates that comorbidity of substance use and psychiatric disorders is most common among incarcerated women (Abram, Teplin, & McClelland, 2003). Additionally, research indicates that incarcerated women tend to share common experiences including histories of abuse and/or trauma and substance or drug use (Moloney, Van Den Bergh, & Moller, 2009; Watson, Stimpson, & Hostick, 2004). As correctional systems continue to adopt programming focused on gender responsive care, such evidence suggests a need to more closely examine the effectiveness of treating trauma to address substance abuse and psychiatric issues among incarcerated women. This study focuses on the implementation of BT and its effectiveness in addressing coping, meaning in life, and posttraumatic growth. This study adds to existing research pertaining to coping, meaning in life, and posttraumatic growth, as well as the value and feasibility of one gender responsive treatment program. Results have implications for correctional systems and Counselor Education and Supervision programs that prepare mental health and rehabilitation counseling professionals working in correctional facilities or with inmates.

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CHAPTER 1. INTRODUCTION

Mental illness among US inmates is estimated to be two to four times higher than the general population (Al-Rousan, Rubenstein, Sieleni, Deol, & Wallace, 2017; Collier, 2014; Waltermauer & Akers, 2013). As systems of care, correctional institutions are under pressure to manage the complex demands of inmates who present with needs for treatment while incarcerated. The effectiveness of treatment efforts, particularly among incarcerated women, has been difficult to determine as this group is understudied and provided with limited prevention and rehabilitative interventions (Brewer-Smyth, 2004).

The differences women exhibit in terms of clinical needs when compared to men have been at the center of research calling for more gender responsive approaches in correctional-based care. Gender responsive approaches consider the differences between men and women that are relevant to rehabilitation and address the unique challenges for women in treatment (Messina, Grella, Cartier, & Torres, 2010). For incarcerated women, gender responsive approaches focus on the increased prevalence of trauma, which is considered a primary pathway leading women to criminal behavior and substance abuse (Covington, 2016).

Additional research is needed to understand the impact gender responsive approaches have in reducing symptomology and increasing wellbeing among incarcerated women following treatment. The remainder of this chapter will discuss the prevalent issues experienced by incarcerated women specifically targeted by gender responsive treatments, including Post Traumatic Stress Disorder (PTSD) and Substance Use Disorder (SUD). To examine these

considerations more closely, the proposed study examined one gender responsive treatment intervention that holds promise in assisting incarcerated women and correctional systems to achieve therapeutic goals. The relationship of coping, meaning in life, and posttraumatic growth to therapeutic outcomes are evaluated.

Definition of Terms

Coping: Coping has been described as the degree to which an individual uses cognitive and behavioral strategies to respond to stress (Compas et al., 2001; Folkman, 2010). Studies of incarcerated settings indicate that cognitive coping strategies, such as seeking guidance and support or logical analysis, were reported as having a positive effect (Mohino, Kirschner, & Forns, 2002), as well as rational and detached coping among juvenile offenders (Ireland, Boustead, & Ireland, 2005).

Implementation Fidelity: Implementation fidelity is the degree to which an intervention is delivered as it was intended (Breitenstein et al., 2010). Demonstrating fidelity is critical to the process of converting evidence-based interventions into practice (Breitenstein et al., 2010). Accounting for how an instrument is implemented across different groups may help to explain mean differences should some participant groups fail to yield the same results as others.

Meaning in Life: Meaning in Life in this context refers to the understanding and perceptions of a person's life as measured through the Meaning in Life Questionnaire, or MLQ (Steger et al., 2006). Its constructs pertain to happiness, fulfillment, and wellbeing. In the context of this study, MLQ was used to assess for variables related to positive coping strategies and posttraumatic growth.

Posttraumatic Growth (PTG): Posttraumatic growth (PTG) is described as the outcome that occurs following the successful use of coping skills after trauma (Ungerleider, 2004).

Tedeschi and Calhoun (1996) first conceptualized PTG as a type of positive adjustment that follows trauma. PTG has been characterized by improvements in personal strength and relationships, as well as renewed meaning and life perceptions (Schuettler & Boals, 2011; Tedeschi & Calhoun, 1996). Growth, in this sense, occurs beyond recovery and in response to processing the traumatic event.

Posttraumatic Stress Disorder (PTSD): PTSD is defined as a state of feeling overwhelmed, distressed, or psychologically affected by a traumatic event (Briere & Scott, 2013). Simply stated, PTSD is a response to a traumatic event, leaving a person with lasting effects that can risk worsening if untreated. Understanding what symptoms qualifies one as having PTSD is important when diagnosing the disorder and determining the best treatment for a given population. For purposes of this study, PTSD was identified using criteria from the Diagnostic and Statistical Manual of Mental Health Disorders 5, which classifies it as a Trauma and Stress-related Disorder and outlines eight criteria that must be met to warrant a full diagnosis (APA, 2013).

Substance Abuse Disorder (SUD): The DSM-5 (APA, 2013) classifies a SUD under Substance-Related and Addictive Disorders and describes it as any pattern of alcohol or other substance use that leads to significant distress or impairment of daily life function.

Background of the Problem

The US inmate population has the highest rate of mental health disorders, representing more than three times the number of people in psychiatric hospitals and qualifying the correctional system as the largest mental health service provider in the country (Al-Rousan et al., 2017; Collier, 2014; Reingle-Gonzalez & Connell, 2014; Torrey, Kennard, Eslinger, Lamb, & Pavle, 2010). More than half of all inmates have mental health disorders that can be

substantiated by a clinical diagnosis or by having received treatment from a mental health professional within the 12 months prior to incarceration (Bronson, Zimmer, & Berzofsky, 2017). As much as 74 percent of the US inmate population also experiences drug use that co-occurs with mental health disorders (Collier, 2014; Messina, Burdon, Hagopian, & Prendergast, 2004; Waltermauer & Akers, 2013), resulting in a majority of such inmates in need of mental health as well as drug treatment services while incarcerated.

Disproportionately represented among these figures are women, who represent a fast growing segment of the US inmate population. While fewer women than men are incarcerated in the US overall, the female rate of incarceration grew more than 700% and surpassed the male rate of incarceration by more than twice as much between 1980 and 2016 (Sentencing Project, 2018). In total, women account for 1.2 million persons in the US who are incarcerated or on probation or parole (Sentencing Project, 2018). The sudden spike in the incarceration of women in recent years has caused researchers to take a closer look at the underlying causes, bringing awareness to the propensity of mental health and substance abuse issues that distinguish female from male correctional populations.

Research suggests that comorbidity of substance use and psychiatric disorders is most common among incarcerated women (Abram, Teplin, & McClelland, 2003). Compared to men, incarcerated women report higher rates of mental illness (James & Glaze, 2006; Torrey et al., 2010) and substance abuse (Craig, Dixon, & Gannon, 2013). More than 70% of women in prisons and jails have been found to have mental health problems and more women than men are likely to have experienced symptoms during the 12 months prior to incarceration (James & Glaze, 2006). In addition, more than 60% of incarcerated women have met the diagnostic criteria for substance abuse or addiction in the year prior to incarceration (Mumola & Karberg,

2006) and as much as 82% have met the lifetime criteria (Lynch, DeHart, Belknap, & Green, 2013).

In a study of women at intake to prison, more than 90% of the participants qualified as having a substance abuse problem, with a majority reporting they had experienced mental health issues as well (Matheson, Doherty, & Grant, 2009). The magnitude of need and complexity of issues call for a targeted response. However, more information is needed to understand the overall issues and, subsequently, the types of services with the most potential to have an impact (Abram et al., 2003).

Increasing numbers of incarcerated women who demonstrate high rates of mental illness and substance abuse implies a need for correctional systems to maximize the impact of therapeutic services. In response, a manual published by the National Institute of Corrections called attention to the need for more effective prison mental health services, specifically the expansion and improvement of practices targeting incarcerated women (Hills, Siegfried, & Ickowitz, 2004). Thus, limiting options to a one-size-fits-all approach may not be the most effective solution for incarcerated women whose circumstances and needs differ significantly from other groups. To ensure treatment efforts target the behaviors of women in correctional settings, it is important to consider and direct services toward the unique treatment needs of this population.

Treatment Needs of Incarcerated Women

Women and men arrive to prison with similar issues and needs; however, women often experience them to a greater extent (Watson et al., 2004). For women, issues tend to run along a continuum of common experiences including histories of abuse and/or trauma and substance or drug use (Moloney, Van Den Bergh, & Moller, 2009; Watson et al., 2004). This differs from

incarcerated men, who tend to have histories of longer and more violent involvement in crime, higher levels of alcohol use, and a prevalence of dropping out of school (Daggett, 2014).

Understanding the differences in gendered pathways to prison has the potential to inform and improve policy and programming in correctional settings (Covington, 2016; Daggett, 2014).

Abuse

When compared to incarcerated men, women in prison are more likely to have experienced sexual and physical abuse (Covington & Bloom, 2006). As a group, women experience more exposure to physical abuse, rape, and sexual molestation, as well as parent neglect and abuse in childhood (Bedi et al., 2011; Iverson et al., 2013; Miller et al., 2011). For women, abuse that starts in childhood can continue into adulthood (Miller & Najavits, 2012). As much as one-half of state and federal female inmates have reported histories of physical and sexual abuse beginning in childhood (Grella, Lovinger, & Warda, 2013).

Women who experience abuse often re-experience it, highlighting a potential for more negative life outcomes according to the research. Studies like the Adverse Childhood Experiences Study (ACE) have assessed various experiences of abuse in childhood and found there to be a connection to mental and physical health problems later in life (Covington, 2016; Felitti & Anda, 2010; Felitti et al., 1998). Nearly one-half of incarcerated women who present with substance abuse and mental health symptoms also report histories of trauma or abuse (Lynch, Heath, Mathews, & Cepeda, 2012; Wolff, Frueh, Shi, & Schumann, 2012).

Trauma

On average, a woman in the non-incarcerated population may experience two traumatic events in a lifetime, whereas an incarcerated woman may experience six traumatic events in a lifetime (Covington, 2016; Grella et al., 2013). In a study by Wolff et al. (2011), 99% of

incarcerated women reported surviving non-specified general disasters, 87% had some experience of interpersonal violence, and 75% had been victims of sexual and/or physical abuse in childhood. Wolff and Shi (2009) found 74.3% of female inmates with a mental health disorder, compared to 48.2% without a mental health disorder, experienced a traumatic event before the age of 18.

Trauma resulting from childhood abuse, particularly, has been shown to contribute to criminal behavior and substance abuse in both men and women (Komarovskaya, Loper, Warren, & Jackson, 2011; Messina & Grella, 2006). Research indicates that prolonged exposure to trauma can lead to a continuous state of stress and further difficulty regulating behaviors (Bloom, Owen, & Covington, 2003; Cloitre, 2009). Post-Traumatic Stress Disorder (PTSD), specifically, demonstrates a type of a cumulative effect, and has been linked to long-term psychological problems among women (Grella et al., 2013; Haller & Miles, 2004).

PTSD. Between 28.4% and 50% of incarcerated women meet criteria for PTSD, a rate significantly higher than the estimated 3.4% of women in the general population with PTSD (Goff, Rose, Rose, & Purves, 2007; Kubiak, 2004; Zlotnick, Najavits, Rohsenow, & Johnson, 2003). In a study of differences by gender, incarcerated women (40.2%) also had a higher rate of PTSD than incarcerated men (12.5%) (Komarovskaya et al., 2011). When comparing incarcerated men and incarcerated women who had the same the traumatic experience, women were consistently more vulnerable to developing PTSD (Komarovskaya et al., 2011).

PTSD is defined as a state of feeling overwhelmed, distressed, or psychologically affected by a traumatic event (Briere & Scott, 2013). Simply stated, PTSD is a response to a traumatic event, leaving a person with lasting effects that can risk worsening if untreated. Understanding what symptoms qualifies one as having PTSD is important when diagnosing the

disorder and determining the best treatment for a given population. For purposes of this study, PTSD was identified using criteria from the Diagnostic and Statistical Manual of Mental Health Disorders 5 (DSM-5), which classifies it as a Trauma and Stress-related Disorder and outlines eight criteria that must be met to warrant a full diagnosis (APA, 2013).

In the DSM-5, Criterion A requires the stressor be experienced as actual exposure or threats of death, injury, or violence by way of either directly experiencing the event; witnessing or learning that the event occurred to others, including close family members or friends; or experiencing repeated or extreme exposure to the details of the traumatic event (APA, 2013). Criteria B, C, D, and E define the symptomology that must be present to diagnose PTSD, including intrusive symptoms, avoidance behavior, significant alterations in thoughts and mood, and hyperarousal associated with the traumatic event respectively (APA, 2013). Criterion F designates the necessary duration of symptoms and Criterion G designates that symptoms must disrupt functioning, while Criterion H requires medication, substance use, and/or other illnesses be ruled out as possible explanations of behavior and symptoms (APA, 2013).

Prisons and jails are environments where clinical resources are often lacking and sentencing requirements dictate treatment priority, rather than diagnosis or symptoms. When symptoms of another disorder like substance abuse are more pronounced, it is logical to assume there would be a risk for PTSD to go undiagnosed or be misdiagnosed in inmates. It is important for clinicians to know PTSD often co-occurs with substance abuse in incarcerated populations (Lynch et al., 2013; Wolff et al., 2011; Zlotnick, 1997). Eighty-seven percent of female inmates participating in one correctional-based trauma treatment program had a Substance Use Disorder (SUD), with 79% having comorbid PTSD and SUD diagnoses (Wolff et al., 2011). As much as 88% of female inmates participating in another correctional-based trauma treatment program

reported symptoms that would qualify as PTSD or subthreshold PTSD, with 87% of the women in the same sample reporting a SUD (Wolff et al., 2011).

Substance Use Disorders

Certain types of trauma-related disorders are common among incarcerated women and have been shown to have a strong relationship to subsequent negative forms of coping like substance use (Bartlett, 2007). The DSM-5 (APA, 2013) classifies a SUD under Substance-Related and Addictive Disorders and describes it as any pattern of alcohol or other substance use that leads to significant distress or impairment of daily life function. To be diagnosed with a substance abuse disorder, an individual must meet at least two of the following criteria within a 12-month period:

- Consuming more alcohol or other substance than originally intended and for a longer time than intended.
- Consistent failed efforts to control substance use despite desire to stop.
- Spending a large amount of time obtaining and using substance.
- Experiencing craving for the substance.
- Failure to fulfill major role obligations due to use of substance.
- Continuing substance use despite its effects on relationships with others.
- Withdrawing from or reducing activities because of substance use.
- Repeated use of the substance in physically dangerous situations.
- Continuing substance use despite knowledge that it causes negative physical or psychological effects.
- Developing a tolerance to the substance, noted by the use of greater amounts to get the desired effect.

- Experiencing withdrawal symptoms after stopping use. Specific withdrawal symptoms will depend on the substance, but may include anxiety, irritability, fatigue, nausea/vomiting, hand tremor or seizures (APA, 2013).

An estimated 8.4% of non-incarcerated adults aged 18 and older in the US report having a SUD (Lipari & Van Horn, 2017). Comparatively, more than 58% of prison inmates and 63% of jail inmates met the diagnostic criteria for drug dependence or abuse from 2007–2009 (Bronson et al., 2017). Approximately 1.5 million inmates in state and federal prison populations are serving drug-related offenses and, in some cases, the drug offender population equals more than half of the inmates housed within a prison system (Collier, 2014; Wakeman & Rich, 2015).

In 2015, information from the National Council on Alcoholism and Drug Dependence, Inc. indicated that as much as 80% of the inmate population abuse drugs and alcohol, with 60% of inmates testing positive at the time of their arrest. Women more than men are likely to be addicted to illicit drugs (Houck & Loper, 2002). In a sample of 166 female parolees, Bates (2004) found that 70% to 80% of female inmates had substance use problems, as well as histories and experiences of abuse, disengagement from their families, and loss of identity within their communities.

A history of trauma and/or abuse combined with a lack of treatment can cause symptoms to persist, causing women to experience significant impairment and chronic clinical issues that necessitate intervention while incarcerated (Center for Substance Abuse Treatment, 2014). While studies show a marked prevalence of incarcerated women arriving with serious mental illness (SMI), PTSD, and/or SUD, many have not received treatment or have received inadequate treatment prior to incarceration (Lynch et al., 2013). To be responsive to the needs of those in

their care, correctional systems must consider treatment options that address the specific needs of the target population and allow participants, perhaps their first opportunity, to develop strategies to promote positive change.

Treatment Options for Incarcerated Women

Correctional-based care has historically offered limited prevention and rehabilitative interventions (Brewer-Smyth, 2004). The focus of such care has been to correct deficits, specifically criminal thinking and associated behaviors, to better ensure success with community re-entry (Hunter et al., 2016). For incarcerated women, this notion of successful treatment presents a complex challenge, however. Too often female correctional facilities implement procedures that are based upon a male model (Moloney et al., 2009). As a result, women have historically had little access to treatment or its benefits while incarcerated due to such programs being ill designed to meet their needs despite the demand (Macdonald, 2013).

Research indicates that women's treatment services in correctional settings could benefit from security procedures, healthcare, education, and treatment programs that address their complex set of needs (Macdonald, 2013). Abram et al. (2003) suggested positive treatment outcomes could increase from systematic screening and treatment for those with comorbidity, as well as single mental health disorders. Studies examining the treatment of trauma in coordination with substance abuse and/or mental health treatment have shown to be successful in reducing overall symptomology (Morrisey et al., 2005; Zlotnick et al., 2003). Solution focused methods targeting cognitive behavioral connections and education have shown to be particularly successful in treating persons with PTSD and substance abuse (Zlotnick et al., 2003). These examples suggest that options are available for finding the appropriate fit for treatment when correctional facilities address multiple factors affecting incarcerated women.

The interrelationship between trauma, substance abuse, and mental illness has been suggested as the key to successful therapeutic intervention for incarcerated women (Covington, 2016). The term “trauma-informed care” has been evolving since the 1970s, beginning with the rise of the feminist movement and the development of child advocacy centers to address abuse and interpersonal violence (Wilson, Pence, & Conradi, 2013). Since that time, trauma-informed efforts have led to an increased scientific understanding of how humans respond to traumatic events, including the identification of PTSD as a disorder (Wilson et al., 2013). Trauma-informed care specifically responds to the need for organizations to plan and deliver services that reflect an understanding of the effect of trauma to promote support and avoid re-traumatizing the individual (Wilson et al., 2013).

When organizations act with intention to minimize risk and focus on the safety and recovery of the individual, they are thought to be trauma-responsive (Bloom, 2016). Mental health leadership organizations like the Substance Abuse and Mental Health Services Administration (SAMSHA) have shown their support of this notion by sponsoring additional research through studies like the *Women, Co-Occurring Disorders and Violence Study* in 1998 to provide a framework for such services (Wilson et al., 2013). Trauma-responsive approaches add value to trauma-informed care by applying what is learned about trauma for the sake of preventing further harm, recognizing the interconnection of symptoms, and providing the individual with a safe environment to explore opportunities for growth from the traumatic experience. Viewing trauma in this context represents a shift away from thinking of trauma and symptomology as separate and unconnected to thinking of trauma as a complex set of responses contributing to the development of both vulnerabilities and strengths within a person (Bloom, 2016).

Reorienting the focus from a single, deficit seeking direction to recognizing how other factors may contribute to therapeutic growth and recovery has shown to be an effective approach (Smith, 2006; Vandavelde et al., 2017). Known as strengths-based approaches, these efforts serve as an alternative to the deficit-based treatment model in that they focus on identifying and promoting individual strengths as the basis for developing treatment plans (Hunter et al., 2016). Strengths-based approaches are grounded in the notion that individuals possess the resources to resolve their own problems (Caffaro, 2017). As a result, treatment focuses on identifying an individual's strengths and facilitating their ability to resolve present conflicts (Cafarro, 2017).

The objective of strengths-based treatment programs is to contribute to the growth and development of the positive characteristics within a person while also treating risks and needs (Hunter et al., 2016). Strengths-based approaches have shown to be effective in counseling persons with mental illness and substance abuse issues, increasing treatment retention rates and attaining specified goals or outcomes (Vandavelde et al., 2017). Gender responsive treatment (GRT) derives from a strengths-based, trauma-informed (or trauma-responsive) therapeutic model (Vandavelde et al., 2017).

Gender Responsive Treatment (GRT)

GRT asserts: 1) individuals with mental issues can experience growth; 2) deficits need to be de-emphasized and strengths identified; 3) focus should be on natural contexts and resources; 4) individuals should control the direction of therapy and determine goals; 5) the counselor-client relationship is central to therapeutic effectiveness; and 6) when possible, strengths-based counseling should take place in the natural or community setting (Vandavelde et al., 2017). As a relatively new body of programming, GRT integrates the treatment of trauma with counseling and substance abuse interventions to support therapeutic change. Among incarcerated

populations, GRT programs have been found to contribute to increased adherence to treatment and recovery and reductions in drug use, as well as lower rates of re-incarceration among participants (Messina et al., 2010). Comparing results to standard prison therapeutic communities, Messina et al. (2010) found that GRT participants had greater reductions in drug use ($N = 94$, $F = 4.61$, $df = 1$, $0 < .03$), remained in residential aftercare for longer periods (2.6 months vs. 1.8 months, $p < .05$), and experienced re-incarceration at a lower rate within 12 months following parole, 31% vs. 45% respectively ($N = 82$, $\beta = -1.11$, $df = 1$, $OR = .33$, $p < .05$).

GRT principles focus on six main areas: 1) Acknowledging gender as a factor in treatment services; 2) Treatment environments should emphasize safety, respect, and dignity; 3) Successful treatment results depend upon healthy relationships with others; 4) Treatment services for women that address substance abuse, trauma, and mental health issues do so in a comprehensive, integrated, and culturally-respectful manner; 5) Treatment should focus on improving women's socioeconomic condition; and 6) Community services should be comprehensive and collaborative (Covington, 2016). Adhering to these principles is thought to effectively address the specific issues that women present in treatment and recovery. New treatment models are emerging that reflect these principles by being more integrative in nature and focusing on co-occurring issues common among incarcerated women.

Many correctional systems have invested in programs that focus on the treatment of PTSD to address substance-related or addictive behaviors in incarcerated women (King, 2017; Messina, Calhoun, & Braithwaite, 2014; Messina et al., 2010; Swopes, Davis, & Scholl, 2017). Research shows that PTSD and SUD show better treatment prognoses when only one disorder is present (Kubiak, 2004; Najavits et al., 2007; Swopes et al., 2017). When comorbid PTSD and

SUD occurs, research suggests treatment becomes more challenging and should include a focus on trauma to ensure underlying causes of substance use are being addressed (Najavits, 2005; Swopes et al., 2017). *Beyond Trauma: A Healing Journey for Women* is one example of an intervention that is strengths-based, integrated in its approach, and aimed at bringing awareness to the impact of trauma to a women's development and treating subsequent mental health and substance abuse issues that follow trauma (Covington, 2016).

Beyond trauma: A healing journey for women (BT). BT is a gender responsive treatment approach that considers participants' experiences with trauma and the impact of these experiences in their lives (Covington, 2016). BT is designed to help women face the trauma of their past, typically abusive or victimizing in nature, and safely explore how it has impacted decision-making (Covington, 2016; Messina et al., 2010). BT focuses specifically on participants' understanding of what constitutes trauma and abuse, the typical reactions to trauma and abuse, and how to develop coping skills to manage the negative effects of trauma and abuse.

The BT curriculum is organized into three modules: 1) Violence, Abuse, and Trauma; 2) The Impact of Trauma on Women's Lives; and 3) Healing from Trauma (Covington, 2016). Module A addresses violence, abuse, and trauma with the goal of defining trauma, its prevalence among incarcerated women, and suggests coping strategies that assist participants with grounding or soothing their feelings toward the trauma. Module B focuses on the impact of trauma to one's quality of life by focusing on its effect on relationships, sexual activity, substance abuse, and subsequent alterations in decisions that impact all of these areas. Finally, in Module C, BT attempts to draw connections between trauma and addiction. Topics of recovery and healing from trauma are coupled with lessons on the development of addiction to further participants' understanding of alternative methods of coping aside from avoidance or substance

use. The development of coping strategies and growth from the experience of trauma are emphasized throughout the intervention, whereby activities learned in Module A are furthered developed in Modules B and C.

