COMORBID ANTISOCIAL PERSONALITY DISORDER AND SUBSTANCE USE DISORDER TREATMENT EFFICACY

By

David Vincent Smith

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements of the Degree

Doctor of Education

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APPROVED BY:

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ABSTRACT

Antisocial personality disorder is characterized by failure to conform to social norms, deceitfulness, impulsivity, irritability, and aggression. Individuals diagnosed with antisocial personality disorder demonstrate a constellation of problematic and dangerous behavioral traits including, a reckless disregard for the safety of self and others, thrill seeking, and a lack of remorse and guilt. Comorbid antisocial personality disorder and substance use disorder is highly prevalent and a significant source of financial and emotional burden due to the strong correlation between severe and violent crimes. The purpose of this qualitative single subject design study is to describe treatment efficacy for comorbid antisocial personality disorder and substance use disorder for George (pseudonym) at Central Kentucky Community Action Counsel (pseudonym). The theory guiding this study is cognitive behavioral therapy developed by Aaron Beck integrated with chromis violence reduction program developed by the National Offender Management Service. Data was collected using the Novaco Anger Scale (NAS) and the Test of Self-Conscious Affect (TOSCA-3). The finding of this study indicate that CBT integrated with CVRP can be an effective therapeutic intervention to reduce anger and aggression while increasing shame and guilt. The skills and techniques used in the study were able to help the participant change his thought process and behavioral patterns to a more adaptive and functional pattern of interacting with self and others.

Keywords: Cognitive Behavioral Therapy, Chromis Violence Reduction Program

Dedication

I would like to dedicate this book to my Lord and Savior Jesus Christ, wife Ruthann and sister Pearl. Without your love, encouragement, and guidance this body of work may not have been possible. Thank you for loving me through the sleepless nights, caffeine induced mania, and moments of self-doubt. Ruthann you are my hero, and I will always be grateful for our life together.

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I would like to acknowledge the faculty and staff of Liberty University. Thank you for your patients and guidance through the years. Thank you for helping me reach my dream and grow as a person and professional.

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List of Abbreviations

Antisocial Personality Disorder (ASPD)

Cognitive Behavioral Therapy (CBT)

Chromis Violence Reduction Program (CVRP)

Substance Use Disorder (SUD)

Impulse Lifestyle Counseling (ILC)

Motivational Interviewing (MI)

Schema Focused Therapy (SFT)

Mentalization Based Therapy (MBT)

Structured Clinical Management (SCM)

Attachment Based Therapy (ABT)

Multidimensional Family Therapy (MDFT)

Anterior Cingulate Cortex (ACC)

Monoamine Oxidase A (MAOA)

Borderline Personality Disorder (BPD)

Personality Disorder (PD)

Metacognitive Interpersonal Therapy (MIT)

Motivational Enhancement Training (MET)

Transference-Focused Psychotherapy (TFP)

Central Kentucky Community Action (CKCA)

Novaco Anger Scale (NAS)

Test of Self-Conscious Affect (TOSCA-3)

Participant (Pt)

CHAPTER ONE: INTRODUCTION

The purpose of this study is to explore treatment efficacy for an individual diagnosed with comorbid antisocial personality disorder and substance use disorder. Cognitive behavioral therapy was be integrated with the chromis violence reduction program to remediate the core features of antisocial personality disorder. Antisocial personality disorder is highly correlated with substance abuse. Many of the participants in substance abuse treatment programs also meet diagnostic criteria for antisocial personality disorder. Antisocial personality disorder is rare in the general public and makes up a small percentage of the population. Within the criminal justice system individuals diagnosed with antisocial personality disorder is exceedingly common with a prevalence rate of fifty percent or higher. Antisocial personality disorder is a complex disorder with traits that are characterized by a disregard for right and wrong, habitual lying, deceitfulness, manipulation, criminal behavior, impulsiveness, and a lack of guilt and remorse (American Psychiatric Association, 2013). There are several theories that indicate antisocial personality disorder has a biological, social, environmental, and/or psychological connection. Antisocial personality disorder also has a genetic component that has been linked to early onset behavioral problems. Individuals with a history of criminal behavior prior to age 15 may be diagnosed with antisocial personality disorder. Forsman, Lichtenstien, Andershed, and Larsson (2010) found that psychopathic personality traits in mid-adolescence are a precursor of possible antisocial behavior in early adulthood. The researchers indicated there is a connection between adolescent behavior problems and adult antisocial personality disorder. The research also indicated that individuals with antisocial personality disorder may have had a previous diagnosis of conduct disorder in childhood. Children who exhibit behaviors such as setting fires, torturing animals, and bed wetting have triad symptoms common in individuals diagnosed with ASPD. It

is believed that other factors that occur during childhood such as trauma, abuse, insecure attachment, loss or abandonment of parents, and low arousal levels contribute to the development of ASPD. Antisocial personality disorder is highly correlated with substance abuse and dependence. Individuals diagnosed with substance use disorder have problems with impulse control and struggle to complete substance abuse treatment without assistance with their personality disorder. Substance abuse tends to exaggerate the symptoms of antisocial personality disorder leading to a greater disconnect and isolation from society. Dually diagnosed individuals lack the ability to respect the well-being of themselves and others leading them to ignore or overlook the negative effects of substance abuse. Individuals with comorbid ASPD and substance abuse present with a more severe clinical profile compared to individuals with a stand-alone substance use disorder. Dually diagnosed individuals tend to have poorer physical health, more severe substance use, increased risk of homelessness, poorer social and occupational functioning, and greater difficulties in interpersonal and family relationships (Kingston, et. al.2017).

Background

Historical Context: Antisocial personality disorder is characterized by pervasive patterns of failure to conform to social norms, respect others, conform to laws, and maintain interpersonal relationships. Those diagnosed with ASPD tend to be socially irresponsible, exploitative, lack guilt and remorse, manipulate others for personal gain, and engage in violent behavior. Antisocial behavior patterns tend to develop in middle childhood and progress as the individual ages. Diagnostic criteria for ASPD require a history of antisocial behavior and a diagnosis of conduct disorder. Typically, a child who reaches the age of 18 without remediation of the core features of conduct disorder can be re-diagnosed with ASPD. Antisocial personality

disorder is rare in the general public and makes up between 2 and 3 percent of the population. In the criminal justice population, it is exceedingly common, with a prevalence rate of about 50% (Hatchett, 2015). ASPD is highly correlated with co-occurring substance use disorder, major depression, sexual disorders, and anxiety. The modern diagnosis of ASPD can be traced back to the early 19th century and has always been closely linked with modern societal attitudes towards criminal justice (Ogloff, et. al, 2016). In the early 1800s clinicians attempted to understand criminals whose offences were so abhorrent that they were thought to be insane, yet their clinical presentations were not consistent with recognized mental syndromes (Ogloff et al., 2016). Over the past two decades much research has been conducted regarding the etiology of ASPD. The primary focus has been on identifying environmental risk factors however, there has been an increasing number of studies that have taken into consideration the genetic and biological influences and their interaction with the environment. Even though these studies have been successful in identifying the biological and environmental indicators of ASPD they have been less successful in isolating these factors as either biological or environmental (LaBrode, 2007). This is due to an inability to control the interactions between the two variables. Another factor hindering research is the failure to make an accurate distinction between psychopathy and ASPD. Although encompassing antisocial behavior, what distinguishes psychopathy from antisocial personality disorder is poverty of empathic responding and shallow affect (Ogloff et al., 2016). Some experts have maintained a clear distinction between psychopathy and related personality disorders such as antisocial personality disorder. In contrast, others have used a variety of labels to refer to the same personality concept and even argue that despite distinctions psychopathic and antisocial personality disorder can be regarded as a description of the same condition. The research findings have consistently identified risk factors for both psychopathy and ASPD but

have failed to examine the heterogeneity among the behavioral, historical, and personality traits common among those within this population. Research dedicated to identifying risk factors for ASPD have been primarily conducted to predict individuals at risk of committing aggressive and violent offenses so an effective intervention and treatment program can be created to reduce criminal behavior. When a comorbid diagnosis of ASPD and substance abuse is identified treatment, efficacy becomes more challenging.

The impact of America's non-therapeutic drug use during the 1960's is a well-documented part of American social history. According to Sparrow (2014) younger and more hedonistic than their predecessors, in terms of their acquisition, possession and use of substances, this group was more likely to come into conflict with law enforcement than ever before. By the mid-to-late 1960's both recreational drug users and those experiencing problems with their drug use were beginning to make their presence known to law enforcement and the greater society. Official data confirms that between 1958 and 1968 the number of known addicts had risen dramatically from 442 to 2782 (Sparrow, 2014). During this same time period the number of drug users appearing before the criminal courts had also begun to escalate. Despite the negative social condemnation of drug use there was some indication that for a small number of substance abusers there was a discernible link between drug abuse and criminality (Sparrow, 2014). Individuals in treatment for substance abuse commonly have comorbid personality disorders, including antisocial personality disorder. To date little is known about treatments that specifically address comorbid antisocial personality disorder (Thylstrup et al., 2017). Mental health problems and drug use are correlated with lower quality of life for clients and may also interfere with treatment and/or social rehabilitation. The enduring pattern of deceitfulness, impulsivity, and lack of remorse that permeate dual diagnosed clients is a formattable challenge

for clinicians. This leads many clinicians to conclude that dually diagnosed psychopathic substance abusers are "untreatable." However, this pessimistic stance is predicated upon the notion that psychopathy is a homogeneous, categorical construct (Gudonis et al., 2009). These conclusions leave little hope for treating substance abuse problems in clients with ASPD and has certainly diminished efforts at developing effective treatment interventions. Improving clinical knowledge about how substance abusers with comorbid antisocial personality disorder experience treatment is highly relevant. The prevalence of comorbid substance use disorder and antisocial personality disorder is estimated to be forty percent in clients with a substance use disorder and eighteen percent in clients with an alcohol use disorder compared to less than four percent in the general public (Gudonis et al., 2009). The need for interventions that target antisocial behavior and substance abuse is driving research that supports users in working with his/her personality and adjusting their characteristic adaptations and stories about themselves. The literature review presents treatment guidelines for counselors who work with clients diagnosed with antisocial personality disorder and substance abuse. The research addresses the gap between treatment efficacy and clinical utility in treating the characteristics of antisocial personality disorder or reducing criminal behaviors. The research identifies guidelines and two common treatment objectives: (1) treatment of comorbid substance use disorders, and (2) remediation of core antisocial traits or reducing recidivism (Thylstrup et al., 2017).

Social Context: Antisocial personality disorder is a personality construct that is characterized by a callous lack of empathy, interpersonal manipulation, thrill-seeking, and criminal tendencies (Mahmut, et. al., 2016). Most of the research has been conducted within the penal system using male inmates. The research has centered around unraveling the neuropsychological, psychological, and cognitive characteristics in comparison to non-

psychopaths. In contrast, relatively few studies have investigated the characteristics of community-dwelling samples of psychopaths (Mahmut, et. al., 2016). This is vital to understanding the social context of antisocial personality disorder because of the myriad of crimes committed within society. The nefarious acts committed by psychopaths underscores the importance of understanding their real-world behaviors (Mahmut, et. al., 2016). To date, there is little evidence to support cultural difference in ASPD. The features of ASPD can be identified in individuals cross-culturally, with most correlates of ASPD appearing to be relatively stable across different cultures. Individuals diagnosed with ASPD appear to be less affected by characteristics of social relationships that are sustained within social structures. Despite the empirical and theoretical research less is known about the processes and structure of social relationships regarding ASPD. Psychopathic individuals tend to approach social interactions from an egocentric position and are more prone to experience negative emotions versus positive emotions in social situations.

Theoretical Context: Historically, those diagnosed with ASPD are hard to treat due to their use of deception, manipulation, and conning to get what they want. Even the most seasoned therapist can be deceived by the charm and sincerity of a client with this disorder. Oftentimes these clients fail to show up for session, complete therapy, or take an active part in therapy. It is for this reason this research study faced many challenges. The one participant selected for this study has shown an interest in overcoming his anger and aggression in the hope of having a more rewarding and fulfilling marriage. Skeem, Polaschek, Patrick, and Lilienfeld (2011) remarked, "An increasing number of studies suggest that psychopathic individuals are not uniquely 'hopeless' cases who should be disqualified from treatment, but instead are general 'high-risk' cases who need to be targeted for intensive treatment to maximize public safety. Yet,

even in these studies participants with comorbid ASPD usually benefited to some extent from treatment, though the improvements were not as large as for those without ASPD diagnoses (Hatchett, 2015). Treating those with ASPD is predicated upon each client's particular situation, recognition there is a problem, willingness to change, and the severity of symptoms. This has motivated the researcher to provide intensive, bi-weekly sessions throughout the study to keep the participant engaged in the process. The researcher helped the participant become invested in therapy by utilizing participant decision-making to increase his performance and attendance. The researcher enhanced the participant's motivation by assessing the participant's motivation during sessions and using motivational interviewing skills as needed. The researcher helped the participant increase his hope that treatment will provide the change he seeks trough encouragement and motivation. This increased the likelihood the participant would continue sessions and complete the 12 sessions required for this study. The researcher kept progress notes from each session and provided feedback to the participant to reduce the possibility of dropout from the study. Lastly, the researcher built a therapeutic alliance with the participant by being caring, empathetic, accepting, non-judgmental, and solution focused. These steps have been incorporated into this research study to minimize dropout and maximize treatment efficacy.

Cognitive behavioral therapy was integrated with chromis violence reduction to help the participant decrease his overall intensity and frequency of anger and aggression by learning effective coping skills to resolve conflicts. The participant was asked to keep a journal and log circumstance of anger and/or aggression. The researcher shared with the participant that anger is a process that cycles between an experience of pain (psychical or emotional) and trigger thoughts that blame others for their pain, which leads to anger and/or aggression. The researcher had the participant discuss his cycle of anger and self-perpetuating triggers by sharing his experiences

with the cycle. The researcher incorporated deep muscle relaxation and safe place visualization to promote calm and relaxation. The researcher used the Ellis ABC model of how thoughts lead to emotions. A- is the activating event, B- is the belief or interpretation, C-is the consequences or emotions (Jongsma & Paleg, 2015). This helped the participant identify common triggers that lead to anger and/or aggression. The researcher helped the participant learn to replace negative self-talk with positive self-talk in low anger situations and gradually transition to high anger situations. As the participant became aware of his positive and negative thoughts and feelings and accepted them it increased his ability to accept others. The researcher monitored the effects of positive self-talk and coping skills in the participant's journal noting changes in the frequency, intensity, or duration of anger. The researcher focused on trigger words and situations that the participant considers difficult to cope with and helped him develop appropriate responses. The researcher helped the participant verbalize his needs assertively versus aggressively. This enabled the participant to develop appropriate need and want statements that emphasize positive reinforcing behaviors that reduce anger and aggression. Empathy skills development exercises were incorporated into sessions to promote relationship building and self-awareness. Techniques such as active listening, exploring differences, mindfulness and meditation worked in conjunction with anger and aggression reduction to promote increased empathy. Ziff, Ivers, and Hutton (2017) proposed exercises that emphasize the development of affective and cognitive empathy could help individuals become more in-tune with their emotions and, in turn, more aware of their emotional states. The researcher believes this approach did decrease anger and aggression while increasing empathy for self and others. The Novaco anger scale and TOSCA-3 show a decrease in anger and aggression across both the pretest and posttest.

Problem Statement

A problem might be defined as the issue that exists in the literature, theory, or practice that leads to a need for the study (Creswell, 2009). A problem statement summarizes the context for the study and the main problem the researcher seeks to address (Fleet, et. al.2016). Individuals with comorbid antisocial personality disorder and substance use disorder experience difficulty with persistent irresponsibility, impulsivity, criminal behavior, and aggression. They lack remorse, guilt, and empathy leading to a disregard for the harm inflicted on others. Their inability to conform to social norms and experience healthy interpersonal relationships leads to isolation and alienation from mainstream society.

Individuals with ASPD are more likely to come in contact with law enforcement and the criminal justice system due to their inability to control the destructive nature of the disorder. The lying, deceitfulness, and criminal activity they engage in hinders their ability to maintain gainful employment. The social and behavioral difficulties they experience tend to lead to disturbances in significant areas of their lives leading to an impairment on the quality of life. The prevalence of comorbid ASPD and SUD is estimated to be 40% in individuals with a drug use disorder and 18% with individuals with an alcohol use disorder compared to less than 4% in the general population (Thylstrup, 2015). As a rule, those with ASPD and SUD do not perceive a need for treatment for their personality disorder, so they refrain from treatment and the treatment that does take place mostly happens during incarceration (Thylstrup, et. al., 2015). Those who do engage in treatment are hinder by the counter productive and challenging nature of their personality disorder. This leads many to be excluded from treatment services or they drop out. Recent programs support an increase in treatment efficacy regarding response and effect for this group but there is still a need improve the clinical understanding of how they experience treatment.

Purpose Statement

The purpose of this qualitative study was to examine the effectiveness of cognitive behavioral therapy integrated with chromis violence reduction program at reducing anger and aggression while increasing guilt and empathy. This study examined the impact of CBT on the development of enhancing self-beliefs and, attitude towards self and others. Skills development was used to change thinking patterns and behaviors that lead to difficulties. The finding of this study provide insight to treatment efficacy and its impact on remediating aggression and anger. A reduction in antisocial personality disorder traits provide individuals with a more rewarding life experience, thus leading to less predatory behavior.

Significance of the Study

The rationale for studying how individuals experience treatment is considerable. Of major concern is identifying topics and processes that may not have been previously identified or addressed. Studying how treatment efficacy impacts those diagnosed with comorbid ASPD and SUD can be of great importance for guiding and improving clinical practice. This approach can give clinicians in community settings new skills to improve client outcomes.

Research Question

Can an integration of cognitive behavioral therapy and chromis violence reduction program reduce anger and aggression while increasing guilt and empathy for those diagnosed with ASPD and SUD.

Summary

Individuals with antisocial personality disorder experience difficulty with persistent irresponsibility, impulsivity, criminal behavior, and aggression. These individuals lack remorse, guilt, and empathy leading to a disregard for the harm inflicted on others. Their inability to conform to social norms and respect lawful behavior is highlighted by their deceitfulness, lying, manipulation of others, recklessness, and irresponsibility. The essential features of antisocial personality disorder are a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescences and continues into adulthood (American Psychiatric Association, 2013). The purpose of this study was to examine the effectiveness of cognitive behavioral therapy integrated with chromis violence reduction program at reducing anger and aggression while increasing guilt and empathy.

CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review presents treatment guidelines for counselors working with clients diagnosed with comorbid antisocial personality disorder and substance use disorder. The research addresses the gap between treatment efficacy and clinical utility in treating the characteristics of antisocial personality disorder or reducing criminal behaviors. The research identifies guidelines and two common treatment objectives: (1) treatment of comorbid substance use disorders, and (2) remediation of core antisocial traits or reducing recidivism. The research findings indicate individuals with ASPD do not benefit as much from substance abuse treatment as those without ASPD. In contrast, the literature revealed that psychosocial treatments lack both treatment efficacy and clinical utility in reducing or eliminating the core characteristics of antisocial or criminal behavior. However, a strong case can be made for guidelines in which substance abuse treatment is recommended for clients with ASPD. This research provides the

counseling field with strong evidence of treatment efficacy in the comorbid treatment of ASPD and substance abuse. There is also a significant body of research to support the clinical utility of substance abuse treatment for clients with ASPD.

Theoretical Framework

Theorist have explored the value of adding different perspectives when working with substance abusers diagnosed with comorbid ASPD and how they experience participation in treatment interventions for ASPD. From a cognitive perspective antisocial personality disorder is maintained through maladaptive beliefs and irrational thoughts about self and others. This includes contextual and environmental factors that encourage or reinforce disturbing behavior while supporting deficits in emotional skills and adaptive reasoning. The techniques employed are centered around behavior modification that target pervasive impairment while supporting the change process. Aaron Beck the pioneer of CBT believed that challenging an individual's irrational thoughts and replacing them with healthier and more functional thoughts would have a positive impact on their overall functioning. Aaron Beck theorized that negative thoughts lead to increases in symptomology related to personality disorders. According to this theory, each personality disorder has a characteristic set of dysfunctional beliefs. The behavior patterns of the different personality disorders are viewed as overt manifestations of the underlying cognitive structures (Bhar, et. al., 2012). The theory concludes that thoughts, feelings, and actions are linked and become a cycle. Breaking the cycle is achieved by changing the thoughts before working to change the behaviors. Aaron Beck a CBT theorist believed that if an individual is working on correcting their dysfunctional thoughts, they would come to realize that their feelings and behaviors would change accordingly. Dysfunctional beliefs form the central component of cognitive case conceptualizations and are prime targets for intervention. When correctly

identified, key dysfunctional beliefs reflect one or more conceptual themes that link a patient's developmental history, compensatory strategies, and dysfunctional reactions to current situations (Beck, 1998). Anger and aggression are among the most common features of ASPD. Anger and aggression are negative affect states that include physiological arousal that increase aggressive behavior towards others. Improving anger management skills through coping skills and emotion regulation is central the CBT approach. Anger and aggression are addressed by identifying the consequences and antecedents of violent behavior, learning strategies that target regulation of anger, problem solving, and practicing socially acceptable behaviors that replace anger and aggression. This study will expand previous research by addressing anger and aggression while simultaneously targeting guilt and empathy.

Chromis violence reduction program was accredited by the Correction Services Accreditation Panel in 2005 as an intervention designed to reduce violence in offenders whose level or combination of psychopathic traits disrupts their ability to engage in treatment and change (Tew, et. al., 2012). The program is the result of over 5 years of research and was development by the National Offender Management Service who worked with experts in the field of psychopathy to develop treatment guidelines and intervention strategies. This theory is based on the change process stating that "an individual's response to a situation is based on learned expectations about behavior they chose and is affected by their thinking patterns, attitudes, and schema which may make violence a preferred option" (Tew, et. al., 2012). The model addresses skills deficits in psychopathic individuals which are linked to violence. These include cognitive flexibility, problem solving, impulse control, reasoning, and emotion regulation. Other factors linked to violence are incorporated into the program to reduce criminality such as irresponsible sensation seeking, poor relationships, and criminal peers. The

objective of CVRP is to motivate participants to learn new skills that will give them more control over their lives and achieve their goals without using violence (Atkinson, & Tew, 2012). CVRP helps participants identify what they care most about and then focuses treatment goals on achieving the goals pro-socially. CVRP uses cognitive skills components to give participants a chance to learn and develop skills related to their thinking skills, problem solving, and interpersonal skills. Schema Therapy for personality disorders is incorporated to reduce violence and other harmful behaviors by using a formulation-based method to explore the development and maintenance of unhelpful schema, beliefs, and consequent behaviors. Schema therapy consists of three phases; formulation, change and generalization practice, and maintenance (Atkinson, & Tew, 2012). CVRP is based on a set of core principles which underpin the assessment, treatment, and progression strategy of the program from beginning to end (Atkinson, & Tew, 2012).

Related Literature

Individuals in treatment for substance abuse commonly have comorbid personality disorders, including antisocial personality disorder. To date, little is known about treatments that specifically address comorbid antisocial personality disorder (Thylstrup et al., 2017). Mental health problems and drug use are highly correlated with lower quality of life for clients and may also interfere with treatment and/or social rehabilitation. This literature review presents treatment guidelines for counselors who work with clients diagnosed with antisocial personality disorder and substance abuse. The research addresses the gap between treatment efficacy and clinical utility in treating the characteristics of antisocial personality disorder or reducing criminal behaviors. The research identifies guidelines and two common treatment objectives: (1) treatment of comorbid substance use disorders, and (2) remediation of core antisocial traits or

reducing recidivism (Thylstrup et al., 2017). The authors (Thylstrup, et. al., 2017) have hypothesized that substance abuse treatment should be recommended for clients with ASPD because such treatments have shown to possess adequate treatment efficacy. The research findings indicate that individuals with ASPD do not benefit as much from substance abuse treatment as those without ASPD. In contrast, the literature revealed that psychosocial treatments lack both treatment efficacy and clinical utility in reducing or eliminating the core characteristics of antisocial or criminal behavior. However, a strong case can be made for guidelines in which substance abuse treatment is recommended for clients with ASPD (Hatchett, 2015, p.15). It is vital for the counseling profession to research and develop techniques that are effective at treating a comorbid diagnosis of ASPD and substance abuse. Persistent antisocial behavior has a tremendous impact on society in terms of cost and the number of victims (Hatchett, 2015, p.15). Antisocial personality disorder is rare in the general public and makes up between 2 and 3 percent of the population. In the criminal justice population, it is exceedingly common, with a prevalence rate of about 50% (Hatchett, 2015, p.16). It is for this reason clinical counselors in both the mental health and addiction field should have adequate training in treating a comorbid diagnosis of ASPD and substance abuse. Counselors who treat substance abuse regardless of setting, are likely to encounter many clients who also meet the ASPD diagnostic criteria (Hatchett, 2015, p.21). Clinical mental health counselors have a duty and ethical responsibility to provide clients with counseling techniques that offer a realistic chance of success.

This research provides the counseling field with strong evidence of treatment efficacy in the comorbid treatment of ASPD and substance abuse. There is also a significant body of research to support the clinical utility of substance abuse treatment for clients with ASPD

(Hatchett, 2015, p.22). Unfortunately, this research did not develop an ASPD intervention strategy that remediates the core features of the disorder. The research found substances abuse treatment effective in treating those with comorbid ASPD and the results can be applied to counseling practice. At this point theories, techniques and interventions that target the core characteristics of ASPD have yet to be discovered. At this time intervention and treatments do not work. Those individuals who do not get killed or kill themselves and survive into their 40s tend to mellow out and become less impulsive and predatory (Hatchett, 2105, p.16). The rationale for studying comorbid substance abuse and ASPD within substance abuse treatment centers is considerable. However, the performance of substance abuse treatment programs has mostly measured links between user engagement and retention in the form of change in abstinence, employment, crime and use of services after treatment (Thylstrup et al., 2015).