BT has shown to have positive results when integrated and studied with other interventions. In an evaluation of GRT curricula, including BT, by Covington, Burke, Keaton, and Norcott (2008), the authors found participant scores on the Trauma Symptom Checklist (TSC-40) had decreased from a mean score of 19.3 (SD = 19.2) to a mean of 17.5 (SD = 21.0) after completion of BT. Similar decreases in mean scores of depression were also noticed (from 10.2; SD = 9.4 to 4.5; SD = 6.4) as well as decreases in drug use and criminal activity with 99% remaining drug and alcohol free and 97% having no new conviction after a six-month follow-up (Covington et al., 2008). Messina, Calhoun, and Warda (2012) specifically noted improvements in in-treatment performance (from 13% to 16%, $p < .05$) and reductions in PTSD (from 36% to 9%; $p < .07$) using BT in coordination with another gender responsive treatment protocol entitled *Helping Women Recover*.

Research concerning the effectiveness of BT as a single approach was not readily found as a result of this review. In addition, BT processes indicate there is no prescribed method of evaluation. However, certain constructs exist in the trauma literature that may prove useful in evaluating BT, specifically research related to coping and posttraumatic growth (PTG) in relationship to PTSD. For instance, studies examining PTG and PTSD have indicated that factors predicting one may also predict the other (Linley & Joseph, 2004). More specifically, the use of active coping has been found to predict PTG (Bellizzi & Blank, 2006; Evers et al., 2001), while a lack of coping has been found to contribute to PTSD (van der Kolk, 2014). Thus, in lieu

of a formal evaluation mechanism for BT, considering the extent to which its objectives align with the principles and measures of coping and posttraumatic growth warrants further analysis.

The Relationship of BT to PTSD, Coping, and Posttraumatic Growth

BT is designed to help women who have experienced trauma, particularly that stemming from abuse or violence, to the point that it has overwhelmed their ability to cope. BT objectives relate to one's ability to manage triggers and re-traumatization, as well as unhealthy coping mechanisms like dissociation, depersonalization, and self-harm (Covington, 2016). BT program materials focus on the post-traumatic development of personal strength, relationships, greater life appreciation, beliefs, and new possibilities (Covington, 2016). Establishing that participation in BT results in an increase in one's ability to cope and grow from the experience of trauma may provide a preliminary view of the effectiveness of the intervention in facilitating these constructs and offer a basis for further evaluation of its overall therapeutic value among correctional populations.

PTSD and BT

PTSD can be described as how one responds to a traumatic event (Covington, 2016). PTSD has a high comorbidity with substance abuse due to a propensity of the trauma survivor to self-medicate in order to avoid experiencing symptoms of PTSD (Ullman, Relyea, Peter-Hagene, & Vasquez, 2013). More specifically, studies have shown substance use to be a form of negative coping used to deal with distress and avoid the effects of a traumatic event (Ullman et al., 2013).

Often interchanged with terms like trauma and abuse, PTSD is differentiated for BT participants through a discussion of its specific features that include: 1) re-experiencing an event; 2) numbing and avoidance reactions in association with the traumatic event; 3) changes in moods and thoughts that result in low self-esteem, personal neglect, dissociation, or memory loss; and

4) hyperarousal in the form of anxiety, risk-taking, or anger (Covington, 2016). The BT curriculum further describes two types of PTSD, simple and complex (Covington, 2016). Simple PTSD results from a single traumatic event usually experienced as an adult, whereas complex PTSD results from repeated exposure to traumatic events beginning in childhood (Covington, 2016).

BT participants experience activities aimed at understanding the impact of the trauma, creating safety, self-reflection, and relaxation in order to develop more positive coping responses to the trauma and/or minimize the effects of PTSD. A history of trauma and/or PTSD diagnosis qualifies BT participants for the program, but also serves as a measure of their ability to cope and their capacity for growth following the traumatic event. Thus, PTSD in relationship to coping and posttraumatic growth are key focus areas in this study, which sets the foundation for determining if BT is an effective intervention for women who demonstrate negative responses to the experience of trauma.

Coping and BT

Coping has been described as the degree to which an individual uses cognitive and behavioral strategies to respond to stress (Compas et al., 2001; Folkman, 2010). The relationship of coping strategies to the treatment of PTSD and SUD are of particular importance to BT or any intervention that addresses the unique needs of incarcerated women. Coping that involves avoidant behavior has been linked to increased symptomology of comorbid PTSD and SUD (Boden et al., 2014; Hruska, Fallon, Spoonster, Sledjeski, & Delahanty, 2011). Studies indicate that improving emotion regulation can positively impact the severity of PTSD and SUD symptoms by mediating impulsivity (Weiss, Tull, Anestis, & Gratz, 2012; Weiss, Tull, Viana,

Anestis, & Gratz, 2013) and influencing behaviors that act in converse to avoidance (Hien et al., 2010).

Roberts et al. (2015) reviewed available research related to comorbid PTSD and SUD and determined there to be more efficacy in trauma-focused individual and group interventions than interventions that did not focus on trauma. More specifically, the authors found that trauma-focused interventions to treat PTSD and SUD, particularly at the individual level, are more effective than interventions with no trauma focus (Roberts et al., 2015). Interventions like BT attempt to facilitate recovery from negative coping mechanisms like substance abuse by emphasizing positive coping and meaning or growth from experience.

BT activities focus specifically on helping participants to connect their experience of self-harming behaviors and trauma and learn more effective ways of coping (Covington, 2016). Throughout the intervention, BT participants learn the principles of healing and recovery through a series of diagrams, videos, and discussions aimed at normalizing their experiences of violence, abuse, and trauma, thus making connections between the three experiences and explaining common responses to trauma such as substance abuse and PTSD. The program helps participants to develop healthier coping skills that include natural stress-reduction techniques and self-reflection with each session focuses, in part, on the differences that exist between men and women in terms of trauma in order to help participants explore issues of power and control.

Posttraumatic Growth and BT

Posttraumatic growth (PTG) is described as the outcome that occurs following the successful use of coping skills after trauma (Ungerleider, 2003). Tedeschi and Calhoun (1995) first conceptualized PTG as a type of positive adjustment that follows trauma. The authors suggested there was a correlation between growth (e.g. PTG) and distress (e.g. PTSD), finding

the experience of trauma was the factor contributing to a person's opportunity to grow (Tedeschi & Calhoun, 1996). PTG has been characterized by improvements in personal strength and relationships, as well as renewed meaning and life perceptions (Schuettler & Boals, 2011; Tedeschi & Calhoun, 1996). Growth, in this sense, occurs beyond recovery and in response to processing the traumatic event.

Since the work of Tedeschi and Calhoun (1996), support for a relationship between PTG and PTSD has been evident (Dekel, Mandl, & Solomon, 2011). Recognizing that predictors of PTG and PTSD had never been studied together, Dekel, Mandl, and Solomon (2011) recruited ex-Prisoners of War (POWs) and examined the shared predictors of PTG and PTSD against the unique predictors of PTG that are not found in PTSD. The study returned two primary findings: (a) PTG and PTSD were positively correlated, implying a curvilinear relationship existed ($R^2 = .20$) more than a linear relationship ($R^2 = .14$); and (b) PTG and PTSD have unique factors that are not associated with the other with 34.9% of the variance being explained for PTG ($F(5,60) = 7.97, p < .001$) and 44.3% of the variance in PTSD explained by independent variables ($F(5,60) = 11.34; p < .001$) (Dekel et al., 2011).

Studies in offender populations have focused largely on qualitative accounts of posttraumatic growth (Guse & Hudson, 2014; Mapham & Hefferon, 2012; Ronel & Elisha, 2011; van Ginneken, 2016). Such studies have found the development of positive psychological functioning contributes to a transformation in thinking and behavior, described as PTG (Guse & Hudson, 2014). For example, one study involved interviews with male ex-offenders upon release and found PTG was the result of finding new meaning in life, developing self-awareness, and having positive relationships with those not involved in crime (Guse & Hudson, 2014). As such, PTG is thought to only be possible with a loss of meaning and/or substantial crisis

(Vanhooren, Leijssen, & Dezutter, 2018). For many participants in correctional settings, the loss/crisis described may be the prison experience itself and, thus, integral to the achievement of posttraumatic growth was their ability to process the loss and crisis (Vanhooren et al., 2018).

Studies that examine coping and PTG together in incarcerated populations have been somewhat limited (Vanhooren et al., 2018). One of the first studies using quantitative methods substantiated findings that emotional support, religious coping, and meaning-focused coping served as positive predictors of posttraumatic growth among offenders (Vanhooren et al., 2018). Differences were found between inmates who received therapy versus those who did not based on length of incarceration ($\beta = .21, p < .001$), age ($\beta = -.15, p < .01$), and educational level ($\beta = -.13, p < .05$), but not based on substance use or gender (Vanhooren et al., 2018).

Models of PTG exist to offer an understanding of the variables that increase psychological growth following trauma (Calhoun, Cann, & Tedeschi, 2010; Calhoun & Tedeschi, 1998, 2006; Tedeschi & Calhoun, 2004). Tedeschi and McNally (2011) showed how principles resulting from these studies could be applied to special populations like combat veterans to address effects of PTSD. Likewise, a study of BT participants who are receiving treatment focused on understanding and integrating the trauma experience may offer a unique opportunity to observe how individuals apply learned coping strategies. Thus, outcomes of coping strategy development and posttraumatic growth could be assessed in relationship to an intervention like BT to determine if change occurs from pre-treatment to post-treatment as a result.

Statement of the Problem

Women with trauma histories are at significant risk of developing mental health issues that often lead to persistent negative behaviors and potential incarceration (Center for Substance Abuse Treatment, 2014). Despite efforts, incarcerated women who receive treatment face

considerable challenges with re-entry, as well as receiving and continuing care that is critical to recovery (Collier, 2014). More effectively treating problematic symptomology could not only improve the quality of care inmates receive while in custody, but could bring awareness to issues that may inhibit change, pose a risk to inmate wellness, and/or perpetuate unhealthy behaviors.

To be effective, corrections-based treatment programs must consider protocols and interventions that are relevant to the population and demonstrate evidence of working to address the issues at hand. As a relatively new intervention, BT does not have associated assessment protocol, yet its intervention criteria appear to align with theoretical constructs of posttraumatic growth and coping. Thus, implementing measures of PTG and coping could provide an understanding of growth in the therapeutic process as a result of participation in BT.

Significance of the Study

Understanding and meeting the needs of incarcerated women with mental health and/or substance abuse disorders has been identified as a significant public health matter (Johnson et al., n.d.). BT, as a treatment protocol in incarcerated settings, aims to enhance women's capacity for posttraumatic growth, as well as helps them to develop positive coping alternatives. It is anticipated that positive coping strategies serve to promote growth as a result of treatment.

This study adds to existing research pertaining to the value and feasibility of one gender responsive treatment program. Study data were analyzed to determine participants' experience with symptomology and changes in self-reports of coping utilization and posttraumatic growth prior to the intervention and at the completion of the intervention. Such a pre and post analysis allowed for in-depth assessment of specific aspects of the treatment program related to therapeutic change, an area of gender responsive treatment research that is currently lacking.

This study seeks to accomplish a better understanding of the effectiveness of BT in the selected correctional setting and inform the development of a program evaluation tool. Results also have implications for Counselor Education and Supervision and other programs that prepare mental health and rehabilitation counseling professionals working in correctional facilities or with inmates. Graduate and professional programs could utilize results from this study to inform training in coping, meaning in life, and posttraumatic growth in relationship to trauma and substance abuse recovery. Further, information from this study could enhance the student experience by offering an example of how these constructs can be applied in corrections-based counseling, as well as general counseling practice.

Purpose of the Study

The purpose of this study is to examine treatment results for incarcerated women in a southern-US women's prison system who have been identified to participate in *Beyond Trauma: A Healing Journey for Women* (BT). This study focuses on the implementation of BT and subsequent changes in coping, meaning in life, and posttraumatic growth. This study extends the study by Vanhooren et al. (2018) which hypothesized emotional coping, religious coping, and search for meaning as positive predictors of posttraumatic growth and denial, substance abuse, and behavioral disengagement as negative predictors. The overall aim of this study is to assess the degree to which coping, meaning in life, and posttraumatic growth can be facilitated by treating trauma using a gender responsive curriculum. Due to the prevalence of co-occurring PTSD and Substance Use Disorder (SUD) among female incarcerated populations (Bartlett, 2007), there is evidence to warrant a closer examination of the effectiveness of treating trauma to address these issues among incarcerated women in terms of therapeutic growth.

Research Questions

1. What is the number of self-reported symptoms of PTSD among participants before engaging in BT?
2. Is there a difference in the use of coping strategies among participants prior to and at the completion of BT?
3. Is there a difference in the presence of or search for meaning among participants prior to and at the completion of BT?
4. Is there a difference in posttraumatic growth among participants prior to and at the completion of BT?
5. What is the relationship of posttraumatic growth, coping, and meaning in life to participant reports of times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility?

Summary

Typical assessment and treatment protocols in correctional settings are selected based on their ability to determine which individuals pose a security risk as opposed to determining a level of therapeutic need (Reingle-Gonzalez & Connell, 2014). Further, investment in more adequate assessments and treatments in incarcerated settings are restricted by policies and budgets that limit care to all who may need it (Reingle-Gonzalez & Connell, 2014). Providing more effective approaches for the assessment and treatment of incarcerated women has the potential to enhance the outcomes that correctional treatment programs are seeking, as well as improve therapeutic change among participants while ensuring the best investment of public resources.

Study results are predicted to determine the effectiveness of a current treatment protocol for PTSD and SUD among women in one incarcerated setting. Understanding participant coping styles in light of experiences with PTSD and SUD could relate to success with treatment. Further, ensuring the development of positive coping characteristics in treatment participants could have a potential benefit on meaning in life, posttraumatic growth, and treatment sustainability.

CHAPTER 2. METHODOLOGY

This study examines the impact of a treatment intervention known as *Beyond Trauma: A Healing Journey for Women* (BT) in relationship to changes in coping and posttraumatic growth from pre-treatment to post-treatment. A quasi-experimental study with repeated measures was conducted in three female-only correctional facilities in a southeastern state in the US. The selection of multiple facilities was done for the purpose of minimizing bias and maximizing the response rate. A quasi-experimental study design has no random assignment and allows for the analysis of cause and effect (Patten, 2014). Repeated measures, as that being proposed in this study, often use a pretest/posttest design to assess the difference in assessments taken prior to and following an intervention (Ross & Shannon, 2011).

The outcome in this study is defined as the impact of BT as assessed by changes from pre-BT treatment to post-BT treatment. Factors determining impact included coping strategy utilization, meaning in life, and posttraumatic growth. This study compared results on all measures from pre-treatment to post-treatment with specific participant variables such as gender, age, educational attainment, ethnicity, religious-cultural background, whether or not in therapy, support by a chaplain, times being incarcerated, nature of current offense, years incarcerated this time, experience with other treatment programs at current facility, and traumatic experiences in childhood.

In part, this study models one conducted by Vanhooren et al. (2018), which examined coping strategies as possible predictors of posttraumatic growth (PTG) among a group of Dutch

prisoners. The authors found seeking emotional support ($\beta = .32, p < .001$), religious coping ($\beta = .20, p < .001$), and searching for meaning ($\beta = .16, p < .01$) to be most positively related to PTG.

Research Questions

This study investigates the following research questions:

1. What is the number of self-reported symptoms of PTSD among participants before engaging in BT?
2. Is there a difference in the use of coping strategies among participants prior to and at the completion of BT?
3. Is there a difference in the presence of or search for meaning among participants prior to and at the completion of BT?
4. Is there a difference in posttraumatic growth among participants prior to and at the completion of BT?
5. What is the relationship of posttraumatic growth, coping, and meaning in life to participant reports of times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility?

Statement of Hypotheses

The following null hypotheses were developed for this study:

1. There are no significant mean differences between participants of BT who are completing concurrent treatment for substance abuse versus those who are not in substance abuse treatment (i.e. general population).
2. There are no significant mean differences between participants in use of coping strategies prior to and at the completion of BT.

3. There are no significant mean differences between participants in presence of or search for meaning prior to and at the completion of BT.
4. There are no significant mean differences between participants in posttraumatic growth prior to and at the completion of BT.

Participants

Study participants represent a sample of the overall population within a given facility who had been selected for the BT program using a comprehensive tool known as the *Women's Risk Needs Assessment*, or WRNA. WRNA is administered by facility staff to all inmates and serves to identify risk factors for the purpose of assigning inmates to specified programming (University of Cincinnati Corrections Institute, 2017). In order to participate in this study, respondents must have been 19 years of age or older, be assigned to a BT treatment group at the start of data collection, and not received individual counseling for trauma at any time prior to or during the study. No inducements or incentives were offered for participation.

In addition, those considered for this study were divided into two subgroups: 1) participants receiving concurrent treatment for a substance abuse disorder in the facility, and 2) participants receiving no substance abuse treatment, also referred to as the general population. The sub-group distinction proposed to enhance data analysis by allowing consideration for other factors and variables that may influence change, such as simultaneous treatment or living environment. Also, a closer examination of the effects of BT for those in substance abuse treatment, specifically, could further enhance the understanding of its relationship to trauma.

Of the three facilities selected, one facility was a minimum custody facility for female inmates who are performing jobs in the local community. Another facility was a medium custody facility focused on preparing female inmates for work in the community. And, the third

facility was considered a receiving unit for all female inmates coming in to the state prison system and is classified as a close custody facility. All three facilities offer drug treatment counseling, trauma-stress management, and/or aftercare programs for recovery.

At any given time, there are approximately 80–100 women participating in BT concurrently across all three facilities. The BT program requires a six-week period in order to complete. It was estimated that it may require assessment over two to three administrations of BT to acquire the desired response rate. Recruitment was conducted at each facility via an informational session prior to the start of the first BT meeting in a series. The informational session was structured to: 1) introduce the researchers, 2) discuss the purpose and parameters of the study, 3) outline the expectations of participants, 4) relay the risks and discomfort associated with participation, 5) share information about the potential benefits and compensation, and 6) provide instruction for how to withdraw from the study.

Procedures

The BT intervention consists of three modules and 12 sessions that cover a range of topics, including the relationship between violence, abuse, and trauma; the impact of trauma on women's lives; and healing from trauma (Covington, 2016). For the duration of the BT program, participants experience individual and group activities facilitated by corrections staff who receive formal training in the BT curriculum. The BT facilitators who delivered the program during this study period also met qualifications including professional training in counseling or teaching, and served in those roles at their given facility. The researcher did not facilitate the BT intervention received by study participants. Also, no formal evaluation exists for BT; however, participants received a certificate at the completion of the program by the facilitator to be included in their personal file.

Upon approval from Auburn University IRB (Appendix A) and leadership from the correctional system (Appendices B and C), study participants were recruited via informational sessions to occur at the first meeting of BT in a series, which serves as an introduction to the curriculum, the role of the facilitator, and the expectations of group members. Interested participants were provided a brief set of questions to determine eligibility (Appendix D) and an informational letter to serve as an informed consent document (Appendix E). The informational letter/informed consent document included known risks associated with completing the surveys and consultation that they may withdraw from participation at any time. IRB-approval information was attached to the informational letter/informed consent document for the participant to review. The informational letter/informed consent document and IRB approval form explained using a script to be reviewed in full at each informational session. Copies of the signed informational letter/informed consent document were provided upon request.

Upon agreement, participants consented to participate and selected a unique identifier to be associated with pre-treatment and post-treatment surveys and results. Identifying information as well as records of informed consent were scanned and protected using electronic files contained on a portable flash drive and accessible only by password. The flash drive as well as other written documentation related to the study were stored in the researcher's university office in a locked file cabinet.

The survey instruments were distributed by the researcher at the three facilities at a prearranged date and time. The researcher chose to include all three sites in an effort to increase the likelihood of obtaining a high response rate, which provided greater confidence in the results and generalizability to the broader population (Patten, 2014). Participants were instructed to include a unique identifier with completed surveys in both the pre-treatment and post-treatment

administrations. Surveys were inserted into individual manila envelopes by participants and returned to the researcher at the completion of both data collection periods.

At both administrations of the surveys (i.e. pre-treatment and post-treatment), packets were distributed that included approved copies of the validated instruments being used, in addition to a demographic questionnaire to capture information about gender identity, age, educational attainment, ethnicity, religious-cultural background, times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Pre-assessments occurred on the first day of the BT intervention, following consent and prior to the start of the intervention. Post-assessments were collected one week following the last session. Also prior to the start of the BT intervention, participants were assessed for symptoms of PTSD to determine the presence of symptomology. Participants were informed that they could expect to spend 30 minutes for the completion of all surveys and assessments at each administration.

In addition, by the start of data collection, fidelity reviews of BT facilitators had been completed to assess for consistency and adequacy of implementation (Appendix F). Fidelity reviews were conducted by a contracted party familiar with the development of BT and related curricula, not the researcher. Overall, each fidelity review included an assessment of qualities and best practices demonstrated in the facilitation of the BT program. More specifically, the fidelity instrument utilized by facilities included scoring for group structure, facilitator skills, and the degree to which session content is implemented. Results from the fidelity reviews indicated a majority of criteria were consistently met. In the event criteria were not evident or only sometimes evident, each facilitator was provided feedback and guidance for improving future scores.

After all fidelity reviews were verified and surveys and assessments were collected, data were analyzed using SPSS software. Surveys were examined for exclusion criteria including incomplete surveys and participant withdrawal. Once data were transferred to electronic format, the same procedures for securing consenting and identifying information were used to secure the completed survey instruments. Upon completion of the study, all non-electronic data were destroyed.

Instrumentation

Data collection methods included a brief demographic questionnaire and the following validated instruments: 1) PTSD Checklist for the DSM-5 (Blevins et al., 2015); 2) Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996); 3) The Meaning of Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006); and 4) the Brief COPE (Carver, 1997).

Brief Demographic Measure

A basic demographic questionnaire (Appendix G) was utilized to collect data on respondents' gender, age, educational attainment, ethnicity, religious-cultural background, whether or not in therapy, support by a chaplain, times being incarcerated, nature of current offense, years incarcerated this time, experience with other treatment programs at current facility, and traumatic experiences in childhood.

PTSD Checklist for the DSM-5 (PCL-5)

The PTSD Checklist for the DSM-V, or PCL-5 (Appendix H), incorporates aspects of the PTSD Checklist (PCL) to assess for self-reported measures of PTSD symptoms in accordance with the DSM-5 (Blevins, Weathers, Davis, Witte, & Domino, 2015). The PCL-5 is a 20 item survey that allows respondents to rank from 0-4 the extent to which they have experienced specific symptoms within the last month (Bovin, Marx, Gallagher, Schnurr, Weathers,

Rodriguez, & Keane, 2016). Specific symptom statements include: 1) having difficulty sleeping, 2) feeling jumpy or easily startled, and 3) avoiding memories, thoughts, or feelings related to the stressful event.

The PCL-5 has been validated and found to have high internal consistency (.94), with an inter-item correlation of .15 to .50 (Blevins et al., 2015). Test-retest reliability was measured at $r = .82$, 95% confidence interval [.71, .89] and paired t-tests were shown to be significant ($p < .01$) between two test validations (Blevins et al., 2015). In addition, Cronbach's Alpha indicated high internal consistency (.96) and test-retest reliability of $r = .84$ for the PCL-5 (Bovin et al., 2016).

Posttraumatic Growth Inventory (PTG-I)

The Posttraumatic Growth Inventory, or PTG-I (Appendix I) was created by Tedeschi and Calhoun (1996) to provide a measure of posttraumatic growth using a 21-item scale made up of five subscales, including: 1) New Possibilities (e.g., "I established a new path for my life"), 2) Relating to Others (e.g., "I have a greater sense of closeness with others"), 3) Personal Strength (e.g., "I know better that I can handle difficulties"), 4) Spiritual Change (e.g., "I have a better understanding of spiritual matters"), and 5) Appreciation of Life (e.g., "I can better appreciate each day"). Using a 6-point scale, each item is assigned a score ranging from 0 (I did not experience this change as a result of my crisis) to 5 (I experienced this change to a very great degree as a result of my crisis). Internal consistency for the PTG-I is .90 and test-retest reliability is .71 (Tedeschi & Calhoun, 1996). A higher score on the PTG-I implies more growth.