Historical and recent research suggests that conceptualizing psychopathy as a heterogeneous, dimensional construct allows for a better understanding of many aspects of the disorder, including relations to substance misuse, comorbidity, and underlying deficits. (Gudonis, Derefinko, & Giancola, 2009). The enduring pattern of deceitfulness, impulsivity, and lack of remorse that permeate dual diagnosed clients is a formattable challenge for clinicians. This leads many clinicians to conclude that dually diagnosed psychopathic substance abusers are "untreatable." However, this pessimistic stance is predicated upon the notion that psychopathy is a homogeneous, categorical construct (Gudonis et al., 2009). These conclusions leave little hope for treating substance abuse problems in clients with ASPD and has certainly diminished efforts at developing effective treatment interventions. Improving clinical knowledge about how substance abusers with comorbid antisocial personality disorder experience treatment is highly relevant. The prevalence of comorbid substance use disorder and antisocial personality disorder

is estimated to be forty percent in clients with a substance use disorder and eighteen percent in clients with an alcohol use disorder compared to less than four percent in the general public (Gudonis et al., 2009). In addition, clients with ASPD are characterized by social irresponsibility, aggression, exploiting others and impulsive behavior that is linked to increased amounts of crime and violence committed in society (Thylstrup et al., 2015). The need for interventions that target antisocial behavior and substance abuse is driving research that supports users in working with his/her personality and adjusting their characteristic adaptations and stories about themselves.

Today, there is increasing evidence to support the idea that onsite treatment facilities in community substance abuse treatment centers that target a comorbid diagnosis of ASPD can benefit clients. Considering, ASPD is one of the most common comorbid diagnosis with substance abuse it is surprising, so little research has focused on ways to assess ASPD in substance abuse treatment facilities. One intervention designed to improve the outcomes of treatment for SUD in patients with ASPD is the Impulsive Lifestyle Counseling (ILC) program (Thylstrup et al., 2017). The research found that Impulsive Lifestyle Counseling had a significant effect on days abstinent from substance use and severity of drug use at the 3-month follow-up (Thylstrup et al., 2017). In addition, researchers discovered aggression declined in both treatments as usual and ILC with no significant differences between interventions and that the ILC program has significant effects on risk of dropout from substance abuse treatment (Thylstrup et al., 2017). The ILC program is a highly structured workbook on psychoeducational intervention for clients with ASPD. The foundation of the ILC program is to support the client in self-awareness, taking responsibility for behavioral problems, and being open to the possibility of changes in lifestyle (Thylstrup et al., 2017). This approach is intended to function as an

educative and collaborative exercise that can improve client engagement in further treatment (Thylstrup, et al., 2017). The six-session program covers specific topics, questions, printed handouts, and worksheets. The first session focuses on the objectives of the ILC program and on identifying thoughts and behaviors related to ASPD. The second session focuses on linking the client's impulsive behaviors to the immediate consequences. Session three focuses on impulsive and destructive behaviors that are related to specific values systems and beliefs related to ASPD (Thylstrup, et al., 2017). Session four presents the concept of values and discusses what values may support or prevent the client from achieving lifestyle changes. Session five focuses on the client's social networks and how social contacts may support or challenge lifestyle changes (Thylstrup et al., 2017). Session six is a booster session that takes place six weeks after session five is completed. This session focuses on topics from previous sessions that the client found relevant for future work with lifestyle changes (Thylstrup et al., 2017). The study found that predictions, randomization to the ILC program did increase the endorsement of perception of having received help for ASPD while in treatment for SUD. Offering client's, the brief psychoeducational ILC program increased the likelihood that they will feel that treatment addresses a significant problem in their life (Thylstrup et al., 2017). In addition, the findings suggest the ILC program contributed to more day's abstinent, higher treatment satisfaction and decreased risk of dropping out of treatment. It can be concluded that the ILC program for antisocial personality disorder increased clients self-rated help for ASPD in SUD treatment, and the clients self-reporting of having received help for ASPD was in turn associated with increased short-term outcomes (Thylstrup et al., 2017). Unfortunately, long-term outcomes are hindered by client's with ASPD because they have trouble engaging in treatment and change since they are focused on a "What's in it for me?" approach to life in which palpable and immediate

rewards are given higher value than long-term goals that lead to significant change. It is the "me first" ideology that may hold the key to cognitive changes through cognitive based intervention.

Aaron Beck is the pioneer of Cognitive Behavioral Therapy and introduced cognitive therapy in the 1967 (Dozois, 2009). Research shows that Cognitive Behavioral Therapy (CBT) can be an effective treatment for substance abuse. CBT assumes that an individual's mood is directly related to his/her thoughts. Positive thoughts create positive feelings and actions while negative or dysfunctional thoughts have a negative impact on an individual's mood, feelings, actions and sense of self. CBT helps a client learn to recognize negative thoughts and to evaluate their validity and then replace the negative thoughts with healthier more positive thinking. CBT is built on the premise that if a client can change their thoughts then the action or behaviors will follow. The backbone of CBT is cognitive restructuring- the therapist and client work in collaboration to change thinking patterns and behavioral problems. CBT is a here and now approach that is more concerned with present thinking than how a client got to this point. CBT is a goal oriented, and goal directed approach to the therapeutic relationship. CBT therapists teach clients coping strategies, problem solving and how to recognize triggers that lead to dysfunctional thought patterns (self-talk). As part of an individualized treatment plan, CBT can be used with clients to help them identify self-defeating thoughts and behaviors which may often drive addiction (Larson, Amodeo, Storti, Steketee, Blitzman & Smith, 2009). Treatment efficacy for a comorbid diagnosis that addresses the key characteristics associated with ASPD can be integrated with a CBT approach.

The researchers investigated the feasibility and effectiveness of carrying out a randomized control trial of cognitive behavioral therapy in men with ASPD who were aggressive. (Davidson, Tyrer, Tata, Cooke, Gumley, Ford, & Crawford, 2009). The randomized

controlled trial was conducted in a community setting with 52 adults who had engaged in acts of aggression in the 6 months prior to the study. Change over 12 months of follow-up was assessed in the occurrence of any act of aggression and also in terms of substance abuse, mental state, beliefs, and social functioning. The follow-up rate was a 79% decrease in occurrence of any acts of verbal and physical aggression (Davidson et al., 2009). CBT has shown to lead to behavioral changes among people with ASPD. CBT is a structured and time limited intervention developed to treat those with antisocial personality disorder in outpatient settings. Participants were encouraged to engage in treatment through a cognitive perspective of their problems. The intervention focused on the participants beliefs about self, others, and behaviors that impair their social and adaptive functioning (Davidson et al., 2009). Incidents of any acts of verbal or physical aggression decreased over the year of the study. Those who received CBT reported more positive beliefs about others and less harmful substance abuse practices. The less harmful substance use was also confirmed in the 6-months follow up. There was also a trend for participants who received CBT to have improved social functioning (Davidson et al., 2009). CBT for ASPD and SUD has much in common with CBT for other disorders. This form of CBT places greater emphasis on the therapeutic relationship, meaning of developmental experiences, core beliefs, assumptions, and coping skills (Beck, Broder & Hindman, 2016). This perspective results in a longer course of treatment for clients with ASPD that is comorbid with a SUD. Also, contributing to the necessity for additional sessions is the propensity for these clients to experience an activation of their core beliefs in the treatment session, often resulting in their use of therapy-interfering coping strategies (Beck et al., 2016). The evidence supports the usefulness of CBT in the treatment of comorbid SUD and ASPD. The likelihood of improvement depends on the client's persistence in therapy, mandating analysis, and maintenance of the therapeutic

alliance (Bienenfeld, 2007). The integration of CBT for ASPD and SUD is a formidable challenge however, researchers are making considerable progress in identifying effective treatment modalities.

This study examined the association between ASPD and marijuana use. The researchers indicated that there is a strong connection between substance use and ASPD. In fact, 40 to 50 % of substance users meet the criteria for ASPD and about 90% of persons diagnosed with ASPD are substance users (Easton, et. al., 2012). The researchers established that marijuana is the most commonly abused drug among young adults and that substance abuse treatment can help reduce substance abuse as well as criminal behavior. The researchers used data from a randomized, controlled clinical trial of marijuana abusers involved in the criminal justice system that evaluated the efficacy of MET/CBT treatment approach versus a manualized individual drug counseling approach. The study evaluated the differences in baseline characteristics and treatment outcomes for participants with ASPD compared with participants without ASPD (Easton, et. al., 2012). The researcher indicated that there were no significant differences between the ASPD groups across most demographic variables (race, age, current employment, gender, marital status, and education). However, there was a significant difference on substance use and legal variables. The comorbid ASPD group had significantly more diagnoses of lifetime alcohol dependence disorders and significantly more marijuana use in the 28 days prior to treatment initiation. The researchers discovered that the comorbid ASPD group had significantly more mouths incarcerated, arrests, violent arrests, assault charges, and weapon offenses. (Easton, et. al., 2012). Despite pretreatment differences in groups across marijuana use and violent offenses, there were no significant differences between these groups during treatment at 6-month follow-up, suggesting that treatment was as effective for the comorbid ASPD group (Easton, et.

al., 2012). The motivational enhancement training integrated with cognitive behavioral therapy used skills training and was delivered within a motivational interviewing framework. This approach may have important implications for treating marijuana abusers. The researchers suggest that marijuana abusers with comorbid ASPD may have rates of retention and substance use outcomes that are comparable to those of marijuana abusers without ASPD, when provided with empirically supported, structured treatments (Easton, et. al., 2012).

In another study integrating motivational interviewing and cognitive behavioral therapy for comorbid substance abuse and ASPD researchers assessed the efficacy of a 4-month program combining motivational interview and cognitive behavioral intervention on substance abuse. The study followed the experimental design protocol and participants were randomly assigned to either the control group or experimental group. The Relapse Coping and Readiness to Change questionnaires were administered to evaluate the intervention program. At baseline, a majority of respondents in both groups were at the precontemplation stage of motivation. At the end of month 3 of the study there was a significant difference, x^2= 31.139, df = 2, p < .001, between the two groups on the stages of motivation (Bienenfeld, 2007). Motivational interviewing is a current, empirically based counseling method for a range of health-related problems. It is defined as a client-centered, directive method for facilitating intrinsic motivation to change by exploring and resolving ambivalence (Lakshmana, 2016). Motivation could relate to the relapse process in two distinct ways: the motivation for positive behavior change, and the motivation to engage in the problematic behavior. The ambivalence toward the change is often highly related to both self-efficacy and outcome expectancies. The researchers proposed using a transtheoretical model of motivation by incorporating the five stages of change (precontemplation, contemplation, preparation, action, maintenance) into the study (Lakshmana,

2016). Each stage of the model represents different levels of motivation with precontemplation representing the lowest level of readiness to change. During the preparation stage there is little motivation to change but as the client moves toward contemplation there is an increase in the ambivalence and "change talk." In the action stage the client makes changes in their behavior. In the maintenance stage the client strives to maintain the changed behaviors (Lakshmana, 2016).

Cognitive behavioral interventions encompass an array of techniques based on the learning principles and theorize that behavior is influenced by cognitive processes (Anton, O'Malley, Ciraulo, Cisler, Couper, Donovan, & Longabaugh, 2006). This approach examines the association between thoughts, feelings and behaviors. The clinician helps the client identify negative or unhelpful thoughts and beliefs that lead to inappropriate behaviors. The cognitive strategies used are recognizing and challenging dysfunctional thoughts about substance abuse, social skills training, and problem-solving skills (Anton, et al., 2006). Integrating CBT and MI into a single therapeutic modality of treatment to address substance abuse and psychopathy may be an intervention relevant to the comorbid condition. Combined behavioral interventions allow for normal clinical flexibility and individualization of treatment and provides skills training and support-system involvement. This approach has a minimum of 20 sessions and is organized in four phases (Anton, et al., 2006). Phase one, emphasizes building motivation for change and begins in a single session of MI. Phase two, includes a functional analysis of the client's substance use, a review of the clients psychosocial functioning, and a survey of the client's strengths and resources (Anton et al., 2006). The results are used in developing an individual plan for treatment and change. Phase three, draws on a menu of nine cognitive-behavioral skills-training modules chosen on the bases of the client's needs identified during phase two (Anton et al., 2006). Phase four, involves follow-up in which the clinician and client review progress,

renew motivation for change, and reaffirm commitment to the original or revised change plan (Anton, et al., 2006). The study revealed that at baseline the majority of participants (86.7%) in the control group and (83%) in the experimental group were at the precontemplation stage of motivation. A slight percentage 13.3% and 16.7% in the control and experimental group were in the contemplation stages where they were beginning to consider both the existence of the problem and the feasibility and the costs of changing the problem behaviors (Anton, et al., 2006). The differences between the groups were not significant, $\chi 2\ (1) = 0.261$, $p > .05$. At the one-month follow-up of the intervention significant differences were observed. $\chi 2\ (2) = 58.504$, $p < .001$, between the two groups in stages of motivation (Anton et al., 2006). 87% of the participants in the control group were in the precontemplation stage whereas 47.9% of the participants in the experimental group were in the contemplation stage and 43.8% were in the action stage (Anton et al., 2006). After a three-month follow-up the majority of the participants 78.9% in the control group were still in the precontemplation stage whereas 50% were in the contemplation and 33.3% were in the action stage of motivation (Anton, et al., 2006). These differences were statistically significant $\chi 2\ (2) = 31.139$, $p < .001$. Participants who began to modify their substance use were clearly in the change process of their lifestyle as they entered the action stage, and the qualitative statements support this. To compare pre, post, first month, second month, and third month assessments a repeated measure analysis of variance (ANOVA) test was used among the two groups to probe the mean numbers of days abstinent in the previous 30 days (Anton et al., 2006). The mean score at baseline was 29.34 days (+2.37) and 29.40 days (+2.60) of substance use for the control and experimental group. After the third month substance use was down to 27.55 days (+7.13) for the control group and 19.65 days (+12.49) days for the experimental group. The difference between the two groups was significant ($p < .001$), (Anton et

al., 2006). This research attempted to study the efficacy of integrating MI and CBT with substance abuse and psychopathy treatment. Cognitive behavioral therapy has been strongly identified as a treatment for personality and substance use disorders. Schema Focused Therapy (SFY) is another modality that is being explored for use with this population.

Schema Focused Therapy began as an extension of Beck's model and has grown to become a unique integrative treatment for the entire spectrum of personality disorders (Rafaeli, 2009). SFT is built on the premise that schemas are central to understanding personality disorders. SFT is not purely a cognitive intervention it also incorporates images, memories, bodily sensations, and emotions. SFT proposes a taxonomy of early maladaptive schemas and there exists a set of universal core emotional needs. Schemas emerge when these needs go unmet or are met inappropriately (Rafaeli, 2009). In addition, to universal needs and schemas SFT devotes considerable attention to modes, the predominant emotions, schemas, or coping reactions active for an individual at any particular time. There are four types of modes: child modes, maladaptive coping modes, dysfunctional internalized parental modes, and healthy adult mode (Rafaeli, 2009). Most individuals occupy various modes over time; what matter are the specific identity of the activated modes and the manner of transition from one to another (Young, Klosko, & Weishaar, 2003). Several personality disorders involve abrupt transition among specific modes leading individuals to experience quick and often intense fluctuation among various mood states. The movement from one mode to another is believed to be in response to external or internal triggers (Young et al., 2003). The more the individual is characterized by fluctuations among various mood states, the more room there is for mode work. The clinician addresses specific modes associated with various states in "real life" and in the therapy room. In collaboration with the client, these get labeled, their origin is explored, they are linked to current

problems, and the possibility of modifying or giving them up is explored (Rafaeli, 2009). To date, one RCT (22) has been published comparing the efficacy of SFT to that of another treatment for personality disorders. Transference Focused psychotherapy was compared to SFT in a study of eighty-eight participants with a personality disorder. Participants were randomly assigned to one of two treatments, both comprising of two weekly sessions for three years. Analysis was conducted at both the one and three-year mark. Both groups showed improvement on personality constructs however, SFT was superior on all outcome measures, including recovery (45.5% in SFT, 23.8% in TFP) and/or reliable change (65.9% and 42.9%), (Rafaeli, 2009). SFT has been integrated to work with various populations including substance abuse. Schema Focused Therapy has the unique advantage of working with clients who have a comorbid diagnosis of SUD and ASPD.

An additional outcome study used a non-randomized quasi-experiment of inpatients with comorbid personality disorders and substance use disorders who received treatment as usual (TAU) or an intervention combing cognitive therapy with SFT. The study revealed reductions in interpersonal problems with the cognitive/SFT approach yielding considerably stronger effect sizes at follow-up 0.88 and 1.82 in the cognitive/SFT group vs. 0.01 in the TAU group (Rafaeli, 2009). The research supports the supposition that integrated CBT and SFT can be an effective treatment. One benefit of using CBT approaches in treating personality disorders is they can be integrated with CBT interventions for substance abuse. CBT approaches offer effective tools for addressing the enduring and hard to treat patterns of personality disorders while addressing substance abuse issues and day-to-day struggles (Rafaeli, 2009). Schema Therapy includes a combination of techniques from four other types of established and time-tested treatments. The ultimate goal of treatment is for the clinician to challenge the maladaptive schemas, or

beliefs/feelings that the client learned in childhood. Part of this involves the clinician essentially re-parenting the client. Schema Therapy can take longer but takes place at a deeper level for the client. Research suggests this approach to treatment is more time consuming and costly but is nevertheless cost-effective, because it is so highly effective (Rafaeli, 2009).

Metacognitive interpersonal therapy was designed to treat personality disorders through formalized step-by-step procedures (DiMaggio, et. al., 2015). MIT addresses the overregulation of emotions and metacognitive dysfunctions that limit an individual's awareness of their mental state and the mental state of others. MIT seeks to first formulate a shared mentalistic understanding of the patient's problems and then progressively promote awareness of mental states (DiMaggio, et. al., 2015). Once the person has formed an understanding of the challenges the change process can be begin. MIT therapist regulates the therapeutic relationship in the context of assisting in personality and symptoms change. This approach begins with *shared formulation functioning.* These steps include (a) eliciting detailed autobiographical episodes; (b) searching for affects and their links with thoughts and actions; (c) collecting a series of associated autobiographical memories to reconstruct underlying interpersonal schemas; and (d) constructing with the patient a description of these schemas and using this knowledge to plan change (DiMaggio, et. al., 2015). The second step *change promotion* includes (e) fostering differentiation between reality and fantasy and (f) facilitating access to healthy self-aspects of the person while encouraging new behaviors. Integrating MIT to treat comorbid SUD is accomplished by attempting to understand the experiences that promote substance abuse. Oftentimes this involves helping the person vocalize the distressing emotions that lead to substance use. It can also involve helping patients understand the internalized interpersonal patterns that lead to negative predictions about how others will react, which then chronically

triggers negative effects (DiMaggio, et. al., 2015). This can lead to alternative ways to think about oneself and others and may then help the person see that relationships can be rewarding and satisfying. Lastly, this increase in knowledge can lead to mindfulness strategies to avoid acting out.

Attachment-based models are beginning to be researched as possible treatment modalities for personality disorders. A number of randomized clinical trials have demonstrated the effectiveness of attachment-based treatments. Wilmot and McMurran (2016) explored the process of change during treatment with clients diagnosed with a personality disorder. The results support the hypothesis that a reparenting attachment-based model of change is effective. The level of changes was highly correlated with measures of client functioning thought significant levels of change did not occur until later stages of treatment indicating attachment played a fundamental part of the change process. Participants in the study progressed through a four-stage treatment process based on the attachment model of change. Stage one involves assessment and establishment of therapeutic relationships and support (Wilmot & McMurran, 2016). Stage two involves psychological therapies primarily aimed at improving the client's self-management of emotions and impulses. Stage three involves psychological therapies primarily aimed at changing the dysfunctional core beliefs which client's use to make sense of themselves, others and the world. Stage four involves the integration and application of skills, insight and changes from stages 2 and 3 to patterns of offending behaviors (Wilmot & McMurran, 2016). The Therapeutic Changes Questionnaire (TCQ) is a self-report checklist that was administered to participants to see how they changed during treatment and the factors that led to that change. The Hospital Social Functioning Questionnaire (HSFQ) is a 19-item self-report measure of social functioning and is measured on a 4-point scale. Higher scores indicate

better functioning. The Global Assessment of Functioning (GAF) is a single scale clinician rating of psychological, social, and occupational functioning (Wilmot & McMurran, 2016). The researchers examined the distribution of the data using graphs and the Shapiro-Wilk test. The distribution of total change scores from part one of the TCQ was significantly different from normal ($W= 911$, $df = 50$, $p = .001$), as were the clinicians ($W = .759$, $df = 50$, $p < .001$), staff ($W= .877$, $df = 50$, $p < .001$) and therapy ($W = .806$, $df = 50$, $p < .001$) subscales of part 2 (Wilmot & McMurran, 2016). Neither the logarithmic nor square root transformation normalized the distribution of subscale scores, so a split-half method was used to examine the internal consistency of the measure. The split-half reliability coefficients were calculated using the Spearman-Brown method, Part One, had an internal consistency of .95, and Part Two, had an internal consistency of .94 (Wilmot & McMurran, 2016). There were large positive correlations between the degree of self-reported change on part 1 of the TCQ and both social functioning, measured by the HSFQ ($r = .50$, $n = 50$, $p < .001$), and global functioning, measured by the GAF ($r = .52$, $n = 50$, $p < .001$), (Wilmot & McMurran, 2016). This supports the hypothesis that change in therapy is positively associated with other self-report and objective measures of functioning. The results indicate the importance of the therapist-client relationship, particularly in the early stages of treatment. A secure attachment between therapist and client can be seen as fostering the development self-regulation and mentalization skills. The reparenting attachment-based model for treating personality disorders involve a focus on safety and containment, and those delivering treatment primarily provide support, validation, empathy, and emotion regulation (Wilmot & McMurran, 2016). It is when the goal of safety and containment are achieved that the client can start to develop his or her own self-regulation skills before developing more adaptive ways of thinking, behaving, and relating to others (Wilmot &

McMurran, 2016). The results of the study provide evidence that clients with severe personality disorders can be treated through the process of attachment security. Mentalization-based treatment (MBT) is a structured treatment that integrates cognitive, psychodynamic and relational components of therapy with attachment theory.

The mentalization model of antisocial behavior is developed on the dysfunction of the attachment system that then temporarily inhibits affect regulation and mentalizing abilities. Antisocial behavior, aggression, and violence tend to occur when an understanding of others mental states is developmentally fragile and prone to being lost when the attachment system is activated by perceived threats to self-esteem, such as interpersonal rejection. Generally, mentalizing precludes violence, meaning individuals with vulnerable mentalizing capacities can be behaviorally volatile in moments of interpersonal stress (Bateman, O'Connell, Lorenzini, Gardner, & Fonagy, 2016). Supporting the capacity to identify other emotions and intentions may not only assist social functioning but also reduce the risk of antisocial behavior (Bateman et al., 2016). This study tests the hypothesis that patients with comorbid ASPD and SUD receiving outpatient MBT would be more likely to show improvements in symptoms related to aggression than those offered an outpatient structured protocol of similar intensity but excluding MBT components. Participants were randomly assigned to one of two active treatment groups and assessed at entry and over the course of an 18-month treatment at 6, 12, and 18 months. Participants were randomly assigned to the mentalization-based treatment or the structured clinical management treatment. Both therapies were offered weekly, and all participants were offered approximately 140 sessions of total therapy (Bateman et al., 2016). There was no difference in the distribution of completer categories across the groups ($\chi 2 = 1.87$, $df = 2$, $p = .18$), (Bateman et al., 2016). Researchers also tested the amount of treatment received by each

group in terms of individual, group and total sessions and there were no differences on the Kruskall-Wallis test on any of these variables ($\chi 2 = 0.86$, df = 1, p= .38, $\chi 2 = 1.51$, df =1, p= .22, $\chi 2 = 1.80$, df = 1, p = .17 for individual, group and total sessions respectively), (Bateman et al., 2016). Both the MBT and SCM groups presented with similar levels of anger at the beginning of treatment but differed significantly by 18 months ($t = 2.05$, $p < 0.05$), (Bateman et al., 2016). Mixed effects regression revealed significant differences in the change observed. Neither the MBT nor SCM showed significant changes in domineering interpersonal style however, self-rated hostility decreased in both groups. While linear decline was not statistically significantly steeper, both observed and model-predicted hostility was significantly lower in the MBT than the SCM group (Bateman et al., 2016). Participants who received MBT showed significantly more improvements on overall functioning, interpersonal problems, and social adjustment scores at the end of treatment, in comparison to patients who received SCM (Bateman et al., 2016). The data collected suggest that MBT is an effective treatment for clients with comorbid ASPD. Mentalization-based treatment showed significantly greater reduction in the targeted symptoms of hostility and anger than those in the SCM group. In addition, MBT was able to improve negative mood, psychiatric symptoms, interpersonal problems, and social adjustment. Mentalization-based treatment for comorbid ASPD and SUD is an evidence-based approach that has much in common with Multidimensional Family Therapy (MDFT).