The Meaning in Life Questionnaire (MLQ)

The Meaning in Life Questionnaire, or MLQ (Appendix J) was created by Steger, Frazier, Oishi, and Kaler (2006) and provides an assessment of the degree to which a person

possesses a presence of meaning or an active search for meaning. The questionnaire consists of 10 items and two subscales, including: 1) Presence of Meaning (MLQ-P); and 2) Search for Meaning (MLQ-S). MLQ items are scored on a 5-point Likert-type scale, ranging from 1 (absolutely untrue) to 5 (absolutely true). The MLQ has been found to have a two-factor structure and good internal consistency, ranging from .81 to .92 for the MLQ-P and MLQ-S subscales respectively (Steger et al., 2006).

Brief COPE Subscales

The Brief COPE (Appendix K) is a validated instrument based on the full COPE (Carver, 1997). The Brief COPE consists of 14 subscales, of two items each. In a study that examined prisoners, Vanhooren et al. (2018) used five subscales of the Brief COPE focused in the following areas: 1) Using Emotional Support (e.g., “I have been getting comfort and understanding from someone”); 2) Religion (e.g., “I have been praying or meditating”); 3) Denial (e.g., “I have been refusing to believe that this is happened”); 4) Substance Use (e.g., “I have been using alcohol or other drugs to make myself feel better”); and 5) Behavioral Disengagement (e.g., “I have been giving up trying to deal with it”). The authors reported a Cronbach’s alpha as follows for the subscales indicated: Using Emotional Support, .74; Religion, .87; Denial, .63; Substance Abuse, .92; and Behavioral Disengagement, .63 (Vanhooren et al., 2018). Across all subscales of the Brief COPE, Cronbach’s alpha has ranged from .50 to .90 (Carver, 1997).

Data Analysis

The study design involved repeated measures, which indicated participants were measured on the dependent variables on more than one occasion. Repeated measures designs are ideal for studies using fixed sample sizes and research questions pertaining to individual growth

or maturation (Lix & Keselman, 2010), like that being proposed. In this study, BT served as the independent variable and be sub-divided into two groups or levels: participants concurrently receiving substance abuse treatment and participants not receiving substance abuse treatment. Dependent variables included coping and posttraumatic growth, with meaning of life being measured as a component of coping.

Data analysis involved a review of descriptive and inferential statistics using SPSS 23.0. Descriptive statistics included the analysis of means and percentages to understand trends and distributions in the data among the sample population. Inferential statistics analysis included the use of a paired samples or independent samples t-test. This procedure assesses for observed differences between two means and allows for an assessment of differences across groups (Patten, 2014; Ross & Shannon, 2011). Thus, to reach the objective of understanding the degree to which coping and posttraumatic growth were affected by participation in BT, the t-test provided an indication of overall significance across a number of means and how pairs or sets of means differed from each other. Further, a Pearson Correlation coefficient was computed to assess the relationship of changes in posttraumatic growth, coping, and meaning in life to the demographic variables of times being incarcerated, nature of current offense, and years incarcerated this time.

Summary

This chapter contains an overview of the methodology for the research study, related research questions and hypotheses, selection of study participants, procedures, instruments to be used, and a description of data analysis. Selection criteria for study participants and procedures were developed with particular attention to the vulnerable position of the study population and the perceived risk of coercion. Thus, study participants represented a sample of the overall

population within a given facility who have been selected for the BT program using a comprehensive tool known as the *Women's Risk Needs Assessment*, or WRNA, administered by facility staff. Once consented, participants were divided into two subgroups: 1) those receiving concurrent treatment for a substance abuse disorder in the facility, and 2) those receiving no substance abuse treatment, also referred to as the general population. Furthermore, verification of PTSD symptomology was established prior to the start of the treatment intervention.

Each treatment group completed two sets of instruments, one prior to the start of the intervention and one at its completion. Participation in the pre-treatment and post-treatment phases of the study were linked using a unique identifier created by the participant. Participants were informed that they can withdraw from the study at any time. The instruments used included a brief demographic survey, the PCL-5, the PTG-I, the MLQ, and the Brief COPE. Data analysis involved a review of descriptive and inferential statistics using SPSS 23.0 to assess means and percentages, as well as a t-test to determine statistical differences between means and a Pearson Correlation coefficient to assess the relationship of changes in posttraumatic growth, coping, and meaning in life to selected demographic variables. IRB protocol was readily shared upon approval of this study.

CHAPTER 3. RESULTS

The purpose of this quantitative study was to investigate treatment results for incarcerated women in a southern-US women's prison system who participated in BT. More specifically, the present study was interested in determining the effectiveness of BT in addressing coping and posttraumatic growth among participants. A secondary focus examined the experiences of participants who reported PTSD symptoms and a history of substance use in relationship to these constructs. Additionally, this study aimed to develop implications for correctional systems and Counselor Education and Supervision programs as to the factors that contribute to effective treatment for trauma among incarcerated women, particularly concerning coping and posttraumatic growth.

The researcher for this study utilized a brief demographic questionnaire, the PTSD Checklist for the DSM-5 (PCL-5), the Posttraumatic Growth Inventory (PTGI), the Meaning of Life Questionnaire (MLQ), and the Brief COPE. Descriptive and frequency analyses were used to determine the number of self-reported symptoms of PTSD among participants before engaging in BT (research question 1). Further, descriptive analyses and a paired samples t-test were used to assess if a difference existed in the use of coping strategies among participants prior to and at the completion of BT (research question 2), if a difference existed in the presence of or search for meaning among participants prior to and at the completion of BT (research question 3), and if a difference existed in posttraumatic growth among participants prior to and at the completion of BT (research question 4). A Pearson Correlation coefficient was computed to assess the

relationship of coping, meaning in life, and posttraumatic growth to participant reports of times being incarcerated, nature of current offense, and years incarcerated this time, and experience with other treatment programs at the current facility (research question 5). Lastly, a Pearson Correlations coefficient was computed to analyze the relationship between coping, meaning in life, and posttraumatic growth and participant reports of PTSD and a history of substance abuse treatment.

Demographic Information

Prior to beginning BT treatment, 49 individuals across three facilities provided informed consent and completed the survey instruments with the PCL-5 assessment. However, due to attrition during the intervention period, 25 out of 49 original participants completed BT treatment. In the end, pre and post questionnaires for 25 participants were used in this study.

Of the final 25 participants, 25 (100.0%) reported their gender as female. Using age demographic categories typically reported by the correctional system involved in the study, 0.0% were under the age of 18, 2 (8.0%) were between the ages of 19–25, 10 (40.0%) were between the ages of 26–35, 4 (16.0%) were between the ages of 36–45, and 9 (36.0%) were between the ages of 46–55.

Eleven participants (44.0%) indicated their highest grade completed was high school or GED. Six participants (24.0%) had some high school, 3 (12.0%) had vocational or technical training, 1 (4.0%) had some college, 2 (8.0%) had an associate's degree, 1 (4.0%) had a bachelor's degree, and 1 (4.0%) had some graduate school.

Seventeen participants (68.0%) indicated they identify as White, followed by 6 (24.0%) who identified as Black or African American, and 2 (8.0%) who identified as American Indian or

Alaskan Native. Among the 2 participants who identified as American Indian or Alaskan Native, 1 (4.0%) specified their race/ethnicity as Black/Indian.

Thirteen participants (52.0%) indicated their marital status as single, 7 (28.0%) indicated they were married or had a partner, 4 (16.0%) indicated they were divorced or separated, and 1 (4.0%) indicated they were widowed. Twenty-three (23) participants (92.0%) indicated they practiced some type of religion, while 2 (8.0%) did not report. Twelve participants (48.0%) indicated they received support from the chaplain, while 13 (52.0%) indicated they do not receive support.

Nineteen participants (76.0%) indicated they have received counseling or therapy, while 6 (24.0%) indicated they have not received counseling or therapy. Eight participants (32.0%) indicated the present situation as being their first time incarcerated, 7 (28.0%) indicated they had been incarcerated 2 to 5 times, 3 (12.0%) indicated they had been incarcerated 6 to 9 times, and 1 (4.0%) indicated they had been incarcerated 10 or more times. Six participants (24.0%) did not report the number of times incarcerated.

Monthly and annual statistical reports published by the correctional system involved in the study classifies offenses in 5 areas: personal (crimes against individuals such as assault, battery, or homicide), property (crimes against property such as theft, robbery, or arson), drugs (crimes that include trafficking, manufacturing, and possession), public (victimless crimes such as prostitution or disorderly conduct), and other. Twenty-one out of 25 participants reported the nature of their offense, including 7 (28.0%) who reported personal offenses, 8 (32.0%) who reported property offenses, 6 (24.0%) who reported drug offenses, and 4 (16.0%) who reported other offenses. Four participants (16.0%) did not report the nature of their offense and none (0%) reported public offenses.

Twenty out of 25 participants reported the amount of time they have been incarcerated for their current offense. Responses were grouped and recoded according to typically reported categories by the correctional system involved in the study. Four participants (16.0%) reported they have been incarcerated for less than 1 year, 10 (40.0%) reported they have been incarcerated for 1 to 3 years, 3 (12.0%) reported they have been incarcerated for 4 to 7 years, none (0.0 %) reported they have been incarcerated for 8 to 10 years, 2 (8.0%) reported they have been incarcerated for 11 to 20 years, and 1 (4.0%) reported they have been incarcerated for 21–30 years. Five participants (20.0%) did not report the amount of time they have been incarcerated for their current offense.

Of the total 25 participants, 18 (72.0%) indicated they received treatment services from their current facility, 4 participants (16.0%) indicated they never received treatment services from their current facility, and 3 (12.0%) did not respond. Of those responding, 4 participants (16.0%) reported they received treatment that addressed substance abuse, 7 (28.0%) reported they received treatment that addressed parenting or relationships, 1 (4.0%) reported they received treatment that addressed re-entry or release, 2 (8.0%) reported they received treatment that addressed behavior management, specifically anger or violence, 3 (12.0%) reported they received treatment that addressed mental health issues, and 1 (4.0%) reported they received other services, including poetry and alternatives to criminal thinking.

Lastly, 21 respondents (84.0%) responded to a question asking if they had ever experienced childhood trauma. Of those responding, 15 (60.0%) indicated they had experienced childhood trauma, while 6 (24.0%) had not experienced childhood trauma. Table 1 indicates select demographic characterizations of participants.

Table 1

Demographics of Participants

	Characteristics	N	%
Gender	Female	25	100.0%
Age	<18	0	0.0%
	19–25	2	8.0%
	26–35	10	40.0%
	36–45	4	16.0%
	46–55	9	36.0%
Highest Grade Completed	Some high school	6	24.0%
	Completed high school or GED	11	44.0%
	Vocational, technical, etc.	3	12.0%
	Some college, but no degree	1	4.0%
	Associate’s degree	2	8.0%
	Bachelor’s degree	1	4.0%
	Some graduate school	1	4.0%
Race	American Indian or Alaskan Native	2	8.0%
	Black or African American	6	24.0%
	White	17	28.0%
Marital Status	Married or partner	7	26.5%
	Single	13	52.0%
	Divorced or separated	4	16.0%
	Widowed	1	4.0%
Religious Practice (specified)	Yes	23	92.0%
	No response	2	8.0%
Has Received Chaplain Support	Yes	12	48.0%
	No	13	52.0%
Has received counseling therapy	Yes	19	76.0%
	No	6	24.0%
Experienced childhood trauma	Yes	15	60.0%
	No	6	24.0%
	Did not respond	4	16.0%

Note: Percent is computed based on the number of participants who completed a given item.

The mean, standard deviation, and reliability statistics are reported in Table 2 for the Posttraumatic Checklist (PCL-5), the Posttraumatic Growth Inventory (PTGI), the Meaning in Life Questionnaire (MLQ), and the Brief COPE (BC). Internal consistency estimates of reliability were performed for the PCL-5, PTGI, MLQ, and BC using coefficient alpha. Scoring for the MLQ and BC is determined using sub-scales representing specific combinations of questions, thus statistics are provided for the sub-scales as well as full scales. Values for coefficient alpha were within range for the PCL-5, PTGI, MLQ, and BC, each indicating satisfactory reliability for this study.

Table 2

Reliability Statistics

	N	Mean	SD	Cronbach's Alpha
PCL-5	20	47.696	18.299	.941
PTGI (Full Scale)	21	89.000	28.735	.932
MLQ (Full Scale)	10	48.184	9.556	.760
Search for Meaning (Sub-scale)	5	25.90	72.010	.893
Presence of Meaning (Sub-scale)	5	16.94	33.517	.420
BC (Full Scale)	28	69.349	12.315	.784
Self-Distraction (Sub-scale)	2	5.71	1.871	.310
Active Coping (Sub-scale)	2	7.16	36.556	.077
Denial (Sub-scale)	2	3.50	1.714	.470
Substance Use (Sub-scale)	2	3.24	2.047	.971
Use of Emotional Support (Sub-scale)	2	4.67	1.802	.619
Use of Instrumental Support (Sub-scale)	2	4.65	1.732	.510
Behavioral Disengagement (Sub-scale)	2	3.53	1.709	.575
Venting (Sub-scale)	2	4.02	1.720	.781

(table continues)

Table 2 (continued)

	N	Mean	SD	Cronbach's Alpha
Positive Reframing (Sub-scale)	2	6.06	1.749	.152
Planning (Sub-scale)	2	5.80	1.708	.287
Humor (Sub-scale)	2	2.82	1.286	.483
Acceptance (Sub-scale)	2	6.42	1.427	.160
Religion (Sub-scale)	2	7.71	5.624	.740
Self-Blame (Sub-scale)	2	4.63	2.028	.616

Research Question 1: What is the number of self-reported symptoms of PTSD among participants before engaging in BT?

To establish a measure of the degree to which participants may be experiencing symptoms of PTSD, the researcher collected self-reported questionnaires of the PCL-5 from participants prior to the beginning of the BT program only. Cronbach's α for the PCL-5 factors in the present sample was good to excellent (range $\alpha = .941$). This indicated that internal consistency for the PCL-5 was reliable and its use was supported in this study.

Descriptive statistics indicated that all participants (100%) had experienced some symptom(s) of PTSD in the past month. Eighteen out of 25 participants (72.0%) met the cut-off score of 33 or higher, indicating a more significant finding of symptoms. The most common symptoms reported by incarcerated women were: avoiding memories, thoughts, or feelings related to the stressful experience (88.0%); repeated, disturbing, and unwanted memories of the stressful experience (88.0%); blaming yourself or someone else for the stressful experience or what happened after it (83.7%); being "superalert" or watchful or on guard (84.0%); avoiding external reminders of the stressful experience (84.0%); feeling distant or cutoff from people (80.0%); and, having strong negative feeling such as fear, horror, anger, shame, and guilt

(80.0%). Other symptoms commonly experienced by incarcerated women included: trouble falling or staying asleep (76.0%); feeling very upset when something reminded you of the stressful event (76.0%); having strong negative beliefs about yourself, other people, or the world (68.0%); having difficulty concentrating (68.0%); feeling jumpy or easily startled (64.0%); loss of interest in activities you used to enjoy (64.0%); trouble experiencing positive feelings (60.0%); and, repeated, disturbing dreams of the stressful experience (60.0%). More than half of incarcerated women reported irritable behavior, angry outbursts, or acting aggressively (56.0%); having strong physical reactions when something reminded them of the stressful experience (56.0%); and, suddenly feeling or acting as if the stressful experience were actually happening again (52.0%). The least common symptoms reported by incarcerated women included: trouble remembering important parts of the stressful experience (48.0%), and taking too many risks or doing things that could cause you harm (24.0%). PTSD symptoms as measured by PCL-5 are provided in Table 3 in descending order.

Table 3

PCL-5 Symptom Distribution

Survey Items in Descending Order	N	%
Avoiding memories, thoughts, or feelings related to the stressful experience	22	88.0
Repeated, disturbing, and unwanted memories of the stressful experience	22	88.0
Blaming yourself or someone else for the stressful experience or what happened after it	21	84.0
Being “superalert” or watchful or on guard	21	84.0
Avoiding external reminders of the stressful experience	21	84.0
Feeling distant or cutoff from people	20	80.0
Having strong negative feeling such as fear, horror, anger, shame, and guilt	20	80.0
Trouble falling or staying asleep	19	76.0
Feeling very upset when something reminded you of the stressful event	19	76.0
Having strong negative beliefs about yourself, other people, or the world	17	68.0
Having difficulty concentrating	17	68.0
Feeling jumpy or easily startled	16	64.0
Loss of interest in activities you used to enjoy	16	64.0
Trouble experiencing positive feelings	15	60.0
Repeated, disturbing dreams of the stressful experience	15	60.0
Irritable behavior, angry outbursts, or acting aggressively	14	56.0
Having strong physical reactions when something reminded them of the stressful experience	14	56.0
Suddenly feeling or acting as if the stressful experience were actually happening again	13	52.0
Trouble remembering important parts of the stressful experience	12	48.0
Taking too many risks or doing things that could cause you harm	6	24.0

Research Question 2: Is there a difference in the use of coping strategies among participants prior to and at the completion of BT?

To assess specific coping responses by participants in their experience with stress, the researcher collected results from the Brief COPE Inventory (BC). This instrument was completed by participants prior to beginning BT and upon the completion of BT to determine if participation in the program had an overall effect in ways of coping among participants.

Individual item scores range from 1 (not doing this at all) to 4 (doing this a lot).

BC is not scored by calculating a total of all responses. Instead, 14 subscales exist by computing the result of certain items and generating a score of 2 to 8 points per scale, with higher scores indicating higher utilization. The 14 subscales of the BC include: Self distraction (items 1 and 19); Active coping (items 2 and 7); Denial (items 3 and 8); Substance use (items 4 and 11); Use of emotional support (items 5 and 15); Behavioral disengagement (items 6 and 16); Venting (items 9 and 21); Use of instrumental support (items 10 and 23); Positive reframing (items 12 and 17); Self-blame (items 13 and 26); Planning (items 14 and 25); Humor (items 18 and 28); Acceptance (items 20 and 24); and Religion (items 22 and 27) (Carver, 1997).

Cronbach's alpha for the BC subscales ranged from the lowest for active coping ($\alpha = .077$), to the highest for substance use ($\alpha = .971$). Prior to beginning BT, participant scores (N = 25) indicated that the highest utilization of coping (maximum 8 points attained on scale) among incarcerated included: religion, i.e. trying to find comfort in my religion or spiritual beliefs and praying or meditating (48.0%); active coping, i.e. concentrating my efforts on doing something about the situation I am in and taking action to try to make the situation better (40.0%); positive reframing, i.e. trying to see it in a different light or make it more positive and looking for something good in what is happening (28.0%); acceptance, i.e. accepting the reality

of the fact that it has happened and learning to live with it (28.0%); self-distraction, i.e. turning to work to take my mind off things and doing something to think about it less (24.0%); and planning, i.e. trying to come up with a strategy about what to do and thinking hard about what steps to take (20.0%). Coping scales with the lowest utilization among incarcerated women included: self-blame, i.e. criticizing myself and blaming myself for things that happened (8.0%); substance use, i.e. using alcohol or other drugs to make myself feel better and using alcohol or other drugs to help me get through it (4.0%); the use of instrumental support, i.e. getting help and advice from other people and getting advice or help from other people about what to do (8.0%); denial, i.e. saying to myself this isn't real and refusing to believe that it has happened (4.0%); the use of emotional support, i.e. getting emotional support from others and getting comfort and understanding from someone (8.0%); behavioral disengagement, i.e. giving up trying to deal with it and giving up the attempt to cope (4.0%); and venting, i.e. saying things to let my unpleasant feeling escape and expressing my negative feelings (4.0%). Participants who reported they utilize humor to cope, i.e. making jokes about it and making fun of the situation represented 4.0% of those responding with no more than 6 points attained on the scale.

Following the completion of BT, the researcher collected results during a second administration of BC. Participant scores on the post-BT administration of BC indicated that the highest utilization of coping (maximum 8 points attained on scale) among incarcerated included: active coping, i.e. concentrating my efforts on doing something about the situation I am in and taking action to try to make the situation better (60.0%); positive reframing, i.e. trying to see it in a different light or make it more positive and looking for something good in what is happening (52.0%); acceptance, i.e. accepting the reality of the fact that it has happened and learning to live with it (44.0%); religion, i.e. trying to find comfort in my religion or spiritual beliefs and praying

or meditating (44.0%); self-distraction, i.e. turning to work to take my mind off things and doing something to think about it less (36.0%); the use of emotional support, i.e. getting emotional support from others and getting comfort and understanding from someone (32.0%); and planning, i.e. trying to come up with a strategy about what to do and thinking hard about what steps to take (24.0%). Coping scales with the lowest utilization among incarcerated women included: the use of instrumental support, i.e. getting help and advice from other people and getting advice or help from other people about what to do (16.0%); and self-blame, i.e. criticizing myself and blaming myself for things that happened (12.0%). Additionally, some participants attained less than 8 points on a scale, indicating lower utilization of certain coping skills. Scales reported at a maximum 7 points included behavioral disengagement, i.e. giving up trying to deal with it and giving up the attempt to cope (8.0%) and denial, i.e. saying to myself this isn't real and refusing to believe that it has happened (4.0%). Humor, i.e. making jokes about it and making fun of the situation represented 16.0% of those responding; venting, i.e. saying things to let my unpleasant feeling escape and expressing my negative feelings represented 16.0% of those responding; and substance use, i.e. using alcohol or other drugs to make myself feel better and using alcohol or other drugs to help me get through it represented 8.0% of those responding with no more than 6 points attained on the scale.

A paired samples t-test was conducted to evaluate whether coping responses changed following the BT intervention. The results indicated that the mean score for the total BC scales prior to the BT intervention ($M = 70.75$, $SD = 14.33$) was less than the mean score at the completion of the BT intervention ($M = 73.45$, $SD = 9.41$), $t(19) = .844$, $p > .01$. The standardized effect size index, d , was .19, indicating small effects size according to Cohen's (1992) guidelines. The 95% confidence interval for the mean difference between the two ratings

was -3.99 to 9.39. Results indicate that there was a positive change in coping responses following the intervention; however, this change was not significant overall.

Further analysis of BC scales using paired sample t-test indicated the most change occurred in the scales of humor with a mean score prior to the intervention ($M = 2.76, SD = 1.27$) less than the mean score at the completion of the intervention ($M = 4.64, SD = 1.04$), $t(24) = 6.47, p < .01$; emotional support with a mean score prior to the intervention ($M = 5.14, SD = 1.75$) less than the mean score at the completion of the intervention ($M = 6.09, SD = 1.69$), $t(21) = 2.40, p < .01$; and, instrumental support with a mean score prior to the intervention ($M = 4.88, SD = 1.64$) less than the mean score at the completion of the intervention ($M = 6.12, SD = 1.64$), $t(24) = 2.68, p < .01$. The standardized effect size index, d , was largest for humor at 1.29. The standardized effect size index, d , was .51 for emotional support, and .53 for instrumental support, suggesting medium effect size for these scales. The 95% confidence interval for the mean difference between the two ratings for humor was 1.28 to 2.48; .128 to 1.78 for emotional support; and, .285 to 2.20 for instrumental support. Paired samples statistics results of pre-post BT and coping are outlined in Table 4.

Table 4

Paired Samples Statistics of Pre-Post BT and Coping

	Mean	SD
BC Total Scales - Pre	70.75	14.33
BC Total Scales - Post	73.45	9.41
Self-Distraction (Sub-scale)	6.04	1.99
Active Coping (Sub-scale)	7.28	1.02
Denial (Sub-scale)	2.96	1.34
Substance Use (Sub-scale)	2.44	1.16
Use of Emotional Support (Sub-scale)	6.09	1.69
Use of Instrumental Support (Sub-scale)	6.12	1.64
Behavioral Disengagement (Sub-scale)	2.76	1.41
Venting (Sub-scale)	3.87	1.36
Positive Reframing (Sub-scale)	6.56	1.76
Planning (Sub-scale)	6.24	1.34
Humor (Sub-scale)	4.64	1.04
Acceptance (Sub-scale)	3.96	1.23
Religion (Sub-scale)	6.76	1.51
Self-Blame (Sub-scale)	3.96	1.97

Note. N = 25. Scores on a scale in which 1= I have haven't been doing this at all and 4 = I've been doing this a lot.

Research Question 3: Is there a difference in the presence of or search for meaning among participants prior to and at the completion of BT?

To assess for meaning in life, the researcher utilized the MLQ, which calculates results based on two scales: the presence of meaning and/or the search for meaning. Scores range from 5 to 35 for each scale. According to the literature, an acceptable cutoff score is 24 (Steger, Frazier, Oishi, & Kaler, 2006). A score above 24 on both scales indicates the respondent feels their life has meaning and they possess an openness to continue to explore meaning. A score above 24 on the Presence scale and below 24 on the Search scale indicates the respondent feels their life has meaning, yet they do not actively explore meaning or purpose beyond their current understanding. A score below 24 on the Presence scale and above 24 on the Search scale indicates the respondent does not feel that their life has meaning or purpose, and they are actively searching for something or someone to give them meaning or purpose. A score below 24 on both scales indicates the respondent does not feel that their life has meaning or purpose, and they are not actively searching for meaning or purpose either. Cronbach's alpha for the MLQ subscales indicated a higher result for Search ($\alpha = .893$) than Presence ($\alpha = .420$). This suggests that the instrument is a more reliable measure of a participant's status in searching for meaning rather than currently possessing meaning in their life.

Of the 25 participants who completed the pre-assessment of the MLQ, 17 participants (68.0%) scored below 24 on the Presence scale and above 24 on the Search scale, indicating they do not feel their life has meaning or purpose, and they are actively searching for something or someone to give them meaning or purpose. Seven participants (28.0%) scored below 24 on both scales, indicating they do not feel that their life has meaning or purpose, and they are not actively searching for meaning or purpose either. One participant (4.0%) scored above 24 on the

Presence scale and below 24 on the Search scale, indicating they feel their life has meaning, yet they do not actively explore meaning or purpose beyond their current understanding. No participants (0.0%) scored above 24 on both scales, indicating they feel their life has a value meaning and purpose, yet they are open to exploring that meaning or purpose.

The same 25 participants completed the post-assessment of the MLQ. Two participants (8.0%) scored below 24 on the Presence scale and above 24 on the Search scale, indicating they do not feel their life has meaning or purpose, and they are actively searching for something or someone to give them meaning or purpose. Three participants (12.0%) scored below 24 on both scales, indicating they do not feel that their life has meaning or purpose, and they are not actively searching for meaning or purpose either. Three participants (12.0%) scored above 24 on the Presence scale and below 24 on the Search scale, indicating they feel their life has meaning, yet they do not actively explore meaning or purpose beyond their current understanding. And 12 participants (48.0%) scored above 24 on both scales.

A paired samples t-test was conducted to evaluate whether scores in the meaning in life scales of presence and/or search changed following the BT intervention. For the presence scale, the results indicated that the mean score prior to the BT intervention ($M = 17.36$, $SD = 4.89$) was less than the mean score at the completion of the BT intervention ($M = 26.96$, $SD = 5.33$), $t(24) = 10.73$, $p < .01$. The standardized effect size index, d , was 2.15, indicating large effect. The 95% confidence interval for the mean difference between the two ratings was 7.75 to 11.45. Results indicate that there was a significant change in scores on the Presence scale following the intervention.

For the Search scale, the results indicated that the mean score prior to the BT intervention ($M = 26.32$, $SD = 8.325$) was more than the mean score at the completion of the BT intervention

($M = 25.84$, $SD = 7.24$), $t(24) = -.383$, $p > .01$. The standardized effect size index, d , was $-.08$, indicating small effect. The 95% confidence interval for the mean difference between the two ratings was $-.38$ to 2.10 . Results indicate that there was a significant change in scores on the Search scale following the intervention; however, it was not significant. Paired samples statistics results of pre-post BT and meaning in life are outlined in Table 5.

Table 5

Paired Samples Statistics of Pre-Post BT and Meaning in Life

	Mean	SD
MLQ Presence		
Pre	17.36	4.89
Post	26.96	5.33
MLQ Search		
Pre	26.32	8.33
Post	25.84	7.24

Note. $N = 25$. Scores on a scale in which 1 = Absolutely untrue and 7 = Absolutely true.

Research Question 4: Is there a difference in posttraumatic growth among participants prior to and at the completion of BT?

The researcher collected responses to the PTGI prior to the beginning of BT to determine the rate of growth following a traumatic event identified by the participant. PTGI scores can range from 0 to 105. Following suggestions from the literature, the researcher used a cut-off score of 45 and below to represent none to low posttraumatic growth (PTG) levels, and 46 and

above to represent medium to very high PTG levels (Mazor, Gelkopf, & Roe, 2019). Cronbach's α for the PTGI factors in the present sample was good to excellent (range $\alpha = .932$).

Prior to BT beginning, 24 out of 25 participants (96.0%) responding scored 46 or higher, indicating moderate to high growth. One participant (4.0%) scored 45 or lower, indicating low to no growth. PTGI responses were collected again at the completion of BT to determine if participants' rate of growth had changed since their initial results. Following the completion of BT, 25 out of 25 participants (100%) scored 46 or higher, indicating moderate to high growth.

A paired samples t-test was conducted to evaluate whether scores in the posttraumatic growth inventory changed following the BT intervention. Results indicated that the mean score prior to the BT intervention ($M = 92.72, SD = 22.49$) was less than the mean score at the completion of the BT intervention ($M = 104.20, SD = 16.64$), $t(24) = 3.27, p < .01$. The standardized effect size index, d , was .654, indicating medium to large effect. The 95% confidence interval for the mean difference between the two ratings was 4.23 to 18.73. Results indicate that there was a significant change in scores in posttraumatic growth following the intervention. Paired samples statistics results of pre-post BT and posttraumatic growth are outlined in Table 6.

Table 6

Paired Samples Statistics of Pre-Post BT and Posttraumatic Growth

	Mean	SD
PTGI		
Pre	92.72	22.49
Post	104.20	16.64

Note. N = 25. Scores on a scale in which 1 = I did not experience this change as a result of my crisis and 5 = I experienced this change to a very great degree as a result of my crisis.

Research Question 5: What is the relationship of posttraumatic growth, coping, and meaning in life to participant reports of times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility?

A Pearson Correlation coefficient was computed to assess the relationship of changes in posttraumatic growth, coping, and meaning in life to times being incarcerated, nature of current offense, and years incarcerated this time. The first correlation was completed using scores from the post-administration of the PTGI as the dependent variable. The second correlation was completed using total score of the BC scales from the post-administration as well as individual sub-scales as the dependent variable. The third correlation was completed using scores from the total Presence and Search sub-scales of the MIQ from the post administration.

Pearson Correlation with the PTGI as the dependent variable indicated no significant correlation between times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Pearson Correlation with the total Search scales of the MLQ as the dependent variable also indicated no significant correlation between times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Total Presence scales of the MLQ as the dependent variable, however, indicated a positive relationship between the presence of meaning in life and the number of times incarcerated ($r = .459$), suggesting the more

times a participant is incarcerated, the higher the presence of meaning in their life. This correlation had an effect size of 6.57, which is considered a large effect.

The Pearson Correlation with total BC scales as the dependent variable indicated a negative relationship between coping and number the times incarcerated ($r = -.533$). This suggests that the more times a participant is incarcerated, the lower the use of overall coping responses. This correlation had a large effect size of 11.74. When individual sub-scales of the post-administration of the BC were computed, emotional support showed a significant correlation ($r = -.511$) with number of times incarcerated, indicating the more times one is incarcerated, the less they use emotional support as a coping resource. This correlation had a large effect size of 1.19. Instrumental support also showed a significant correlation ($r = -.691$) with number of times incarcerated, indicating the more times one is incarcerated, the less they use instrumental support as a coping resource. This correlation had a large effect size of 1.91.

Lastly, due to the small sample size, the researcher computed a Pearson Correlation coefficient in lieu of a multivariate analysis to determine if a relationship existed between the constructs being explored in research question 5 and participant results for active PTSD symptoms as well as those reporting a substance use treatment history. This analysis was intended to explore evidence that emerged from the literature review for this study which indicated that incarcerated women are often characterized as having issues with co-occurring substance abuse and PTSD. The result for participants who reported active symptoms of PTSD was a significant positive relationship with self-blame as a coping resource ($r = .456$) and a significant negative relationship with posttraumatic growth ($r = -.566$). The correlation between PTSD and self-blame as a coping resource had a large effect size of 1.02. The correlation between PTSD and posttraumatic growth had a large effect size of 1.37. The result for

participants who reported a history of substance abuse treatment was a significant positive relationship with presence of meaning in life ($r = .452$) and negative relationship with PTSD ($r = -.523$). The correlation between a history of substance abuse treatment and presence of meaning in life had a large effect size of 1.01. The correlation between a history of substance abuse and PTSD had a large effect size of 1.23. Correlation results for the correlational analyses of the constructs in relationship to PTSD and substance abuse treatment as well as that for PTGI, MLQ, and BC, including relevant sub-scales for the MLQ and BC, are provided in Table 7.

Table 7

Correlations among Coping, Meaning in Life, and Posttraumatic Growth Scales (N=25)

	Number times incarcerated	Nature of offense	Time for current offense	Other treatment	PTSD	Substance Abuse Treatment History
PTGI	.288	-.62	-.301	-.389	-.566**	.257
MLQ						
Search for Meaning	-.090	-.139	-.251	.065	-.102	.264
Presence of Meaning	.459*	-.276	-.254	-.331	-.523**	.452*
BC	-.533*	-.294	-.230	-.167	.117	.522
Emotional Support	-.511*	-.373	-.125	.130	-.342	.479
Instrumental Support	-.691**	-.253	-.175	.308	-.124	.977
Self-blame	-.232	.020	-.007	-.257	.456*	.314

*Correlation is significant at the .05 level (two-tailed).

**Correlation is significant at the .01 level (two-tailed).

Summary

This study was conducted to investigate treatment results for incarcerated women who participated in BT based on changes in coping, meaning in life, and posttraumatic growth from the period prior to beginning the intervention and following its completion. To answer the research questions, a brief demographic questionnaire, the Posttraumatic Growth Inventory (PTGI), the Meaning of Life Questionnaire (MLQ), and the Brief COPE were used. Results from this study indicated there was a significant positive correlation between presence of meaning in life and number of times incarcerated. Significant negative correlations were seen between the use of coping resources and number of times incarcerated, specifically among the use of emotional support and instrumental support. Lastly, analyses to determine if a relationship existed between the constructs measured by the PTGI, MLQ, and BC and PTSD or a history of substance abuse treatment indicated that those with active PTSD symptoms tend to use self-blame as a coping resource and have lower scores on posttraumatic growth. In addition, those with a history of substance abuse treatment tend to have more presence in meaning of life, while presence in meaning of life is negatively correlated with PTSD.

CHAPTER 4. DISCUSSION

The purpose of this study was to determine the effectiveness of a trauma intervention titled *Beyond Trauma: A Healing Journey for Women* (BT) in addressing coping, meaning in life, and posttraumatic growth among incarcerated women. The researcher sought to further investigate outcomes for persons who were experiencing PTSD symptoms or who had a history of substance use. This study intended to extend the study by Vanhooren et al. (2018) which found emotional coping, religious coping, and search for meaning as positive predictors of posttraumatic growth and denial, substance abuse, and behavioral disengagement as negative predictors. Additionally, this study aimed to develop implications for correctional systems and Counselor Education and Supervision programs regarding what factors contribute to effective treatment for trauma among incarcerated women, particularly coping and posttraumatic growth. Results from a brief demographic questionnaire, the PTSD Checklist for the DSM-5 (PCL-5), the Posttraumatic Growth Inventory (PTGI), the Meaning of Life Questionnaire (MLQ), and the Brief COPE will be discussed in this chapter. Finally, limitations of the current study and recommendations for future research will be reviewed.

Overview

Trauma among women is pervasive. In the United States, 51 percent of women report having experienced one traumatic event in their lifetime (Trauma, n.d.). Some research reports an average of two traumatic events in a lifetime among women (Covington, 2016; Grella et al., 2013). For women who become incarcerated, such reports increase significantly.

Comparatively, incarcerated women report experiencing an average of six traumatic events in a lifetime (Covington, 2016; Grella et al., 2013).

Prolonged exposure to trauma has shown to lead to a continuous state of stress and further difficulty regulating behaviors (Bloom, Owen, & Covington, 2003; Cloitre, 2009). Approximately 8 percent of women who survive trauma develop PTSD (Facts About Women and Trauma, 2019). For incarcerated women, the rates of PTSD increase and can range between 28.4% and 50% (Goff, Rose, Rose, & Purves, 2007; Kubiak, 2004; Zlotnick, Najavits, Rohsenow, & Johnson, 2003). PTSD causes a person to feel overwhelmed, distressed, or psychologically affected by a traumatic event (Briere & Scott, 2013). PTSD symptoms can have a cumulative effect and are often linked to long-term psychological problems among women (Grella et al., 2013; Haller & Miles, 2004). The prevalence of women entering incarcerated settings who exhibit PTSD symptoms raises concerns about their long-term well-being and has implications for how counselors provide therapy in a non-therapeutic environment.

PTSD often co-occurs with substance abuse in incarcerated populations (Lynch et al., 2013; Wolff et al., 2011; Zlotnick, 1997). As much as 88% of female inmates participating in one correctional-based trauma treatment program reported symptoms that would qualify as PTSD or subthreshold PTSD (Wolff et al., 2011). Eighty-seven percent of the women in the same sample reported a substance use disorder, or SUD (Wolff et al., 2011). Research shows that trauma survivors often self-medicate in order to avoid experiencing symptoms of PTSD (Ullman, Relyea, Peter-Hagene, & Vasquez, 2013). Substance use in this form is considered a negative coping mechanism used to deal with distress while avoiding the effects of a traumatic event (Ullman et al., 2013).

Coping is described as the culmination of resources that enable a person to handle stress and experience less symptoms or recover faster when exposed to a stressor (Marting & Hammer, 2004; Maschi, Viola, Morgan & Koskinen, 2013). Protective factors like coping resources may account for the resiliency often shown by incarcerated individuals who have experienced trauma and stress (Baum & Singer, 1982). Further, posttraumatic growth (PTG) is considered the outcome that occurs following the successful use of coping skills after trauma (Ungerleider, 2003). Tedeschi and Calhoun (1996) conceptualized PTG as an interdependent relationship between growth and distress, whereas one contributes to the realization of the other. Thus, the more coping resources a person possesses, the greater their ability to integrate their experiences and experience self-growth. In turn, growth occurs as a direct result of using the traumatic event to promote skills development and self-management.

The present study was designed to develop an understanding of participants' experience with symptomology and changes in self-reports of coping responses, meaning in life, and posttraumatic growth prior to and at the completion of the BT intervention. By doing so, this study attempted to generate information that could be useful in the understanding of effective interventions and evaluation tools for use in correctional settings, as well as to inform practicing counselors and counselors in training regarding how to effect change in unhealthy behaviors and promote wellness among incarcerated women.

Findings

PTSD occurs in a majority of incarcerated women (Harner, Budescu, Gillihan, Riley, & Foa, 2015). The first research question in this study explored the frequency to which research participants reported experiencing PTSD symptoms within the month prior to beginning BT. Results indicated that all participants (100%) had experienced some combination of PTSD

symptoms in the past month. Further, 18 out of 25 participants (72.0%) met the cut-off score of 33 or higher, indicating a more significant finding of symptoms. The most common symptoms experienced by participants were: avoiding memories, thoughts, or feelings related to the stressful experience (88.0%); repeated, disturbing, and unwanted memories of the stressful experience (88.0%); blaming yourself or someone else for the stressful experience or what happened after it (83.7%); being “superalert” or watchful or on guard (84.0%); avoiding external reminders of the stressful experience (84.0%); feeling distant or cutoff from people (80.0%); and, having strong negative feeling such as fear, horror, anger, shame, and guilt (80.0%). This finding is significant because it replicates results found in the literature that indicate incarcerated women are experiencing trauma at increased rates. Also, given the average time incarcerated among the study sample was 4 years, it can be implied these symptoms are perpetuating, not subsiding, throughout the incarceration experience.

Recent literature reported by Harner et al. (2015) found that 44% of women in their sample met the criteria for PTSD. In addition, Goff, Rose, Rose, and Purves (2004) conducted a screening of literature relevant to the experience of PTSD in incarcerated populations and found women to be disproportionately represented among the 4% and 21% of incarcerated populations who experience PTSD. Zlotnick, Najavits, Rohsenow, and Johnson (2003) found that 83.5% of their sample met the criteria for full PTSD and 16.5% met the criteria for subthreshold PTSD. Komarovskaya et al. (2011) found that 40.2% of incarcerated women in their sample had PTSD. Also, Kubiak (2004) found more than half of their sample met the criteria for lifetime PTSD, with women experiencing more events and at higher risk for substance use than men. Understanding the prevalence and nature of symptomology a client is experiencing is an important consideration when exploring trauma. The frequency or severity of symptoms helps

counselors to guide treatment in a way that minimizes triggers and manages recovery in manner that promotes healing and avoids harming the client.

The second research question was developed to understand the coping responses experienced by participants prior to the beginning and after the completion of BT. Using a paired samples t-test as the method of analysis, results from responses to the Brief Cope (BC) prior to the beginning of BT and after the completion of BT indicate a higher use of coping resources following the intervention. Though not significant, the most change occurred in the use of humor, emotional support, and instrumental support. The finding of emotional support in relationship to posttraumatic growth among incarcerated women was consistent with recent literature (Elisha, Idisis, & Ronel, 2013; Ferrito, Vetere, Adshead, & Moore, 2012; Mapham & Hefferon, 2012; Vanhooren, Leijssen, & Dezutter, 2018). Emotional support is understood as support that comes from others, such as a friend or family member, during times of stress (Carver, 1997). Additional literature reveals that emotional support is an important resource for rebuilding meaning in life (Janoff-Bulman, 1992; Mapham & Hefferon, 2012). Instrumental support, or that which derives from seeking or accepting advice from others, also emerged as a prevalent coping response among participants in this study. In either case, the close proximity to others that is typically experienced in incarcerated settings could facilitate the development of relationships of this nature. Given these results coincided with increased levels of posttraumatic growth and presence of meaning in life in this study, it is reasonable to conclude that developing healthy relationships is a strength in trauma recovery and the focus of BT was, perhaps, helpful.

The third research question was developed to understand perspectives on participants' presence of meaning in life and search for meaning in life prior to the beginning and after the completion of BT. The researcher originally intended to examine meaning in life results as an

extension of coping; however, results from this study indicated a significant change unique to this participant group. Using a paired samples t-test, results from the Meaning in Life Questionnaire (MLQ) indicate that scores in the meaning in life scales for presence increased or showed a positive change following the BT intervention, while scales for search decreased or showed a negative change. This research question arose from the study by Vanhooren, Leijssen, and Dezutter (2018) that explored meaning of life and its relationship to improved coping and positive posttraumatic growth among incarcerated women and found search for meaning higher among their participants who reported positive changes in coping and posttraumatic growth. In this study, however, findings were stronger in the area of presence of meaning in life rather than search for meaning. This difference may be attributable to the use of an intervention with the study group. BT, particularly, focuses on the development of coping resources and the exploration of trauma to promote growth as a result of the event. Elements of the program specifically target the development of new or more effective coping skills and emphasize the value of finding meaning in the traumatic experience. Also, 52% of the current study participants reported receiving additional treatment from the current facility, which may have implications regarding their preparedness for BT and/or their advanced perspective on meaning in life. Nonetheless, results indicate that helping incarcerated women who have been affected by trauma to learn more effective ways of coping with stressors and seek meaning in their experience has the potential to translate into the larger picture of meaning in their life.

The fourth research question was developed to understand the experience of posttraumatic growth prior to the beginning and after the completion of BT. Using a paired samples t-test, results from the Posttraumatic Growth Inventory (PTGI) indicate that there was a positive and significant change in scores in posttraumatic growth following the intervention. The

study by Vanhooren, Leijssen, and Dezutter (2018) also demonstrated higher rates of posttraumatic growth among participants who received interventions like chaplain support and therapy than those who did not. Again, 52% of participants in the current study reported receiving other treatment from their current facility. The majority of those services were related to substance abuse and building healthy relationships, specifically parent-child relationships. In the area of substance abuse specifically, this study adds to the literature in terms of supporting findings that highlight the relationship between negative forms of coping, like the use of substances, and experiences of trauma (Boden et al., 2014; Hien et al., 2010; Hruska et al., 2011). In the area of parenting and relationships, research indicates that, for women, having a child is the number one turning point related to desistance from crime (Laub & Simpson, 2001). In the current study, 20% of the participants reported receiving substance abuse treatment at the current facility and 32% reported receiving programming that focused on developing relationships. Though not significant, substance abuse treatment and programming in the area relationships among study participants was positively correlated with increases in posttraumatic growth. This finding is consistent with research that demonstrates treatment approaches that focus on trauma in combination with substance abuse are more effective than interventions with no trauma focus (Roberts, et al., 2015). In the case of BT, there is also a strong focus on prosocial relationship development and seeking positive support as a manner of coping. Thus, BT as one offering in a suite of substance abuse treatment programs, demonstrates that focusing on the development of positive coping mechanisms shows promise in promoting growth among trauma survivors.

The fifth and final research question was developed to understand if a relationship existed between posttraumatic growth, meaning in life, and coping based on participant reports of times

being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Using a Pearson Correlation coefficient, results of the post-administration of the PTGI as the dependent variable indicate no significant correlation between times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Results of the scores from the Presence and Search scales of the MIQ from the post administration also indicate no significant correlation overall between times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. However, results from the Presence scales of the MLQ indicated a positive relationship between the presence of meaning in life and the number of times incarcerated. This suggests the more times a participant is incarcerated, the higher the presence of meaning in their life. Results of the total BC scales as the dependent variable indicated a negative relationship between coping and number the times incarcerated, suggesting the more times a participant is incarcerated, the lower the use of coping responses. More specifically, emotional support and instrumental support were shown to be most significant in terms of the coping resources utilized by the current study participants. The finding of emotional coping is consistent with research by Vanhooren, Leijssen, and Dezutter (2018) that found this method of coping often predicted their participants' reports of positive posttraumatic growth. The finding of instrumental support as an added value among participants in this study who reported posttraumatic growth warrants further analysis given the close relationship it holds to emotional support.

Lastly, as an added analysis to evaluate the relationship between the constructs being examined in this study and the secondary focuses of PTSD and substance abuse, results indicated an inverse relationship between PTSD and posttraumatic growth and presence of meaning in life,

as well as a positive relationship between PTSD and self-blame as a coping response. These results seem to align with logic, in that a person experiencing PTSD would not have found growth or meaning without more intervention. As such, supporting the assumption that more treatment equals better outcomes, also discovered in this analysis was a positive and significant relationship between presence of meaning in life and participants who report receiving substance abuse treatment at the current facility, as well as a positive relationship between posttraumatic growth and participants who report receiving substance abuse treatment at the current facility.

Implications for Counseling Practice, Supervision, and Counselor Education

The results of this study provide practicing counselors, supervisors, and counselor educators, as well as those developing treatment protocol, information to consider when the counseling work involves incarcerated women. The current study resulted in evidence that treatment addressing the high prevalence of trauma, which also teaches alternatives to problematic coping mechanisms, has the potential to positively impact growth and meaning in life following the event. Despite the non-therapeutic environment that correctional facilities pose, counselors can be effective in reaching clients and assisting them to learn and practice new coping techniques.

Previous studies of BT have only demonstrated its effectiveness in combination with other interventions (Covington et al., 2008; Messina, Calhoun, & Warda, 2012). The current study was able to demonstrate that BT as a singular intervention has the potential to positively impact trauma recovery by increasing coping skills that lead to the pursuit of meaning in life and a deeper understanding of the personal change resulting from the trauma (i.e. posttraumatic growth). The constructs of meaning in life and posttraumatic growth could be utilized by counselors and counselors in training as focal points in the development of treatment plans

and/or group discussion to help clients to broach the subject of their trauma in a meaningful and therapeutic way.