Multidimensional Family Therapy is a comprehensive family-centered treatment for youth substance abuse and antisocial behavior. The theoretical and clinical roots of MDFT lie in developmental-contextual and dynamic systems frameworks, family and developmental psychology, and family therapy (Liddle, 2016). Family functioning is a significant part of creating new developmentally adaptive lifestyle alternatives for adolescents. MDFT focuses on

multi-contextuality, intra-individual, interpersonal, intersystem interactions that are relevant to case conceptualization that consists of making practical, progress-oriented sense of family members lives and circumstances (Liddle, 2016). The study indicated MDFT has significantly reduced adolescent substance use and antisocial behavioral problems at the one-year follow-up. The results show that adolescents treated with MDFT reduced drug use between 41% and 66% from baseline to treatment completion at 16 weeks (Liddle, 2016). In addition, adolescents treated with MDFT showed a decrease in antisocial behavior and associations with delinquent peers. The young adolescent MDFT study found a 23% rearrests rate for MDFT youth at 1-year posttreatment vs. a 44% rearrests rate for group therapy participants and 10% of MDFT youth compared with 30% of group therapy youth were placed on probation at the 12- month follow-up (Liddle, 2016). The study also investigated key parenting behaviors as well as links between parental subsystem changes and reduction in adolescent symptomology. Four different patterns of parent–adolescent tandem change was identified: 59% of families showed improvement in both parenting practices and adolescent symptomatology, 21% evidenced improved parenting but no change in adolescent problems, 10% showed improved adolescent symptoms in the absence of improved parenting, and 10% showed no improvement in either parenting or adolescent functioning (Liddle, 2016). Changes in the fundamental aspect of parenting practices is related to changes at the critical level of interest reduction in adolescent substance abuse. In addition, MDFT improves parental monitoring and increases the proportion of adolescent abstaining from drug use during treatment. More importantly MDFT improvements in parental monitoring also precede increases in the proportion of adolescents abstaining from drug use, empirically demonstrating that parental monitoring statistically mediates treatment effects and highlights its potential as a core mechanism of change (Liddle, 2016). Multidimensional Family

Therapy is routinely regarded as one of the most extensively studied and most effective therapies for youth substance abuse and antisocial behaviors. In a comparison study MDFT was found to be superior to CBT in decreasing drug abuse problem severity (Liddle, 2016).

In a study by Liddle, Dakof, Turner, Henderson, & Greenbaum (2008) researchers examined the treatment efficacy of cognitive behavioral therapy and multidimensional family therapy. Participants were randomly assigned to either individual CBT (n=112) or MDFT (n=112). Follow-up assessments were conducted at termination of treatment, and then at 6- and 12-months following treatment termination (Liddle, et al., 2008). Both CBT and MDFT were delivered in 60-90-minute weekly sessions. CBT treatment occurred in three stages, stage one determines and prioritizes adolescent's problems and constructs the treatment contract. The second stage of treatment implements the CBT model with goals focusing on increasing coping skills and reduce behaviors that threaten client safety, health, and quality of life. The final stage focuses on relapse prevention, role rehearsal, and problem solving (Liddle et al., 2008). The MDFT model was presented in four interdependent treatment domains (adolescent domain, parent domain, interactional domain, extrafamilial domain). The adolescent domain helps clients develop coping skills, emotion regulation, and problem-solving skills. The parent domain engages parents in therapy by helping them improve parenting skills, clarify adolescent expectations, and limit setting and consequences (Liddle et al., 2008). The interactional domain focuses on decreasing family conflict, and improving emotional attachment, communication, and problem-solving skills (Liddle, et al., 2008). The researchers used a linear slope model to test treatment efficacy by adding treatment conditions as a between-subject covariate to the growth model. Treatment conditions were centered at intake, and the intercept and slope parameters were regressed on the treatment conditions variable (Liddle, et al., 2008). The slope parameter

associated with treatment conditions was statistically significant for substance abuse severity, with greater decreases associated with MDFT (Liddle, et al., 2008). The intercept parameter was significant when set at the 6-month follow-up ($t = 2.12$, $P < 0.05$) and at the 12-month follow-up ($t = 2.32$, $P < 0.05$), indicating that youth receiving MDFT reported significantly less substance abuse severity at the 6- and 12-month follow-up assessments than youth receiving CBT (Liddle, et al., 2008). The effect sizes were in the moderate range for the 6-month follow-up (Cohen's d = 0.39) and in the moderately large range for the 12-month follow-up ($d = 0.59$). This indicates the youth who received MDFT retained their treatment gains more efficaciously than those receiving CBT (Liddle, et al., 2008). Twelve months following intake, those who received MDFT decreased their frequency of other drug use compared with CBT youth. MDFT showed a 77% decrease while CBT participants increased the frequency of using these substances (Liddle, et al., 2008). These results indicate that under certain conditions both family-based and CBT approaches are efficacious treatments however, MDFT was superior to CBT in decreasing drug abuse problems.

In another multidimensional family therapy (MDFT) study researchers Pol, Hoeve, Noom, Stams, Doreleijers, Domburgh, & Vermeiren (2017) revealed through a moderator analysis that adolescents with high severity problems, including severe substance abuse and antisocial behavioral problems benefited more from MDFT than adolescents with less severe conditions. The results indicated that the overall mean effect size for MDFT was beneficial compared to adolescents receiving another form of therapy, $d = 0.24$, $p < .01$. For effect sizes, variance between effect sizes within studies (level 2 variance), $r2 = .012$, $x2\ (1) = 23.00$, $p = .14$, was nonsignificant, whereas variation between studies (level 3 variance), $r\ 2 = .048$, $x2\ (1) = 32.77$, $p < .001$, was significant, resulting in the examination of the extent to which potential

moderators explained effect size variability (Pol et al., 2017). Two moderators yielded a positive contribution to effect size. Percentage of severe substance abusers in the study sample was associated with larger effects favoring MDFT, $F(1, 45) = 6.150$, $p = .017$ (Pol et al., 2017). This indicates that adolescents with more severe substance abuse benefit more from MDFT than from the comparison treatments. The percentage of antisocial behavioral problems was positively related to the effect size, $F(1, 5) = 14.072$, $p = .013$, indicating that samples with higher percentages of DBD responded better to MDFT. Year of publication yielded a trend, $F(1, 59) = 3.638$, $p = .061$, showing relatively smaller effects in newer studies (Pol et al., 2017). The following variables were included: percentage of adolescents with severe substance abuse, sample size, and year of publication. The model was found to be significant, $F(3, 43) = 5.779$, $p = .002$, $k = 47$. The two moderators were significant predictors of effect size, severe substance abuse $\beta = .26$, $p = .016$, and year of publication $\beta = -.09$, $p = .002$ (Pol et al., 2017). Indicating that studies with a larger proportion of participants with severe substance abuse and older studies yielded larger effect sizes, favoring MDFT. MDFT showed a significant effect size, $d = 0.24$, which corresponds to a success rate difference of approximately 13%. These findings support the effectiveness of MDFT and are similar to other multiple systems-based treatment analysis (Pol et al., 2017). Researchers concluded that MDFT was most effective in adolescents with severe substance abuse and antisocial behavioral problems. Given the social and personal costs of adolescent suffering from comorbid antisocial behavior problems and substance abuse it is vital that clinicians identify at risk youth and interventions at an early age. This leads to the question “is there a biological component to violence, empathy, and the disregard for social norms.”

This study examined transference-focused psychotherapy as a therapeutic approach for treating individuals with sever personality disorders. This approach is a manualized evidence-based treatment that integrates contemporary object relations theory with attachment theory and research (Diamond & Meehan, 2013). TFP is a psychoanalytically oriented treatment for individuals with a range of personality disorders at different levels of severity. TFP has been shown in randomized clinical trials to improve symptomatic functioning and changes in security of attachment and reflective functioning. This approach combines elements of psychoanalytic techniques (attention to unconscious processes, a focus on transference, resistance, and interpretation) with greater therapist involvement, increased attention to the client's external world, and a set of mutually agree upon behavioral boundaries designed to limit acting out and promote the unfolding of the clients full emotional experience and psychic life in the treatment setting (Diamond & Meehan, 2013). The major premise of TFP addresses the defensive operations that hinder more realistic, integrated, differentiated representational dyads of self and others. By tracking these self-object dyads and linking the affects in the client's internal world, and identifying the defensive processes that sustain them, TFP can be an effective treatment for personality disorder. TFP has an emphasis on identifying an individual's internal dyadic experiences which has been proven to be effective in addressing the different phenotypic presentations and/or functioning mental state that can characterize those with personality disorders (Diamond & Meehan, 2013). The interpretive process can lead to gradual integrations of disparate, split-off self and object representations into a more balanced, integrated, and stable concept of self and objects. This in turn can promote a reflective capacity that can provide an increased integrated and consistent model of self and others and may be more systematically reflected upon while helping them to understand their defensive functioning.

This study analyzed the resent advances in understanding the neurobiology of violence and empathy. In addition, researchers examined evidence for efficacy of different treatment modalities. Recent work on human and animal models has created an insight into the biology of aggression and callousness (Rodrigo, Rajapaksa, & Jayananda, 2010). Many researchers in recent years have demonstrated the central role of the limbic system in forming and experiencing emotions including the mother-child bond, friendships, and intimate relationships. These studies include areas related to the limbic system such as the insula and anterior cingulate cortex. Researchers believe them to be central in experiencing and assessing emotions of self and others (Rodrigo et al., 2010). The researchers found that mirror neuron pathways were central in defining theories on neural pathways of empathy. In addition, mirror neuron mechanism enables us to identify emotions such as, anger, fear and disgust in others as we ourselves, experience them (Rodrigo et al., 2010). The researchers have shown that the insula is activated when individuals experience negative emotions and when trying to imitate them. The anterior cingulate cortex (ACC) has been shown to be linked with the autonomic nervous system that reacts when something is wrong and triggers an automatic response in situations where such a response is warranted (Rodrigo et al., 2010). The ACC also reacts when individuals experience physical or social pain in self and others. Researchers have indicated that serotonin, cortisol and testosterone play a role in antisocial and aggressive behavior. The reduction in secretion of cortisol in response to stress has been shown to be correlated with socially disordered behavior (Rodrigo et al., 2010). In addition, children with conduct disorder and aggressive traits had low basal cortisol levels and callous and unemotional individuals had hyperresponsiveness in cortisol secretion in reaction to stressors (Rodrigo et al., 2010). Dysregulation of the serotonergic neurotransmitter system is another area of research that indicates that serotonin helps to control

aggression, impulsivity and disruption of this system resulting in less restraint. There is direct evidence that selective serotonin reuptake inhibitors are effective at reducing aggressive and impulsive behaviors. The association between testosterone and a functional polymorphism of the monoamine oxidase A (MAOA) gene has a direct effect on transcription of the MAOA gene by acting on one of the promotors (Rodrigo et al., 2010). When testosterone levels are high, they may competitively inhibit glucocorticoid binding and result in less transcription of the gene. The product of the gene, monoamine oxidase A, breaks down a multitude of amines including serotonin (Rodrigo et al., 2010). Using 95 male participants the researchers have shown that a combination of high levels of cerebrospinal fluid testosterone and a low activity MAOA genotype were significantly predictive of antisocial behavior and aggression in participants (Rodrigo et al., 2010). These finding suggest that aggression and callousness are not purely the result of environmental factors. Researchers have demonstrated that biology plays an equal role in antisocial behavior. The question then becomes "what impact do these traits have on treatment and prevention strategies."

The positive impact of psychotherapy on psychopathy was assessed in a meta-analysis of individuals classified as psychopathic. Participants in the treatment groups improved with therapy compared to the control groups ($p < 0.01$). Cognitive behavioral therapy and psychoanalytic psychotherapy were the most successful treatment modalities with 62% and 59% of participants improving (Rodrigo et al., 2010). The therapeutic community approach was the least successful with only a 25% success rate. In the control group without any formal intervention 19.8% improved over time (Rodrigo et al., 2010). In addition, researchers indicated that a younger age and longer duration of therapy had a positive correlation with better outcome. The research concluded that aggression, lack of emotions and callousness are a combination of

genetics, neurotransmitter/hormonal imbalance, and environment factors (Rodrigo et al., 2010). With the intersection of genetics, environmental factors and chemical imbalances can psychotherapy and pharmacotherapy be combined into a single mode of service delivery. Guimón (2016) contends that medication would be better to relieve symptoms, and psychotherapy preferable for improving interpersonal relationships, social adjustment, and efficiency at work (Guimón, 2016). Guimón (2016) proposed a sequential treatment as a way of integrating pharmacotherapy and psychotherapy. Guimón suggests that combined psychotherapy has advantages over either treatment alone in many clinical situations. In addition, Guimón warned that transference issues may arise in psychotherapeutic treatment and can produce a negative effect on the pharmacological treatment leading to noncompliance or negative placebo effects (Guimón, 2016). In addition, when treatment involves psychotic, borderline, or substance abuse clients or others with severe disorders, primitive defense maneuvers and acting-out may burn out the therapist (Guimón, 2016). Integrating psychotherapy and pharmacotherapy in the treatment of substance abuse has the potential to support and encourage abstinence while building inner strength and coping skills.

Medication can prevent intoxication, decrease withdrawal symptoms and substance cravings or even cause substance aversion while, psychotherapy is used to motivate clients for abstinence as well as strengthen their will to continue abstaining (Bundalo-Vrbanac, Buljan, Peitl, & Gelo, 2012). Psychotherapy also teaches clients stress coping skills and has the ability to improve overall quality of life. Medications like methadone, buprenorphine and naltrexone are used in treatment of patients with an opioid dependence, while disulfiram, acamprosate, naltrexone and topiramate are used in treatment of patients with alcohol dependence (Bundalo-Vrbanac, 2012). Most patients with severe substance dependence are politoxicomaniacs and

therefore need to be treated for all of the substances they are dependent on. Psychopharmaceuticals, such as antidepressants, anxiolytics, mood stabilizers and antipsychotics are often essential for treatment outcome and success in patients with co-morbid disorders, such as depression and antisocial personality disorder (Bundalo-Vrbanac, 2012).

In a study of interventions for personality disorders and psychological treatment efficacy in both a high and medium secure setting. Völlm, Chadwick, Abdelrazek, and Smith, (2012) found that nearly 80% of the 161 personality disordered patients surveyed received some form of psychotropic medication, nearly two thirds were prescribed two or more drugs. Sixty five percent of patients were prescribed medication for personality disorders. Second generation antipsychotics and mood stabilizers were the most commonly prescribed drugs (Völlm et al., 2012). The symptoms most frequently targeted for psychotropic medication included, hostility, aggression, emotional instability, and paranoia. Second generation antipsychotics were prescribed to 45% of patients while mood stabilizers were prescribed to 40.1% of patients. 79 patients (62.2%) were prescribed two or more drugs and 30 (23.6%) three of more. For prn medication the corresponding figures were 21 (16.5%) and five (3.9%), (Völlm et al., 2012). Of the 127 personality disordered patients prescribed any psychotropic medication, 83 (65.4%) received at least one medication specifically for the treatment of symptoms of ASPD or BPD. In six of these cases (7.2%) this prescribing was exclusively for ASPD. In 51 cases (61.4%) for BPD only and in the remaining cases for both disorders (Völlm et al., 2012). Despite the high occurrence of comorbidity with this population only 65.4% of patients were prescribed medication for the management of their personality disorder. The research indicates that a combination of psychotherapy and pharmacology frequently provide better results than the use of these interventions individually.

This study examines the treatment efficacy of combined pharmacotherapy and psychotherapy in the treatment of personality disorders. The results indicate that combined therapy was more effective than pharmacotherapy. The question of the relative six-month efficacy of the two treatment methods was addressed through a randomized parallel-group design (Kool, Dekker, Duijsens, Jonghe, & Puite, 2003). In the initial study a total of 129 patients were randomized to either the pharmacotherapy group (n= 57) or the combined therapy group (n =72). Outcome measures were analyzed using covariance (ANCOVA) in order to study the influence of the two treatment methods and the presence or absence of personality pathology (Kool et al., 2003). Using t-test an analysis was conducted to determine whether the pharmacotherapy group was different from the combined-therapy group. The statistical results using the ANCOVA indicate participants in both the combined-therapy and pharmacotherapy groups were significantly better off on all instruments than at the start of treatment (Kool et al., 2003). The presence of a PD in the combined group had a positive effect after 24 weeks (46.9% versus 34.8%) whereas the pharmacotherapy group had a negative effect (19.4% versus 30.0%), (Kool et al., 2003). The success percentages were significantly higher in the combined therapy group than in the pharmacotherapy group. This indicates combined therapy was more effective than pharmacotherapy for participants with a personality disorder.

In a psychotherapy case study, researchers examined immediacy (discussions about the here-and-now therapeutic relationship) and the parallels between the external relationship and the therapeutic relationship that encourages expression of immediate feelings. Kasper, Hill, and Kivlighan (2008) found client involvement was slightly higher before and after than during immediacy events (Kasper et al., 2008). Positive findings indicate that therapist immediacy helped clients express their immediate feelings about the therapist, feel closer to the therapist and

become less defended. This metacommunication style that integrates the here-and-now concept into the client-therapist relationship can help clients reenact with the therapist the interpersonal conflicts that brought then into therapy. Therapist who uses this approach can openly discuss these conflicts in the therapeutic relationship so clients can become aware of and change their interpersonal patterns of interaction. This will allow the client to correct emotional experiences and change both interpersonally and internally. The therapist immediacy served as a clear stimulus for the client to be immediate. Furthermore, therapist immediacy helped the client open up, express feelings that she did not usually allow herself, feel closer to Dr. N, feel cared for, and feel satisfied with the session (Kasper et al., 2008).

In a similar study Thylstrup, Hesse, Thomsen and Heerwagen (2015) investigated how adding a narrative perspective when treating comorbid SUD and ASPD would impact treatment efficacy. The Impulsive Lifestyle Counseling program was used to promote motivation for taking responsibility for one's own behavior and lifestyle through awareness raising and support of change. (Thylstrup, et at., 2015). The outpatient treatment program consisted of four sessions and one booster session. The four sessions took place 1 hour per week for four week and the booster session was eight weeks later. Session 1 covered the purpose of the program, user awareness, motivation for change and life goals. Session 2 centered around problems solving, honesty and responsibility for one's own behavior. Session 3 was based on self-esteem, and pride related to ASPD. Session 4 focused on how participants related to productive and counterproductive ethical values. The booster session served as an opportunity for the participants to share what they found most important from previous sessions. In addition, the booster session focused on motivation for continuing to work on changing behaviors (Thylstrup et at., 2015). The results indicate that the participants were able to reflect on the usefulness of the

program and acknowledged that the term impulsive was an adequate description of their antisocial lifestyle to include substance use and criminal behavior. The researchers identified a core preconception of why individual with ASPD trouble have engaging in treatment and change is that they are highly focused on a "What is in it for me" approach to life, in which tangible and immediate rewards are given higher value than long-term goals (Thylstrup et al., 2015). The researchers concluded that how participants retell their stories about treatment and change is essential in order to improve our knowledge about the role that treatment may play or fail to play in the change process.

Summary

The modalities of treatment presented in this literature review have been empirically proven to be effective at remediating some of the traits associated with ASPD but fail to address the core features of ASPD. The lack of guilt and empathy that permeates the lives of those diagnosed with ASPD should guide future research. Until clients with ASPD can be instilled with guilt and empathy treatment approaches will continue to fall short of true healing. The question is "how do we teach clients guilt and empathy." A future intervention that addresses this question will truly make a difference in the treatment of ASPD. The modalities of treatment and interventions presented in this literature review are limited in their scope and range when treating those diagnosed with comorbid ASPD and SUD.

CHAPTER THREE: METHODS

Overview

This study examined treatment efficacy for those diagnosed with comorbid antisocial personality disorder and substance use disorder. The purpose of the study was to explore a

participant diagnosed with antisocial personality disorder to gain knowledge about how cognitive behavioral therapy integrated with chromis violence reduction program remediates the core features of the disorder. This study includes 1 participant diagnosed with antisocial personality disorder and comorbid substance use disorder, and one researcher. This study focused primarily on anger and aggression and the lack of guilt and shame that is common among those with antisocial personality disorder.

Cognitive Behavioral Therapy Integrated with chromis Violence Reduction Program

The rationale for this study is to determine treatment efficacy for comorbid antisocial personality disorder and substance use disorder using cognitive behavioral therapy and chromis violence reduction program. This study addressed anger and aggression reduction in a clinical setting. The aim of the study was to promote motivation for the participant to take responsibility for his own behavior while supporting change. In order to be in a relatively reasonable amount of time during outpatient treatment the study consisted of 12 sessions. Sessions were scheduled one time per week for 12 weeks. All sessions lasted approximately one hour.

Session one: the 2-step model of anger, ventilation as an anger control tool, and the distinction between anger and aggression.

Session two: anger's self-perpetuating cycle of anger, anger trigger thoughts, and coping strategies to deal with painful experiences.

Session three: progressive muscle relaxation, safe place visualization and the reflective use of safe place visualization in the session with vivo stressful situations.

Session four: deep abdominal breathing, deep muscle relaxation, safe place visualization, slow abdominal breathing, and cue words (relax, peace, breath).

Session five: the Ellis ABC model of emotions. A is the activating event. B is the belief (thoughts, interpretation, or assumption). C is the consequence (emotional), common trigger thoughts for anger and aggression, coping skills to promote relaxation and positive self-talk.

Session six: a discussion about emotional arousal, aggressive behaviors, imagery coping skills rehearsals and trigger words.

Session seven: verbalizing an understanding of active and passive Response Choice Rehearsal.

Session eight: have the participant verbalize his own need statements, negotiating statements, and self-care solutions assertively, not aggressively and verbalize and understanding of the ways in which Response Choice Rehearsal responses can be used.

Session nine: help the participant develop appropriate negotiation and compromise statements to use in role play and demonstrate flexible use in vivo of the six Response Choice Rehearsal responses in low, medium, and high anger situations.

Session ten: have the participant report his success with the in vivo Response Choice Rehearsal situations, having the participant practice in vivo Response Choice Rehearsal in medium and high anger situations and report back on how successful he was, and anger starts with a want/need and a healthy way to respond is to ask for what you want.

Session eleven: discuss underlying themes related with what the participant wants and how he usually gets it, help the participant use this objectively as a skill to practice and creative thinking for understanding and resolving problems so he can achieve his goals in a positive way.

Session twelve: teach the participant problem solving skills to increase critical reasoning so he is better able to solve problems in a positive way, how to avoid and resolve conflict situations and develop negotiation skills, and how core personal beliefs developed and how they are maintained by and result in unhelpful behaviors.

The study had a one month follow up booster session which served as an open session. The participant was given an opportunity to share with the researcher what he had experienced as being the most important of his change process. Additionally, the follow up session addressed the participant's motivation to continue working on reducing anger and aggression while building healthy relationships.

Design

This study used a qualitative method. By using a qualitative method for this research, the researcher, was able to focus intensively on the behavior of the participant. The qualitative method allowed the researcher to gain insight and explore in depth the phenomenon. The qualitative method is a systematic scientific examination that strives to build a holistic description that increases the researcher's understanding of the phenomenon being studied. Qualitative research requires understanding the complexity of individual's lives by examining their perspective within a framework. This methodology emphasizes the importance of context

in helping us understand a phenomenon of interest (Heppner, 2016). An epidemiological research design will be used to document the nature or frequency of variables (anger, aggression, guilt, empathy) within the population (Heppner, 2016).

A single subject design was used in this research using repeated measurements to determine the effectiveness of treatment. This study was interested in treatments that have a substantial effect on important behaviors and that can be implemented reliably in the real-world contexts in which they occur (Price, 2013). 1 male with an age of 33 years and diagnosed with comorbid antisocial personality disorder and substance use disorder was selected to participate in the study. A single subject design is a strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants (Creswell, 2009). Single subject design can provide the basis for informed clinical practice and implementation of findings in a clinical setting. Advantages of single subject design include, allowing the study of conditions with long latency phases, they are relatively low-cost, they can be conducted quickly, and they allow for multiple exposures to be studied (Morrow, 2010)

Research Question

RQ1: Can an integration of cognitive behavioral therapy and chromis violence reduction program reduce anger and aggression while increasing guilt and empathy for those diagnosed with ASPD and SUD.

Setting

Central Kentucky Community Action is in Central Kentucky. This site was selected based on the researcher's ability to conduct the research at a private and secure location. CKCA is an agency that provides services to eight Kentucky counties. The Board of Directors is a

governing body that oversees the day-to-day operations. The Executive Director manages the eight county agencies. Program Directors manage the program they oversee. Each county agency has supporting staff that meet the needs of clients. The agency is funded through state and federal grants. The agency and supported network provide therapeutic services to individuals and families. This site will provide the researchers with a secure office space where conversations cannot be easily overheard. A lock and key file cabinet will contain questionnaires in a secure and safe location. A password locked computer will store the participant's personal information.

Participant

The participant for the study was drawn from a convenience sample of clients from Central Kentucky Community Action located in Central Kentucky. The participant was selected based on a comorbid diagnosis of antisocial personality disorder and substance used disorder. 1 male participant who met diagnostic criteria based on the Diagnostic and Statistical Manual of Mental Disorders (5th ed.) was selected to participate. The sample includes 1 Caucasians male. The participant has an average age 33 years. The participant selected for this study has been identified by the pseudonym George. The participant was referred to Central Kentucky Community Action for substance abuse. Since the beginning of the participant's substance abuse treatment the counselor reported incidents of violence, anger, and aggression. The participant is impulsive, deceitful, manipulative, and vengeful. The participant has shown an interest in receiving treatment for ASPD and SUD.

Procedures

The researcher requested the Internal Review Board's approval for the study. The participant was conveniently sampled from the Central Kentucky Community Action. All perspective participants have a previous diagnosis of antisocial personality disorder and substance use disorder. The participant selected for this study meet with the researcher for 12 bi-weekly sessions. Cognitive behavioral therapy integrated with chromis violence reduction program was used to reduce anger and aggression while increasing guilt and empathy. The participant was administered the NAS and TOSCA-3 pretest and posttest to measure changes in anger, aggression, guilt, and empathy.