Supervisors who support counselors in their work with incarcerated women could benefit from findings in the current study that relate to the specific areas of coping that emerged as most significant. Bernard and Goodyear (2009) described clinical supervision as a pedagogy. Thus, the role of a supervisor is often to teach. Understanding that emotional and instrumental support are significant to the achievement of posttraumatic growth and meaning in life can help supervisors support counselors who wish to assess for and support growth of those resources in their work with clients.

Counseling work in incarcerated settings is a narrow specialty. Counselor education programs can further benefit from the results of this study by extracting the elements that highlight training and skills development. More specifically, the discussions of the comorbidity of PTSD and SUD, as well as the prevalence of these disorders as it is related to criminal behavior could be of interest and benefit to those seeking to work with incarcerated women. Further, coping, posttraumatic growth and meaning in life are broad constructs that are measurable if counselors in training learn the appropriate tools. Having data that supports the use of the PTGI, MLQ, and BC serves to expand the knowledge surrounding their usefulness in the field. Such concepts could be highlighted in courses that emphasize counseling skills development, assessment, crisis management, and or counseling theories. Or, for programs with active professional honor societies or an affiliation with a professional association, opportunities could be developed that allow students to experience professional advocacy or outreach within a chosen community allowing these skills to be practiced.

Limitations of the Study

Perhaps the most significant limitation in this study was the attrition rate of participants, as it caused or related to subsequent study limitations to be discussed. Due to the withdrawal of participants from the BT program at each of the research sites, the study lost 48.9% of the original participant group. Much of the loss was due to participants being released from custody or experiencing a custody change which resulted in relocation or scheduling conflicts. While demographics remained consistent with overall population statistics, such a small representative sample limits generalizability.

Another limitation, also related to attrition, was the small sample size. In the end, such a small n necessitated the use of analyses that minimized power and restricted the exploration of factors that may have contributed to the results, particularly those contrary to related studies. A larger sample would have allowed the researcher to specify what caused the change and better evaluate whether the resulting change could be attributed to the intervention.

Another limitation was the short term nature of this study. The researcher selected one session of BT to evaluate, which encompasses a six-week period from beginning to end. A longitudinal study may have allowed for more participation and more in-depth analyses to determine the basis of the resulting outcome. By limiting the study to a point in time, attrition became a more significant issue and results perhaps did not reflect the subsequent change that occurs once a person integrates what is learned in treatment to their behavior.

Recommendations for Future Research

Future studies of coping and posttraumatic growth among incarcerated women could benefit from more exploration of the factors that contribute to participants' experience with these constructs, as well as how entities may enhance programming that promotes positive

development in these areas. This study found similar findings to that found in the literature, thereby reinforcing what is already understood about the prevalence of trauma among incarcerated women, and its implications for the development of coping, meaning in life, and growth following the event(s). However, certain restrictions prevented this study from exploring the issue to the extent possible. Future or subsequent research could be designed differently or offer alternative analyses using the current data set to maximize understanding in the field.

First, a new study yielding a larger sample would allow for the use of more grouping variables without concern for diffusion of the data. This study examined the data based on four grouping variables using correlation, but the potential for more analysis could have been available without the loss of participation. Future studies with a larger sample size could allow for more sophisticated analyses such as ANOVA, MANOVA, or factor analysis, thus providing more clarity on the predictability of coping with posttraumatic growth or meaning in life. A longitudinal study, specifically, would generate more participation, more observances of BT, and, perhaps, a longer period of adjustment following the intervention to collect post-intervention results. These alternative methods have implications for understanding how a participant may come to use or integrate the resources taught by BT and its contribution to permanent change in their approaches to coping, for example.

Second, a qualitative study that investigates participants' personal experiences with the BT intervention as well as their opinions on the study constructs of coping and posttraumatic growth could add depth to our understanding within this population. This is needed to understand other factors that may be contributing or detracting from the change evident in BT participants. In a prison setting particularly, there are environmental and relational experiences

to consider when assessing change. Conventional quantitative methods do not allow for the exploration of personal experiences.

Also, conducting a fidelity study concurrent with the delivery of the BT intervention would further contribute to understanding if the manner in which BT was delivered to study participants had an impact on results. In this study, the researcher did not conduct the fidelity review. However, having the researcher involved in the determination of fidelity in future studies would add to the understanding of specific influences that may contribute to deviations in the delivery of BT, as well as the point at which such influences begin to change the intention of the program and contribute to outcomes.

Lastly, a study that compares specific individual factors to BT treatment results may provide a better understanding of what exactly contributes to changes in coping, meaning in life, and/or posttraumatic growth. For instance, future studies could control for factors such as the type of facility (i.e. minimum, medium, or closed), the type of counseling, if any, received prior to the intervention, one's religiosity, or other attributes a participant may possess that could have a potential impact on results. Such studies would help to determine whether BT was the positive contributing factor or some other influence is contributing to the changes observed.

Summary

The current study advanced the understanding of the frequency of PTSD among incarcerated women and established additional evidence pertaining to the effectiveness of a trauma-based intervention in developing coping skills and promoting posttraumatic growth. This study also identified aspects of the intervention, BT, that correlated with changes in coping, meaning in life, and posttraumatic growth during one administration of the program. Study participants experienced a positive increase in posttraumatic growth following the intervention.

Significant increases were noted in the presence of meaning and the development of emotional support and instrumental support as coping resources. This study also affirmed the existence of an inverse relationship between PTSD and posttraumatic growth, as well as presence of meaning. In addition, a history of substance abuse treatment proved to have a positive relationship to presence of meaning. Additional studies with larger samples of participants are needed to determine the consistency and/or generalizability of these results.

CHAPTER 5. MANUSCRIPT

Coping and Posttraumatic Growth in Incarcerated Women

Abstract

Research indicates that comorbidity of substance use and psychiatric disorders is most common among incarcerated women (Abram, Teplin, & McClelland, 2003). Additionally, incarcerated women tend to share common experiences including histories of abuse and/or trauma and substance or drug use (Moloney, Van Den Bergh, & Moller, 2009; Watson, Stimpson, & Hostick, 2004). As correctional systems continue to adopt programming focused on gender responsive care, such evidence suggests a need to more closely examine the effectiveness of treating trauma to address substance abuse and psychiatric issues among incarcerated women. This study focused on the implementation of BT and its effectiveness in addressing coping, meaning in life, and posttraumatic growth. This study adds to existing research pertaining to coping, meaning in life, and posttraumatic growth, as well as the value and feasibility of one gender responsive treatment program. Results have implications for correctional systems and Counselor Education and Supervision programs that prepare mental health and rehabilitation counseling professionals working in correctional facilities or with inmates.

Keywords

coping, meaning in life, post-traumatic growth, gender-responsive, incarcerated women, trauma

Introduction and Background of the Problem

Mental illness among US inmates is estimated to be two to four times higher than the general population (Al-Rousan, Rubenstein, Sieleni, Deol, & Wallace, 2017; Collier, 2014; Waltermauer & Akers, 2013). As much as 74 percent of the US inmate population also experiences drug use that co-occurs with mental health disorders (Collier, 2014; Messina, Burdon, Hagopian, & Prendergast, 2004; Waltermauer & Akers, 2013), resulting in a majority of such inmates in need of mental health as well as drug treatment services while incarcerated. Research suggests that comorbidity of substance use and psychiatric disorders is most common among incarcerated women (Abram, Teplin, & McClelland, 2003).

Compared to men, incarcerated women report higher rates of mental illness (James & Glaze, 2006; Torrey et al., 2010) and substance abuse (Craig, Dixon, & Gannon, 2013). More than 70% of women in prisons and jails have been found to have mental health problems and more women than men are likely to have experienced symptoms during the 12 months prior to incarceration (James & Glaze, 2006). In addition, more than 60% of incarcerated women have met the diagnostic criteria for substance abuse or addiction in the year prior to incarceration (Mumola & Karberg, 2006) and as much as 82% have met the lifetime criteria (Lynch, DeHart, Belknap, & Green, 2013).

Women and men arrive to prison with similar issues and needs, however women often experience them to a greater extent (Watson et al., 2004). For women, issues tend to run along a continuum of common experiences including histories of abuse and/or trauma and substance or drug use (Moloney, Van Den Bergh, & Moller, 2009; Watson et al., 2004). This differs from incarcerated men, who tend to have histories of longer and more violent involvement in crime, higher levels of alcohol use, and a prevalence of dropping out of school (Daggett, 2014).

When compared to incarcerated men, women in prison are more likely to have experienced sexual and physical abuse (Covington & Bloom, 2006). As a group, women experience more exposure to physical abuse, rape, and sexual molestation, as well as parent neglect and abuse in childhood (Bedi et al., 2011; Iverson et al., 2013; Miller et al., 2011). For women, abuse that starts in childhood can continue into adulthood (Miller & Najavits, 2012). As much as one-half of state and federal female inmates have reported histories of physical and sexual abuse beginning in childhood (Grella, Lovinger, & Warda, 2013).

Women who experience abuse often re-experience it, highlighting a potential for more negative life outcomes according to the research. Studies like the Adverse Childhood Experiences Study (ACE) have assessed various experiences of abuse in childhood and found there to be a connection to mental and physical health problems later in life (Covington, 2016; Felitti & Anda, 2010; Felitti et al., 1998). Nearly one-half of incarcerated women who present with substance abuse and mental health symptoms also report histories of trauma or abuse (Lynch, Heath, Mathews, & Cepeda, 2012; Wolff, Frueh, Shi, & Schumann, 2012).

Research indicates that prolonged exposure to trauma can lead to a continuous state of stress and further difficulty regulating behaviors (Bloom, Owen, & Covington, 2003; Cloitre, 2009). Post-Traumatic Stress Disorder (PTSD), specifically, demonstrates a type of a cumulative effect, and has been linked to long-term psychological problems among women (Grella et al., 2013; Haller & Miles, 2004). PTSD is defined as a state of feeling overwhelmed, distressed, or psychologically affected by a traumatic event (Briere & Scott, 2013).

Between 28.4% and 50% of incarcerated women meet criteria for PTSD, a rate significantly higher than the estimated 3.4% of women in the general population with PTSD (Goff, Rose, Rose, & Purves, 2007; Kubiak, 2004; Zlotnick, Najavits, Rohsenow, & Johnson,

2003). In a study of differences by gender, incarcerated women (40.2%) also had a higher rate of PTSD than incarcerated men (12.5%) (Komarovskaya et al., 2011). When comparing incarcerated men and incarcerated women who had the same the traumatic experience, women were consistently more vulnerable to developing PTSD (Komarovskaya et al., 2011).

PTSD often co-occurs with substance abuse in incarcerated populations (Lynch et al., 2013; Wolff et al., 2011; Zlotnick, 1997). An estimated 8.4% of non-incarcerated adults aged 18 and older in the US report having a SUD (Lipari & Van Horn, 2017). Comparatively, more than 58% of prison inmates and 63% of jail inmates met the diagnostic criteria for drug dependence or abuse from 2007–2009 (Bronson et al., 2017).

A history of trauma and/or abuse combined with a lack of treatment can cause symptoms to persist, causing women to experience significant impairment and chronic clinical issues that necessitate intervention while incarcerated (Center for Substance Abuse Treatment, 2014). While studies show a marked prevalence of incarcerated women arriving with serious mental illness (SMI), PTSD, and/or SUD, many have not received treatment or have received inadequate treatment prior to incarceration (Lynch et al., 2013). To be responsive to the needs of those in their care, correctional systems must consider treatment options that address the specific needs of the target population and allow participants to develop strategies to promote positive change.

Meeting Treatment Needs of Incarcerated Women

Research indicates that women’s treatment services in correctional settings could benefit from security procedures, healthcare, education, and treatment programs that address their complex set of needs (Macdonald, 2013). Studies examining the treatment of trauma in coordination with substance abuse and/or mental health treatment have shown to be successful in reducing overall symptomology (Morrisey et al., 2005; Zlotnick et al., 2003). The

interrelationship between trauma, substance abuse, and mental illness has been suggested as the key to successful therapeutic intervention for incarcerated women (Covington, 2016).

Many correctional systems have invested in programs that focus on the treatment of PTSD to address substance-related or addictive behaviors in incarcerated women (King, 2017; Messina, Calhoun, & Braithwaite, 2014; Messina et al., 2010; Swopes, Davis, & Scholl, 2017). Research shows that PTSD and SUD show better treatment prognoses when only one disorder is present (Kubiak, 2004; Najavits et al., 2007; Swopes et al., 2017). When comorbid PTSD and SUD occurs, research suggests treatment becomes more challenging and should include a focus on trauma to ensure underlying causes of substance use are being addressed (Najavits, 2005; Swopes et al., 2017).

The differences women exhibit in terms of clinical needs when compared to men have been at the center of research calling for more gender responsive approaches in correctional-based care. Gender responsive treatment (GRT) derives from a strengths-based, trauma-informed (or trauma-responsive) therapeutic model (Vandeveldt et al., 2017). For incarcerated women, gender responsive approaches focus on the increased prevalence of trauma, which is considered a primary pathway leading women to criminal behavior and substance abuse (Covington, 2016).

Among incarcerated populations, GRT programs have been found to contribute to increased adherence to treatment and recovery and reductions in drug use, as well as lower rates of re-incarceration among participants (Messina et al., 2010). Comparing results to standard prison therapeutic communities, Messina et al. (2010) found that GRT participants had greater reductions in drug use ($N = 94$, $F = 4.61$, $df = 1$, $0 < .03$), remained in residential aftercare for longer periods (2.6 months vs. 1.8 months, $p < .05$), and experienced re-incarceration at a lower rate within 12 months following parole, 31% vs. 45% respectively ($N = 82$, $\beta = -1.11$, $df = 1$, OR

= .33, $p < .05$). *Beyond Trauma: A Healing Journey for Women* is one example of an intervention that is strengths-based, integrated in its approach, and aimed at bringing awareness to the impact of trauma to a women's development and treating subsequent mental health and substance abuse issues that follow trauma (Covington, 2016).

Beyond Trauma: A Healing Journey for Women (BT)

BT is a gender responsive treatment approach that considers participants' experiences with trauma and the impact of these experiences in their lives (Covington, 2016). BT is designed to help women face the trauma of their past, typically abusive or victimizing in nature, and safely explore how it has impacted decision-making (Covington, 2016; Messina et al., 2010). BT focuses specifically on participants' understanding of what constitutes trauma and abuse, the typical reactions to trauma and abuse, and how to develop coping skills to manage the negative effects of trauma and abuse.

BT has shown to have positive results when integrated and studied with other interventions. In an evaluation of GRT curricula, including BT, by Covington, Burke, Keaton, and Norcott (2008), the authors found participant scores on the Trauma Symptom Checklist (TSC-40) had decreased from a mean score of 19.3 (SD = 19.2) to a mean of 17.5 (SD = 21.0) after completion of BT. Similar decreases in mean scores of depression were also noticed (from 10.2; SD = 9.4 to 4.5; SD = 6.4) as well as decreases in drug use and criminal activity with 99% remaining drug and alcohol free and 97% having no new conviction after a six-month follow-up (Covington et al., 2008). Messina, Calhoun, and Warda (2012) specifically noted improvements in in-treatment performance (from 13% to 16%, $p < .05$) and reductions in PTSD (from 36% to 9%; $p < .07$) using BT in coordination with another c entitled *Helping Women Recover*.

Research concerning the effectiveness of BT as a single approach was not readily found as a result of this review. In addition, BT processes indicate there is no prescribed method of evaluation. However, certain constructs exist in the trauma literature that may prove useful in evaluating BT, specifically research related to coping and posttraumatic growth (PTG) in relationship to PTSD. For instance, studies examining PTG and PTSD have indicated that factors predicting one may also predict the other (Linley & Joseph, 2004). More specifically, the use of active coping has been found to predict PTG (Bellizzi & Blank, 2006; Evers et al., 2001), while a lack of coping has been found to contribute to PTSD (van der Kolk, 2014). Thus, in lieu of a formal evaluation mechanism for BT, considering the extent to which its objectives align with the principles and measures of coping and posttraumatic growth warranted further analysis.

The Relationship of BT to PTSD, Coping, and Posttraumatic Growth

BT is designed to help women who have experienced trauma, particularly that stemming from abuse or violence, to the point that it has overwhelmed their ability to cope. BT objectives relate to one's ability to manage triggers and re-traumatization, as well as unhealthy coping mechanisms like dissociation, depersonalization, and self-harm (Covington, 2016). BT program materials focus on the post-traumatic development of personal strength, relationships, greater life appreciation, beliefs, and new possibilities (Covington, 2016). Establishing that participation in BT results in an increase in one's ability to cope and grow from the experience of trauma may provide a preliminary view of the effectiveness of the intervention in facilitating these constructs and offer a basis for further evaluation of its therapeutic value among correctional populations.

PTSD and BT

PTSD can be described as how one responds to a traumatic event (Covington, 2016). PTSD has a high comorbidity with substance abuse due to a propensity of the trauma survivor to

self-medicate in order to avoid experiencing symptoms of PTSD (Ullman, Relyea, Peter-Hagene, & Vasquez, 2013). BT participants experience activities aimed at understanding the impact of the trauma, creating safety, self-reflection, and relaxation in order to develop more positive coping responses to the trauma and/or minimize the effects of PTSD. A history of trauma and/or PTSD diagnosis qualifies BT participants for the program, but also serves as a measure of their ability to cope and their capacity for growth following the traumatic event. Thus, PTSD in relationship to coping and posttraumatic growth were key focus areas in this study, which set the foundation for determining if BT is an effective intervention for women who demonstrate negative responses to the experience of trauma.

Coping and BT

Coping has been described as the degree to which an individual uses cognitive and behavioral strategies to respond to stress (Compas et al., 2001; Folkman, 2010). Studies have shown substance use to be a form of negative coping used to deal with distress and avoid the effects of a traumatic event (Ullman et al., 2013). Coping that involves avoidant behavior has been linked to increased symptomology of comorbid PTSD and SUD (Boden et al., 2014; Hruska, Fallon, Spoonster, Sledjeski, & Delahanty, 2011). Studies indicate that improving emotion regulation can positively impact the severity of PTSD and SUD symptoms by mediating impulsivity (Weiss, Tull, Anestis, & Gratz, 2012; Weiss, Tull, Viana, Anestis, & Gratz, 2013) and influencing behaviors that act in converse to avoidance (Hien et al., 2010).

Interventions like BT attempt to facilitate recovery from negative coping mechanisms like substance abuse by emphasizing positive coping and meaning or growth from experience. BT activities focus specifically on helping participants to connect their experience of self-harming behaviors and trauma and learn more effective ways of coping (Covington, 2016). The

program helps participants to develop healthier coping skills that include natural stress-reduction techniques and self-reflection with each session focuses, in part, on the differences that exist between men and women in terms of trauma in order to help participants explore issues of power and control.

Posttraumatic Growth and BT

Posttraumatic growth (PTG) is described as the outcome that occurs following the successful use of coping skills after trauma (Ungerleider, 2003). Tedeschi and Calhoun (1995) first conceptualized PTG as a type of positive adjustment that follows trauma. The authors suggested there was a correlation between growth (e.g. PTG) and distress (e.g. PTSD), finding the experience of trauma was the factor contributing to a person's opportunity to grow (Tedeschi & Calhoun, 1996). Growth, in this sense, occurs beyond recovery and in response to processing the traumatic event.

Since the work of Tedeschi and Calhoun (1996), support for a relationship between PTG and PTSD has been evident (Dekel, Mandl, & Solomon, 2011). Studies in offender populations have focused largely on qualitative accounts of posttraumatic growth (Guse & Hudson, 2014; Mapham & Hefferon, 2012; Ronel & Elisha, 2011; van Ginneken, 2016). Such studies have found the development of positive psychological functioning contributes to a transformation in thinking and behavior, described as PTG (Guse & Hudson, 2014). For example, one study involved interviews with male ex-offenders upon release and found PTG was the result of finding new meaning in life, developing self-awareness, and having positive relationships with those not involved in crime (Guse & Hudson, 2014). As such, PTG is thought to only be possible with a loss of meaning and/or substantial crisis (Vanhooren, Leijssen, & Dezutter, 2018).

Studies that examine coping and PTG together in incarcerated populations have been somewhat limited (Vanhooren et al., 2018). One of the first studies using quantitative methods substantiated findings that emotional support, religious coping, and meaning-focused coping served as positive predictors of posttraumatic growth among offenders (Vanhooren et al., 2018). Differences were found between inmates who received therapy versus those who did not based on length of incarceration ($\beta = .21, p < .001$), age ($\beta = -.15, p < .01$), and educational level ($\beta = -.13, p < .05$), but not based on substance use or gender (Vanhooren et al., 2018). This study focused on sample BT participants' understanding of a trauma experience and how they applied learned coping strategies.

Statement of the Problem

Women with trauma histories are at significant risk of developing mental health issues that often lead to persistent negative behaviors and potential incarceration (Center for Substance Abuse Treatment, 2014). Despite efforts, incarcerated women who receive treatment face considerable challenges with re-entry, as well as receiving and continuing care that is critical to recovery (Collier, 2014). More effectively treating problematic symptomology could not only improve the quality of care inmates receive while in custody, but could bring awareness to issues that may inhibit change, pose a risk to inmate wellness, and/or perpetuate unhealthy behaviors.

To be effective, corrections-based treatment programs must consider protocols and interventions that are relevant to the population and demonstrate evidence of working to address the issues at hand. As a relatively new intervention, BT does not have associated assessment protocol, yet its intervention criteria appear to align with theoretical constructs of posttraumatic growth and coping. Thus, implementing measures of coping, meaning in life, and PTG could provide an understanding of growth in the therapeutic process as a result of participation in BT.

Significance of the Study

Understanding and meeting the needs of incarcerated women with mental health and/or substance abuse disorders has been identified as a significant public health matter (Johnson et al., n.d). BT, as a treatment protocol in incarcerated settings, aims to enhance women's capacity for posttraumatic growth, as well as helps them to develop positive coping alternatives. This study adds to existing research pertaining to the value and feasibility of one gender responsive treatment program. Study data were analyzed to determine participants' experience with symptomology and changes in self-reports of coping utilization, meaning in life, and posttraumatic growth prior to the intervention and at the completion of the intervention. Such a pre and post analysis allowed for in-depth assessment of specific aspects of the treatment program related to therapeutic change, an area of gender responsive treatment research that is currently lacking.

Purpose of the Study

The purpose of this study was to examine treatment results for incarcerated women in a southern-US women's prison system who have been identified to participate in *Beyond Trauma: A Healing Journey for Women* (BT). This study focused on the implementation of BT and subsequent changes in coping, meaning in life, and posttraumatic growth. This study extended the study by Vanhooren et al. (2018) which hypothesized emotional coping, religious coping, and search for meaning as positive predictors of posttraumatic growth and denial, substance abuse, and behavioral disengagement as negative predictors. The overall aim of this study was to assess the degree to which coping, meaning in life, and posttraumatic growth can be facilitated by treating trauma using a gender responsive curriculum. Due to the prevalence of co-occurring PTSD and Substance Use Disorder (SUD) among female incarcerated populations (Bartlett,

2007), there is evidence to warrant a closer examination of the effectiveness of treating trauma to address these issues among incarcerated women in terms of therapeutic growth.

Research Questions

1. What is the number of self-reported symptoms of PTSD among participants before engaging in BT?
2. Is there a difference in the use of coping strategies among participants prior to and at the completion of BT?
3. Is there a difference in the presence of or search for meaning among participants prior to and at the completion of BT?
4. Is there a difference in posttraumatic growth among participants prior to and at the completion of BT?
5. What is the relationship of posttraumatic growth, coping, and meaning in life to participant reports of times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility?

Participants

Study participants represented a sample of the overall population within a given facility who had been selected for the BT program using a comprehensive tool known as the *Women's Risk Needs Assessment*, or WRNA. WRNA is administered by facility staff to all inmates and serves to identify risk factors for the purpose of assigning inmates to specified programming (University of Cincinnati Corrections Institute, 2017). In order to participate in this study, respondents must have been 19 years of age or older and be assigned to a BT treatment group at the start of data collection. No inducements or incentives were offered for participation.