The Researcher's Role

Theory building single subject design, which draw upon counsellor's clinical experiences, are a legitimate forum for theory building research (Fleet, et. al., 2016). Practice based data provide compelling evidence for counseling research because it is centered around the miracle of therapy in a way that randomized controls and statistics are unable to. Denscombe (2007) defined the role of the researcher in qualitative research as being one of detachment, the qualitative researcher takes a more involved role. The qualitative researcher constructs data and is considered a crucial element of the research. The researcher is a measuring tool whose values, beliefs, identity, and experiences have a direct impact on the nature of the data collection and interpretation process. The qualitative researcher gains access to the participant's natural environment and is the main research instrument used to collect and analyze data (Clark & Vealé, 2018). The researcher's role in this study is to collect data from archival documents and records, facilitate counseling sessions, evaluate progress, analyze data, and interpret results. The researcher used interpretation analysis to identify and explain changes in behaviors. Structural analysis to identify and explain changes in conversations and activities. Reflective analysis will

be used to describe any changes in behavior based on the researcher's expertise and experience with treating those diagnosed with ASPD and SUD.

Data Collection

The researcher sought Institutional Review Board approval for the research and has informed consent from the participant. Three forms of data collection were utilized in order to build an in-depth picture of the cases (Creswell, 2009). Using three instruments to measure data in this study ensured the researcher produces valid findings based on gathered data. The two-instrument case study examined how CBT and CVRP interventions impact ASPD features of anger, aggression, guilt, and empathy. This study uses multiple methods of data collection including document analysis, observations, and interviews. In this study, data collection through archival documents and records (mental health records), observations (session data), and questionnaires (NAS and CVRP) was employed. As part of the study the researcher evaluated the participant's archival data and behavioral records from the mental health facility where he received counseling services for substance abuse. Marshall and Rossman (2011) defined archival documents as routinely gathered records of a society, community, or organization. Archival documents are the private documents gathered by an agency and include assessments, session notes and treatment plans.

Interviews: After the collection of the archival documents was the semi-structured interview of the participant. The interview was be scheduled and conducted at CKCA for convenience. The open-ended questions listed in Appendix F lasted approximately one hour. The interview was recorded and transcribed verbatim using paper and pencil. Davies, Bukulatjpi, Sharma, Davis and Johnston (2014) define semi-structured interviews as those where the researcher has an area of interest and chosen questions but has some latitude to modify the

format during the interview. This type of interview was useful in gathering data on the participant prior to research. Qualitative research and single subject design studies have a scientific method that can produce valid findings. Interviews can reveal ideas and deliver insights no other method can provide (Diefenbach, 2009).

Standardized Open-Ended Semi-Structured Interview Questions

1. Please introduce yourself to me, as if we just met one another.
2. Please walk me through your worldview development timeline.
3. Of the formative experiences you identified on your timeline, which would you say were the most significant?
4. What made them significant?
5. Is there something else you would like to add to your timeline that you haven't already written down?
6. How do you think antisocial personality disorder has affected your life?
7. How has it impacted your family?
8. Do your friends and family think you are angry and aggressive?
9. Do you ever feel like violence is justified?
10. Have you ever been arrested for assault?
11. Do you argue with those who disagree with you?
12. Do you ever lie to others for your own personal gain or pleasure?

13. Do you act impulsively?
14. Do you ever fail to fulfill financial obligations?
15. Do you fail to fulfill work obligations due to irresponsibility?
16. Do you engage in criminal behavior for personal gain?
17. Are you able to empathize with those who are hurting or suffering?
18. Do you feel sorry when you hurt someone either physically or emotionally?
19. Do you engage in risk-taking or dangerous behavior without regard for the safety of yourself or others?
20. Do you use your wit or charm to manipulate others for your own personal gain?
21. Do you con others through lying for personal gain?
22. Do you lack remorse or guilt when you mistreat others?
23. Do you struggle to comply with social norms and laws?
24. Do you live by the laws of the jungle or the laws of society?
25. Do you make decisions on the spur of the moment and react to them?
26. Do you plan your actions in advance?
27. Do you get into physical confrontations?
28. Do you enjoy engaging in dangerous activities?
29. Do you get into confrontations with your boss at work?
30. Do you pay your bills on time?

Questions one through five are knowledge questions designed as follow-up questions to the worldview development timeline. The questions are intended to be straightforward and presented in a non-threatening manner. These questions were also intended to help build rapport between the participant and researcher.

Questions six through nine are knowledge questions designed to identify the participants understanding and knowledge of antisocial personality disorder and the impact the disorder has on family members and friends.

Questions ten through thirty are intended to gain a better perspective of the participants actions regarding justifying or rationalizing his bad behavior or his indifference to the exploitative and harmful effects of his actions on others. The questions are also intended to draw out the participants impulsivity, financial irresponsibility, physical aggression, lack of empathy, and disregard for laws and the rights of other.

Questionnaires: The Novaco Anger Scales (NAS) was administered pre-treatment and post-treatment. The NAS is a questionnaire that assess anger and violent behavior. The NAS consists of five subscales cognitive, anger, behavioral, arousal and, anger regulation. The pre-treatment NAS responses will be used as a starting point for measuring changes in anger and aggression that are the result of participation in treatment. The scale used has a test-retest reliability and internal consistency correlation coefficient of 0.80 or higher. The criterion used in this study will measure significant changes identified by a t-score change of 5. Therefore, a score that is 5 points above 50 will be higher than 79% of the population and a score that is more than one half a standard deviation from the mean will be seen as clinically significant. The NAS has demonstrated high levels of internal reliability and concurrent validity in testing (Burns, et. al., 2013). The NAS was found to have a high degree of internal consistency across various

subject populations (Selby, 1984). The rationale for using this instrument is based on reliability and internal consistency in measuring anger and aggression. The NAS adequately assesses an individual's anger at both the situational and clinical level. In addition, the instrument provides an anger index that reveals the intensity of anger the individual is experiencing. The NAS consists of 25 questions that represent the cognitive, behavioral, arousal and anger regulation domains. The questions asked to measure the degree to which the participant feels angry or annoyed. An example of a question in the cognitive domain: "I feel like I'm getting a bad deal out of life." An example of a question in the behavioral domain: "When someone screams at me, I scream back." An example of a question in the arousal domain: "I feel stressed and unable to relax." Each item is rated on a three-point scale, 1= never true, 2= sometimes true, and 3= always true. The ordinal scale rates degree of anger across the 5 domains. The NAS instrument is consistent with the operational definition of anger as a psychological function and can be used to assess therapeutic changes based on the independent variable (chromis violence reduction program/cognitive behavioral therapy) and the dependent variables (anger, aggression).

The Test of Self-Conscious Affect (TOSCA-3) is a scenario-based inventory for measuring the affective, cognitive, and behavioral responses of self-conscious emotions. The inventory consists of 16 scenarios (11 negative and 5 positive) producing scores for shame-proneness, guilt-proneness, externalization, detachment/unconcern, alpha pride, and beta pride (Jun Gao, et. al., 2013). For each statement, respondents' rate, on a 5-point Likert scale, how likely they could react in the manner stated. Each scenario is followed by five randomly assigned responses yielding phenomenological indices of shame (represented by 15 items), guilt (represented by 15 items), externalization (represented by 15 items), detachment (represented by 10 items) and two types of pride: alpha (pride in self, represented by 5 items) and beta (pride in

behavior, represented by 5 items). This comprises the test's six measurement scales. Accordingly, the shame, guilt and externalization subscales are represented in all 15 scenarios, detachment in the ten negative scenarios and alpha and beta pride in the five positive scenarios (Stromsten, et. al., 2009). A sample scenario is as follows: "You attend your coworker's housewarming party, and you spill red wine on a new cream-colored carpet, but you think no one notices." Four possible reactions are presented: "You would wish you were anywhere but at the party" (shame); "You would stay late to help clean up the stain after the party" (guilt); "You think your coworker should have expected some accidents at such a big party" (detachment); and "You would wonder why your coworker chose to serve red wine with a new light carpet" (externalization). Each reaction is separately rated on a 5-point scale (1=not likely; 5=very likely), and scores for each reaction type are averaged across scenarios (Peters & Geiger, 2016). In a study by Schalkwijk, Stams, Dekker, Peen & Ellison (2016) reliability of the TOSCA-3 was good with shame at .82, guilt at .83, detachment at .60, and externalization at .78. (Schalkwijk, et. al., 2016). In another study the internal consistency (Cronbach's alpha) and test-retest reliability were used to evaluate the reliability of the TOSCA-3 subscales, shame (alpha .77), guilt (alpha .78), Externalization (alpha .73), detachment (alpha .78), alpha pride (alpha .69), and beta pride (alpha .61) (Jun Gao, et. al., 2013). The intercorrelations between subscales showed shame-proneness to be moderately correlated with guilt-proneness ($r = .32 \sim .44$) and to externalization ($r = .29 \sim .49$) in all samples (Jun Gao, et. al., 2013). The main effect of emotion was significant $F(1, 423) = 1712.87$, $p = .00$, $n = .80$, with guilt- proneness scores ($M = 40.53$, $SD = 9.21$) (Jun Gao, et. al., 2013). These findings appear to support the reliability of the TOSCA-3 in all its subscales.

Document Analysis: As part of this study, the researcher evaluated the participants archival documents and treatment records. Marshall and Rossman (2011) defined archival documents as routinely gathered records of society, community, or organization. Archival documents are records of private documents gathered by someone other than the researcher and include letters, diaries, and documents of a private corporation or organization (Lapan, Quartaroli, & Riemer, 2012). Document analysis is a form of historical research that is based in the interpretation of past records in an effort to uncover facts about the participant in this study. This form of archival document analysis will generate new knowledge and increase the researcher's understanding of the participant's overall functioning. Archival documents and records for this study include the participant's previous and current mental health and substance abuse records. The documents have been maintained and updated during his participation in mental health counseling and substance abuse treatment. These documents contain the following information. (a) a history of the participant's progress in treatment. (b) all psychological assessments, substance abuse assessments, participation behaviors, and group attendance.

Observations: Observations can be defined as the systematic description of events, behaviors, and artifacts in the social setting chosen for the study (Marshall & Rossman, 2011). The researcher conducts observations in the research setting while getting to know the participant. This provided the researcher with an optimal way of understanding the context and phenomenon being studied.

Data Analysis: The data collection is a product of the research questions, objectives, and research design. Qualitative data consists of words from participant observations, interviews, documents, and thematic analysis with sorting and coding. A thematic analysis involves observing and recording patterns in the data (Clark & Vealé, 2018). Coding is the term used to

describe the transitional process between data collection and data analysis. Decoding occurs when a passage is analyzed to decipher its core meaning and encoding occurs when the passage is labeled with an appropriate code (Clark & Vealé, 2018). Thematic analysis will be used in this qualitative research to examine themes or patterns in the data collected. This will allow the researcher to explore explicit and implicit meaning within the data set.

Trustworthiness

Trustworthiness or rigor of a study refers to the degree of confidence in data, interpretation, and methods used to ensure the quality of a study (Connelly, 2016). In this study the researcher will establish the protocols and procedures necessary for the study to be considered valid. Triangulation is the process of using multiple sources to draw conclusions (Connelly, 2016). The researcher used multiple methods of data collection to gain a coherent and comprehensive view of the phenomenon being studied. This process includes interviews, session notes, observation, and journaling throughout the research process. The researcher facilitated this process through engagement, observation, and reflexivity. Reflexivity in qualitative research is the awareness that the researcher's values, background, and previous experience with the phenomenon can affect the research process (Connelly, 2016). The researcher addressed bias by maintaining a reflexive journal to note his thoughts and feelings throughout the research process.

Credibility

Credibility of the study, or the confidence in the truth of the study and therefore the findings, is the most important criterion (Connelly, 2016). This study was conducted using standard procedures typical in qualitative research. Techniques used to establish credibility

include prolonged engagement with the participant, persistent observation, and reflective journaling.

Dependability and Confirmability

Dependability refers to the stability of the data over time and over the conditions of the study (Connelly, 2016). The constancy of the data over similar conditions would be considered dependable. Through the researchers process and descriptions, a study would be deemed dependable if the study findings were replicated with similar participants in similar conditions (Connelly, 2016). Conformability refers to the researcher's ability to demonstrate that the data represented the participant's responses and not the researcher's biases or viewpoints (Connelly, 2016). The researcher demonstrated confirmability by describing how interpretations and conclusions were established and illustrating how the findings were extracted from the data.

Transferability

Transferability refers to finding that can be applied to other settings or groups. This study did meet criterion if the results can be applied to individuals or groups not involved in the study. The criterion of transferability is dependent on the aim of the qualitative study and may only be relevant if the intent of the research is to make generalizations about the subject of phenomenon (Connelly, 2016).

Ethical Considerations

Ethical considerations for this study was addressed by maintaining the anonymity of the participants by using pseudonyms for the participant, setting, and location of the study. All electronic data was stored in a password locked computer. All paper data was stored in a locked filing cabinet.

Summary

This study examined treatment efficacy for the participant diagnosed with comorbid antisocial personality disorder and substance use disorder. The purpose of the study is to explore the participant diagnosed with antisocial personality disorder to gain knowledge about how cognitive behavioral therapy integrated with chromis violence reduction program remediates the core features of the disorder. This study included 1 participant diagnosed with antisocial personality disorder and comorbid substance use disorder, and one researcher. This study used a qualitative method. A single subject design was used in this research using repeated measurements to determine the effectiveness of treatment. This study is interested in treatments that have a substantial effect on important behaviors and that can be implemented reliably in the real-world contexts in which they occur. The research question "can an integration of cognitive behavioral therapy and chromis violence reduction program reduce anger and aggression while increasing guilt and empathy for those diagnosed with ASPD and SUD" was addressed in this study. Central Kentucky Community Action is in Central Kentucky. This site was selected based on the researcher's ability to conduct the research at a private and secure location. The participants for the study were drawn from a convenience sample of clients from Central Kentucky Community Action located in Central Kentucky. This study uses multiple methods of data collection including pre-test/post-test, observations, and interviews. In this study, data collection through archival documents and records (mental health records), observations (session data), and questionnaires (NAS and CVRP) was employed.

CHAPTER FOUR: FINDINGS

Overview

This study was designed to investigate treatment efficacy for comorbid antisocial personalist disorder and substance use disorder. Cognitive behavioral therapy was integrated with chromis violence reduction program to increase shame and guilt while decreasing anger and aggression. This study investigated whether a 12 session CBT integrated with CVRP would positively impact anger and aggression in those diagnosed with ASPD and SUD. The results of the study provide some information that may aid in the development of an effective and timely treatment for those struggling with comorbid ASPD and SUD in a community setting. The participant in this study demonstrated some improvements during course of sessions. The participant demonstrated some reduction in anger and aggression. This finding offer support for the integration of CBT and CVRP in facilitating a reduction in anger and aggression in those diagnosed with ASPD and SUD. To maintain confidentiality, pseudonyms were provided for the participant, and name and location of the study. Archival documents from substances abuse treatment facilities and behavioral records from mental health treatment facilities were examined in order to uncover unknown facts about the participant and establish patterns of antisocial behavior.

Participant

George

The participant is a 33-year-old Caucasian male with a comorbid diagnosis of ASPD and SUD. George was raised by both parents until the age of 13. George has one older brother who he feels close to. His parents divorced when George was 13 years old, and he primarily lived

with his father. There was a significant history of domestic violence in the home throughout childhood. Both parents abused substances and physically abused George throughout childhood. George was sexually abused by his father from age 6 to 17 and forced into sex trafficking at the age of 10. George began using substances such as meth, cocaine, and heroin at age 13. George began manufacturing methamphetamine with his father at age 13. He began selling substances at adult bookstores at the age of 13 where he also engaged in prostitution with adult males. George has a lengthy criminal record that includes trafficking in drugs, assault, robbery, and prostitution. At age 27 George began dating his fiancé at which time he began to separate himself from prostitution. Over the past 3 years George has completed 3 substance abuse treatment programs but has not been able to sustain adequate recovery time. George relapsed within 2 weeks after completing treatment. George's environment is chronically hostile ant toxic to addiction recovery and George is unable to cope with the negative effects of his environment on recovery and the environment may pose a threat to his safety. George is presently employed as a forklift operator and lives with his fiancé. George has not been able to provide himself with stable housing for over 6 years. George reports his only support system is his girlfriend and mother. George was diagnosed with ASPD at the age of 25 by a prison psychologist. George exhibits a pervasive pattern of disregard for the rights of others and failure to conform to social norms. He frequently engages in unlawful behavior, deceitfulness, impulsivity, aggression, irresponsibility, and lacks remorse and guilt. George chose to participate in this study to overcome his dysfunctional behavior patterns and reduce his anger and aggression. George has a desire to develop a stable relationship with his fiancé with reduced anger and aggression.

Ron

The study originally had three participants of which two failed to complete the study. Ron is a 30-year-old Caucasian male who had a comorbid ASPD and SUD diagnoses. Ron relapsed during the study and died from a Fentanyl overdose. Ron had been in substance abuse treatment over 40 times in his life and relapsed within a few weeks after completing treatment. Ron was sexually abused from age 5 to 6 by a family member. Ron was sexually abused from age 7 to 13 by a neighbor. Ron's mother was diagnosed with schizophrenia at an early age. Ron's father was diagnosed with ASPD and spent a significant amount of Ron's childhood incarcerated. Both of Ron's parents were active substance users. Ron's mother died of a drug overdose when Ron was 18 years old. Ron's father is presently incarcerated for murder. Ron had a significant arrest record that includes assault, robbery, attempted murder, and rape. Ron has a significant history of violence, anger outburst, aggression, and other antisocial behavior.

Steve

Steve is a 36-year-old Caucasian male with a comorbid antisocial personality disorder and substance use disorder diagnoses. Steve was sexually abuse from age 5 to 8 by a babysitter. Steve was also sexually abused from age 12 to 15 by 30-year-old women in the neighborhood. Steve was physically and emotionally abused by his father from age 3 to 16. Steve's father was an alcoholic who died in a motor vehicle accident when Steve was 18 years old. Steve's mother is a drug addict who sexually abused Steve from the age of 4 to 16. Steve has a significant history of arrest for grand theft auto, armed robbery, possession of a controlled substance, aggravated battery, assault on a police officer and burglary. Steve has spent a significant amount of his life incarcerated. Steve exhibited all DSM-5 criteria for antisocial personality disorder. Steve withdrew from the study due to a Covid-19 exposure. Steve was expose to the Covid-19 virus but did not test positive for the virus so his reason for dropping out of the study is not clear.

Steve did not follow through with his commitment to complete this study. The researcher reached out to Steve by phone on many occasions and made many offers to meet with him in person or via telehealth at a time convenient for him but was unable to motivate the participant to complete the study.

Results

Theme Development

The researcher aligned data obtained from the Novaco Anger Scale, the TOSA-3, and the semi structured interview with this study's research question. The results are presented in this subsection. This study's one research question is as follows.

RQ1: Can an integration of cognitive behavioral therapy and chromis violence reduction program reduce anger and aggression while increasing guilt and empathy for those diagnosed with ASPD and SUD.

The research question focused on Cluster B personality disorder traits common in those diagnosed with antisocial personality disorder based on the criteria found in the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM-5). Archival reports indicated the participant in this study had a previous diagnoses of antisocial personality disorder beginning at the age of 24. The researcher examined archival date which also indicated the participant has a previous diagnosed of substance use disorder at age 17. To measure the emotions of anger, aggression, shame and guilt the researcher used a validated instruments TOSCA-3 and NAS. The researcher presented a critical analysis of the instruments and interview data sets which were analyzed using the software tool MS Excel. Graphs and simplified charts are also presented to aid in the

visualization of results discovered in the participant's emotions of anger, aggression, shame, and guilt.

Therapeutic Intervention

The therapy sessions were designed to gradually increase the participants anger management skills from one session to another while decreasing his aggression.

Session 1- Incorporated the two-step model of anger as a process that requires both the experience of pain (emotional and physical) and the use of trigger thoughts (attributions that blame others for the painful experience). The Participant stated, "so what your saying is step one is my pain caused by someone and how I think about the pain or hurt that caused me to act or hurt them back." The Pt was receptive to the concept and provided insight to his experiences of emotional pain that included childhood trauma and fears of rejection. The researcher and Pt discussed the emotional wounds he experienced in childhood and how they are the underlying issues that promote anger as a coping skill. The researcher and Pt discussed the futility of ventilation as an anger-control tool that leads to increased anger and aggression. Session one wrapped up with a discussion about the difference between anger and aggression. The Pt verbalized an understanding of the difference between anger/aggression and agreed to keep an anger log to journal his experiences of anger. The researcher's observations of the Pt during session one are the Pt had racing thoughts and fidgeted in his seat. The Pt seemed distracted and unable to fucus on the topics being discussed. The Pt did not take the first session serious and kept making jokes about the process. The Pt smiled when talking about his anger responses. The Pt seemed to become emotionally charged and excited when talking about his anger issues. The Pt had a hard time controlling his displeasure with having to keep a journal of situations that cause him to get angry.

Session 2- began with a discussion about anger's self-perpetuating cycle of anger, anger trigger thoughts and how they lead to increased anger. The researcher and Pt discussed ventilation of anger actually increases anger instead of decreasing anger. The researcher and Pt discussed anger is an emotion and aggression are a behavior and how they can occur independently. The researcher shared with the Pt coping skills to use when he is angry such as Deep Breathing and Grounding skills. The Pt was receptive and practiced the deep breathing technique as a calming strategy. The researcher and Pt discussed negative self-talk and positive self- talk and how the thoughts we have can lead to positive or negative actions. The researcher shared with the Pt that our thoughts drive our behaviors. The Pt was receptive and asked how we can change our thoughts. The researcher shared that replacing negative thoughts with positive thoughts is a skill that needs to be practiced in order to become good at it. Positive self-talk can lead to increased self-worth and self-esteem. Also, it can lead to a more rewarding and fulfilling life. The researcher shared with the Pt the concept of Cognitive Restructuring and how to replace negative self-talk with positive self-talk. The researcher provided the Pt with examples of negative and positive self-talk. The Pt began to share with the researcher his own negative and positive self-talk that included "I am a drug addict and I can never change" He replaced the negative self-talk with "I have been clean and sober for 3 months and I can stay clean and sober as long as I want" The Pt also shared "I am a rotten person" and replaced that statement with "I have made mistakes but I can be a great person" The Pt also stated "I have been a horrible father but I can learn to be a wonder dad" The researcher's observations of the Pt during session two were the Pt seemed less defensive during this session. The Pt had more focus and less racing thoughts. The Pt was more interested in the coping skills and how negative thoughts and actions can be changed into more positive thoughts and actions. The Pt was able to gain a better understand of

how letting others control our emotions takes the power over our emotions out our hands and places it in the hands of others. The Pt expressed a desire to have power over his emotions. The Pt was receptive to the skills discussed and agreed to practice the skills. The Pt was curious about negative self-talk and positive self-talk and how learning to be a positive thinking person can lead to more satisfaction in life and more rewarding relationships.

Session 3- began with the Progressive Muscle Relaxation technique. The researcher shared with the Pt how to tense and relax each muscle group in the body. The Pt and researcher practiced tensing and relaxing each muscle group in the body. The researcher shared with the Pt how Safe Place Visualization in vivo stressful situations works. The Pt practiced visualizing his safe place while using the muscle relaxation technique. The researcher shared with the Pt that exercise is a good release of energy and that anger is not only an emotion, but also energy. The researcher shared with the Pt "when you are angry you have a lot of energy that is seeking release and exercise can be a great way to release that energy" The Pt agreed to practice the progressive muscle relaxation technique daily with and without tensing his muscles. The Pt agreed to practice visualizing his safe place after completing his muscle relaxation. The Pt agreed to begin practicing deep breathing, grounding skills, progressive muscle relaxation and safe place visualization in low anger situation during the week and reports his success during the next session. The researcher's observation of the Pt during the session three are he seemed agitated at the beginning of the session but soon relaxed and seemed to be invested in the session. The Pt asked many questions about progressive muscle relaxation and how it impacts the brain and how safe place visualization can reduce stress. The Pt is becoming more interested in how thoughts, feelings and action are connected. Pt reported he got angry at his girlfriend because she wanted to go out to eat dinner, but the Pt wanted to stay home. Pt stated "she was on back over going out

to eat, it wasn't the going out to eat that pissed me off as much as her ragging me about it" Pt stated "I didn't yell or scream at her, I just got quit and agreed, I was mad about it and she knew it but I didn't lose my temper, it turned out good because we ended up having a date night and I had a good time with her" Pt stated "it took a while for me to let it go but I was able to and she noticed it and thanked me during dinner, that made me feel pretty good"

Session 4- The researcher shared with the Pt cue words (relax, breath, and peace) to begin the process of relaxing during stressful situations. The researcher shared with the Pt how cue words (relax, peace, breathe) can trigger the Pt to use the copings skills (progressive muscle relaxation, safe space visualization, positive thoughts) to reduce anger. The Pt and researcher then began to incorporate deep muscle relaxation, safe place visualization and slow abdominal breathing. The Pt chose the cue word "peace." The Pt and researcher practiced saying the cue word while using deep breathing to cue relaxation during each exhale. The Pt and researcher practiced the entire combination progressive muscle relaxation, safe place visualization, deep breathing and using the cue word. The Pt agreed to practice the combination daily and report his success during the next session. The researcher shared with the Pt that anger expression and using these techniques can help him identify emotions and improve self-monitoring of anger through relaxation. The researcher shared with the Pt that stress inoculation that focuses on anger as a coping skill that can reduce anger and aggression and can act as management skills that reduce his pain response of blaming others. The researcher began the discussion on how CBT can be used to identify his maladaptive thoughts, behaviors and distorted perceptions of situations that influence his emotional behavior and reactions that lead to anger and aggression. The researcher's observation of the Pt is he appeared to be tired. His appearance was unkept and disheveled. His mood was lethargic and withdrawn. The Pt was able to complete the session and engage in the material. Pt

reported that he is working a lot of hours and is not sleeping as much as he needs. Pt reports he has been stressed at work because of all the Covid-19 protocols are slowing him down and it is hard to work with the PPE's. Pt reported the relationship with his girlfriend has been strained and that is adding to his stress levels. Pt stated, "I have been using the grounding skills and relaxation stuff at work and home and they seem to help."

Session 5- The researcher began with a discussion about the Ellis ABC model of emotions. The researcher shared with the Pt that A is the activating event that led to his anger. B is his belief surrounding the event and Cis the consequence or emotional response to the event. The Pt asked the researcher for an example. The researcher stated, "when your girlfriend was talking on the phone and your got mad because you thought she was talking to another guy, her talking on the phone was the activating event, and your belief that she was cheating on you was the belief and your anger that led to an argument was the consequences." The Pt was able to verbalize and understanding of the Ellis model of emotions. The researcher asked the Pt to share times in his life when an activating event took place that led him to believe or assume someone was causing him pain and that lead to him getting anger. The researcher gave the Pt a list of major trigger thoughts that included 3 types of should, 1-entitlement, 2- fairness, and 3- change. The researcher shared with the Pt that entitlement is when you feel like you have a right to something, like getting angry at your coworker, fairness is when you think the coworker treated my unfairly so it is fair that I get angry at him, and change is when I think my getting angry will change the coworker. The researcher shared with the Pt 3 types of blamers, 1- assumed intent, 2- magnification, and 3- global labeling. The researcher shared with the Pt that assumed intent is when you assume your coworker told on you to hurt you or get back at you, magnification is when you make it out to be far worse than what it really is and get angrier than the situation calls

for, and global labeling is when you call your coworker a rat, snitch, lazy, and stupid because he told on you. The Pt seemed to understand how should and blamers work together to promote his anger and anger responses. The researcher had the Pt make a list of self-talk statements for the 3 types of should triggers and blamer triggers. The researcher had the Pt make a list for coping skills for each trigger. The researcher and Pt practiced using the coping skills using low anger situations such as his coworker reporting he was late returning from lunch break at work. The Pt imagined he was at work and his coworker told on him. The Pt became intensely upset during the exercise. The researcher asked the Pt to begin relaxation techniques (progressive relaxation, visualization, breathing, and cue-controlled relaxation) to reduce anger. The researcher asked the Pt to use positive self-talk statements to aid in emotion regulation. The Pt was able to complete the task and return to baseline in his emotions. The researcher's observation during the session is the Pt seemed relaxed, calm, and engaged in the session. Pt was clean shaven, and his clothes were neat and clean. Pt was in a good mood; his affect was congruent, and he made a few jokes about writing in his journal. The Pt became angry when discussing an incident at work where a coworker told on him about being late coming back from lunch. The Pt was able to use the techniques learned during the session. The Pt seemed to have been practicing the techniques during the previous weeks because he moved from angry to baseline somewhat quickly. The Pt made a list of trigger statements and agreed to keep working on the list. The Pt agreed to identify 5 new trigger statements for the following session. The Pt agreed to keep writing in his anger log and report any anger situations that caused him trouble regulating his emotions.

Session 6- began with processing the Pt's anger log. The Pt reported he had lost his anger log and was given a second anger log. The Pt and researcher discussed his anger log from memory. Pt shared with the researcher a situation with his brother that made him angry. The Pt stated, "my

dumb ass brother used my socket set and left it at his girlfriends, so when I needed it to fix my bike I was out of luck." The Pt reported his brother brought him the socket set later in the day and they had an argument about the situation. The Pt stated, "I wanted to smack him because he acted like it was no big deal, I wasn't mad about the socket set, I was mad over the way he acted" The Pt reports he walked way before he got mad enough to act on his anger. The Pt reported the situation over the socket set would have made him seriously angry to the point of acting aggressively or even violently because of his brother's attitude over leaving his new socket set at his girlfriends. The researcher asked the Pt is he used positive self-talk, deep breathing, safe place visualization, and cue words in the situation. The Pt stated, "I used the deep breathing trick to calm down after I walked away and it actually worked" The Pt stated, "I kept telling myself that it could happen to anyone and he just made a mistake, and he don't realize how badly I needed to fix my bike so I can use it this weekend" The researcher noticed that the Pt was calm while talking about the situation. The researcher noticed that the Pt was less irritable and angry than during other sessions. The researcher asked the Pt if he noticed any differences in the way he handled the situation versus in the past. The Pt stated, "I did, in the past we would have gotten in a fight where we screamed and yelled or went to blows, but this time I caught myself and talked myself down" "I did not get as anger and I used to and I was able to get my emotions together and actually asked Mike if he wanted to help me work on my bike" The researcher and Pt discussed several imagery coping skills rehearsal and effective coping self-statements to use in high anger situations. The Pt reports his coping skills are hard to practice when angry, but he is trying to remember. Pt reports "I keep telling myself that I can do this, and I can learn how to be normal like other people, not everyone gets as mad as me, but I can do this." The Pt and researcher discussed trigger words and how they can negatively impact his

emotion regulation. Pt reports his trigger words are dump ass, punk, bitch, fuck you, and fuck off. The researcher shared with the Pt that they are just words. The Pt responded, “if I let people talk to me that way, they will think I am weak and a punk” “If I let people disrespect me then everyone will do it” The researcher replied, “if you let others control your emotions then they will have the power to make you feel what they want when they want” The researcher asked the Pt to give him alternative response that do not include anger. The Pt replied, “I cannot think of any right now’ The researcher asked the Pt to make a list of responses and bring them to our next session. The researcher shared with the Pt several responses walking away or smile and politely ask then to not speak to you that way. The researcher’s observation during the session is the Pt appeared neat and clean. The Pt appeared relaxed and calm when he showed up for the session. The Pt reports that he lost his anger log but was able to share a situation that made him angry during the past week. Pt reported he has been practicing deep breathing, relaxation skills, and grounding skills to promote emotion regulation. Pt seemed to enjoy sharing his success in not losing control of his emotions during the situation with his brother. The Pt rehearsed visualizing anger situations and then regulating his anger and anger responses. The Pt fully participated in the session and took this session more serious than previous sessions. Pt reported that his relationship with his girlfriend was doing very well and they had no arguments or conflict during the previous week. The Pt committed to the researcher that he would show up for the next session.

Session 7- began with a discussion about active and passive Response Choice Rehearsal. The researcher shared with the Pt three active (when the participant is feeling anger) Response Choice Rehearsal opening statements (1) ask for what you want/need (I am feeling ----- and what I think I need want/need in this situation is ------), (2) negotiate (What would you propose to

solve this problem), (3) Use self-care (If this continues, I'll have to ----- in order to take care of myself). The researcher and Pt discussed a situation during the previous week that made the Pt angry. The Pt stated, "I got into a heated discussion about the election and the voter fraud with a coworker the other day and she pissed me off big time with her retarded ass" Pt reported he shared with the coworker his thoughts about the 2020 presidential election but she stated, "I am glad Trump lost even if it was rigged, he is a wretched president and a racist" The researcher asked the Pt to role play the situation with the researcher. The researcher asked the Pt to use wants and needs statements. Pt stated "I need you to respect my political views and I want you to allow me to voice my opinion" Pt used negotiation skill to propose a way to peacefully solve the problem. Pt stated "why don't you have your views while allowing me to have mine" Pt used self-care statements to stay calm. Pt stated, "I have to use deep breathing and relaxation skills to keep from getting angry and flying off the handle." The researcher shared with the Pt the passive (when other person is feeling anger) opening statements (1) get information (What do you need in this situation, what concerns you in this situation, what's bothering you in this situation), (2) acknowledge (So what you want is ____" So what is bothering/concerns you is ___), (3) withdraw (If feels like we're starting to get upset, I want to stop and cool off for a while. The researcher and Pt practiced passive opening statement in role play. The researcher played the coworker. The Pt asked the coworker "what do you need from me and what is bothering you" The researcher responded "I need you to respect my views" The Pt responded "just because we don't share the same political views don't mean we can't have a civilized conversation about politics" The Pt stated, "if we get upset then we can take time to cool off but the important thing is we don't fight over our beliefs and allow each other the freedom to have our own beliefs" The researcher and Pt role played a scenario involving his girlfriend. The Pt shared with the

researcher that he got angry with his girlfriend because she did not want to spend the holiday with his family. The researcher asked the Pt why. He responded, “because they get drunk, and it always turns into a fight” The researcher asked the Pt to role play the situation with the Pt playing the part of his girlfriend. The researcher played the part of the Pt. The researcher stated, “I want to go to my family’s house for the holiday, would you come with me” The Pt stated, “no” The researcher responded “what do you need and what are your concerns about going to my family’s house” Pt responded “they always get drunk and it turns into a fight” The Pt responded “ we can leave early, long before the fighting starts, we just need to stay long enough to visit with them” The Pt and researcher negotiated a peaceful resolution to the problem. The Pt stated, “I am going to try this in real life with my girlfriend.” The Pt agreed to practice memorizing de-escalation statements, so he is able to respond in a moment’s notice. The researcher shared with the Pt practice makes perfect and if he is willing to practice these techniques then he is more likely to use them when needed. The Pt agreed to practice response choice rehearsal opening statements and report his success during the next session. The Pt agreed to write in his journal and share with the researcher during his next session. The researcher’s observation during the session is the Pt was appeared neat and clean. His mood was appropriate, and his affect was stable. Pt had a calm demeanor and he appeared to be happy. The Pt forgot his journal but stated “I will bring it next week” The Pt was invested in the session and seemed to enjoy the role play. The Pt and researcher discussed his relationship with his girlfriend and the Pt stated, “we have been getting along good over the past week” The researcher asked the Pt to journal his thoughts, feelings and actions that may be contributing to the success in his relationship.

Session 8- began with a discussion about verbalizing his own needs statements, negotiation statements and self-care solutions assertively, not aggressively. The Pt verbalized an

understanding of ways in which Response Choice Rehearsal responses can be used. The researcher discussed with the Pt how to start with one Response Choice Rehearsal and switch if anger continues or is met with resistance until success is achieved. The Pt verbalized an understanding of how to switch if stuck from active to passive responses or from passive to active responses. Researcher and Pt practiced his own need statements, negotiating statements, and self-care solutions assertively without being aggressive. The Pt and researcher brainstormed needs statements. The Pt stated, "I need you to be faithful, I need to trust you, I need you to respect me, I need to be the man of the house, I need to feel heard, I need to feel loved, I need to feel wanted, I need to come first" The Pt and researcher practiced negotiating statements. The Pt stated, "I will empty the trash if you wash the dishes, If you do the laundry I will wash your car, I will treat you with respect if you don't yell at me, I will calm down if you calm down, I will pay the rent if you pay the electric and water bill, I will pay for half of our vacation if you pay for the other half" The Pt and researcher practiced self-care solutions being assertive with an emphases on positive voice control without sarcasm or anger. The Pt stated, "it is better for me to not get anger or defensive when speaking to other because it will improve our relationship, I can be happy and get my point across just as effective without getting angry, self-care leads to a healthier and happier me, just because someone does something I don't like, don't mean I have to get angry." The researcher shared with the Pt the flexible use of the six Response Choice Rehearsal responses in role play situations. The researcher demonstrated to the Pt the six Response Choice responses 1. I would like for you to respect me and I am feeling threatened when you raise your voice. 2. What would you propose we do in this situation. 3. If you do not stop yelling, I will need to walk away in order to take care of myself. 4. What do you need from me right now. 5. So what you want me to do is-------. 6. It feels like we are getting our emotions

in this and starting to get angry. I want to stop for a while and cool off so we can have this conversation without getting anger. The Pt and researcher role played using the six Response Choice Rehearsal response. The Pt and researcher took turns being the aggressor and calmer. Pt and researcher role played his employer, girlfriend, mother, and brother. The Pt came up with scenarios that took place with each person that he got angry and or aggressive. In the role play the Pt practiced the skills and developed statements to use throughout the week. The Pt and researcher discussed how the Pt felt about the role play exercise. The Pt stated, "I had fun, but I am not sure how all this will work in the real world" The researcher shared with the Pt his growth and commitment to practice using the skills he is learning. The Pt stated, "I really want to learn how to have a good relationship with my girlfriend and stop blowing up on her, but it is so hard when I have been this way all my life" "she is awesome and I really love her so I am going to keep practicing this stuff" "I trust you and believe you are really trying to help me" The researcher shared with the Pt that Tom Brady did not earn six Super Bowl rings without practice. The researcher's observations during the session are The Pt was neat and clean. His mood was labile and anxious. His affect was appropriate. The Pt was oriented, and his judgement was immature. Pt reported he cannot find his anger log but stated "I have been writing in it" The researcher has given the Pt 2 notebooks to use as anger logs. The Pt said he only had one incident that got him angry during the previous week. Pt stated, "my family is driving me crazy; they know I am clean and sober, but they keep coming around me high and drunk, it is so disrespectful, and I would like to chock them, but I stayed calm until after they left and then vented to my girlfriend. I called my mother a few days later and told her not to do it again. She said she was sorry and would pass it on to my brother. I kept thinking in my head stay calm and use the skills you are learning."

Session 9- began with the researcher helping the Pt develop appropriate negotiation and compromise statements to use in role play, and to leave a situation if his withdrawal statement is ignored. The researcher and Pt discussed him planning ahead his wants/needs statements, a fallback position, and self-care solutions. The Pt and researcher brainstormed negotiation and compromise statements. Statements include 1. What would you do to resolve this? 2. How do you want to proceed? 3. Is there something I can do to help us move forward? 4. I will meet you in the middle on this. 4. I accept my fault in this situation. 5. What can I do to make you feel better about this. 6. I want to work this out without drama or anger. 7. I can make this right if you give me a chance. The Pt used the following withdrawal statements. 1. I feel like we are getting off track. 2. I feel like we are getting too emotional. 3. I feel like one of us is getting angry. 4. I want to stop so we can cool off. 5. Let us take a break to give me a chance to collect myself. The Pt agreed to leave a situation in which his withdrawal statements were not working so he could stay calm. The Pt and researcher practiced the use of the six Response Choice Rehearsal responses in low, medium, and high anger situations. The Pt chose his brother stopping by his house under the influence of methamphetamine as his medium anger situation. The Pt chose his girlfriend texting someone he believes she may be cheating on him with as his high anger situation. The Pt chose his boss at work reprimanding him as his low anger situation. The Pt and researcher practiced through role play the six Response Choice Rehearsal situations until the Pt felt confident that he could use them in a real-life situation. The Pt made a list of his want and need statements, fallback position, and self-care statement. The Pt was adamant he would be successful using these skills with his girlfriend in low-risk situations. Pt shared with the researcher that his girlfriend had noticed a difference in his attitude over the past few weeks. The researcher's observations of the Pt during the session are the Pt's appearance was disheveled and

unkept. His mood was labile and anxious. His affect was appropriate. He was cooperative and oriented to person, place, and time. His insight fair and his judgement were mature. The Pt seemed to be in high spirits and was eager to talk about his job. The Pt shared that he received a raise of $1.00 per hour last week. Pt shared with the researcher that he got into an argument with a coworker over someone stealing food from the refrigerator. The Pt shared that he used the negotiating statement "what would you propose we do to solve this problem" instead of getting angry. The Pt shared that the situation never got to the point of sarcasm or anger.

Session 10- The Pt shared his success with using the Response Choice Rehearsal during the previous week in low, medium, and high anger situations. The researcher shared with the Pt that anger starts with a want/need and a healthy way to respond is to ask for what you want/need to reduce pain which in turn reduces anger. The Pt reported he used Response Choice Rehearsal in a low anger situation with his mother. The Pt stated, "my mother wanted me to drive to Louisville in the middle of the night to pick up her boyfriend" The Pt reported that his mother got angry and started yelling at him. Pt reported that he stayed calm and kept his voice low. The Pt reported he did not give in to her demand and refused to let his brother use his car to pick up her boyfriend. The Pt reported that his mother and brother were both using methamphetamine and he did not feel comfortable letting them drive his car. The Pt reported to the researcher that staying clean and sober around his family was getting really hard. The Pt reported he used the Response Choice Rehearsal with his girlfriend when she demanded that he stop letting his family come between them. The Pt reported that his girlfriend wants to move away from his family and that started a discussion, not a fight. The Pt reported he asked, "what do you want me to do, they are my family" "I want to keep you and me good but not at the expense of my family" The Pt reports "because I did not raise my voice or start throwing a fit my girlfriend stayed somewhat

calm. The Pt stated, “instead of a blowout fight and argument we just talked about my family and their drug use and how it is getting in the way of our lives and my recovery” The Pt stated, “that was kind of odd because we would usually get into a fight over my family.” The Pt and researcher discussed coping skills and how to use them when he feels stuck or threatened. The researcher and Pt talked about deep breathing, grounding, skills, and relaxation skills from previous sessions. The Pt reported he has been using the deep breathing skills with good results. The Pt reports visualization and deep muscle relaxation works well when he is at home and deep breathing works good at work. The Pt agreed to use Response Choice Rehearsal when feeling stuck or threatened. The researcher’s observations of the Pt during the session are the Pt seem distracted and distant. The Pt was oriented to person, place, and time. The Pt was cooperative and his mood appropriate. Pt seemed to be lost in his own thoughts and he seemed to be bothered by something but did not want to talk about it. The Pt did state that he has not been sleeping good for the past few nights. The Pt reported he has been working overtime because of the Holidays. The Pt reported his girlfriend got a job at Amazon for the Holidays and that it was only a seasonal job. The Pt reports he has not been able to spend as much time with his girlfriend as he would like. The Pt was far more passive this session than any previous session. The researcher asked the Pt if he could explain his passiveness, but the Pt stated, “I don’t want to talk about it.”

Session 11- The researcher started the session with a question asking the Pt “What do you care about and want, and how do you usually try to achieve this”? The Pt stated, “I want to have a good job, make money, own a home, and have kids.” The researcher asked the Pt to dig deeper and share what he wants in relationships. The Pt stated, “I want to have real relationships that are built on respect, trust, and loyalty” The researcher asked the Pt what he wants in a romantic relationship. The Pt stated, “I want love, commitment, trust, respect, honesty, and loyalty” The

researcher asked the Pt to share how he gets these qualities in his relationship at this time. The Pt stated, “I demand it, or we are done” The researcher asked the Pt to share how that is working in his present romantic relationship. The Pt stated, “fine” The researcher asked the Pt about a fight he and his girlfriend had about her talking to someone on the phone and he got jealous because he thought she was cheating on him and the Pt getting mad starting a fight because he did not trust her. The Pt stated, “what are you saying” The researcher shared with the Pt that demanding trust is not an effective way of getting what you want. The researcher began a discussion with the Pt about what objectivity means, and how cognitive distortions can get in the way of understanding his experiences and hinder the change process. The researcher shared with the Pt that objectively means to not have our actions, thoughts, or words influenced by our beliefs or feelings but instead to weight the evidence. In an effort to tie the discussion to the fight he had with his girlfriend over a phone call where he suspected her of being unfaithful the researcher shared with the Pt that if he were to act objectively, he would have collected evidence before accusing her of cheating. This would have prevented a fight because he would have learned that the phone call was harmless. She was talking to her employer about working overtime. The researcher discussed the definition of cognitive distortions and how they are interpreted. The researcher stated that cognitive distortions are habitual ways of thinking that are often inaccurate and negatively biased. Cognitive Distortions are a tendency to focus on one detail, often out of context, and ignore other more important events. Examples of cognitive distortions are Polarized Thinking or all-or-nothing, or everything is all black or white. This is thinking in extremes. Overgeneralization means to reach a conclusion about an event and then incorrectly apply that conclusion to other events. Catastrophizing means to dread or assume the worst when faced with the unknown. Personalization means to take things personal even when they are not connected to

or caused by you. Mind Reading means to assume what other people are thinking. Mental Filtering means to focus on the negative and ignore the positive. Emotional Reasoning means a false belief that your emotions are the truth and how you feel about a situation is a reliable indicator of reality. Feelings are not facts because our feelings can change a fact does not change. The researcher shared with the Pt Creative Thinking and how it works. The researcher shared with the Pt that creative thinking is to consider something is a new way such as a new approach to a problem, a resolution to conflict or to have a new perspective. The Pt was extremely interested in this session and asked many questions related to cognitive distortions and creative thinking. The Pt stated, "I think I know where you are going with this, I do this all the time with my girl, family and even at work" The researcher replied, "it would seem so."

The session wrapped up with **1. Pull out underlying themes related to what the participant wants and how he usually gets it.** The Pt shared that he usually gets his way by force, anger, yelling, screaming, arguing, fighting and violence. Pt shared "the reason I signed up for this project is because I want to learn how to have a great relationship with my girl and I don't want to fuck up this relationship like all the others" "I always end up hitting my women, I don't want to but they push my buttons until I snap" " I want to learn how to not snap on people because I always go to jail and lose my job and then I have to start over again, it is getting old so here I am. **2. Help the participant use objectively as a skill to practice.** The Pt agreed to practice using objectively as a skill over the next week and report back to the researcher during the next session. **3. Creative thinking will give the participant an opportunity to understand and develop a range of creative thinking skills for understanding and resolving problems, achieving his goals in a positive way versus negative.** The Pt agreed to use Creative Thinking to achieve his goals and resolve problems during the week and share with the researcher his

success. The Pt stated, “I am going to use my phone every day and read what objectively, creative thinking and cognitive distortions mean so it stays fresh in my mind. Researcher’s observations of the Pt during the session. The Pt was disheveled and unkempt. His affect was appropriate, and he appeared calm. His mood was appropriate, and the Pt was receptive. The Pt was oriented and his insight good. The Pt was fully engaged in the session and shared with the researcher that the skills he has been practicing are getting easier to remember and use when he is feeling agitated or aroused. The Pt shared he lost the anger log for the second time. The Pt shared an incident that happened with his girlfriend and how he handled it differently than he would have in the past. The Pt stated, “when my girlfriends’ kids were at the house last week one of them shot my fish tank with a BB gun during the day, but the glass did not break right away. Later that day after work I was sitting in the recliner and all of a sudden, the talk exploded, and 100 gallons of water drenched me and ran through the house. At first, I did not know what the fuck was going on but one of the kids told on the other about the BB gun. In the past I would have lost my mind but this time I took a few minutes to collect myself with deep breathing and waking away. I went to the garage and did some visualization, deep breathing, and emotion regulation. It took a minute for me to calm down, but I did. When I went back in the house my girl looked scared and worried, I would hurt the kid, but I did not, I stayed calm the whole time. He got his ass grounded for the rest of the time they were at our house, but I did not cream, yell, or smack him. I was proud of myself and my girl was shocked. She thought for sure he was in for it.” The Pt is starting to gain a new perspective on anger, aggression and how it negatively impacts his relationships.

Session 12- The researcher shared with the Pt problem solving skills to increase reasoning, so he is better able to resolve problems in a healthy manner. The researcher shared with the Pt that

problem solving skills start with determining the cause of the problem, identifying, prioritizing, and finding solutions to the problem. Once the problem has been identified one should evaluate options and select the best option for the situation. The researcher asked the Pt to use active listening when a problem comes up and to stay focused on solutions not the problem. The researcher and Pt discussed how to avoid and resolve conflict situation and develop negotiation skills. The Pt practiced his negotiations skills with the researcher. The researcher and Pt role played effective communication while regulating emotions. The Pt practiced active listening while staying focused on the solution not the problem. The researcher asked the Pt to share a situation during the previous week that got him angry. The Pt used, a fight with his stepfather over not putting gas in his car after using it. Pt stated, “I forgot, I had a lot on my mind and forgot” “he blew it way out of proportion, like I did it a lot” “I wasn’t mad at him for getting mad, I was mad because of the way he talked to me and brought my mother into it” “now she is pissed at me” “I didn’t yell and scream at him like I used to but it still bothered me” The researcher played the role of his stepfather giving the Pt chance to practice active listening, negotiation skills, and conflict resolution while regulating his emotions.

The session wrapped up with a discussion about the effective use of the skills learned. **1. Participants will learn how to identify issues, be clear about what the problem is, list possible solutions, evaluate options, and develop a plan.** The Pt agreed to identify issues, be clear about what the problem is, list solutions, evaluate options and develop a plan of action that will revolve any conflicts he may have in the future in a calm and peaceful manner. The Pt agreed to a one month follow up session to touch based and see how his new skills are working. **2. The participant will reflect on the experiences in his life and how he interpreted the experiences and how the experiences influenced his view of himself, others, and the world.**

The researcher shared with the Pt that our experiences in life and how we interpreted those experiences shape how we see ourselves, others, and the world. It is our perception of ourselves, others and the world that shape our behaviors. The researcher asked the Pt to reflect on his experiences in life and how he interprets those experiences and how they influence his view of self, others, and the world. The Pt shared that he does not trust others because of his early life experiences of being sexually abused. The Pt shared that he does not trust the world because of being in the sex trafficking trade and all the scamming, manipulation and conning that goes on. Pt stated, "I don't trust my family because they hurt me when they sold me into prostitution at age 10, I have forgiven my mother, but it took a long time" The Pt reports his experiences are why he is angry, aggressive, and violent. The Pt reported "if you are weak out in the streets you don't live long." The Pt stated, "I had to be tough and mean to survive out there" The Pt stated, "I see the world and others as they are out to get me." The remainder of the session the Pt and researcher went over the skills and techniques he has learned throughout to course of 12 weeks. The researcher asked the Pt how much growth he saw in himself. The Pt replied "I have learned a lot about myself and how I tick" "I have learned that I can control my anger if I stop and think first" "if I fly off the handle without thinking first it is impossible for me to reel it in before the damage is done" "I have not assaulted anyone or gone to jail in the past 12 weeks so that is an improvement" "I will have to keep seeing a therapist and working on myself if I want my relationship with my girl to workout" "she loves me but she cannot stand me blowing up all the time" "She told me she would leave me if I go to prison again because she don't want to raise a child like that, with his father in prison and around violence all the time" The researcher asked the Pt to share the best part of our sessions and what he learned. The Pt stated, "the best part for me is realizing I can control my anger and I can control my emotions if I want to" "I also learned

that when I get angry it is a choice, no one makes me angry I chose to get angry, and that was an eye opening thing for me" "the other best part of this is you really care about people and you are really trying to help people like me" "I am looking forward to us meeting next month so I can show off all the progress I have made" "I don't want the street life anymore so I am really trying hard to change" "I have a great girl and I have a good job and I have an opportunity to put the past behind me and live a good life if I can just learn to make good decisions" "it has been a hard 12 weeks but I can honestly say I am happy we did this" The researcher thanked the Pt for his hard work and the progress he has made. The researcher told the Pt that he looks forward to meeting with him in 1 month. The researcher's observations of the Pt during the session. The Pt was neat and clean. His affect was appropriate, and his mood was stable. He was cooperative and oriented to person, place, and time. His insight was good, and his judgement was mature. His participation in the session was good and he received feedback well. The Pt was friendly, somewhat ambivalent but had good comprehension. The Pt and researcher discussed his progress throughout the 12 sessions and the areas the Pt seemed to grow in. Pt was able to articulate the positive consequences of participating in the study. The Pt had gain confidence in his ability to control his anger and aggression. The Pt did not seem to comprehend the importance of keeping an anger log. The Pt stated, "I wanted to, but I kept losing it" The Pt asked the researcher if he could refer him to a therapist for individual therapy sessions. The researcher told the Pt he would refer him to a colleague in the Louisville Kentucky area.