In addition, those considered for this study were divided into two subgroups: 1) participants receiving concurrent treatment for a substance abuse disorder in the facility, and 2) participants receiving no substance abuse treatment, also referred to as the general population. The sub-group distinction proposed to enhance data analysis by allowing consideration for other factors and variables that may influence change, such as simultaneous treatment or living environment. Also, a closer examination of the effects of BT for those in substance abuse treatment, specifically, could further enhance the understanding of its relationship to trauma.

At any given time, there are approximately 80–100 women participating in BT concurrently across all three facilities. Recruitment was conducted at each facility via an informational session prior to the start of the first BT meeting in a series. The informational session was structured to: 1) introduce the researchers, 2) discuss the purpose and parameters of the study, 3) outline the expectations of participants, 4) relay the risks and discomfort associated with participation, 5) share information about the potential benefits and compensation, and 6) provide instruction for how to withdraw from the study.

Procedures

The BT intervention consists of three modules and 12 sessions that cover a range of topics, including the relationship between violence, abuse, and trauma; the impact of trauma on women's lives; and healing from trauma (Covington, 2016). For the duration of the BT program, participants experience individual and group activities facilitated by corrections staff who receive formal training in the BT curriculum. The BT facilitators who delivered the program during this study period also met qualifications including professional training in counseling or teaching, and served in those roles at their given facility. The researcher did not facilitate the BT intervention received by study participants. Also, no formal evaluation exists for BT.

Upon agreement, participants were consented to participate and selected a unique identifier to be associated with pre-treatment and post-treatment surveys and results. Pre-assessments occurred on the first day of the BT intervention, following consent and prior to the start of the intervention. Post-assessments were collected one week following the last session. Also prior to the start of the BT intervention, participants were assessed for symptoms of PTSD to determine the presence of symptomology. Participants were informed that they could expect to spend 30 minutes for the completion of all surveys and assessments at each administration.

After all surveys and assessments were collected, data were analyzed using SPSS software. Surveys were examined for exclusion criteria including incomplete surveys and participant withdrawal.

Data Analysis

Data analysis involved a review of descriptive and inferential statistics using SPSS 23.0. Descriptive statistics included the analysis of means and percentages to understand trends and distributions in the data among the sample population. Inferential statistics analysis included the use of a paired samples or independent samples t-test. This procedure assesses for observed differences between two means and allows for an assessment of differences across groups (Patten, 2014; Ross & Shannon, 2011). Thus, to reach the objective of understanding the degree to which coping and posttraumatic growth were affected by participation in BT, the t-test provided an indication of overall significance across a number of means and how pairs or sets of means differed from each other. Further, a Pearson Correlation coefficient was computed to assess the relationship of changes in coping, meaning in life, and posttraumatic growth to the demographic variables of times being incarcerated, nature of current offense, and years incarcerated this time.

Results

The purpose of this study was to determine the effectiveness of a trauma intervention titled *Beyond Trauma: A Healing Journey for Women* (BT) in addressing coping, meaning in life, and posttraumatic growth among incarcerated women. The researcher sought to further investigate outcomes for persons who were experiencing PTSD symptoms or who had a history of substance use. This study intended to extend the study by Vanhooren et al. (2018) which found emotional coping, religious coping, and search for meaning as positive predictors of posttraumatic growth and denial, substance abuse, and behavioral disengagement as negative predictors. Additionally, this study aimed to develop implications for correctional systems and Counselor Education and Supervision programs regarding what factors contribute to effective treatment for trauma among incarcerated women, particularly coping and posttraumatic growth.

The researcher for this study utilized a brief demographic questionnaire, the PTSD Checklist for the DSM-5 (PCL-5), the Posttraumatic Growth Inventory (PTGI), the Meaning of Life Questionnaire (MLQ), and the Brief COPE. Descriptive and frequency analyses were used to determine the number of self-reported symptoms of PTSD among participants before engaging in BT (research question 1). Further, descriptive analyses and a paired samples t-test were used to assess if a difference existed in the use of coping strategies among participants prior to and at the completion of BT (research question 2), if a difference existed in the presence of or search for meaning among participants prior to and at the completion of BT (research question 3), and if a difference existed in posttraumatic growth among participants prior to and at the completion of BT (research question 4). A Pearson Correlation coefficient was computed to assess the relationship of coping, meaning in life, and posttraumatic growth to participant reports of times being incarcerated, nature of current offense, and years incarcerated this time, and experience

with other treatment programs at the current facility (research question 5). Lastly, a Pearson Correlations coefficient was computed to analyze the relationship between coping, meaning in life, and posttraumatic growth and participant reports of PTSD and a history of substance abuse treatment.

Demographic Information

Prior to beginning BT treatment, 49 individuals across three facilities provided informed consent and completed the survey instruments with the PCL-5 assessment. However, due to attrition during the intervention period, only 25 out of 49 original participants completed BT treatment. In the end, pre and post questionnaires for 25 participants were used in this study.

Of the final 25 participants, 25 (100.0%) reported their gender as female. Using age demographic categories typically reported by the correctional system involved in the study, 0.0% were under the age of 18, 2 (8.0%) were between the ages of 19–25, 10 (40.0%) were between the ages of 26–35, 4 (16.0%) were between the ages of 36–45, and 9 (36.0%) were between the ages of 46–55.

Eleven participants (44.0%) indicated their highest grade completed was high school or GED. Six participants (24.0%) had some high school, 3 (12.0%) had vocational or technical training, 1 (4.0%) had some college, 2 (8.0%) had an associate's degree, 1 (4.0%) had a bachelor's degree, and 1 (4.0%) had some graduate school.

Seventeen participants (68.0%) indicated they identify as White, followed by 6 (24.0%) who identified as Black or African American, and 2 (8.0%) who identified as American Indian or Alaskan Native. Among the 2 participants who identified as American Indian or Alaskan Native, 1 (4.0%) specified their race/ethnicity as Black/Indian.

Thirteen participants (52.0%), indicated their marital status as single, 7 (28.0%) indicated they were married or had a partner, 4 (16.0%) indicated they were divorced or separated, and 1 (4.0%) indicated they were widowed. Twenty-three participants (92.0%) indicated they practiced some type of religion, while 2 (8.0%) did not report. Twelve participants (48.0%) indicated they received support from the chaplain, while 13 (52.0%) indicated they do not receive support.

Nineteen participants (76.0%) indicated they have received counseling or therapy, while 6 (24.0%) indicated they have not received counseling or therapy. Eight participants (32.0%) indicated the present situation as being their first time incarcerated, 7 (28.0%) indicated they had been incarcerated 2 to 5 times, 3 (12.0%) indicated they had been incarcerated 6 to 9 times, and 1 (4.0%) indicated they had been incarcerated 10 or more times. Six participants (24.0%) did not report the number of times incarcerated.

Monthly and annual statistical reports published by the correctional system involved in the study classifies offenses in 5 areas: personal (crimes against individuals such as assault, battery, or homicide), property (crimes against property such as theft, robbery, or arson), drugs (crimes that include trafficking, manufacturing, and possession), public (victimless crimes such as prostitution or disorderly conduct), and other. Twenty-one out of 25 participants reported the nature of their offense, including 7 (28.0%) who reported personal offenses, 8 (32.0%) who reported property offenses, 6 (24.0%) who reported drug offenses, and 4 (16.0%) who reported other offenses. Four participants (16.0%) did not report the nature of their offense and none (0%) reported public offenses.

Twenty out of 25 participants reported the amount of time they have been incarcerated for their current offense. Responses were grouped and recoded according to typically reported

categories by the correctional system involved in the study. Four participants (16.0%) reported they have been incarcerated for less than 1 year, 10 (40.0%) reported they have been incarcerated for 1 to 3 years, 3 (12.0%) reported they have been incarcerated for 4 to 7 years, none (0.0 %) reported they have been incarcerated for 8 to 10 years, 2 (8.0%) reported they have been incarcerated for 11 to 20 years, and 1 (4.0%) reported they have been incarcerated for 21–30 years. Five participants (20.0%) did not report the amount of time they have been incarcerated for their current offense.

Of the total 25 participants, 18 (72.0%) indicated they received treatment services from their current facility, 4 participants (16.0%) indicated they never received treatment services from their current facility, and 3 (12.0%) did not respond. Of those responding, 4 participants (16.0%) reported they received treatment that addressed substance abuse, 7 (28.0%) reported they received treatment that addressed parenting or relationships, 1 (4.0%) reported they received treatment that addressed re-entry or release, 2 (8.0%) reported they received treatment that addressed behavior management, specifically anger or violence, 3 (12.0%) reported they received treatment that addressed mental health issues, and 1 (4.0%) reported they received other services, including poetry and alternatives to criminal thinking.

Lastly, 21 respondents (84.0%) responded to a question asking if they had ever experienced childhood trauma. Of those responding, 15 (60.0%) indicated they had experienced childhood trauma, while 6 (24.0%) had not experienced childhood trauma. See Table 1 for select demographic characterizations of participants.

Table 1

Demographics of Participants

	Characteristics	N	%
Gender	Female	25	100.0%
Age	<18	0	0.0%
	19–25	2	8.0%
	26–35	10	40.0%
	36–45	4	16.0%
	46–55	9	36.0%
Highest Grade Completed	Some high school	6	24.0%
	Completed high school or GED	11	44.0%
	Vocational, technical, etc.	3	12.0%
	Some college, but no degree	1	4.0%
	Associate’s degree	2	8.0%
	Bachelor’s degree	1	4.0%
	Some graduate school	1	4.0%
Race	American Indian or Alaskan Native	2	8.0%
	Black or African American	6	24.0%
	White	17	28.0%
Marital Status	Married or partner	7	26.5%
	Single	13	52.0%
	Divorced or separated	4	16.0%
	Widowed	1	4.0%
Religious Practice (specified)	Yes	23	92.0%
	No response	2	8.0%
Has Received Chaplain Support	Yes	12	48.0%
	No	13	52.0%
Has received counseling therapy	Yes	19	76.0%
	No	6	24.0%
Experienced childhood trauma	Yes	15	60.0%
	No	6	24.0%
	Did not respond	4	16.0%

Note: Percent is computed based on the number of participants who completed a given item.

The mean, standard deviation, and reliability statistics are reported in Table 2 for the Posttraumatic Checklist (PCL-5), the Posttraumatic Growth Inventory (PTGI), the Meaning in Life Questionnaire (MLQ), and the Brief COPE (BC). Internal consistency estimates of reliability were performed for the PCL-5, PTGI, MLQ, and BC using coefficient alpha. Scoring for the MLQ and BC is determined using sub-scales representing specific combinations of questions, thus statistics are provided for the sub-scales as well as full scales. Values for coefficient alpha were within range for the PCL-5, PTGI, MLQ, and BC, each indicating satisfactory reliability for this study.

Table 2

Reliability Statistics

	N	Mean	SD	Cronbach's Alpha
PCL-5	20	47.696	18.299	.941
PTGI (Full Scale)	21	89.000	28.735	.932
MLQ (Full Scale)	10	48.184	9.556	.760
Search for Meaning (Sub-scale)	5	25.90	72.010	.893
Presence of Meaning (Sub-scale)	5	16.94	33.517	.420
BC (Full Scale)	28	69.349	12.315	.784
Self-Distraction (Sub-scale)	2	5.71	1.871	.310
Active Coping (Sub-scale)	2	7.16	36.556	.077
Denial (Sub-scale)	2	3.50	1.714	.470
Substance Use (Sub-scale)	2	3.24	2.047	.971
Use of Emotional Support (Sub-scale)	2	4.67	1.802	.619
Use of Instrumental Support (Sub-scale)	2	4.65	1.732	.510
Behavioral Disengagement (Sub-scale)	2	3.53	1.709	.575

(table continues)

Table 2 (continued)

	N	Mean	SD	Cronbach's Alpha
Venting (Sub-scale)	2	4.02	1.720	.781
Positive Reframing (Sub-scale)	2	6.06	1.749	.152
Planning (Sub-scale)	2	5.80	1.708	.287
Humor (Sub-scale)	2	2.82	1.286	.483
Acceptance (Sub-scale)	2	6.42	1.427	.160
Religion (Sub-scale)	2	7.71	5.624	.740
Self-Blame (Sub-scale)	2	4.63	2.028	.616

Research Question 1: What is the number of self-reported symptoms of PTSD among participants before engaging in BT?

To establish a measure of the degree to which participants may be experiencing symptoms of PTSD, the researcher collected self-reported questionnaires of the PCL-5 from participants prior to the beginning of the BT program only. Cronbach's α for the PCL-5 factors in the present sample was good to excellent (range $\alpha = .941$). This indicated that internal consistency for the PCL-5 was reliable and its use was supported in this study.

Descriptive statistics indicated that all participants (100%) had experienced some symptom(s) of PTSD in the past month. Eighteen out of 25 participants (72.0%) met the cut-off score of 33 or higher, indicating a more significant finding of symptoms. The most common symptoms reported by incarcerated women were: avoiding memories, thoughts, or feelings related to the stressful experience (88.0%); repeated, disturbing, and unwanted memories of the stressful experience (88.0%); blaming yourself or someone else for the stressful experience or what happened after it (83.7%); being "superalert" or watchful or on guard (84.0%); avoiding external reminders of the stressful experience (84.0%); feeling distant or cutoff from people (80.0%); and, having strong negative feeling such as fear, horror, anger, shame, and guilt

(80.0%). Other symptoms commonly experienced by incarcerated women included: trouble falling or staying asleep (76.0%); feeling very upset when something reminded you of the stressful event (76.0%); having strong negative beliefs about yourself, other people, or the world (68.0%); having difficulty concentrating (68.0%); feeling jumpy or easily startled (64.0%); loss of interest in activities you used to enjoy (64.0%); trouble experiencing positive feelings (60.0%); and, repeated, disturbing dreams of the stressful experience (60.0%). More than half of incarcerated women reported irritable behavior, angry outbursts, or acting aggressively (56.0%); having strong physical reactions when something reminded them of the stressful experience (56.0%); and, suddenly feeling or acting as if the stressful experience were actually happening again (52.0%). The least common symptoms reported by incarcerated women included: trouble remembering important parts of the stressful experience (48.0%), and taking too many risks or doing things that could cause you harm (24.0%). PTSD symptoms as measured by PCL-5 are provided in Table 3 in descending order.

Table 3

PCL-5 Symptom Distribution

Survey Items in Descending Order	N	%
Avoiding memories, thoughts, or feelings related to the stressful experience	22	88.0
Repeated, disturbing, and unwanted memories of the stressful experience	22	88.0
Blaming yourself or someone else for the stressful experience or what happened after it	21	84.0
Being “superalert” or watchful or on guard	21	84.0
Avoiding external reminders of the stressful experience	21	84.0

(table continues)

Table 3 (continued)

Survey Items in Descending Order	N	%
Feeling distant or cutoff from people	20	80.0
Having strong negative feeling such as fear, horror, anger, shame, and guilt	20	80.0
Trouble falling or staying asleep	19	76.0
Feeling very upset when something reminded you of the stressful event	19	76.0
Having strong negative beliefs about yourself, other people, or the world	17	68.0
Having difficulty concentrating	17	68.0
Feeling jumpy or easily startled	16	64.0
Loss of interest in activities you used to enjoy	16	64.0
Trouble experiencing positive feelings	15	60.0
Repeated, disturbing dreams of the stressful experience	15	60.0
Irritable behavior, angry outbursts, or acting aggressively	14	56.0
Having strong physical reactions when something reminded them of the stressful experience	14	56.0
Suddenly feeling or acting as if the stressful experience were actually happening again	13	52.0
Trouble remembering important parts of the stressful experience	12	48.0
Taking too many risks or doing things that could cause you harm	6	24.0

Research Question 2: Is there a difference in the use of coping strategies among participants prior to and at the completion of BT?

To assess specific coping responses by participants in their experience with stress, the researcher collected results from the Brief COPE Inventory (BC). This instrument was

completed by participants prior to beginning BT and upon the completion of BT to determine if participation in the program had an overall effect in ways of coping among participants.

Individual item scores range from 1 (not doing this at all) to 4 (doing this a lot).

BC is not scored by calculating a total of all responses. Instead, 14 subscales exist by computing the result of certain items and generating a score of 2 to 8 points per scale, with higher scores indicating higher utilization. The 14 subscales of the BC include: Self distraction (items 1 and 19); Active coping (items 2 and 7); Denial (items 3 and 8); Substance use (items 4 and 11); Use of emotional support (items 5 and 15); Behavioral disengagement (items 6 and 16); Venting (items 9 and 21); Use of instrumental support (items 10 and 23); Positive reframing (items 12 and 17); Self-blame (items 13 and 26); Planning (items 14 and 25); Humor (items 18 and 28); Acceptance (items 20 and 24); and Religion (items 22 and 27) (Carver, 1997).

Cronbach's alpha for the BC subscales ranged from the lowest for active coping ($\alpha = .077$), to the highest for substance use ($\alpha = .971$). Prior to beginning BT, participant scores ($N = 25$) indicated that the highest utilization of coping (maximum 8 points attained on scale) among incarcerated included: religion, i.e. trying to find comfort in my religion or spiritual beliefs and praying or meditating (48.0%); active coping, i.e. concentrating my efforts on doing something about the situation I am in and taking action to try to make the situation better (40.0%); positive reframing, i.e. trying to see it in a different light or make it more positive and looking for something good in what is happening (28.0%); acceptance, i.e. accepting the reality of the fact that it has happened and learning to live with it (28.0%); self-distraction, i.e. turning to work to take my mind off things and doing something to think about it less (24.0%); and planning, i.e. trying to come up with a strategy about what to do and thinking hard about what steps to take (20.0%). Coping scales with the lowest utilization among incarcerated women

included: self-blame, i.e. criticizing myself and blaming myself for things that happened (8.0%); substance use, i.e. using alcohol or other drugs to make myself feel better and using alcohol or other drugs to help me get through it (4.0%); the use of instrumental support, i.e. getting help and advice from other people and getting advice or help from other people about what to do (8.0%); denial, i.e. saying to myself this isn't real and refusing to believe that it has happened (4.0%); the use of emotional support, i.e. getting emotional support from others and getting comfort and understanding from someone (8.0%); behavioral disengagement, i.e. giving up trying to deal with it and giving up the attempt to cope (4.0%); and venting, i.e. saying things to let my unpleasant feeling escape and expressing my negative feelings (4.0%). Participants who reported they utilize humor to cope, i.e. making jokes about it and making fun of the situation represented 4.0% of those responding with no more than 6 points attained on the scale.

Following the completion of BT, the researcher collected results during a second administration of BC. Participant scores on the post-BT administration of BC indicated that the highest utilization of coping (maximum 8 points attained on scale) among incarcerated included: active coping, i.e. concentrating my efforts on doing something about the situation I am in and taking action to try to make the situation better (60.0%); positive reframing, i.e. trying to see it in a different light or make it more positive and looking for something good in what is happening (52.0%); acceptance, i.e. accepting the reality of the fact that it has happened and learning to live with it (44.0%); religion, i.e. trying to find comfort in my religion or spiritual beliefs and praying or meditating (44.0%); self-distraction, i.e. turning to work to take my mind off things and doing something to think about it less (36.0%); the use of emotional support, i.e. getting emotional support from others and getting comfort and understanding from someone (32.0%); and planning, i.e. trying to come up with a strategy about what to do and thinking hard about what

steps to take (24.0%). Coping scales with the lowest utilization among incarcerated women included: the use of instrumental support, i.e. getting help and advice from other people and getting advice or help from other people about what to do (16.0%); and self-blame, i.e. criticizing myself and blaming myself for things that happened (12.0%). Additionally, some participants attained less than 8 points on a scale, indicating lower utilization of certain coping skills. Scales reported at a maximum 7 points included behavioral disengagement, i.e. giving up trying to deal with it and giving up the attempt to cope (8.0%) and denial, i.e. saying to myself this isn't real and refusing to believe that it has happened (4.0%). Humor, i.e. making jokes about it and making fun of the situation represented 16.0% of those responding; venting, i.e. saying things to let my unpleasant feeling escape and expressing my negative feelings represented 16.0% of those responding; and substance use, i.e. using alcohol or other drugs to make myself feel better and using alcohol or other drugs to help me get through it represented 8.0% of those responding with no more than 6 points attained on the scale.

A paired samples t-test was conducted to evaluate whether coping responses changed following the BT intervention. The results indicated that the mean score for the total BC scales prior to the BT intervention ($M = 70.75$, $SD = 14.33$) was less than the mean score at the completion of the BT intervention ($M = 73.45$, $SD = 9.41$), $t(19) = .844$, $p > .01$. The standardized effect size index, d , was .19, indicating small effects size according to Cohen's (1992) guidelines. The 95% confidence interval for the mean difference between the two ratings was -3.99 to 9.39. Results indicate that there was a positive change in coping responses following the intervention; however, this change was not significant overall.

Further analysis of BC scales using paired sample t-test indicated the most change occurred in the scales of humor with a mean score prior to the intervention ($M = 2.76$, $SD = 1.27$)

less than the mean score at the completion of the intervention ($M = 4.64, SD = 1.04$), $t(24) = 6.47, p < .01$; emotional support with a mean score prior to the intervention ($M = 5.14, SD = 1.75$) less than the mean score at the completion of the intervention ($M = 6.09, SD = 1.69$), $t(21) = 2.40, p < .01$; and, instrumental support with a mean score prior to the intervention ($M = 4.88, SD = 1.64$) less than the mean score at the completion of the intervention ($M = 6.12, SD = 1.64$), $t(24) = 2.68, p < .01$. The standardized effect size index, d , was largest for humor at 1.29. The standardized effect size index, d , was .51 for emotional support, and .53 for instrumental support, suggesting medium effect size for these scales. The 95% confidence interval for the mean difference between the two ratings for humor was 1.28 to 2.48; .128 to 1.78 for emotional support; and, .285 to 2.20 for instrumental support. Paired samples statistics results of pre-post BT and coping are outlined in Table 4.

Table 4

Paired Samples Statistics of Pre-Post BT and Coping

	Mean	SD
BC Total Scales - Pre	70.75	14.33
BC Total Scales - Post	73.45	9.41
Self-Distraction (Sub-scale)	6.04	1.99
Active Coping (Sub-scale)	7.28	1.02
Denial (Sub-scale)	2.96	1.34
Substance Use (Sub-scale)	2.44	1.16
Use of Emotional Support (Sub-scale)	6.09	1.69
Use of Instrumental Support (Sub-scale)	6.12	1.64
Behavioral Disengagement (Sub-scale)	2.76	1.41

(table continues)

Table 4 (continued)

	Mean	SD
Venting (Sub-scale)	3.87	1.36
Positive Reframing (Sub-scale)	6.56	1.76
Planning (Sub-scale)	6.24	1.34
Humor (Sub-scale)	4.64	1.04
Acceptance (Sub-scale)	3.96	1.23
Religion (Sub-scale)	6.76	1.51
Self-Blame (Sub-scale)	3.96	1.97

Note. N = 25. Scores on a scale in which 1= I have haven't been doing this at all and 4 = I've been doing this a lot.

Research Question 3: Is there a difference in the presence of or search for meaning among participants prior to and at the completion of BT?

To assess for meaning in life, the researcher utilized the MLQ, which calculates results based on two scales: the presence of meaning and/or the search for meaning. Scores range from 5 to 35 for each scale. According to the literature, an acceptable cutoff score is 24 (Steger, Frazier, Oishi, & Kaler, 2006). A score above 24 on both scales indicates the respondent feels their life has meaning and they possess an openness to continue to explore meaning. A score above 24 on the Presence scale and below 24 on the Search scale indicates the respondent feels their life has meaning, yet they do not actively explore meaning or purpose beyond their current understanding. A score below 24 on the Presence scale and above 24 on the Search scale indicates the respondent does not feel that their life has meaning or purpose, and they are

actively searching for something or someone to give them meaning or purpose. A score below 24 on both scales indicates the respondent does not feel that their life has meaning or purpose, and they are not actively searching for meaning or purpose either. Cronbach's alpha for the MLQ subscales indicated a higher result for Search ($\alpha = .893$) than Presence ($\alpha = .420$). This suggests that the instrument is a more reliable measure of a participant's status in searching for meaning rather than currently possessing meaning in their life.