One Month Follow Up Session

The Pt and researcher met for a 1 hour follow up session to discuss his progress with using the skills and techniques learned over the 12-session study. The two-step model of anger was discussed. The Pt shared with the researcher "I am stopping myself from getting angry by

using deep breathing and the grounding skills you taught me." "At first I thought they would not work but they do, I can really tell a difference in me being able to calm myself down, I don't fly off the handle with my girl like I used to." The researcher asked the Pt if and how often he uses ventilation as a coping skill. The Pt replied "I don't yell and scream as much, I learned that it is a waste of time, so I have worked hard to either walk away or use deep breathing. The researcher asked the Pt what type of coping skills are working for him. The Pt replied, "I like to tinker in the garage or work on cars" The researcher asked the Pt how is doing with changing his negative thoughts into positive thoughts. The Pt replied, "sometimes that is really hard, because when I get angry my mind kind of shuts down, but eventually I start to think about positive stuff, like my girl, my job, I tell myself I can do this, and you have come along ways." The researcher asked the Pt if he is using the progressive muscle relaxation skills to help stay calm during high stress situation. The Pt replied, "I have not used that in a while, I instead used deep breathing, it seems to work better." The researcher asked the Pt if he is using the safe space visualization skill when agitated. The Pt replied, I use that one at work all the time, it helps me get through the day a lot better." The researcher asked the Pt if he is using cue words in high stress situations. The Pt replied, "O' yes, I tell myself throughout the day to stay calm, relax, and be a peaceful person." "I really like that skill; it keeps me focus on me and not other people" The Pt stated, "I think about what you taught me about activating events, beliefs, and consequences a lot to" The researcher replied 'you mean the Ellis ABC model of emotions. The Pt stated "I keep playing the tape through in my mind about a situation" The researcher asked the Pt would do you mean by playing the tape through in your mind" The Pt replied, "I mean when I am triggered, I think about what I am feeling and thinking about, and then I play the tape through in my head to see what the consequences will be if I explode or stay calm" The researcher asked the Pt if he has

been practicing the active and passive Response Choice Rehearsal technique. The Pt stated, “I am learning how to get what I want in a better way, I have learned that I can get more Bee’s with honey, if you know what I mean” “I have been getting along with my girl much better sense I know how to get my needs met by talking and not fighting” The researcher asked the Pt if he means he is learning how to de-escalate situations by staying calm and asking for what he wants or needs and the Pt replied “yes, that’s want I mean” “I am negotiating with my girl instead of being demanding, and it is working some times.” “I try to be open to her suggestions and be more flexible because I want her to feel like she is my partner not my slave or some kind of toy” “I want her to know she means a lot to me and I want this relationship to work” The Pt and researcher discussed cognitive distortions and creative thinking. The Pt stated, “I printed off a list of cognitive distortions and put it on the mirror in my bedroom so I can look at it every day.” “Cognitive distortions are my favorite thing I have learned working with you” “my head can get full of that distorted thinking stuff and it can wreck my day, not to mention my relationships.” I still get angry sometimes but not near as bad or not near as often.” The Pt shared with the researcher that he has an appointment with a therapist to continue working on making the changes he feels are important to his relationship with his girlfriend. The Pt thanked the researcher for allowing him to participate in the study and helping him overcome his issues with anger. The researcher’s observations of the Pt during the session are the Pt seemed relaxed and calm. The Pt was neat and clean. The Pt’s affect was appropriate and his mood congruent. He was cooperative and oriented to person, place, and time. The Pt was insightful and was open to feedback.

Questionnaire Findings

The TOSCA-3 is composed of 11 negative and five positive situations yielding indicators of guilt proneness, shame proneness, externalization, detachment, pride in self (alpha pride) and pride in behavior (beta pride). The 16 scenarios in which the participant rates the likelihood he would respond with guilt and shame responses on the 5-point scale from 1 “not very likely” to 5 “very likely.” For the purpose of this study only the indicators for guilt proneness and shame proneness will be used to analyze data. The Novaco Anger Scale is composed of 13 arousal subscales and 12 anger regulation subscales. The questionnaire is designed to index a person’s disposition for anger which is a factor for aggression and a dynamic variable amenable to treatment. The data collected from the TOSCA-3 and the NAS, was primarily used to answer the Research Question: Can an integration of cognitive behavioral therapy and chromis violence reduction program reduce anger and aggression while increasing guilt and shame for those diagnosed with ASPD and SUD?

Questionnaire Data Sets

The questionnaire data set for the total shame and guilt scores used in the analysis is shown in Table 1 (pretest) and Table 2 (posttest). The questionnaire data set for the total arousal subscales and anger regulation subscales used in the analysis is shown in Table 3 (pretest) and Table 4 (posttest). The total guilt and shame scores show an increase in shame and guilt across the pretest (table 1) and posttest (table 2). The Pt pretest scores for shame 15 indicates the Pt seldomly experiences shame and the Pt guilt score 17 indicates the Pt seldomly experiences guilt. The posttest scores indicate the total guilt and shame scores have increased with a shame score 20 indicating the Pt experiences shame an average amount of time and the Pt guilt score 24 indicates the Pt experiences guilt an average amount of time. The total scores for arousal and anger regulation show a decrease in anger across the pretest (table 3) and posttest (table 4). The

total anger regulation and arousal score in the pretest (table 3) of 91 indicates that Pt is plagued by frequent, intense anger that does not quickly disappear. The anger may often get out of control and leads to impulsive hostile outburst, which at times get him into trouble. The total anger regulation and arousal score in the posttest (table 4) of 85 indicates the Pt frequently reacts in an angry way and is substantially more irritable that the average person.

Table 1. TOSCA-3 pretest total for shame and guilt scores.

Shame Proneness	Guilt Proneness	Blaming Others
1a__1___	1b__1___	1c__2___
2b__1___	2a__1___	2c__3___
3a__1___	3c__3___	3b__3___
4b__3___	4c__1___	4a__2___
5a__1___	5c__2___	5b__4___
6b__1___	6c__1___	6a__5___
7c___3__	7b__3___	7a__2___
8a__1___	8c__1___	8b__4___
9b__1___	9c__2___	9a__5___
10a__1___	10c__1___	10b__4___
11b__1___	11a__1___	11c__4___
Shame Proneness Total= 15	**Guilt Proneness Total= 17**	**Blaming Others Total= 39**

Table 2. TOSCA-3 posttest for shame and guilt scores.

Shame Proneness	Guilt Proneness	Blaming Others
1a__1___	1b__2___	1c__2___
2b__1___	2a__1___	2c__2___
3a__3___	3c__2___	3b__1___
4b__3__	4c__1___	4a__2___
5a__2___	5c__3___	5b__3___
6b__1___	6c__2___	6a__4___
7c__2___	7b___2__	7a__1___
8a__2___	8c___5__	8b__ 2___
9b__1___	9c___2__	9a___4__
10a__2___	10c___2__	10b__3__
11b__2__	11a___ 2__	11c___3__
Shame Proneness Total= 20	**Guilt Proneness Total= 24**	**Blaming Others Total= 27**

Table 3. Novaco Anger Scale pretest results.

Questions	**Scores**
1. You unpack an appliance that you just bought, plug it in and discover that it does not work.	3
2. Being overcharged by a repairman who helped you out of a bind.	4
3. Being singled out for correction when others go unnoticed.	4
4. Getting your car stuck in the mud or snow.	2
5. You are talking to someone and they do not answer.	4

6. Someone pretends to be something you are not.	4
7. While you are struggling to carry four cups of coffee to your table at the cafeteria, someone bumps into you, spilling the coffee	4
8. You hung up your coat, but someone knocks it to the floor and does not pick it up.	4
9. You are hounded by salesperson from the moment you walk in the store.	4
10. You made plans to go somewhere with a friend who backs out at the last minute leaving you hanging.	3
11. Being joked about or teased	4
12. You accidentally make a wrong turn in the parking lot. As you get out of your car someone yells at saying "Where did you learn how to drive"?	4
13. Your car stalls at a traffic light and the guy behind you keeps blowing his horn.	4
14. You are trying to concentrate but a person near you is tapping their foot.	3
15. Someone makes a mistake and blames it on you.	4
16. You lend someone an important book or tool and they don't return it	4
17. You have had a busy day, and your roommate or spouse starts complaining about how you forgot to stop at the store.	4
18. You are trying to discuss something important with a friend or relative who is not giving you a chance to express your feelings.	4
19. You are in a discussion with someone who persists in arguing about a topic they know very little about	4
20. Someone sticks his/her nose into an argument between you and another person.	4
21. You're already late and the car in front of you is going 25 mph in 40 mph zone and you can't pass.	4
22. You step on a glob of chewing gum.	2
23. You're mocked by small group of people as you pass them.	4
24. In a hurry to get somewhere, you tear your favorite pair of pants.	3
25. You use your last quarter to make a phone call, but you are disconnected before you finish dialing, and the quarter is not returned.	3
Total Score	91

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Table 4. Novaco Anger Scale posttest results

Questions	**Scores**
1. You unpack an appliance that you just bought, plug it in and discover that it does not work.	3
2. Being overcharged by a repairman who helped you out of a bind.	3
3. Being singled out for correction when others go unnoticed.	4
4. Getting your car stuck in the mud or snow.	2
5. You are talking to someone and they do not answer.	4
6. Someone pretends to be something you are not.	3
7. While you are struggling to carry four cups of coffee to your table at the cafeteria, someone bumps into you, spilling the coffee	4
8. You hung up your coat, but someone knocks it to the floor and does not pick it up.	3
9. You are hounded by salesperson from the moment you walk in the store.	4
10. You made plans to go somewhere with a friend who backs out at the last minute leaving you hanging.	3
11. Being joked about or teased	4
12. You accidentally make a wrong turn in the parking lot. As you get out of your car someone yells at saying "Where did you learn how to drive"?	4
13. Your car stalls at a traffic light and the guy behind you keeps blowing his horn.	3
14. You are trying to concentrate but a person near you is tapping their foot.	4
15. Someone makes a mistake and blames it on you.	4
16. You lend someone an important book or tool and they don't return it	3
17. You have had a busy day, and your roommate or spouse starts complaining about how you forgot to stop at the store.	4

18. You are trying to discuss something important with a friend or relative who is not giving you a chance to express your feelings.	3
19. You are in a discussion with someone who persists in arguing about a topic they know very little about	3
20. Someone sticks his/her nose into an argument between you and another person.	4
21. You're already late and the car in front of you is going 25 mph in 40 mph zone and you can't pass.	4
22. You step on a glob of chewing gum.	3
23. You're mocked by small group of people as you pass them.	4
24. In a hurry to get somewhere, you tear your favorite pair of pants.	3
25. You use your last quarter to make a phone call, but you are disconnected before you finish dialing, and the quarter is not returned.	2
Total Score	85

Research Question Responses

The data collected generated themes that indicate the participant had an increase in shame and guilt. The participant's pretest shame score of 15 and pretest guilt score of 17 comparted to his posttest shame score of 20 and posttest guilt score of 24 indicates the participant's shame and guilt increased. The data collected also show a decrease in anger arousal scores across the pretest and posttest. The participant's total anger arousal and anger regulation score of 91 on the pretest and 85 on the posttest indicate the participant decreased anger while improving his anger regulation skills. Patterns in the data sets arousal subscale that measures anger intensity, duration, somatic tensions and irritability and behavior subscale that measure impulsive reaction, verbal aggression, physical confrontation, and direct expression indicate a decrease in scores on questions 2, 6, 8, 13, 16, 18, 19, 25 on the posttest compared to the pretest. The patterns in the data sets shame subscale that measures painful feelings of humiliation or distress caused by the consciousness of wrong behavior and guilt subscale that measures the emotional state of experiencing conflict at having done something that we believe to be wrong indicate an increase in scores on questions 1b, 2c, 3a, 3b, 5a, 8a, 8c, 11b, 11a on the posttest compared to the pretest. These scores indicate a reduction in anger while increasing shame and guilt.

The participants active engagement and response to the therapeutic interventions used in this study indicate the Ellis ABC model of emotions helped the Pt change his emotional state by turning his irrational beliefs about an activating event into rational beliefs that led to a healthier and more adaptive sense of self. The Pt ability to analyze his irrational thoughts and replace them with positive rational thoughts lead to better consequences and outcomes in tense situations leading to a reduction in anger responses. Over the course of the study the Pt was able to develop healthy coping skills such as deep breathing, grounding skills, progressive muscle relaxation, safe place visualization and cue words to better manage his anger response by reducing anger before his emotions reached an elevated state. Cognitive restructuring helped the Pt change the way he thinks about a situation by looking at his cognitive distortions that lead to increased stress and anger. The Pt was able to identify and dispute his cognitive distortions and maladaptive thoughts for a more balanced way of thinking and perceiving a situation leading to a reduction in anger and aggression. Response choice rehearsal was used to help the Pt get his wants and needs met in a health manner versus through violence, threats of violence, arguments, and fights. The role play exercises used during the therapeutic sessions helped prepare the Pt for real world situations with good results. The Pt was able to practice in low anger situations leading to better anger management in high anger situations leading to less confrontation and anger responses. Creative thinking gave the Pt an opportunity to understand and develop a range of creative thinking skills to resolve problems in a positive and productive way leading to less stress and anger. Lastly problem-solving skills were enhanced with negotiation skills so the Pt could avoid conflict leading to more adaptive and fulfilling interactions with others. The combination of interventions used in this study reduced the Pt anger and aggression leading to an increase shame and guilt.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this study was to determine treatment efficacy for those diagnosed with antisocial personality disorder and substance use disorder using cognitive behavioral therapy integrated with chromis violence reduction program. The study is unique in that it was conducted outside of a prison or correctional institution. Most research involving those diagnosed with antisocial personality disorder is conducted in a prison setting for easy access to participants, compliance, and dependability. This study was faced with many challenges in regard to participation compliance and motivation to complete the study. The one participant who did complete the study presented with a mix of challenges that include active substance use while in the study, lying about aggression against his fiancé, being arrested for assault, lack of motivation, and refusal to keep an anger log. In spite of these challenges the participant was able to overcome his tendency to be unreliable and irresponsible. As the study moved from the early sessions the participant did become engaged in the process, became invested in the material, and showed a relatively strong interest in learning new skills that promote anger management. The researcher-built rapports with the Pt from the first meeting and was able to build trust with the Pt early in the process and was able to use the rapport and trust to keep the Pt motivated to complete the study. There was a 2-month disruption in the study due to George relapsing on heroin and needing inpatient substance abuse treatment. The researcher remained in contact with George while he was completing treatment to ensure he would complete the study. George relapsed between session seven and session eight but revealed to the researcher that he used the coping skills learned in the study while in treatment to stay focused on his recovery. The Pt shared with the researcher that his relapse was a wake-up call to get serious about his life and

relationships. The Pt stated, “I don’t want to lose my girl and I am sick and tired of living like this so I will do whatever it takes the learn from you the skills you are teaching me.”

Summary of Findings

A summary of the findings related to the researcher question RQ1: Can an integration of cognitive behavioral therapy and chromis violence reduction program reduce anger and aggression while increasing guilt and shame for those diagnosed with ASPD and SUD will briefly be revisited. The TOSCA-3 pretest and posttest scores for shame and guilt indicate an increase in shame and guilt. The Novaco anger scale for the pretest and posttest indicate a decrease in anger and aggression. The integration of cognitive behavioral therapy and chromis violence reduction program may be a viable option for treating a comorbid antisocial personality disorder and substance use disorder. This study sheds new light on the belief that those diagnosed with ASPD are beyond help or hope in a post-prison setting or community mental health center. The 12-session, outpatient approach used in this study has shown a possibility of what can be accomplished with innovation and perseverance.

Discussion

The literature selected for this study was based on treatment efficacy, therapeutic approaches, description of antisocial personality disorder, pharmacological interventions, developmental theories of antisocial personality disorder, co-morbidity with substance use disorder, and development factors of antisocial personality disorder. The discussion of treatment efficacy for this study focused on behavioral modification that targeted anger and aggression reduction. The most prominent interventions in the literature focused on interpersonal, behavioral, cognitive, and pharmacological modalities of treatment. This study confirms that

research conducted with those diagnosed with antisocial personality disorder outside of a correctional institution can be extremely challenging. The DSM-5 diagnostic criteria for antisocial personality disorder highlight the challenges researchers face when working with this population. These individuals have a blatant disregard for right and wrong. They are masterful liars who can use charm and wit to manipulate even the most seasoned therapist. There irresponsibility and lack of commitment and follow through challenge the most carefully constructed research study. This study converged with previous research in that there is much more research needed before a comprehensive and effective modality of treatment can be developed that will target the destructive traits common in those diagnosed with antisocial personality disorder. This study extended previous research by completing the study outside of a correctional institution and the findings showing a reduction in anger and aggression. This should give researchers optimism that the combined efforts of many research studies have made progress in the pursuit of an effective treatment for those diagnosed with antisocial personality disorder. This study adds to the field of psychology in that change for those diagnosed with antisocial personality disorder is possible. Previous research suggests that the only remedy for those diagnosed with antisocial personality disorder is the passage of time/aging out and incarceration. This study sheds new light on treatment efficacy and the possibility that those with antisocial personality disorder can change if they have a strong desire and are committed to the treatment process.

Implications

The theoretical implications of the study indicate cognitive behavioral therapy integrated with chromis violence reduction program may be a useful approach to treating those diagnosed with antisocial personality disorder by reducing anger and aggression. Helping clients recognize

that anger is a choice, and they can retrain their thinking processes in a way that short circuits anger arousal. CBT is a modality of treatment that is used to regulate emotions that lead to destructive behaviors. Those diagnosed with antisocial personality disorder have beliefs that play a role in their emotional suffering and maladaptive behaviors. The client's emotional problems are not only tied to a particular event but also their interpretation and behaviors related to the event. This study used the Ellis ABC model to help the participant conceptualize how his beliefs and interpretations are involved in his emotion deregulation. This approach was a learning tool to help the participant realize how activating events result in emotional consequences that lead to behavioral consequences that in the end manifest in anger and aggression. The chromis violence reduction program is designed to motivate and constructively engage clients by identifying what they really care about. The chromis violence reduction program has produced protective factors such as improvements in attitudes, problem solving, and self-management. Integrating CBT with CVRP can help clients learn to live pro-socially by developing the skills necessary to self-regulate anger arousal that leads to aggression.

The practical implications of this study indicate that CBT integrated with CVRP can be used in an outpatient clinical setting versus previous studies conducted in a prison or correctional institution. When individuals diagnosed with antisocial personality disorder are viewed as non-treatable or hopeless it can hinder therapeutic expectations for a positive outcome. This study severs as a counterweight to the perspective that those diagnosed with antisocial personality disorder are hopeless and incapable of change. This study emphasizes the need for clinicians, counselors, therapist, and psychologist to use a multi-dimensional approach to treating patients with antisocial personality disorder and an equal need to understand the disorder from a more comprehensive perspective. The contributions of this study to the field of psychology include the

possibility that therapist who use CBT integrated with CVRP as a model can have a positive impact on those diagnosed with antisocial personality disorder. This study also contributes to the literature about antisocial personality disorder and how those diagnosed with the disorder can learn skills to manage the symptomology associated with the disorder. This study may actually facilitate the work of other researchers who are interested in remediating to core features of antisocial personality disorder.

Limitations

One limitation in this study was no literature or references to the use of CBT integrated with CVRP for the treatment of antisocial personality disorder. The second limitation in this study was the irresponsible and unreliable nature of the participant. CBT integrated with CVRP is designed to motivate, encourage, and instill hope in the participant however this did not take place until well into the study indicating more than 12-sessions may be needed. The third limitation to this study is applying CBT integrated with CVRP in a therapeutic setting and its reliance on a theoretical approach that is still hypothetical. More research is needed using this integrated model before empirical evidence will support its effectiveness at treating those with antisocial personality disorder. This integrated model will need to wait until some future time when more researchers are driven to explore the effectiveness of this model.

Recommendations for Future Research

Recommendations for future researcher would include a broader and more diverse segment of the post prison population to be studied. The study of antisocial personality disorder and substance use disorder is complex and needs as broad and diverse population to better understand the phenomenon being studied. Future researcher would need to consider adding

more sessions to increase the likelihood that participants learn the skills incorporated into CBT and CVRP. Motivation is another factor future research would need to examine. Participant motivation is a key factor in the success or failure of the integrated model used in this study. Higher participant motivation for change is correlated with greater success while lower participant motivation for change decreased the likelihood of completing the study. Participant readiness for change is a consideration lacking in the study. Readiness for change is a variable related to the preparedness of the participant to change his/her thoughts, feelings, and behaviors. Lastly, future research should consider the high prevalence rate of antisocial personality disorder in substance dependent populations and explore the relationship to treatment outcomes using the integrated model CBT and CVRP. The findings in this study that participants with antisocial personality disorder can benefit from CBT integrated with CVRP need to be replicated in other studies using CBT integrated with CVRP.

Summary

This study investigated whether CBT integrated with CVRP would reduce anger and aggression while increasing shame and guilt for those diagnosed with ASPD and SUD. The TOSCA-3 and Novaco anger scale were used to measure anger, aggression, shame, and guilt. The 12-session, 1 hour for each session, and a 1 month follow up session used proved to be difficult to complete. Those diagnosed with ASPD are unreliable and irresponsible. The Pt in this study prove to be both irresponsible and unreliable because he failed to keep an anger log and relapsed during the study. The most important take ways from this study include CBT integrated with CVRP can be used in an outpatient clinical setting versus previous studies conducted in a correctional institution. Individuals diagnosed with antisocial personality disorder need not be viewed as non-treatable because it can hinder therapeutic expectations and reduce the chance of a

positive outcome. This study severs as a counterbalance to the viewpoint that those diagnosed with antisocial personality disorder are incapable of change. This study emphasizes the need for clinicians, counselors, therapist, and psychologist to use a multi-dimensional approach to treating patients with antisocial personality disorder. The contributions of this study to the field of psychology include the possibility that therapist who use CBT integrated with CVRP as a model can have a positive impact on those diagnosed with antisocial personality disorder. This study also contributes to the literature about antisocial personality disorder and how those diagnosed with the disorder can learn skills to manage the symptomology associated with the disorder. This study may actually facilitate the work of other researchers who are interested in remediating to core features of antisocial personality disorder using CBT integrated with CVRP.

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APPENDIX

APPENDIX A: CONSENT FORM

COMORBID ANTISOCIAL PERSONALITY DISORDER AND SUBSTANCE USE DISORDER TREATMENT EFFICACY

David V. Smith

Liberty University

Community Care: Marriage & Family Therapy/School of Education

You are invited to be in a research study of treatment efficacy for antisocial personality disorder. You were selected as a possible participant because of your dual diagnosis of antisocial personality disorder and substance use disorder. Please read this form and ask any questions you may have before agreeing to be in the study.

David V. Smith a student in the doctoral program in the Community Care/ school of behavioral health at Liberty University, is conducting this study.

Background Information:

The purpose of this study is to investigate whether an integration of cognitive behavioral therapy and chromis violence reduction program can reduce anger and aggression while increasing guilt and empathy.

Procedures:

If you agree to be in this study, I will ask you to do the following things:

1. Participate in 12 by weekly sessions for approximately one hour per session
2. Agree to not participate in any other form of treatment during the 12 weeks
3. Agree to fill out a pretest posttest questionnaire
4. Participants will be randomly assigned to a group meaning you may or may not receive treatment

Risks:

The risk involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

Benefits:

This research study will aid society by providing treatment efficacy for those diagnosed with antisocial personality disorder and substance use disorder.

Direct Benefits:

The direct benefits participants should expect to receive from taking part in this study are remediation of anger and aggression, and increased guilt and empathy. The therapeutic techniques used in this study will increase the participants ability to manage anger and aggression while increasing the participant's ability to experience guilt and empathy.

Compensation:

Participants will not be compensated for participating in this study.

Confidentiality:

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records. Participants will be assigned a pseudonym to protect their identity. I will conduct the interviews in a location where others will not easily overhear the conversation. Data from this study will be stored in a password locked computer and a key locked file cabinet and may be used in future presentations. After three years, all electronic records will be deleted. (Note: Per federal regulations, data must be retained for three years upon completion of the study). I cannot assure participants that other members of the group will not share what was discussed with persons outside of the group.

How to Withdraw from the Study:

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you, will be destroyed immediately and will not be included in this study.

Contacts and Questions:

The researcher conducting this study is David V. Smith. You may ask any questions you have now. If you have questions later, you are encouraged to contact David V. Smith at [redacted] You may also contact the researcher's faculty chair, [redacted]

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

_____

Signature of Participant Date

_____

Signature of Investigator Date

APPENDIX B: INVESTIGATOR AGREEMENT & SIGNATURE PAGE

BY SIGNING THIS DOCUMENT, THE INVESTIGATOR AGREES:

1. That no participant will be recruited or entered under the protocol until the Investigator has received the final approval or exemption email from the chair or the Institutional Review Board.
2. That no participant will be recruited or entered under the protocol until all key personnel for the project have been properly educated on the protocol for the study.
3. That any modifications of the protocol or consent form will be initiated without prior written approval, by email, from the IRB and the faculty mentor/chair, except when necessary to eliminate immediate hazards to the participants.
4. The PI agrees to carry out the protocol as stated in the approved application: all participants will be recruited and consented as stated in the protocol approved or exempted by the IRB. If written consent is required, all participants will be consented by signing a copy of the approval consent form.
5. That any unanticipated problems involving risks to participants or others participating in the approved protocol, which must be in accordance with the Liberty Way (and/or the Honor Code) and the Confidentiality Statement, will be promptly reported in writing to the IRB.
6. That the IRB office will be notified within 30 days of a change in the PI for the study.
7. That the IRB office will be notified within 30 days of the completion of the study.
8. That the PI will inform the IRB and compete all necessary reports should he/she terminate University Association.
9. To maintain records and keep informed consent documents for three years after completion of the project, even if the PI terminates association with the University.
10. That he/she has access to copies of 45CFR 46 and the Belmont Report.

Principle Investigator (Print)	Principle Investigator (Signature)	Date

Co-Investigator (Print)	Co-Investigator (Signature)	Date

FOR STUDENT PROPOSALS ONLY:

BY SIGNING THIS DOCUMENT, THE FACULTY MENTOR/CHAIR AGREES:

1. To assume responsibility for the oversight of the student's current investigation, as outlined in the approved IRB application.
2. To work with the investigator, and the Institutional Review Board, as needed, in maintaining compliance with this agreement.
3. To monitor email contact between the Institutional Review Board and principle investigator. Faculty mentors/chairs are cc'ed on all IRB emails to PI's
4. That the principal investigator is qualified to perform this study.
5. **That by signing this document you verify you have carefully read this application and approve of the procedures described heroin, and also verify that the application complies with all instructions listed above**. If you have any questions, please contact our office (irb@liberty.edu).

Faculty Mentor/Chair (Print) Faculty Mentor/Chair (Signature) Date

***The Institutional Review Board reserves the right to terminate this study at any time if, in its opinion, (1) the risks of further experimentation are prohibitive, or (2) the above agreement is breached**.

APPENDIX C: RECRUITMENT FORM

Date:

Recipient:

Title:

Company:

Address:

Dear [recipient]

As a graduate student in the Behavioral Health/ School of Education at Liberty University. I am conducting research as part of the requirements for a Community Care: Marriage & Family Therapy degree. The purpose of my research is to better understand treatment efficacy for an integration of cognitive behavioral therapy and chromis violence reduction program to reduce anger and aggression while increasing guilt and empathy, and I am writing to invite you to participate in my study.

If you are 18 years of age or older, diagnosed with antisocial personality disorder and substance use disorder, and are willing to participate, you will be asked to participate in 16 bi-weekly sessions (one hour per session) for you to complete the procedures listed. Your participation will be completely anonymous, and no personal, identifying information will be collected or your name and/or other identifying information will be requested as part of your participation, but the information will remain confidential.

To participate complete the consent documents provided with this participation form. The consent document contains additional information about my research. Please sign the consent document and return it to me at the time of the interview.

Sincerely,

David V. Smith

Primary Investigator/Researcher

APPENDIX D: NOVACO ANGER SCALE

Mental Health America of Northern Kentucky & Southwest Ohio
Educate, Advocate and Serve

2400 Reading Road, Suite 139 912 Scott St, PO Box 122604
Cincinnati, OH 45202 Covington, KY 41011
Office 513-721-2910 / 877-361-4518 / 859-431-1077
www.MHAnkyswoh.org / www.GuideToFeelingBetter.org

Novaco Anger Scale

Answer the following questions using the number guide below write:

0 if you would feel little or no annoyance
1 if you would feel a little irritated
2 if you would feel moderately upset
3 if you feel quite angry
4 if you would feel very angry

_____1. You unpack an appliance that you just bought, plug it in and discover that it doesn't work

_____2. Being overcharged by a repairman who helped you out of a bind

_____3. Being singled out for correction when others go unnoticed

_____4. Getting your car stuck in the mud or snow

_____5. You are talking to someone and they don't answer

_____6. Someone pretends to be something you're not

_____7. While you are struggling to carry four cups of coffee to your table at the cafeteria, someone bumps into you, spilling the coffee

_____8. You hung up your coat, but someone knocks it to the floor and doesn't pick it up

_____9. You are hounded by salesperson from the moment you walk in the store

_____10. You made plans to go somewhere with a friend who backs out at the last minute leaving you hanging

_____11. Being joked about or teased

_____12. You accidentally make a wrong turn in the parking lot. As you get out of your car someone yells at saying "Where did you learn how to drive"?

_____13. Your car stalls at a traffic light and the guy behind you keeps blowing his horn

_____14. You are trying to concentrate but a person near you is tapping their foot

_____15. Someone makes a mistake and blames it on you

_____16. You lend someone an important book or tool and they don't return it

_____17. You have had a busy day, and your roommate or spouse starts complaining about how you forgot to stop at the store

_____18. You are trying to discuss something important with a friend or relative who isn't giving you a chance to express your feelings

_____19. You are in a discussion with someone who persists in arguing about a topic they know very little about

_____20. Someone sticks his/her nose into an argument between you and another person

_____21. You're already late and the car in front of you is going 25 mph in 40 mph zone and you can't pass

_____22. You step on a glob of chewing gum

_____23. You're mocked by small group of people as you pass them

_____24. In a hurry to get somewhere, you tear your favorite pair of pants

_____25. You use your last quarter to make a phone call, but you are disconnected before you finish dialing and the quarter is not returned

MY SCORE IS:

To determine your score, add up the numbers you wrote in response to the 25 statements.

You can interpret your total score according to the following guidelines:

0 – **45:** The amount of anger and frustration you generally experience is remarkably low. Only small percentage of the population will score this low on a test. You might want to examine whether you were honest with your answers and the possibility that you deny angry feelings.

46 – 55: You are substantially more peaceful than the average person.

56 – 75: You respond to life's annoyances with an average amount of anger

76 – 85: You frequently react in an angry way to life's many frustrations. You are substantially more irritable than the average person.

86 – 100: You are plagued by frequent intense furious reactions that do not quickly disappear. You probably harbor negative feelings long after the initial insult has passed. You may experience frequent tensions headaches and elevated blood pressure. Your anger may often get out of control and lead to impulsive hostile outbursts, which at times get you into trouble

APPENDIX E: TEST OF SELF-CONSCIOUS AFFECT-3

Test of Self-Conscious Affect, Version 3

As you read situations that people are likely to encounter in day-to day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in the situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

A. You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news. 1…..2…..3…..4…..5
not likely very likely

b) You would take the extra time to read the paper. 1…..2…..3…..4…..5
not likely very likely

c) You would feel disappointed that it's raining. 1…..2…..3…..4…..5
not likely very likely

d) You would wonder why you woke up so early. 1…..2…..3…..4…..5
not likely very likely

In the above example, I've rated All the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning--so its not at all likely that I would to that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me its about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't—It would depend on what I have planned. And I circled a "4" for answer (d) because I would probably wonder why I awakened so early.

Please do not skip any items—rate all responses.

1. **You make plans to meet a friend for lunch. At five O' clock, you realize you have stood your friend up.**

not likely very likely

   a) **You would think: "I'm inconsiderate." 1……..2……..3…….4……..5**

   b) **You'd think you should make it up to your friend as soon as possible.**

1…….2……..3…….4……..5

   c) **You would think: "My boss distracted me just before lunch."**

1…….2…….3……..4…….5

2. **You break something at work and then hide it.**

not likely very likely

   a) **You would think: "This is making me anxious. I need to either fix it or get someone else to."**

1…….2…….3…….4…….5

   b) **You would think about quitting. 1…….2…….3…….4…….5**

   c) **You would think: "A lot of things aren't made very well these days."**

1…….2…….3…….4…….5

3. **At work, you wait until the last minute to plan a project, and it turns out badly.**

not likely very likely

a) **You would feel incompetent.** **1…….2…….3…….4…….5**

b) **You would think: "There are never enough hours in the day.**

1…….2…….3…….4…….5

c) **You would feel: "I deserve to be reprimanded for mismanaging the project."**

1…….2…….3…….4…….5

4. **You make a mistake at work and find out a co-worker is blamed for the error.**

not likely very likely

a) **You would think the company did not like the co-worker.**

1…….2…….3…….4…….5

b) **You would keep quiet and avoid the co-worker.** **1…….2…….3…….4……5**

c) **You would feel unhappy and eager to correct the situation.**

1…….2…….3…….4…….5

5. **While playing around, you throw a ball, and it hits your friend in the face.**

not likely very likely

a) **You would feel inadequate that you can't even throw a ball.**

1…….2…….3…….4…….5

b) **You would think maybe your friend needs more practice.**

1…….2…….3…….4…….5

c) You would apologize and make sure your friend feels better.

1…….2…….3……..4…….5

6. You are driving down the road, and you hit a small animal.

not likely very likely

a) You would think the animal shouldn't have been in the road.

1…….2…….3…….4…….5

b) You would think: "I'm terrible." 1…….2…….3…….4…….5

c) You'd feel bad you hadn't been more alert driving down the road.

1…….2…….3…….4…….5

7. You walk out of an exam thinking you did extremely well, then you find out you did poorly.

not likely very likely

a) You would think: "The instructor doesn't like me." 1…….2……3…….4…….5

b) You think: "I should have studied harder." 1…….2…….3…….4…….5

c) You would feel stupid. 1…….2…….3…….4…….5

8. While out with a group of friends, you make fun of a friend who's not there.

not likely very likely

a) **You would feel small… like a rate** **1…….2……..3…….4……..5**

b) **You would think that perhaps that friend should have been there to defend himself/herself.**

1……..2……..3……..4……..5

c) **You would apologize and talk about that person's good points.**

1……..2……..3……..4……..5

9. **You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.**

not likely very likely

a) **You would think your boss should have been more clear about what was expected of you.**

1……..2……..3……..4……..5

b) **You would feel as if you wanted to hide.** **1……..2……..3……..4……..5**

c) **You would think: "I should have recognized the problem and done a better job."**

1……..2……..3……..4……..5

10. **You are taking care of your friend's dog while they are on vacation, and the dog runs away.**

not likely very likely

a) **You would think: "I am irresponsible and incompetent."**

1……2……..3……..4……..5

b) You would think your friend must not take very good care of her dog or it wouldn't have run away.

c) You would think: "I should have recognized the problem and done a better job."

1…….2…….3…….4…….5

11. You attend your co-worker's housewarming party, and you spill red wine on a new cream-colored carpet, but you think no one notices.

not likely very likely

a) You would stay late to help clean up the stain after the party.

1…….2…….3…….4…….5

b) You would wish you were anywhere but at the party.

1…….2…….3…….4…….5

c) You would wonder why your co-worker chose to serve red wine with the new light carpet.

1…….2…….3…….4…….5

Scoring for the TOSCA-3

The TOSCA-3 scenarios that you just responded to were created from the personality experiences of several hundred college students and non-college students. Your responses can now be used to calculate your scores for Shame Self-Talk, Guilt Self-Talk, and Blaming others.

Transfer your circled answers from the TOSCA to the lines below. For example, if you answered a "4" for the item 1a, enter a 4 under the column labeled "Shame Self-Talk" on the line next to 1a. If you entered a "1" for item 1b, enter a 1 under the column labeled "Guilt Self-Talk" on the line next to 1b. And so on> Carefully transfer you responses, because the order for a, b and c will be different for each question.

When you have finished transferring your answers, add up your score for each column. For example, your "Shame Self-Talk Totals" Score will be the total of all the numbers written in the first column. Compare your total scores to the scoring interpretation at the bottom of the page.

Shame Self-Talk	Guilt Self-Talk	Blaming Others
1a_____	1b_____	1c_____
2b_____	2a_____	2c_____
3a_____	3c_____	3b_____
4b_____	4c_____	4a_____
5a_____	5c_____	5b_____
6b_____	6c_____	6a_____
7c_____	7b_____	7a_____
8a_____	8c_____	8b_____
9b_____	9c_____	9a_____
10a_____	10c_____	10b_____
11b_____	11a_____	11c_____
=_____	=_____	=_____
Shame Self-Talk Total	Guilt Self-Talk Total	Blaming Others Total

For Men

<u>If your score on "Shame Self-Talk" is:</u>
0-24 you seldom use shame self-talk
25-32 you use shame self-talk an average amount
33-55 you often use shame self-talk

<u>If your score on "Guilt Self-Talk" is:</u>
0-38 you seldom use guilt self-talk
39-45 you use guilt self-talk an average amount
46-55 you often use guilt self-talk

<u>If your score on "Blaming Others" is:</u>
0-21 you seldom blame others
22-28 you blame others an average amount
29-55 you often blame others

<u>For Women</u>
If you score on "shame self-talk" is:
0-26 you seldom use shame self-talk
27-35 you use shame self-talk an average amount
36-55 you often use shame self-talk

<u>If your score on "Guilt Self-Talk" is:</u>
0-42 you seldom use guilt self-talk
43-38 you use guilt self-talk an average amount
49-55 you often use guilt self-talk

<u>If your score on "Blaming Others" is:</u>
0-20 you seldom blame others
21-28 you blame other an average amount
29-55 you often blame others

APPENDIX F: INTERVIEW QUESTIONS

I will use this interview for my dissertation research that focuses on treatment efficacy for individuals diagnosed with Antisocial Personality Disorder and Substance Use Disorder. I look forward to hearing about your experiences and expertise. My study was designed to learn more about personality disorders and substance abuse. The knowledge gained will help improve treatment outcome for the population being studied. I want to thank you for taking the time to talk to me about how antisocial personality disorder and substance use disorder impacts your life.

1. Please introduce yourself to me, as if we just met one another.
2. Please walk me through your worldview development timeline.
3. Of the formative experiences you identified on your timeline, which would you say were the most significant?
4. What made them significant?
5. Is there something else you would like to add to your timeline that you haven't already written down?
6. How do you think antisocial personality disorder has affected your life?
7. How has it impacted your family?
8. Do your friends and family think you are angry and aggressive?
9. Do you ever feel like violence is justified?
10. Have you ever been arrested for assault?
11. Do you argue with those who disagree with you?
12. Do you ever lie to others for your own personal gain or pleasure?
13. Do you act impulsively?
14. Do you ever fail to fulfill financial obligations?

15. Do you fail to fulfill work obligations due to irresponsibility?
16. Do you engage in criminal behavior for personal gain?
17. Are you able to empathize with those who are hurting or suffering?
18. Do you feel sorry when you hurt someone either physically or emotionally?
19. Do you engage in risk-taking or dangerous behavior without regard for the safety of yourself or others?
20. Do you use your wit or charm to manipulate others for your own personal gain?
21. Do you con others through lying for personal gain?
22. Do you lack remorse or guilt when you mistreat others?
23. Do you struggle to comply with social norms and laws?
24. Do you live by the laws of the jungle or the laws of society?
25. Do you make decisions on the spur of the moment and react to them?
26. Do you plan your actions in advance?
27. Do you get into physical confrontations?
28. Do you enjoy engaging in dangerous activities?
29. Do you get into confrontations with your boss at work?
30. Do you pay your bills on time?

APPENDIX G: INSTITUTIONAL REVIEW BOARD APPLICATION

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

APPLICATION FOR THE USE OF HUMAN RESEARCH PARTICIPANTS

IRB APPLICATION #: (*To be assigned by the IRB*)

I. APPLICATION INSTRUCTIONS

1. Complete each section of this document by using your tab key to move your cursor to each gray form field and providing the requested information.
2. If you have questions, hover over the blue **(?)**, or refer to the IRB Application Instructions for additional clarification.
3. Review the IRB Application Checklist.
4. Email the completed application, with the following supporting documents (as separate word documents) to irb@liberty.edu:
    a. Consent Forms, Permission Letters, Recruitment Materials
    b. Surveys, Questionnaires, Interview Questions, Focus Group Questions
5. If you plan to use a specific Liberty University department or population for your study, you will need to obtain permission from the appropriate department chair/dean/coach/etc. Submit documentation of permission (email or letter) to the IRB along with this application and check the indicated box below verifying that you have done so.
6. **Submit one signed copy of the signature page (available on the IRB website or electronically by request) to any of the following:**
    a. Email: As a scanned document to irb@liberty.edu
    b. Fax: 434-522-0506
    c. Mail: IRB 1971 University Blvd. Lynchburg, VA 24515
    d. In Person: Green Hall, Suite 2845
7. Once received, the IRB processes applications on a first-come, first-served basis.
8. Preliminary review may take up to 3 weeks.
9. Most applications will require 3 sets of revisions.
10. The entire process may take between 1 and 2 months.
11. *We cannot accept applications in formats other than Microsoft Word. Please do not send us One Drive files, Pdfs, Google Docs, or Html applications.* ***Exception:*** *The IRB's signature page, proprietary instruments (i.e., survey creator has copyright), and documentation of permission may be submitted as pdfs.*
12. **Note: Applications and supporting documents with the following problems will be returned immediately for revisions:**

1. Grammar, spelling, or punctuation errors
2. Lack of professionalism
3. Lack of consistency or clarity
4. Incomplete applications

Failure to minimize these errors **will** cause delays in your processing time

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

II. BASIC PROTOCOL INFORMATION

1. STUDY/THESIS/DISSERTATION TITLE (?)
Title: COMORBID ANTISOCIAL PERSONALITY DISORDER AND SUBSTANCE USE DISORDER TREATMENT EFFICACY

2. PRINCIPAL INVESTIGATOR & PROTOCOL INFORMATION (?)	
Principal Investigator *(person conducting the research):* David V. Smith	
Professional Title *(Student, Professor, etc.):* Student	
School/Department *(School of Education, LUCOM, etc.):* Liberty University	
Phone: [redacted]	LU Email: [redacted]
Check all that apply:	
☐ Faculty	☒ Online Graduate Student
☐ Staff	☐ Residential Undergraduate Student
☐ Residential Graduate Student	☐ Online Undergraduate Student
This research is for:	
☐ Class Project	☐ Master's Thesis
☐ Scholarly Project (DNP Program)	☒ Doctoral Dissertation
☐ Faculty Research	☐ Other:
If applicable, indicate whether you have defended and passed your dissertation proposal:	
☐ N/A	
☐ No *(Provide your defense date):*	
☐ Yes *(Proceed to Associated Personnel Information)*	

3. ASSOCIATED PERSONNEL INFORMATION (?)	
Co-Researcher(s):	
School/Department:	
Phone:	LU/Other Email:
Faculty Chair/Mentor(s):	
School/Department:	
Phone:	LU/Other Email:
Non-Key Personnel *(Reader, Assistant, etc.):*	
School/Department:	
Phone:	LU/Other Email:
Consultant/Methodologist *(required for School of Education EdD/PhD candidates)*:	

School/Department:

4. USE OF LIBERTY UNIVERSITY PARTICIPANTS (?)

Do you intend to use LU students, staff, or faculty as participants *OR* LU student, staff, or faculty data in your study?

[X] No *(Proceed to Funding Source)*
[ ] Yes(*Complete the section below)*

# of Participants/Data Sets:	**Department/Source:**
Class(es)/Year(s):	**Department Chair:**

Obtaining permission to utilize LU participants *(check the appropriate box below):*

SINGLE DEPARTMENT/GROUP: If you are including faculty, students, or staff from a single department or group, you must obtain permission from the appropriate Dean, Department Chair, or Coach and submit a signed letter or date/time stamped email to the IRB indicating approval to use students from that department or group. **You may submit your application without having obtained this permission**; however, the IRB will not approve your study until you provide proof of permission.

[ ] I have obtained permission from the appropriate Dean/Department Chair/Coach and attached the necessary documentation to this application.

[ ] I have sought permission and will submit documentation to the IRB once I receive it from the appropriate Dean/Department Chair/Coach.

MULTIPLE DEPARTMENTS/GROUPS: If you are including faculty, students, or staff from multiple departments or groups (i.e., all sophomores or LU Online), **the IRB will need to seek administrative approval on your behalf.**

[ ] I am requesting that the IRB seek administrative approval on my behalf.

5. FUNDING SOURCE (?)

Is your research funded?

[X] No *(Proceed to Study Dates)*
[ ] Yes (*Complete the section below)*

Grant Name/Funding Source/Number:

Funding Period (Month & Year):

6. STUDY DATES (?)

When do you plan to perform your study? *(Approximate dates for collection/analysis):*
Start *(Month/Year)*: April 2020 **Finish** *(Month/Year)*: August 2020

7. COMPLETION OF REQUIRED CITI RESEARCH ETHICS TRAINING (?)

List Course Name(s) *(Social and Behavioral Researchers, etc.)*:
Social & Behavioral Research and Social & Behavioral Researchers

Date(s) of Completion: January 16, 2018

III. OTHER STUDY MATERIALS AND CONSIDERATIONS

8. STUDY MATERIALS LIST (?)

Please indicate whether your proposed study will include any of the following:

Recording/photography of participants (*voice, video, or images*)?			Yes	X	No
Participant compensation *(gift cards, meals, extra credit, etc.)*?			Yes	X	No
Advertising for participants *(flyers, TV/Radio advertisements)*?			Yes	X	No
More than minimal psychological stress?			Yes	X	No
Confidential data collection *(participant identities known but not revealed)*?	X		Yes		No
Anonymous data collection *(participant identities not known)*?			Yes	X	No
Archival data collection *(data previously collected for another purpose)?*			Yes	X	No
Extra costs to the participants *(tests, hospitalization, etc.)*?			Yes	X	No
The inclusion of pregnant women (*for medical studies*)?			Yes	X	No
More than minimal risk?*			Yes	X	No
Alcohol consumption?			Yes	X	No
Protected Health Information *(from health practitioners/institutions)*?			Yes	X	No
VO_2 Max Exercise?			Yes	X	No
Pilot study procedures *(which will be published/included in data analysis)*?			Yes	X	No
Use of blood?			Yes	X	No
Total amount of blood:					
Blood draws over time period *(days)*:					
The use of rDNA or biohazardous material?			Yes	X	No
The use of human tissue or cell lines?			Yes	X	No
Fluids that could mask the presence of blood *(including urine/feces)*?			Yes	X	No
Use of radiation or radioisotopes?			Yes	X	No

***Note: Minimal risk** is defined as "the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in everyday life or during the performance of routine physical or physiological examinations or tests. [45 CFR 46.102(i)]. If you are unsure if your study qualifies as minimal risk, contact the IRB.*

9. INVESTIGATIONAL METHODS (?)

Please indicate whether your proposed study will include any of the following:

The use of an investigational new drug (IND) or an approved drug for an unapproved Use?

[X] No
[ ] Yes *(Provide the drug name, IND number, and company):*

The use of an investigational medical device or an approved medical device for an unapproved Use?

[X] No
[ ] Yes

IV. PURPOSE

10. PURPOSE OF RESEARCH (?)

Write an original, brief, non-technical description of the purpose of your research. Include in your description your research hypothesis/question, a narrative that explains the major constructs of your study, and how the data will advance your research hypothesis or question. This section should be easy to read for someone not familiar with your academic discipline: Treatment efficacy for comorbid antisocial personality disorder and substance use disorder. There will be a statistically significant difference between pretest and posttest scores on the Novaco Anger Scale and Provocation Inventory (NAS-PI) and The Test of Self-Conscious Affect (TOSCA-3) scales after the intervention. Cognitive behavioral therapy will be integrated with chromis violence reduction program to remediate the core feature of anger, aggression while increasing in guilt and empathy.

V. PARTICIPANT INCLUSION/EXCLUSION CRITERIA

11. STUDY POPULATION (?)

Provide the inclusion criteria for the participant population *(e.g., gender, age range, ethnic background, health status, occupation, employer, etc.)*: Male participant, 29 years old, Caucasian. Participant has no health issues. The participant is employed

Provide a rationale for selecting the above population *(i.e., Why will this specific population enable you to answer your research question?)***:** The participant has a diagnosis of antisocial personality disorder and substance use disorder. Using this population will give the researcher an opportunity to analyze the variables anger, aggression, guilt and empathy against the intervention cognitive behavioral therapy and chromis violence reduction program.

Will your participant population be divided into different groups *(i.e., experimental and control groups)***?**

X No

Yes *(Describe the groups and explain **how** groups will be selected/assigned.):*

Are you related to any of your participants?

X No

Yes *(Explain):*

Indicate who will be excluded from your study population *(e.g., persons under 18 years of age)*: Person under the age of 18, person in psychotherapy, person without a comorbid diagnoses of antisocial personality disorder and substance use disorder.

If applicable, provide rationale for involving any special populations *(e.g., children, ethnic groups, individuals with impaired decision-making ability or low socio-economic status, or prisoners)*:

Provide the maximum number of participants you plan to enroll for each participant population and justify the sample size *(You will not be approved to enroll a number greater than the number listed. If at a later time it becomes apparent that you need to increase your sample size, submit a Change in Protocol Form and wait for approval to proceed.)*: The researcher will use one participant in this case study.