Of the 25 participants who completed the pre-assessment of the MLQ, 17 participants (68.0%) scored below 24 on the Presence scale and above 24 on the Search scale, indicating they do not feel their life has meaning or purpose, and they are actively searching for something or someone to give them meaning or purpose. Seven participants (28.0%) scored below 24 on both scales, indicating they do not feel that their life has meaning or purpose, and they are not actively searching for meaning or purpose either. One participant (4.0%) scored above 24 on the Presence scale and below 24 on the Search scale, indicating they feel their life has meaning, yet they do not actively explore meaning or purpose beyond their current understanding. No participants (0.0%) scored above 24 on both scales, indicating they feel their life has a values meaning and purpose, yet they are open to exploring that meaning or purpose.

The same 25 participants completed the post-assessment of the MLQ. Two participants (8.0%) scored below 24 on the Presence scale and above 24 on the Search scale, indicating they do not feel their life has meaning or purpose, and they are actively searching for something or someone to give them meaning or purpose. Three participants (12.0%) scored below 24 on both scales, indicating they do not feel that their life has meaning or purpose, and they are not actively searching for meaning or purpose either. Three participants (12.0%) scored above 24 on the Presence scale and below 24 on the Search scale, indicating they feel their life has meaning, yet

they do not actively explore meaning or purpose beyond their current understanding. And, 12 participants (48.0%) scored above 24 on both scales.

A paired samples t-test was conducted to evaluate whether scores in the meaning in life scales of presence and/or search changed following the BT intervention. For the presence scale, the results indicated that the mean score prior to the BT intervention ($M = 17.36, SD = 4.89$) was less than the mean score at the completion of the BT intervention ($M = 26.96, SD = 5.33$), $t(24) = 10.73, p < .01$. The standardized effect size index, d , was 2.15, indicating large effect. The 95% confidence interval for the mean difference between the two ratings was 7.75 to 11.45. Results indicate that there was a significant change in scores on the Presence scale following the intervention.

For the Search scale, the results indicated that the mean score prior to the BT intervention ($M = 26.32, SD = 8.325$) was more than the mean score at the completion of the BT intervention ($M = 25.84, SD = 7.24$), $t(24) = -.383, p > .01$. The standardized effect size index, d , was -.08, indicating small effect. The 95% confidence interval for the mean difference between the two ratings was -.38 to 2.10. Results indicate that there was a significant change in scores on the Search scale following the intervention; however, it was not significant. Paired samples statistics results of pre-post BT and meaning in life are outlined in Table 5.

Table 5

Paired Samples Statistics of Pre-Post BT and Meaning in Life

	Mean	SD
MLQ Presence		
Pre	17.36	4.89
Post	26.96	5.33
MLQ Search		
Pre	26.32	8.33
Post	25.84	7.24

Note. N = 25. Scores on a scale in which 1= Absolutely untrue and 7 = Absolutely true.

Research Question 4: Is there a difference in posttraumatic growth among participants prior to and at the completion of BT?

The researcher collected responses to the PTGI prior to the beginning of BT to determine the rate of growth following a traumatic event identified by the participant. PTGI scores can range from 0 to 105. Following suggestions from the literature, the researcher used a cut-off score of 45 and below to represent none to low posttraumatic growth (PTG) levels, and 46 and above to represent medium to very high PTG levels (Mazor, Gelkopf, & Roe, 2019). Cronbach’s α for the PTGI factors in the present sample was good to excellent (range $\alpha = .932$).

Prior to BT beginning, 24 out of 25 participants (96.0%) responding scored 46 or higher, indicating moderate to high growth. One participant (4.0%) scored 45 or lower, indicating low to no growth. PTGI responses were collected again at the completion of BT to determine if participants’ rate of growth had changed since their initial results. Following the completion of BT, 25 out of 25 participants (100%) scored 46 or higher, indicating moderate to high growth.

A paired samples t-test was conducted to evaluate whether scores in the posttraumatic growth inventory changed following the BT intervention. Results indicated that the mean score prior to the BT intervention ($M = 92.72$, $SD = 22.49$) was less than the mean score at the completion of the BT intervention ($M = 104.20$, $SD = 16.64$), $t(24) = 3.27$, $p < .01$. The standardized effect size index, d , was .654, indicating medium to large effect. The 95% confidence interval for the mean difference between the two ratings was 4.23 to 18.73. Results indicate that there was a significant change in scores in posttraumatic growth following the intervention. Paired samples statistics results of pre-post BT and posttraumatic growth are outlined in Table 6.

Table 6

Paired Samples Statistics of Pre-Post BT and Posttraumatic Growth

	Mean	SD
PTGI		
Pre	92.72	22.49
Post	104.20	16.64

Note. $N = 25$. Scores on a scale in which 1 = I did not experience this change as a result of my crisis and 5 = I experienced this change to a very great degree as a result of my crisis.

Research Question 5: What is the relationship of posttraumatic growth, coping, and meaning in life to participant reports of times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility?

A Pearson Correlation coefficient was computed to assess the relationship of changes in posttraumatic growth, coping, and meaning in life to times being incarcerated, nature of current offense, and years incarcerated this time. The first correlation was completed using scores from the post-administration of the PTGI as the dependent variable. The second correlation was completed using total score of the BC scales from the post-administration as well as individual sub-scales as the dependent variable. The third correlation was completed using scores from the total Presence and Search sub-scales of the MIQ from the post administration.

Pearson Correlation with the PTGI as the dependent variable indicated no significant correlation between times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Pearson Correlation with the total Search scales of the MLQ as the dependent variable also indicated no significant correlation between times being incarcerated, nature of current offense, years incarcerated this time, and experience with other treatment programs at current facility. Total Presence scales of the MLQ as the dependent variable, however, indicated a positive relationship between the presence of meaning in life and the number of times incarcerated ($r = .459$), suggesting the more times a participant is incarcerated, the higher the presence of meaning in their life. This correlation had an effect size of 6.57, which is considered a large effect.

The Pearson Correlation with total BC scales as the dependent variable indicated a negative relationship between coping and number the times incarcerated ($r = -.533$). This

suggests that the more times a participant is incarcerated, the lower the use of overall coping responses. This correlation had a large effect size of 1.74. When individual sub-scales of the post-administration of the BC were computed, emotional support showed a significant correlation ($r = -.511$) with number of times incarcerated, indicating the more times one is incarcerated, the less they use emotional support as a coping resource. This correlation had a large effect size of 1.19. Instrumental support also showed a significant correlation ($r = -.691$) with number of times incarcerated, indicating the more times one is incarcerated, the less they use instrumental support as a coping resource. This correlation had a large effect size of 1.91.

Lastly, due to the small sample size, the researcher computed a Pearson Correlation coefficient in lieu of a multivariate analysis to determine if a relationship existed between the constructs being explored in research question 5 and participant results for active PTSD symptoms as well as those reporting a substance use treatment history. This analysis was intended to explore evidence that emerged from the literature review for this study which indicated that incarcerated women are often characterized as having issues with co-occurring substance abuse and PTSD. The result for participants who reported active symptoms of PTSD was a significant positive relationship with self-blame as a coping resource ($r = .456$) and a significant negative relationship with posttraumatic growth ($r = -.566$). The correlation between PTSD and self-blame as a coping resource had a large effect size of 1.02. The correlation between PTSD and posttraumatic growth had a large effect size of 1.37. The result for participants who reported a history of substance abuse treatment was a significant positive relationship with presence of meaning in life ($r = .452$) and negative relationship with PTSD ($r = -.523$). The correlation between a history of substance abuse treatment and presence of meaning in life had a large effect size of 1.01. The correlation between a history of substance abuse and

PTSD had a large effect size of 1.23. Correlation results for the correlational analyses of the constructs in relationship to PTSD and substance abuse treatment as well as that for PTGI, MLQ, and BC, including relevant sub-scales for the MLQ and BC, are provided in Table 7.

Table 7

Correlations among Coping, Meaning in Life, and Posttraumatic Growth Scales (N=25)

	Number times incarcerated	Nature of offense	Time for current offense	Other treatment	PTSD	Substance Abuse Treatment History
PTGI	.288	-.62	-.301	-.389	-.566**	.257
MLQ						
Search for Meaning	-.090	-.139	-.251	.065	-.102	.264
Presence of Meaning	.459*	-.276	-.254	-.331	-.523**	.452*
BC	-.533*	-.294	-.230	-.167	.117	.522
Emotional Support	-.511*	-.373	-.125	.130	-.342	.479
Instrumental Support	-.691**	-.253	-.175	.308	-.124	.977
Self-blame	-.232	.020	-.007	-.257	.456*	.314

*Correlation is significant at the .05 level (two-tailed).

**Correlation is significant at the .01 level (two-tailed).

Results Summary

This study was conducted to investigate treatment results for incarcerated women who participated in BT based on changes in coping, meaning in life, and posttraumatic growth from the period prior to beginning the intervention and following its completion. To answer the research questions, a brief demographic questionnaire, the Posttraumatic Growth Inventory (PTGI), the Meaning of Life Questionnaire (MLQ), and the Brief COPE were used. Results from

this study indicated there was a significant positive correlation between presence of meaning in life and number of times incarcerated. Significant negative correlations were seen between the use of coping resources and number of times incarcerated, specifically among the use of emotional support and instrumental support. Lastly, analyses to determine if a relationship existed between the constructs measured by the PTGI, MLQ, and BC and PTSD or a history of substance abuse treatment indicated that those with active PTSD symptoms tend to use self-blame as a coping resource and have lower scores on posttraumatic growth. In addition, those with a history of substance abuse treatment tend to have more presence in meaning of life, while presence in meaning of life is negatively correlated with PTSD.

Discussion

The purpose of this study was to determine the effectiveness of a trauma intervention titled *Beyond Trauma: A Healing Journey for Women* (BT) in addressing coping, meaning in life, and posttraumatic growth among incarcerated women. The researcher sought to further investigate outcomes for persons who were experiencing PTSD symptoms or who had a history of substance use. This study intended to extend the study by Vanhooren et al. (2018) which found emotional coping, religious coping, and search for meaning as positive predictors of posttraumatic growth and denial, substance abuse, and behavioral disengagement as negative predictors. Additionally, this study aimed to develop implications for correctional systems and Counselor Education and Supervision programs regarding what factors contribute to effective treatment for trauma among incarcerated women, particularly coping and posttraumatic growth. Results from a brief demographic questionnaire, the PTSD Checklist for the DSM-5 (PCL-5), the Posttraumatic Growth Inventory (PTGI), the Meaning of Life Questionnaire (MLQ), and the

Brief COPE will be discussed. Finally, limitations of the current study and recommendations for future research will be reviewed.

Implications for Counseling Practice, Supervision, and Counselor Education

The results of this study provide practicing counselors, supervisors, and counselor educators, as well as those developing treatment protocol, information to consider when the counseling work involves incarcerated women. The current study resulted in evidence that treatment addressing the high prevalence of trauma, which also teaches alternatives to problematic coping mechanisms, has the potential to positively impact growth and meaning in life following the event. Despite the non-therapeutic environment that correctional facilities pose, counselors can be effective in reaching clients and assisting them to learn and practice new coping techniques.

Previous studies of BT have only demonstrated its effectiveness in combination with other interventions (Covington et al., 2008; Messina, Calhoun, & Warda, 2012). The current study was able to demonstrate that BT as a singular intervention has the potential to positively impact trauma recovery by increasing coping skills that lead to the pursuit of meaning in life and a deeper understanding of the personal change resulting from the trauma (i.e. posttraumatic growth). The constructs of meaning in life and posttraumatic growth could be utilized by counselors and counselors in training as focal points in the development of treatment plans and/or group discussion to help clients to broach the subject of their trauma in a meaningful and therapeutic way.

Supervisors who support counselors in their work with incarcerated women could benefit from findings in the current study that relate to the specific areas of coping that emerged as most significant. Bernard and Goodyear (2009) described clinical supervision as a pedagogy. Thus,

the of a supervisor is often to teach. Understanding that emotional and instrumental support are significant to the achievement of posttraumatic growth and meaning in life can help supervisors support counselors who wish to assess for and support growth of those resources in their work with clients.

Counseling work in incarcerated settings is a narrow specialty. Counselor education programs can further benefit from the results of this study by extracting the elements that highlight training and skills development. More specifically, the discussions of the comorbidity of PTSD and SUD, as well as the prevalence of these disorders as it is related to criminal behavior could be of interest and benefit to those seeking to work with incarcerated women. Further, coping, meaning in life, and posttraumatic growth are broad constructs that are measurable if counselors in training learn the appropriate tools. Having data that supports the use of the PTGI, MLQ, and BC serves to expand the knowledge surrounding their usefulness in the field. Such concepts could be highlighted in courses that emphasize counseling skills development, assessment, crisis management, and or counseling theories. Or, for programs with active professional honor societies or an affiliation with a professional association, opportunities could be developed that allow students to experience professional advocacy or outreach within a chosen community allowing these skills to be practiced.

Limitations of the Study

Perhaps the most significant limitation in this study was the attrition rate of participants, as it caused or related to subsequent study limitations to be discussed. Due to the withdrawal of participants from the BT program at each of the research sites, the study lost 48.9% of the original participant group. Much of the loss was due to participants being released from custody or experiencing a custody change which results in relocation or scheduling conflicts. While

demographics remained consistent with overall population statistics, such a small representative sample limits generalizability.

Another limitation, also related to attrition, was the small sample size. In the end, such a small n necessitated the use of analyses that minimized power and restricted the exploration of factors that may have contributed to the results, particularly those contrary to related studies. A larger sample would have allowed the researcher to specify what caused the change and better evaluate whether the resulting change could be attributed to the intervention.

Another limitation was the short term nature of this study. The researcher selected one session of BT to evaluate, which encompasses a six-week period from beginning to end. A longitudinal study may have allowed for more participation and more in-depth analyses to determine the basis of the resulting outcome. By limiting the study to a point in time, attrition became a more significant issue and results perhaps did not reflect the subsequent change that occurs once a person integrates what is learned in treatment to their behavior.

Recommendations for Future Research

Future studies of coping, meaning in life, and posttraumatic growth among incarcerated women could benefit from more exploration of the factors that contribute to participants' experience with these constructs, as well as how entities may enhance programming that promotes positive development in these areas. This study found similar findings to that found in the literature, thereby reinforcing what is already understood about the prevalence of trauma among incarcerated women, and its implications for the development of coping, meaning in life, and growth following the event(s). However, certain restrictions prevented this study from exploring the issue to the extent possible. Future or subsequent research could be designed

differently or offer alternative analyses using the current data set to maximize understanding in the field.

First, a new study yielding a larger sample would allow for the use of more grouping variables without concern for diffusion of the data. This study examined the data based on four grouping variables using correlation, but the potential for more analysis could have been available without the loss of participation. Future studies with a larger sample size could allow for more sophisticated analyses such as ANOVA, MANOVA, or factor analysis, thus providing more clarity on the predictability of coping with posttraumatic growth or meaning in life. A longitudinal study, specifically, would generate more participation, more observances of BT, and, perhaps, a longer period of adjustment following the intervention to collect post-intervention results. These alternative methods have implications for understanding how a participant may come to use or integrate the resources taught by BT and its contribution to permanent change in their approaches to coping, for example.

Second, a qualitative study that investigates participants' personal experiences with the BT intervention as well as their opinions on the study constructs of coping and posttraumatic growth could add depth to our understanding within this population. This is needed to understand other factors that may be contributing or detracting from the change evident in BT participants. In a prison setting particularly, there are environmental and relational experiences to consider when assessing change. Conventional quantitative methods do not allow for the exploration of personal experiences.

Also, conducting a fidelity study concurrent with the delivery of the BT intervention would further contribute to understanding if the manner in which BT was delivered to study participants had an impact on results. Fidelity reviews of BT facilitators were conducted in the

months prior to the study by a contracted party familiar with the development of BT, not the researcher. Results from the fidelity reviews indicated a majority of criteria were consistently met. In the event criteria were not evident or only sometimes evident, each facilitator was provided feedback and guidance for improving future scores. Having the researcher involved in the determination of fidelity in future studies would add to the understanding of specific influences that may contribute to deviations in the delivery of BT, as well as the point at which such influences begin to change the intention of the program and contribute to outcomes.

Lastly, a study that compares specific individual factors to BT treatment results may provide a better understanding of what exactly contributes to changes in coping, meaning in life, and/or posttraumatic growth. For instance, future studies could control for factors such as the type of facility (i.e. minimum, medium, or closed), the type of counseling, if any, received prior to the intervention, one's religiosity, or other attributes a participant may possess that could have a potential impact on results. Such studies would help to determine whether BT was the positive contributing factor or some other influence is contributing to the changes observed.

Conclusion

The current study advanced the understanding of the frequency of PTSD among incarcerated women and established additional evidence pertaining to the effectiveness of a trauma-based intervention in developing coping skills and promoting posttraumatic growth. This study also identified aspects of the intervention, BT, that correlated with changes in coping, meaning in life, and posttraumatic growth during one administration of the program. Study participants experienced a positive increase in posttraumatic growth following the intervention. Significant increases were noted in the presence of meaning and the development of emotional support and instrumental support as coping resources. This study also affirmed the existence of

an inverse relationship between PTSD and posttraumatic growth, as well as presence of meaning. In addition, a history of substance abuse treatment proved to have a positive relationship to presence of meaning. Additional studies with larger samples of participants are needed to determine the consistency and/or generalizability of these results.

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APPENDIX A

Auburn University Institutional Review Board (IRB) Approval Form



AUBURN
UNIVERSITY

DEPARTMENT OF
SPECIAL EDUCATION,
REHABILITATION, AND COACHING

NOTE: DO NOT SIGN THIS DOCUMENT UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THE DOCUMENT.

Consent Form

For a Research Study entitled
“Coping and Posttraumatic Growth in Incarcerated Women”

You are invited to participate in a research study to determine if participation in Beyond Trauma: A Healing Journey for Women (BT) impacts coping and posttraumatic growth. The study is being conducted by Elizabeth Kelley Mautz, a doctoral candidate under the direction of Dr. Chippewa Thomas, Ph.D. This research is part of the researcher’s doctoral degree requirements. You are being asked to be part of this study because you are a participant of BT. Participation in this study is restricted to those who are age 19 or older and who have been identified as a participant of BT in a correctional setting.

What will be involved if you participate? If you decide to participate in this research study, you will first be asked to consent by signing this form. Once consent is given, you will be asked to complete a packet of surveys and one assessment before you start BT and the same surveys, no assessment after you finish BT. The surveys and assessments to be used include a brief demographic questionnaire and the following: 1) Post-Traumatic Stress Disorder Checklist – 5, which will ask you to rate problems with stress you have experienced in the past month; 2) Posttraumatic Growth Inventory, which will ask you to rate the change you experienced after a crisis or disaster based on certain items; 3) Meaning of Life Questionnaire, which will ask you to rate statements based on importance; and 4) the Brief COPE subscales, which will ask you to rate ways of coping based on how much you do it. The total time to finish the surveys is about 30 minutes. No information will be used in publications, presentations, or reports to personally identify you.

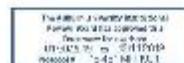
Are there any risks or discomforts? One risk with participating in this study is the sharing of personal feelings that you might find uncomfortable. If at any time you begin to feel uncomfortable, you may stop your participation in the study with no penalty. If you do experience personal feelings that become uncomfortable, you may be referred to counseling services that are available by contacting the BT program facilitator or appropriate ALDOC personnel. Steps will be taken to keep the study environment as private and confidential as possible. Data will be collected confidentially and kept securely. All informed consent documents, unique codes, and completed materials will be maintained by the principal investigator off-site in a secure location to prevent unauthorized access.

Are there any benefits to yourself or others? There are no direct benefits from participating in this study. Also, participation in the study will in no way impact parole decisions. However, if you participate in this study, you might benefit from talking about the trauma symptoms and an awareness of the manner of coping you have experienced. While we cannot guarantee that you will personally experience benefits from participating in this study, others may benefit in the future from the information we find in this study.

Please Initial _____

2054 Haley Center, Auburn, AL 36849-5222; Telephone: 334 844 7676; Fax: 334 844 7677
www.auburn.edu/senc

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Will you receive compensation for participating? There is no compensation for participating.

Are there any costs? If you decide to participate, there are no costs.

If you change your mind about participating, you can stop at any time during the study by letting the researcher know at the study location or by writing to any of the addresses listed at the end of this form. In the event you choose to not complete the study, all research activity will cease in that session and you will be provided a puzzle or word search activity to complete during the time allotted. Your participation is completely voluntary. Once your data is submitted, you will be unable to remove it since all collected data is unidentifiable. Your decision about whether or not to participate or to stop participating will not put your future relations with the researcher, Auburn University, or the SERC Department at risk.

Your privacy will be protected. Any information obtained through your participation with this study may be used to fulfill the requirements of the dissertation process and will remain confidential. Safeguards will be taken to keep the study environment as a private as possible. Unique codes will be created by the participant and provided on the informed consent and each survey instrument. Once the unique code list has been created, all codes will be blacked out on the copies of consent forms. Hard copies of documents with identifying information, including IRB-approved and participant-signed consent documents, will be stored in a locked file cabinet at the PI's private residence. Completed instruments with identifying information in the form of unique codes as well as IRB-approved and participant-signed consent documents will be scanned and stored using BOX, which is encrypted and requires dual authentication. All hard copies with identifying information will be destroyed upon completion of the study on or before August 3, 2019. Electronic copies will be maintained via BOX for 3 years after the study ends.

If you have questions or concerns about this study, would like more information about your rights as a research participant, or wish to stop your participation in the study, please contact Elizabeth Kelley Mautz or Dr. Chippewa Thomas at 2084 Haley Center, Auburn University, Auburn, Alabama 36849. Or, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone at (334) 844-5966 or mail at 115 Ramsay Hall, Auburn University, Auburn, Alabama 36849. Self-addressed envelopes for all contacts are also available upon request to the researcher. You will be given a copy of this consent form.

HAVING READ THE INFORMATION PROVIDED, YOUR SIGNATURE INDICATES YOUR WILLINGNESS TO PARTICIPATE.

Participant's signature _____

Date _____

Investigator obtaining consent _____

Date _____

Printed Name _____

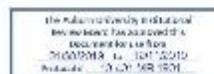
Printed Name _____

Co-Investigator _____

Date _____

Printed Name _____

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APPENDIX B

Alabama Department of Corrections Research Agreement

DEPARTMENT, UNIVERSITY, AND RESEARCHER AGREEMENT

This Agreement is between the Alabama Department of Corrections (hereafter referred to as the "Department"), Auburn University (hereafter referred to as the "University"), and Elizabeth Mautz (hereafter referred to as the "Researcher"), concerning the supervision of the research personnel whose proposal has been accepted by the Department and University.

TERM

This Agreement shall begin on the 21st day of November, 2018, and shall end on the 21st day of June, 2019. This Agreement may be terminated by any party by providing thirty (30) days' notice to the other parties, or immediately by the Department for failing to follow security requirements as provided below.

CONDUCT AND ATTIRE

Research personnel will be subject to the Alabama Statutes pertaining to the Department and basic administrative rules and regulations of the Department. Attire and grooming will adhere to standards set forth in ADOC Administrative Regulation 217. The below signed representative of the Department will ensure all research personnel are apprised and understand the pertinent rules and regulations governing their conduct while working inside the correctional facility. The Department reserves the right to immediately terminate this Agreement and bar the research personnel from any facility for failing to comply with any requirement or policy of the Department.

All visits under this Agreement must be during normal business hours on dates and times as scheduled with, and approved by, the Warden of each facility. Research personnel shall be subject to all security provisions of the Department including, but not limited to, background checks and searches of his or her person or property to include search of personal vehicles. At no time will cell phones, recording equipment, or communication devices of any kind be allowed into the institution without the prior, express permission of the Warden of the institution. Weapons are not allowed on state property. The Department reserves the right, in each institutional Warden's discretion, to deny or prematurely end any visit by the research personnel or to condition any visit in the interests of security.