ANSWER THE FOLLOWING QUESTION ONLY IF YOU ARE CONDUCTING A PROTOCOL WITH NIH, FEDERAL, OR STATE FUNDING:
Researchers sometimes believe their particular project is not appropriate for certain types of participants. These may include, for example, women, minorities, and children. If you believe your project should not include one or more of these groups, please provide your justification for their exclusion. Your justification will be reviewed according to the applicable NIH, federal, or state guidelines:

12. TYPES OF PARTICIPANTS (?)

Who will be the focus of your study? *(Check all that apply)*

X	Normal Participants (Age 18-65)		Pregnant Women
	Minors (Under Age 18)		Fetuses
	Over Age 65		Cognitively Disabled
	College/University Students		Physically Disabled
	Active-Duty Military Personnel		Participants Incapable of Giving Consent
	Discharged/Retired Military Personnel		Prisoners or Institutional Individuals
	Inpatients		Specific Ethnic/Racial Group(s)
	Outpatients		Other potentially elevated risk populations
	Patient Controls		Participant(s) related to the researcher

Note: *Only check the boxes if the participants will be the focus (for example, ONLY military or ONLY students). If they just happen to be a part of the broad group you are studying, you only need to check "Normal Participants." Some studies may require that you check multiple boxes (e.g., Korean males, aged 65+).*

VI. RECRUITMENT OF PARTICIPANTS

13. CONTACTING PARTICIPANTS (?)

Describe in detail how you will contact participants regarding this study *(include the method(s) used—email, phone call, social media, snowball sampling, etc.)*: The participants will be a convenience sample from a mental health provider. The researcher will contact the participant by phone

14. SUBMISSION OF RECRUITMENT MATERIALS (?)

Submit a copy of all recruitment letters, scripts, emails, flyers, advertisements, or social media posts you plan to use to recruit participants for your study as separate Word documents with your application. Recruitment templates are available on the IRB website.

Check the appropriate box:

X	All of the necessary recruitment materials will be submitted with my application.
	My study strictly uses **archival** data, so recruitment materials are not applicable.

If you plan to provide documents in a language other than English:

☐ I will submit a translated copy of my recruitment materials along with the English rversion(s).

15. LOCATION OF RECRUITMENT (?)

Describe the location, setting, and timing of recruitment: Recruitment will be at Central Kentucky Community Action. This is a community-based agency that provides services to a wide range of clients. Recruitment will take place after approval by the IRB.

16. SCREENING PROCEDURES (?)

Describe any procedures you will use to ensure that your participants meet your study criteria *(e.g., a screening survey or verbal confirmation to verify that participants are 18 or older)*: Participants will be asked if they are presently attending counseling services.

17. CONFLICTS OF INTEREST (?)

Conflicts of interest are "situations in which financial or other personal considerations may compromise, or have the appearance of compromising, an investigator's judgement in conducting or reporting research" AAMC, 1990.

Do you have a position of academic or professional authority over the participants *(e.g., You are the participants' teacher, principal, supervisor, or district/school administrator.)*?

X No

Yes *(Explain what safeguards are in place to reduce the likelihood of compromising the integrity of the research, e.g., addressing the conflicts in the consent process and/or emphasizing the pre-existing relationship will not be impacted by participation in the research.):*

Do you have any financial or personal conflicts of interest to disclose *(e.g., Do you or an immediate family member receive income or other payments, own investments in, or have a relationship with a non-profit organization that could benefit from this research?)***?**

X No*(Proceed to Procedures)*

Yes *(State the funding source/financial conflict and then explain what safeguards are in place to reduce the likelihood of compromising the integrity of the research.):*

VII. RESEARCH PROCEDURES

18. PROCEDURES (?)

Write an original, non-technical, step-by-step description of what your participants will be asked to do during your study and data collection process. If you have multiple participant groups, *(e.g., parents, teachers, and students)* or control and experimental groups, please specify which group you are asking to complete which task(s). **You do not need to list signing/reading consent as a step.**

Step/Task/Procedure	Time to Complete Procedure *(Approx.)*	Participant Group(s) *(All, Group A, Group B, Control Group, Experimental Group, etc.)*
1. Participant will take the Novaco Anger Scale	1 hour	
2. Participant will take the Test of Self-Conscious Affect-3	1 hour	
3. Participant will take The Minnesota Multiphasic Personality Inventory	60 to 90 minutes	
4. Participant will be asked to attend 16 bi-weekly therapeutic sessions.	16 hours	
5.		
6.		
7.		
8.		

Note: *For complex study designs, additional diagrams, timelines, or figures may be submitted separately.*

19. SUBMISSION OF DATA COLLECTION INSTRUMENTS/MATERIALS (?)

Submit a copy of all instruments, surveys, interviews questions, outlines, observation checklists, prompts, etc. that you plan to use to collect data for your study as separate Word documents with your application. Pdfs are **ONLY** acceptable for proprietary instruments.

Check the appropriate box:

- [X] All of the necessary data collection instruments will be submitted with my application.
- [ ] My study strictly uses **archival** data, so data collection instruments are not applicable.

If you plan to provide documents in a language other than English:

- [ ] I will submit a translated copy of my study instrument(s) along with the English version(s).

20. STUDY LOCATION (?)

Please state the actual location(s)/site(s) in which the study will be conducted. Be specific *(include city, state, school/district, clinic, etc.)*: Central Kentucky Community Action, Brandenburg, Kentucky.

Note: *Investigators must submit documentation of permission from some research sites to the IRB prior to receiving approval. If your study involves K-12 public schools, district-level approval is acceptable as opposed to submitting separate permission documentation from each school. If your study involves colleges or universities, hospitals, or prisons, you may also need to seek IRB approval from those institutions. You may seek permission prior to submitting your IRB application; however,* ***do not*** *begin recruiting participants. If you find that you need a conditional approval letter from the IRB to obtain permission, the IRB will provide one once you have completed all requested revisions.*

VIII. DATA ANALYSIS

21. NUMBER OF PARTICIPANTS/DATA SETS (?)

Estimate the number of participants to be enrolled or data sets to be collected: 1

22. ANALYSIS METHODS (?)

Describe *how* the data will be analyzed: Data will be analyzed using SPSS software, a t test will be conducted with the data.

Please describe what will be done with the data and the resulting analysis *(Include any plans for publication or presentation.)***:** The data collected will be included in my dissertation and published in an academic journal.

IX. PARENTAL/GUARDIAN CONSENT

23. PARENTAL/GUARDIAN CONSENT REQUIREMENTS (?)

Does your study require parental/guardian consent? *(If your participants are under 18, parental/guardian consent is required in most cases.)*

[X] No *(Proceed to Child Assent)*
[ ] Yes *(Answer the following question)*

Does your study entail greater than minimal risk without the potential for benefits to the participant?

[X] No
[ ] Yes *(Consent of both parents is required)*

X. ASSENT FROM CHILDREN

24. CHILD ASSENT (?)

Is assent required for your study? *(Assent is required unless the child is not capable of assenting due to age, psychological state, or sedation OR the research holds out the prospect of a direct benefit that is only available within the context of the research.)*

[X] No *(Proceed to Consent Procedures)*
[ ] Yes

Note: *If the parental consent process (full or part) is waived (See XIII below) assent may be also. See the IRB's informed consent page for more information.*

XI. PROCESS OF OBTAINING INFORMED CONSENT

25. CONSENT PROCEDURES (?)

Describe in detail *how and when* you will provide consent/assent/parental consent information *(e.g., as an attachment to your recruitment email, as the first page participants see after clicking on the survey link, etc.)*: Participant will be given the consent form during the recruitment interview.

Unless your study qualifies for a waiver of signatures, describe in detail *how and when* consent forms will be signed and returned to you *(e.g., participants will type their names and the date on the consent form before completing the online survey, participants will sign and return the consent forms when you meet for their interview, etc.)*: Participant will sign and date the consent forms during the recruitment interview.

Note: *A waiver of signatures is only applicable if you will not be able to link participant responses to participants (i.e., anonymous surveys). See section XIV below.*

XII. USE OF DECEPTION

26. DECEPTION (?)

Are there any aspects of the study kept secret from the participants *(e.g., the full purpose of the study, assignment or use of experimental/control groups, etc.)***?**

[X] No
[ ] Yes *(Describe the deception involved and the debriefing procedures.)*:

Is deception used in the study procedures?

[X] No
[ ] Yes *(Describe the deception involved and the debriefing procedures.)*:

Note: *Submit a post-experiment debriefing statement and consent form offering participants the option of having their data destroyed. A debriefing template is available on our website.*

XIII. WAIVER OF INFORMED CONSENT OR MODIFICATION OF REQUIRED ELEMENTS IN THE INFORMED CONSENT PROCESS

27. WAIVER OF INFORMED CONSENT ELEMENTS (?) [X] **N/A**

Please indicate why you are requesting a waiver of consent *(If your reason does not appear as an option, please check N/A. If your reason appears in the drop-down list, complete the below questions in this section)***:** Click to select an option.

Does the research pose no more than minimal risk to participants *(i.e., no more risk than that of everyday activities)***?**

[ ] No, *the study is greater than minimal risk.*
[ ] Yes, *the study is minimal risk.*

Will the waiver have no adverse effects on participant rights and welfare?

[ ] No, *the waiver will have adverse effects on participant rights and welfare.*
[ ] Yes, *the waiver will not adversely affect participant rights and welfare.*

Would the research be impracticable without the waiver?

[ ] No, *there are other ways of performing the research without the waiver.*
[ ] Yes, *not having a waiver would make the study unrealistic.* Explain:

Will participant debriefing occur *(i.e., Will the true purpose and/or deceptive procedures used in the study be reported to participants at a later date?)***?**

[ ] No, *participants will not be debriefed.*
[ ] Yes, *participants will be debriefed.*

Note: *A waiver or modification of some or all of the required elements of informed consent is sometimes used in research involving deception or archival data.*

XIV. WAIVER OF THE REQUIREMENT FOR PARTICIPANTS TO SIGN THE INFORMED CONSENT DOCUMENT

28. WAIVER OF SIGNED CONSENT (?) [X] **N/A**

Please indicate why you are requesting a waiver of signatures *(If your reason does not appear as an option, please check N/A. If your reason appears in the drop-down list, complete the below questions in this section)***:** Click to select an option.

Would a signed consent form be the only record linking the participant to the research?

- [ ] No, *there are other records/study questions linking the participants to the study.*
- [ ] Yes, *only the signed form would link the participant to the study.*

Does a breach of confidentiality constitute the principal risk to participants?

- [ ] No, *there are other risks involved greater than a breach of confidentiality.*
- [ ] Yes, *the main risk is a breach of confidentiality.*

Does the research pose no more than minimal risk to participants *(i.e., no more risk than that of everyday activities)***?**

- [ ] No, *the study is greater than minimal risk.*
- [ ] Yes, *the study is minimal risk.*

Does the research include any activities that would require signed consent in a non-research context *(e.g., liability waivers)***?**

- [ ] No, *there are not any study related activities that would normally require signed consent*
- [ ] Yes, *there are study related activities that would normally require signed consent*

Are the subjects or their legally authorized representatives (LARs) members of a distinct cultural group or community in which signing forms is not the norm?

- [ ] No, *the subjects/their LARs are not members of a distinct cultural group or community in which signing forms is not the norm.*
- [ ] Yes, *the subjects/their LARs are members of a distinct cultural group or community in which signing forms is not the norm, and there is an appropriate alternative mechanism for documenting that informed consent was obtained.*

Will you provide the participants with a written statement about the research *(i.e., an information sheet that contains all of the elements of an informed consent form but without the signature lines)***?**

- [ ] No, *participants will not receive written information about the research.*
- [ ] Yes, *participants will receive written information about the research.*

Note: *A waiver of signed consent is sometimes used in anonymous surveys or research involving secondary data. This does not eliminate the need for a consent document, but it eliminates the need to obtain participant signatures.*

XV. CHECKLIST OF INFORMED CONSENT/ASSENT

29. STATEMENT (?)

Submit a copy of all informed consent/assent documents as separate Word documents with your application. Informed consent/assent templates are available on our website. Additional information regarding consent is also available on our website.

Check the appropriate box:	
X	All of the necessary consent/assent documents will be submitted with my application.
	My study strictly uses **archival** data, so consent documents are not required.
If you plan to provide documents in a language other than English:	
	I will submit a translated copy of my consent material(s) along with the English version(s).

XVI. PARTICIPANT PRIVACY, DATA SECURITY, & MEDIA USE

30. PRIVACY (?)

Describe the steps you will take to protect the privacy of your participants *(e.g., If you plan to interview participants, will you conduct your interviews in a setting where others cannot easily overhear?)*: The interview and counseling sessions will be conducted in a private office where conversations will not be easily overheard

Note: *Privacy refers to persons and their interest in controlling access to their information.*

31. DATA SECURITY (?)

How will you keep your data secure *(i.e., password-locked computer, locked desk, locked filing cabinet, etc.)***?** All electronic data will be stored in a password-locked computer, all questionnaires will be stored in a key locked cabinet and the researcher will be the only person with a key.

Who will have access to the data *(i.e., the researcher and faculty mentor/chair, only the researcher, etc.)***?** The researcher and dissertation chair.

Will you destroy the data once the three-year retention period required by federal regulations expires?

No

X Yes *(Explain how the data will be destroyed.):* Questionnaires will be placed in a paper shredder and destroyed; all electronic data will be deleted from the computer.

Note: *All research-related data must be stored for a minimum of three years after the end date of the study, as required by federal regulations.*

32. ARCHIVAL DATA (SECONDARY DATA) (?)

Is all or part of the data archival *(i.e., previously collected for another purpose)***?**

	No *(Proceed to Non-Archival Data.)*
X	Yes *(Answer the questions below.)*

Is the archival data publicly accessible?
X No *(Explain how you will obtain access to this data.)*: Participant consent
Yes *(Indicate where the data is accessible from, i.e., a website, etc.)*:

Will you receive the raw data stripped of identifying information *(e.g., names, addresses, phone numbers, email addresses, social security numbers, medical records, birth dates, etc.)***?**
X No *(Describe what data will remain identifiable and why this information will not be removed.)*: Name, medical records, and birth date will be used to identify the participant
Yes *(Describe who will link and/or strip the data—this person should have regular access to the data and should be a neutral party not involved in the study.)*:

Can the names or identities of the participants be deduced from the raw data?
No *(Place your initials in the box: I will not attempt to deduce the identity of the participants in this study.)*:
X Yes *(Describe)*: All archival data will have identifying information.

Please provide the list of data fields you intend to use for your analysis and/or provide the original instruments used in the study: Novaco Anger Scale, Test of self-Conscious Affect-3, Will provide instruments will this application

Note: *If the archival data is not publicly available, submit proof of permission to access the data (i.e., school district letter or email). If you will receive data stripped of identifiers, this must be stated in the proof of permission letter or email.*

33. NON-ARCHIVAL DATA (PRIMARY DATA) (?)

If you are using non-archival data, will the data be anonymous to you *(i.e., Raw data does not contain identifying information and cannot be linked to an individual/organization by use of pseudonyms, codes, or other means.)*? **Note:** For studies involving audio/video recording or photography, select "No"

☐ N/A: I will only use archival data. *(Skip to Media.)*
☐ No: My data will contain identifiers. *(Complete the "No" section below.)*
☒ Yes: My data will not contain identifiers. *(Complete the "Yes" section below.)*

****COMPLETE THIS SECTION IF YOU ANSWERED "NO" TO QUESTION 33****

Can participant names or identities be deduced from the raw data?
☐ No
☐ Yes *(Describe)*:

Will a person be able to identify a subject based on other information in the raw data *(i.e., title, position, sex, etc.)***?**
X No
Yes *(Describe)*:

Describe the process you will use to ensure the confidentiality of the participants during data collection and in any publication(s) *(i.e., You may be able to link individuals/organizations to identifiable data; however, you will use pseudonyms or a coding system to conceal their identities.)*: The researcher will use pseudonyms for participant

Do you plan to maintain a list or codebook linking pseudonyms or codes to participant identities?

X No *(Justify)*: There will only be one participant in my study

Yes *(Please describe where this list/codebook will be stored and who will have access to the list/codebook. Explicitly state that the list will not be stored with the data.)*:

****COMPLETE THIS SECTION IF YOU ANSWERED "YES" TO QUESTION 33****

Describe the process you will use to collect the data to ensure that it is anonymous: Data will be collected using pseudonyms P1 for the participant.

Place your initials in the box: I will not attempt to deduce the identity of the participants in this study:

Note: *If you plan to use participant data (i.e., photos, recordings, videos, drawings) for presentations beyond data analysis for the research study (e.g., classroom presentations, library archive, or conference presentations) you will need to provide a materials release form to the participant.*

34. MEDIA USE (?)

Will your participants be audio recorded?		No	X	Yes
Will your participants be video recorded?	X	No		Yes
Will your participants be photographed?	X	No		Yes

****COMPLETE THIS SECTION IF YOU ANSWERED "YES" TO ANY MEDIA USE****

Include information regarding how participant data will be withdrawn if he or she chooses to leave the study*: Data will be eliminated from the study data and placed in either a password locked computer or key locked file cabinet.

Will your participants be audio recorded, video recorded, or photographed without their knowledge? **

X No

Yes *(Describe the deception and debriefing procedures.)*:

Note on Withdrawal: *Add the heading "How to Withdraw from the Study" on the consent document and include a description of the procedures a participant must perform to be withdrawn.*

****Note on Deception:*** *Attach a post-experiment debriefing statement and a post-deception consent form, offering the participants the option of having their recording/photograph destroyed and removed from the study.*

XVII. PARTICIPANT COMPENSATION

35. COMPENSATION (?)

Will participants be compensated *(e.g., gift cards, raffle entry, reimbursement, food)*

X No *(Proceed to Risks.)*

Yes *(Describe.)*:

Will compensation be pro-rated if the participant does not complete all aspects of the study?

☐ No

☐ Yes *(Describe.)*:

Note: *Certain states outlaw the use of lotteries, raffles, or drawings as a means of compensating research participants. Research compensation exceeding $600 per participant within a one-year period is considered income and will need to be filed on the participant's income tax returns. If your study is grant funded, Liberty University's Business Office policies might affect how you compensate participants. Contact the IRB for additional information.*

XVIII. PARTICIPANT RISKS AND BENEFITS

36. RISKS (?)

Describe the risks to participants and any steps that will be taken to minimize those risks. *(Risks can be physical, psychological, economic, social, or legal. If the only potential risk is a breach in confidentiality if the data is lost or stolen, state that here.)*: The only risk is breach of confidentiality. These is only one participant in this study.

Will alternative procedures or treatments that might be advantageous to the participants be made available?

X No

Yes *(Describe.)*:

ANSWER THE FOLLOWING QUESTION ONLY IF YOUR STUDY IS CONSIDERED GREATER THAN MINIMAL RISK:

Describe provisions for ensuring necessary medical or professional intervention in the event of adverse effects to the participants *(e.g., proximity of the research location to medical facilities or your ability to provide counseling referrals in the event of emotional distress)*: Counseling referrals will be made available as needed

37. BENEFITS (?)

Describe the possible direct benefits to the participants. *(If participants are not expected to receive direct benefits, please state "No direct benefits." Completing a survey or participating in an interview will not typically result in direct benefits to participants.)*: No direct benefits

Describe any possible benefits to society: The research has the potential to remediate the core features of antisocial personality disorder. This will be of great benefit to society in terms of cost from crime and incarceration.

Evaluate the risk-benefit ratio. *(Explain why you believe this study is worth doing, even with any identified risks.)*: Helping those with antisocial personality disorder is a worthwhile and valuable pursuit that can change lives, families, and communities.

APPENDIX H: IRB APROVAL LETTER

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

IRB-FY19-20-186 - Initial: Initial - Expedited

irb@liberty.edu

Wed 7/8/2020 4:18 PM

July 8, 2020

David Smith

Daniel Marston

Re: IRB Approval - IRB-FY19-20-186 COMORBID ANTISOCIAL PERSONALITY DISORDER AND SUBSTANCE USE DISORDER TREATMENT EFFICACY

Dear David Smith, Daniel Marston:

We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the date of the IRB meeting at which the protocol was approved: July 8, 2020. If data collection proceeds past one year, or if you make modifications in the methodology as it pertains to human subjects, you must submit an appropriate update submission to the IRB.

These submissions can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your stamped consent form can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. This form should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, MA, CIP

Administrative Chair of Institutional Research

Research Ethics Office

APPENDIX I: TOSCA-3 PRESTEST

Table 1. TOSCA-3 pretest total for shame and guilt scores.

Shame Proneness	Guilt Proneness	Blaming Others
1a__1___	1b__1___	1c__2___
2b__1___	2a__1___	2c__3___
3a__1___	3c__3___	3b__3___
4b__3___	4c__1___	4a__2___
5a__1___	5c__2___	5b__4___
6b__1___	6c__1___	6a__5___
7c___3__	7b__3___	7a__2___
8a__1___	8c__1___	8b__4___
9b__1___	9c__2___	9a__5___
10a__1___	10c__1___	10b__4___
11b__1___	11a__1___	11c__4___
Shame Self-Talk Total= 15	Guilt Self-Talk Total= 17	Blaming Others Total= 39

APPENDIX J: TOSCA-3 POSTTEST

Table 2. TOSCA-3 posttest for shame and guilt scores.

Shame Proneness	Guilt Proneness	Blaming Others
1a__1___	1b__2___	1c__2___
2b__1___	2a__1___	2c__2___
3a__3___	3c__2___	3b__1___
4b__3__	4c__1___	4a__2___
5a__2___	5c__3___	5b__3___
6b__1___	6c__2___	6a__4___
7c__2___	7b___2__	7a__1___
8a__2___	8c___5__	8b__2___
9b__1___	9c___2__	9a___4__
10a__2___	10c___2__	10b___3__
11b___2__	11a___2__	11c___3__
Shame Self-Talk Total= 20	Guilt Self-Talk Total= 24	Blaming Others Total= 27

APPENDIX K: NOVACO ANGER SCALE PRETEST

Table 3. Novaco Anger Scale pretest results.

Questions	Scores
1. You unpack an appliance that you just bought, plug it in and discover that it does not work.	3
2. Being overcharged by a repairman who helped you out of a bind.	4
3. Being singled out for correction when others go unnoticed.	4
4. Getting your car stuck in the mud or snow.	2
5. You are talking to someone and they do not answer.	4
6. Someone pretends to be something you are not.	4
7. While you are struggling to carry four cups of coffee to your table at the cafeteria, someone bumps into you, spilling the coffee	4
8. You hung up your coat, but someone knocks it to the floor and does not pick it up.	4
9. You are hounded by salesperson from the moment you walk in the store.	4
10. You made plans to go somewhere with a friend who backs out at the last minute leaving you hanging.	3
11. Being joked about or teased	4
12. You accidentally make a wrong turn in the parking lot. As you get out of your car someone yells at saying "Where did you learn how to drive"?	4
13. Your car stalls at a traffic light and the guy behind you keeps blowing his horn.	4
14. You are trying to concentrate but a person near you is tapping their foot.	3
15. Someone makes a mistake and blames it on you	4
16. You lend someone an important book or tool and they don't return it	4
17. You have had a busy day, and your roommate or spouse starts complaining about how you forgot to stop at the store.	4
18. You are trying to discuss something important with a friend or relative who is not giving you a chance to express your feelings.	4
19. You are in a discussion with someone who persists in arguing about a topic they know very little about	4
20. Someone sticks his/her nose into an argument between you and another person.	4
21. You're already late and the car in front of you is going 25 mph in 40 mph zone and you can't pass.	4
22. You step on a glob of chewing gum.	2
23. You're mocked by small group of people as you pass them.	4
24. In a hurry to get somewhere, you tear your favorite pair of pants.	3
25. You use your last quarter to make a phone call, but you are disconnected before you finish dialing, and the quarter is not returned.	3
Total Score:	91

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APPENDIX L: NOVACO ANGER SCALE PRETEST

Table 4. Novaco Anger Scale posttest results

Questions	Scores
1. You unpack an appliance that you just bought, plug it in and discover that it does not work.	3
2. Being overcharged by a repairman who helped you out of a bind.	3
3. Being singled out for correction when others go unnoticed.	4
4. Getting your car stuck in the mud or snow.	2
5. You are talking to someone and they do not answer.	4
6. Someone pretends to be something you are not.	3
7. While you are struggling to carry four cups of coffee to your table at the cafeteria, someone bumps into you, spilling the coffee	4
8. You hung up your coat, but someone knocks it to the floor and does not pick it up.	3
9. You are hounded by salesperson from the moment you walk in the store.	4
10. You made plans to go somewhere with a friend who backs out at the last minute leaving you hanging.	3
11. Being joked about or teased	4
12. You accidentally make a wrong turn in the parking lot. As you get out of your car someone yells at saying “Where did you learn how to drive”?	4
13. Your car stalls at a traffic light and the guy behind you keeps blowing his horn.	3
14. You are trying to concentrate but a person near you is tapping their foot.	4
15. Someone makes a mistake and blames it on you.	4
16. You lend someone an important book or tool and they don’t return it	3
17. You have had a busy day, and your roommate or spouse starts complaining about how you forgot to stop at the store.	4
18. You are trying to discuss something important with a friend or relative who is not giving you a chance to express your feelings.	3
19. You are in a discussion with someone who persists in arguing about a topic they know very little about	3
20. Someone sticks his/her nose into an argument between you and another person.	4
21. You’re already late and the car in front of you is going 25 mph in 40 mph zone and you can’t pass.	4
22. You step on a glob of chewing gum.	3
23. You’re mocked by small group of people as you pass them.	4
24. In a hurry to get somewhere, you tear your favorite pair of pants.	3
25. You use your last quarter to make a phone call, but you are disconnected before you finish dialing, and the quarter is not returned.	2
Total Score	85