Pursuant to Alabama Code Section 14-11-31 as well as 28 C.F.R. Part 115, the Prison Rape Elimination Act ("PREA"), any type of sexual contact with or sexual harassment of an inmate in the custody of the ADOC by a contractor of the ADOC who is responsible for the care, control, or supervision of inmates – with or without the consent of the inmate – is illegal. Under Alabama law, it constitutes a felony – custodial sexual misconduct. See also, ADOC Administrative Regulation 454, Inmate Sexual Assault and Harassment Awareness (Prison Rape Elimination Act (PREA)). The ADOC has a Zero Tolerance Policy toward all forms of custodial sexual misconduct, sexual abuse, and sexual harassment. Any type of conduct – including suspected conduct – that falls within the context of custodial sexual misconduct/sexual abuse, as defined by either the state or federal laws referenced above, shall be reported immediately to the Warden of the facility to which that inmate is assigned, or his/her designee.

EXPENSES AND LIABILITIES

All expenses and liabilities are assumed by the research personnel. Research personnel are not agents of the Department or the University, and are not eligible for any privileges or entitlements under the Merit System Act.

Nothing in this Agreement shall be construed to be a waiver of immunity by either the Department or the University. Research personnel agree to indemnify and hold harmless the State of Alabama, the Department, the University, and their officers and employees from and against any and all loss or damage,

including court costs and attorney fees, for liability claimed against or imposed upon the Department or the University because of a bodily injury, death, or property damage, real or personal, including loss of use thereof, arising out of or as a consequence of this Agreement.

It is agreed that the terms and commitments contained herein shall not constitute a debt of the State of Alabama in violation of Article 11, Section 213 of the Constitution of Alabama, 1901, as amended by Amendment Number XXVI. It is further agreed that if any provision of this Agreement shall contravene any statute or constitutional provision or amendment, either now in effect or which may during the course of this Agreement be enacted, then that conflicting provision in the Agreement shall be deemed null and void. All other terms and conditions shall remain in full force and effect. The sole remedy for the settlement of any and all monetary disputes arising under the terms of this Agreement shall be limited to the filing of a claim with the Board of Adjustment for the State of Alabama. For all other disputes arising under the terms of this Agreement, the Parties hereto agree, in compliance with the recommendations of the Governor and Attorney General, when considering settlement of such disputes, to utilize appropriate forms of non-binding alternative dispute resolution including, but not limited to, mediation.

PARTICIPATION

Research personnel will only be expected to perform the research activities described in the approved proposal. Research personnel will not perform any law enforcement or correctional officer duties. Communications with inmates will be limited to the research activities described in the approved proposal. Any other necessary communication with inmates will be through designated Department personnel or under their supervision.

CONFERENCES AND PERFORMANCE APPRAISALS

The Department representative serving to coordinate the research project will complete any necessary paperwork required upon completion of the project.

The University will provide the Department representative with any forms or documents explaining responsibilities relative to this project.

All written reports produced by research personnel are subject to the terms of the Department Regulations governing disclosure of such information. A copy of any report shall be provided to, and will become the property of, the Department.

THE ABOVE IS READ AND AGREED UPON, AND SERVES AS A BASIS FOR THE INTERNSHIP.

s/ <u>[Signature]</u> Dept Representative of ADOC dated: <u>10/25/18</u>	s/ <u>[Signature]</u> Univ. Representative of Auburn University dated: <u>10/26/18</u>	s/ <u>[Signature]</u> Research Personnel of Auburn University dated: <u>10/26/2018</u>
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APPENDIX C

Warden Permission Letter

Alabama Department of Corrections
301 S. Ripley Street
P.O. Box 301501
Montgomery, AL 36130

December 27, 2018

Auburn University Institutional Review Board
c/o Office of Research Compliance
115 Ramsay Hall
Auburn, AL 36849

Please note that Mrs. Elizabeth Kelley Mautz, AU Graduate Student, has the permission of the Alabama Department of Corrections to conduct research at our Birmingham Community Based Facility/Community Work Center for her study, "Coping and Posttraumatic Growth in Incarcerated Women."

Mrs. Mautz will recruit inmates by approaching them prior to the first session of a treatment program entitled "Beyond Trauma: A Healing Journal for Women" to discuss informed consent. Consenting participants will complete a packet containing surveys and one assessment prior to the first session and the same surveys, no assessment following the last session of the treatment program. All completed instruments will be returned to her by sealed envelope at each administration. Our classification office will provide de-identified information regarding potential subjects for use in her research. Mrs. Mautz's on-site research activities, including data collection, are scheduled to occur no earlier than January 14, 2019 and conclude no later than March 1, 2019, one week following the last day of the six-week program. Should this schedule change due to unforeseen circumstances, it is agreed upon by all parties that Mrs. Mautz will consider a different six-week period of the BT program and complete all data collection by June 28, 2019.

Mrs. Mautz has agreed not to enter any unauthorized areas of our buildings or restrooms or interfere with the normal daily flow of activities. Inmates will be allowed time from their duties to complete the surveys and assessment. Mrs. Mautz has also agreed to provide to my office a copy of the Auburn University IRB-approved, stamped consent document before she recruits participants on campus, and will also provide a copy of any aggregate results.

If there are any questions, please contact my office.

Signed, 

Chadwick Crabtree, Warden

Alabama Department of Corrections
301 S. Ripley Street
P.O. Box 301501
Montgomery, AL 36130

December 27, 2018

Auburn University Institutional Review Board
c/o Office of Research Compliance
115 Ramsay Hall
Auburn, AL 36849

Please note that Mrs. Elizabeth Kelley Mautz, AU Graduate Student, has the permission of the Alabama Department of Corrections to conduct research at our Montgomery Women's Facility for her study, "Coping and Posttraumatic Growth in Incarcerated Women."

Mrs. Mautz will recruit inmates by approaching them prior to the first session of a treatment program entitled "Beyond Trauma: A Healing Journal for Women" to discuss informed consent. Consenting participants will complete a packet containing surveys and one assessment prior to the first session and the same surveys, no assessment following the last session of the treatment program. All completed instruments will be returned to her by sealed envelope at each administration. Our classification office will provide de-identified information regarding potential subjects for use in her research. Mrs. Mautz's on-site research activities, including data collection, are scheduled to occur no earlier than January 14, 2019 and conclude no later than March 1, 2019, one week following the last day of the six-week program. Should this schedule change due to unforeseen circumstances, it is agreed upon by all parties that Mrs. Mautz will consider a different six-week period of the BT program and complete all data collection by June 28, 2019.

Mrs. Mautz has agreed not to enter any unauthorized areas of our buildings or restrooms or interfere with the normal daily flow of activities. Inmates will be allowed time from their duties to complete the surveys and assessment. Mrs. Mautz has also agreed to provide to my office a copy of the Auburn University IRB-approved, stamped consent document before she recruits participants on campus, and will also provide a copy of any aggregate results.

If there are any questions, please contact my office.

Signed,



Adrienne Givens, Warden

Alabama Department of Corrections
301 S. Ripley Street
P.O. Box 301501
Montgomery, AL 36130

December 27, 2018

Auburn University Institutional Review Board
c/o Office of Research Compliance
115 Ramsay Hall
Auburn, AL 36849

Please note that Mrs. Elizabeth Kelley Mautz, AU Graduate Student, has the permission of the Alabama Department of Corrections to conduct research at our Julia Tutwiler Prison for Women facility for her study, "Coping and Posttraumatic Growth in Incarcerated Women."

Mrs. Mautz will recruit inmates by approaching them prior to the first session of a treatment program entitled "Beyond Trauma: A Healing Journal for Women" to discuss informed consent. Consenting participants will complete a packet containing surveys and one assessment prior to the first session and the same surveys, no assessment following the last session of the treatment program. All completed instruments will be returned to her by sealed envelope at each administration. Our classification office will provide de-identified information regarding potential subjects for use in her research. Mrs. Mautz's on-site research activities, including data collection, are scheduled to occur no earlier than January 21, 2019 and conclude no later than March 11, 2019, one week following the last day of the six-week program. Should this schedule change due to unforeseen circumstances, it is agreed upon by all parties that Mrs. Mautz will consider a different six-week period of the BT program and complete all data collection by June 28, 2019.

Mrs. Mautz has agreed not to enter any unauthorized areas of our buildings or restrooms or interfere with the normal daily flow of activities. Inmates will be allowed time from their duties to complete the surveys and assessment. Mrs. Mautz has also agreed to provide to my office a copy of the Auburn University IRB-approved, stamped consent document before she recruits participants on campus, and will also provide a copy of any aggregate results.

If there are any questions, please contact my office.

Signed,


Deidra Wright, Warden

APPENDIX D

Eligibility Questionnaire

Eligibility Questionnaire

Please respond to the following questions to determine eligibility for participation in the study entitled: *Coping and Posttraumatic Growth in Incarcerated Women*.

1) Are you 19 years of age or older?

Yes No

2) Have you been selected to participated in programming entitled, *Beyond Trauma: A Healing Journey for Women (BT)*?

Yes No

*If you respond “No” to any of the above questions, we thank you for your consideration, but are unable to use your responses for this study.

APPENDIX E

Informational Letter/Informed Consent Document



DEPARTMENT OF
SPECIAL EDUCATION,
REHABILITATION, AND COUNSELING

NOTE: DO NOT SIGN THIS DOCUMENT UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THE DOCUMENT.

Consent Form

For a Research Study entitled
“Coping and Posttraumatic Growth in Incarcerated Women”

You are invited to participate in a research study to determine if participation in Beyond Trauma: A Healing Journey for Women (BT) impacts coping and posttraumatic growth. The study is being conducted by Elizabeth Kelley Mautz, a doctoral candidate under the direction of Dr. Chippewa Thomas, Ph.D. This research is part of the researcher’s doctoral degree requirements. You are being asked to be part of this study because you are a participant of BT. Participation in this study is restricted to those who are age 19 or older and who have been identified as a participant of BT in a correctional setting.

What will be involved if you participate? If you decide to participate in this research study, you will first be asked to consent by signing this form. Once consent is given, you will be asked to complete a packet of surveys and one assessment before you start BT and the same surveys, no assessment after you finish BT. The surveys and assessments to be used include a brief demographic questionnaire and the following: 1) Post-Traumatic Stress Disorder Checklist – 5, which will ask you to rate problems with stress you have experienced in the past month; 2) Posttraumatic Growth Inventory, which will ask you to rate the change you experienced after a crisis or disaster based on certain items; 3) Meaning of Life Questionnaire, which will ask you to rate statements based on importance; and 4) the Brief COPE subscales, which will ask you to rate ways of coping based on how much you do it. The total time to finish the surveys is about 30 minutes. No information will be used in publications, presentations, or reports to personally identify you.

Are there any risks or discomforts? One risk with participating in this study is the sharing of personal feelings that you might find uncomfortable. If at any time you begin to feel uncomfortable, you may stop your participation in the study with no penalty. If you do experience personal feelings that become uncomfortable, you may be referred to counseling services that are available by contacting the BT program facilitator or appropriate ALDOC personnel. Steps will be taken to keep the study environment as private and confidential as possible. Data will be collected confidentially and kept securely. All informed consent documents, unique codes, and completed materials will be maintained by the principal investigator off-site in a secure location to prevent unauthorized access.

Are there any benefits to yourself or others? There are no direct benefits from participating in this study. Also, participation in the study will in no way impact parole decisions. However, if you participate in this study, you might benefit from talking about the trauma symptoms and an awareness of the manner of coping you have experienced. While we cannot guarantee that you will personally experience benefits from participating in this study, others may benefit in the future from the information we find in this study.

Please Initial _____

2084 Haley Center, Auburn, AL 36849-5222; Telephone: 334-844-7676; Fax: 334-844-7677
www.auburn.edu/serc

Page 1 of 2

APPENDIX F

Beyond Trauma Quality Assurance Assessment Tool (Fidelity Review Instrument)

BEYOND TRAUMA

Quality Assurance Assessment Tool

Name of Reviewer:	Date/Time Scheduled:
Facility:	Start/End Time Observed:
Facilitator(s):	Number of Women Originally Enrolled in Group:
Session Number:	Number of Women Present in Group Observed:

Overview: The following set of questions pertain to qualities that should be seen in any of the sessions held throughout the course of the *Beyond Trauma* program. Many of these questions have been extracted from the fidelity instrument provided by the Center for Gender & Justice (CG&J), and Dr. Stephanie Covington, the author of the *Beyond Trauma* curriculum. Others are questions that appeared to be relevant on the basis of the instructional materials for *Beyond Trauma*. Still other questions were used in fidelity instruments constructed by Dr. Patricia Van Voorhis and tested in other group treatment settings. These items tap widely agreed upon best practices for group process. The present tool may be used to evaluate any session of the program, except for the first session. A more rigorous alternative would involve use of this tool to evaluate two or three different sessions throughout the program. Prior to completing the following items, the evaluator must refer to and be familiar with the manual pertinent to the session being evaluated. Some items may also require discussion with the facilitator either before or after the session.

Additional Guidelines:

Definition of Responses: Not evident: The skill/content is not observed. Sometimes evident: The skill/content is sometimes observed but many important opportunities to use the skill/content are missed. Consistently evident: Few opportunities to use the skill/content are missed.

Please mark the appropriate response for each item.

Section A: Core Group Structure Questions	Yes	No
1. Were you (the evaluator) trained in <i>Beyond Trauma</i> ?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
2. Was the room arranged with chairs in a circle?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
3. Did the room provide sufficient space to hold these sessions and to conduct the group exercises planned for this session?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
4. Was the room free from loud, interfering noises (e.g., not close to noisy doors, and loud corridor noises)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
5. Did the session begin and end on time?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
6. Was the session two hours in duration?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
7. Were any group members more than 5 minutes late for the session?*	<input type="checkbox"/> (0)	<input type="checkbox"/> (1)
8. Was the temperature of the room reasonably comfortable?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
9. Did all members receive the materials planned for the session?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
10. Does the facilitator(s) indicate that he/she had the cooperation of administrators in his/her efforts to lead the program (e.g., scheduling, securing materials, communication, inmate movement, etc.)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
11. Does the facilitator(s) indicate that he/she has the cooperation of correctional officers in his/her efforts to lead the program (e.g., inmate movement, noise control, free from interruptions, etc.)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
12. Was the group held to the appropriate size—6-10 members. If not, was the group structured to allow the large group to break into smaller sections (no more than 6 women) during group activities or discussion? Credit should not be given if large groups do not have a 1:6-10 ratio of facilitators to participants.*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
13. Was the group a closed group (i.e., did all members begin with session 1)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
14. Did the facilitator(s) receive the training required for <i>Beyond Trauma</i> ?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
15. Is the facilitator(s) current with all treatment-related training requirements (e.g., booster trainings, gender-responsive strategies, evidence-based practices)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
16. Were admissions to the program assessment-based (e.g., did selection require a certain score on the WRNA or other assessment)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
17. Did all group members appear to have the capacity to participate (e.g., selection screened out individuals with developmental disabilities or mental health issues which interfered with the capacity to participate)?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)

	Yes	No
18. Will participants be afforded an opportunity to evaluate the program.*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
19. Do at least 85% of the participants complete the program? [Note: Refer to the most recent group.]*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
20. Will participants receive certificates of program completion?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
21. Are there provisions for continuity of care?*	<input type="checkbox"/> (1)	<input type="checkbox"/> (0)
TOTAL SECTION A	/	

Section B: Core Group Facilitator Skills		
22. The facilitator(s) encouraged mutual respect, compassion, and connection among group participants.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
23. The facilitator(s) delivered the material to participants in a clear and understandable way.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
24. The facilitator(s) was positive, non-judgmental and supportive.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
25. The facilitator(s) checked in to assure that group members understood the content of each session.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
26. The facilitator(s) encouraged and reinforced group members for their participation.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
27. The facilitator(s) ensured that rules and boundaries were upheld.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
28. The facilitator(s) demonstrated cultural sensitivity to group members (including race, class, religious differences, sexual orientation, disability, culture and ethnicity).		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)

29. The facilitator(s) assured that all group members had a chance to participate or ask questions. For example, the facilitator(s) dealt with members who dominated group discussions, allowed members to finish what they wanted to express, looked for appropriate opportunities to include less talkative members, etc.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
30. The facilitator(s) allowed group members to pass when they felt uncomfortable participating.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
31. The facilitator(s) appropriately managed group conflicts, if present.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
32. The facilitator(s) kept his or her personal self-disclosures to a minimum.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
33. The facilitator(s) demonstrated clear boundaries with participants.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
34. The facilitator(s) helped members to focus on their personal strengths.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
35. The facilitator(s) created an emotionally safe environment.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
36. Group members had good rapport with each other.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
TOTAL SECTION B		/

Section C: Session Content (The evaluator must review the manual for the present session prior to completing this session).		
37. The facilitator(s) incorporated gender issues where appropriate.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)

38. The facilitator(s) incorporated relationship issues where appropriate.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
39. The facilitator(s) followed manual guidelines for opening each session (e.g., introductions, review of journals, check ins, review of session goals, etc.).#		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
40. The facilitator(s) provided quiet time at the beginning of the session.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
41. The facilitator(s) demonstrated familiarity with the content of the session.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
42. The facilitator(s) followed the manual for the session without reading manual dialogue.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
43. The facilitator(s) completed all of the activities intended for the session.#		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
44. The facilitator(s) drew connections between earlier sessions and the present session.#		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
45. The facilitator(s) connected the session content to the overall goals of the program.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
46. The facilitator(s) relied on the program materials and did not supplement the session with additional materials not designed for use in this particular program.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
47. The facilitator(s) followed manual guidelines for closing the session (e.g. reviewed assignments, explained assignments, reviewed the day's discussion, thanked participants, etc.).#		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
48. Participants evidenced an understanding of the meaning of trauma.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)

49. Participants evidenced an understanding of the connection between traumatic experiences and feelings and other adverse outcomes.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
50. Participants recognized the qualities of healthy relationships.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
51. Participants recognized the importance of calming exercises and coping skills to helping them deal with the effects of trauma.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
52. Participants were afforded opportunities to learn about the socio-cultural context of trauma.#		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
53. Participants have selected a support person to provide support between sessions.		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
54. Participants have received guidance in how to secure the support of an ADOC mental health professional or other resources for emergency assistance needed between sessions.*		
<input type="checkbox"/> Not evident (0)	<input type="checkbox"/> Sometimes evident (3)	<input type="checkbox"/> Consistently evident (5)
TOTAL SECTION C		/

* Refers to an item that supplements questions that appear in the CG&J Fidelity tool.

Refers to an item that revises a CG&J item.

	POINTS	PERCENTAGE
Section A	/	
Section B	/	
Section C	/	
TOTAL ASSESSMENT SCORE	/	

APPENDIX G

Demographic Questionnaire

Today's Date: _____ / _____ / _____
Month Day Year

Please indicate your sex/gender:

- Male
- Female
- Other (please indicate): _____

Please indicate your age: _____

What is the highest grade in school that you completed?

- Some high school
- Completed high school or GED
- Vocational, technical, trade, or business school beyond the high school level
- Some college, but no degree
- Associate degree
- Bachelor's degree
- Some graduate school
- Master's degree
- Doctorate degree

Which racial/ethnic group best describes you?

- American Indian or Alaskan Native – Specify _____
- Asian – Specify _____ (e.g., Chinese, Korean, Indian)
- Black or African American
- Hispanic or Latino/a – Specify _____ (e.g. Mexican, Cuban)
- Native Hawaiian or Pacific Islander
- White or Caucasian
- Other – Specify _____
- More than one race – Specify _____

What is your marital status?

- Married or living with partner
- Single- never married
- Divorced- not remarried
- Widowed- not remarried

Please indicate your religious-cultural background: _____

Do you receive regular support from the chaplain at this facility?

- Yes
- No

Have you ever received counseling or participated in therapy?

- Yes

- No
- Unsure

Please indicate the number of times you have been incarcerated: _____

Please indicate the nature of your current offense: _____

Please indicate the amount of time you have been incarcerated for your current offense: _____

Please indicate other treatment programs you have received from this facility:

Did you experience trauma as a child?

- Yes
- No

APPENDIX H

PTSD Checklist for the DSM-5 (PCL-5)

PCL-5

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being "superalert" or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

APPENDIX I

Posttraumatic Growth Inventory (PTG-I)

Post Traumatic Growth Inventory

Client Name: _____ Today's Date: _____

Indicate for each of the statements below the degree to which this change occurred in your life as a result of the crisis/disaster, using the following scale.

- 0 = I did not experience this change as a result of my crisis.*
- 1 = I experienced this change to a very small degree as a result of my crisis.*
- 2 = I experienced this change to a small degree as a result of my crisis.*
- 3 = I experienced this change to a moderate degree as a result of my crisis.*
- 4 = I experienced this change to a great degree as a result of my crisis.*
- 5 = I experienced this change to a very great degree as a result of my crisis.*

Possible Areas of Growth and Change	0	1	2	3	4	5
1. I changed my priorities about what is important in life.						
2. I have a greater appreciation for the value of my own life.						
3. I developed new interests.						
4. I have a greater feeling of self-reliance.						
5. I have a better understanding of spiritual matters.						
6. I more clearly see that I can count on people in times of trouble.						
7. I established a new path for my life.						
8. I have a greater sense of closeness with others.						
9. I am more willing to express my emotions.						
10. I know better that I can handle difficulties.						
11. I am able to do better things with my life.						
12. I am better able to accept the way things work out.						
13. I can better appreciate each day.						
14. New opportunities are available which wouldn't have been otherwise.						
15. I have more compassion for others.						
16. I put more effort into my relationships.						
17. I am more likely to try to change things which need changing.						
18. I have a stronger religious faith.						
19. I discovered that I'm stronger than I thought I was.						
20. I learned a great deal about how wonderful people are.						
21. I better accept needing others.						

APPENDIX J

The Meaning in Life Questionnaire (MLQ)

The Meaning in Life Questionnaire (MLQ) is a 10-item self-report inventory designed to measure life meaning. A main focus of logotherapy is the discovery of life meaning. Along these lines, logotherapy posits that: (1) there is meaning in life, (2) people are motivated by the Will to Meaning, and (3) people are free to find their own meaning.

Scale

Please take a moment to think about what makes your life and existence feel important and significant to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong answers. Please answer according to the scale below:

Absolutely Untrue 1	Mostly Untrue 2	Somewhat Untrue 3	Can't Say True or False 4	Somewhat True 5	Mostly True 6	Absolutely True 7
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- ____ 1. I understand my life's meaning.
- ____ 2. I am looking for something that makes my life feel meaningful.
- ____ 3. I am always looking to find my life's purpose.
- ____ 4. My life has a clear sense of purpose.
- ____ 5. I have a good sense of what makes my life meaningful.
- ____ 6. I have discovered a satisfying life purpose.
- ____ 7. I am always searching for something that makes my life feel significant.
- ____ 8. I am seeking a purpose or mission for my life.
- ____ 9. My life has no clear purpose.
- ____ 10. I am searching for meaning in my life.

APPENDIX K
Brief COPE Subscales

Brief COPE

These items deal with ways you've been coping with the stress in your life. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can. Please mark your answer in the space given after each statement.

- 1 = I haven't been doing this at all
- 2 = I've been doing this a little bit
- 3 = I've been doing this a medium amount
- 4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things. ____
2. I've been concentrating my efforts on doing something about the situation I'm in. ____
3. I've been saying to myself "this isn't real.". ____
4. I've been using alcohol or other drugs to make myself feel better. ____
5. I've been getting emotional support from others. ____
6. I've been giving up trying to deal with it. ____
7. I've been taking action to try to make the situation better. ____
8. I've been refusing to believe that it has happened. ____
9. I've been saying things to let my unpleasant feelings escape. ____
10. I've been getting help and advice from other people. ____
11. I've been using alcohol or other drugs to help me get through it. ____
12. I've been trying to see it in a different light, to make it seem more positive. ____
13. I've been criticizing myself. ____
14. I've been trying to come up with a strategy about what to do. ____
15. I've been getting comfort and understanding from someone. ____
16. I've been giving up the attempt to cope. ____
17. I've been looking for something good in what is happening. ____
18. I've been making jokes about it. ____
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping. ____
20. I've been accepting the reality of the fact that it has happened. ____
21. I've been expressing my negative feelings. ____
22. I've been trying to find comfort in my religion or spiritual beliefs. ____
23. I've been trying to get advice or help from other people about what to do. ____
24. I've been learning to live with it. ____
25. I've been thinking hard about what steps to take. ____
26. I've been blaming myself for things that happened. ____
27. I've been praying or meditating. ____
28. I've been making fun of the situation. ____