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Mindfulness of Breathing Meditation and Levels of Inattention, Impulsivity, and Hyperactivity with Juvenile Sex Offenders in a Residential Setting

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MINDFULNESS OF BREATHING MEDITATION AND LEVELS OF INATTENTION, IMPULSIVITY, AND HYPERACTIVITY WITH JUVENILE SEX OFFENDERS IN A RESIDENTIAL SETTING

DISSERTATION

Presented in Partial Fulfillment of the Requirements for

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ABSTRACT

MINDFULNESS OF BREATHING MEDITATION AND LEVELS OF IMPULSIVITY WITH JUVENILE SEX OFFENDERS IN A RESIDENTIAL SETTING

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Barry University 2009

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Purpose

The purpose of this study was to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an adjunct treatment for inattention, impulsivity, and hyperactivity with juvenile sex offenders as measured by the Clinical Assessment of Attention Deficit-Child Version (CAT-C) (Bracken & Boatwright, 2005).

Method

This study is experimental in nature and employed a randomized control group, pretest-posttest design. Participants were juvenile sex offenders in a residential treatment program in the Central Florida area. The experimental group participated in a six-week Mindfulness of Breathing Meditation Program as an adjunct to the standard treatment protocol and the control group participated in the standard treatment. A t-test was used to analyze the data.

Findings

The results of the independent samples *t* tests indicated that participating in a Mindfulness of Breathing Meditation Program yielded a significant difference in test

scores for student self report of inattention, student self report of hyperactivity, staff report of impulsivity, and staff report of hyperactivity when compared to a control group. None of the teacher reports of inattention, hyperactivity, or impulsivity were significantly different for the two groups.

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CHAPTER I

THE PROBLEM

Introduction

Sexual aggression committed by juveniles has become a growing problem in the United States over the past several years (Hunter, 2000). In fact, approximately one in five sexual offenses is perpetrated by a juvenile (Federal Bureau of Investigation, 2007). Furthermore, it has been estimated that 30% to 56% of sexual offenses perpetrated against children are committed by adolescents (Davis & Leitenberg, 1987; Kavoussi, Kaplan, Becker, 1988). Research has conflicting opinions regarding the prediction of whether a juvenile will become an adult offender. Some research has shown nearly one half of adult sex offenders began sexually abusive behaviors as juveniles (Fehrenbach, Smith, Monastersky, & Deisher, 1986; Righthand & Welch, 2001), while others believe not all juvenile offenders become adult offenders (Davis & Leitenberg, 1987; Hunter, 2000).

There have been several factors associated with sexual offending behaviors in juveniles (Hunter, 2000). Factors that have received the most attention include psychiatric and learning disabilities, previous abuse, exposure to pornography, substance abuse, and exposure to aggressive role models (Fehrenbach, et al., 1986; Lakey, 1994; Hunter, 2000). Hunter (2000) reports that up to 80% of the juveniles arrested for sexual offending have a diagnosable psychiatric disorder. The most common psychiatric diagnoses given to juveniles that have sexually offended include impulse control problems or attention deficit hyperactivity disorder (ADHD), learning disabilities, social anxiety, narcissistic personality disorder, depression, or substance abuse. It has been

shown that adolescent sex offenders frequently have attention problems which range from inattention in school to impulsivity with destructive behaviors such as stealing, arson and vandalism. Symptoms of ADHD have been diagnosed in between 35% and 70% of juvenile sexual offenders ((Fehrenbach, et al., 1986; Kavoussi et al., 1988).

The traditional treatment for juvenile sexual offenders (JSO) has been the cognitive behavioral relapse prevention model. The relapse prevention process begins with the view that excessive thoughts or acute stress create a sense of deprivation. A lack of self restraint then leads the individual towards a high risk situation. This situation may be an emotional state, such as depression, or an environmental circumstance, such as walking through a park where children are playing. In either situation, it threatens the offender's sense of control over continued abstinence. The relapse prevention model addresses the sequence of cognitive, affective, and behavioral elements leading to relapse. Since the early 1990s, almost all North American sex offender treatment programs report including some form of relapse prevention in their treatment (Polaschek, 2003).

Although the current models of treatment for JSO's have shown an adequate level of effectiveness in reducing the comorbidity of impulsive behaviors (Becker & Johnson, 2001; Righthand & Welch, 2001), Mindfulness of Breathing Meditation has not been evaluated for its effectiveness. In conjunction with the traditional treatments the alternative treatment of a Mindfulness of Breathing Meditation Program, may be beneficial for reducing impulsivity while potentially increasing self-esteem and overall well-being.

Purpose of the Study

The purpose of this study was to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an adjunct treatment for inattention, impulsivity, and hyperactivity with juvenile sex offenders as measured by the Clinical Assessment of Attention Deficit-Child Version (CAT-C) (Bracken & Boatwright, 2005).

Theoretical Framework

The theoretical foundation of the MBMP is based in yoga philosophy. Yoga is an ancient science of health for the physical body and balance for the mind and emotions. It provides the foundation for the spiritual journey whose destination is self knowledge. Ultimately yoga is described as the union between the individual self and the universal self, or self knowledge. It is with this union that humans can reach their full potential (Le Page & Le Page, 2005).

Yoga philosophy postulates that there are five layers or facets of human beings: physical, energetic, emotional, wisdom, and bliss. They form the road map for the journey of self-discovery. Unity occurs when all five levels are in complete integration and balance while dis-ease emerges as the result of separation at any of the five levels. Much of this separation occurs at the unconscious level and has been created by a history of conditioned responses, behaviors, and emotions at the level of the person's experiences, family, society, and culture (Le Page & Le Page, 2005).

Separation, which creates dis-ease, occurs within the five layers of the self through many systems, one being the chakra system. Creating balance in the chakra systems will create integration and balance at the five layers of the person, then lead an individual to yoga, or unity, where they experience their true potential, nature and self-

discovery (Le Page & Le Page, 2005). It is this philosophy that is inherent in the MBMP program as it focuses on creating balance in the first four chakras, which most typically out of balance for individuals with impulsive-type behaviors. The program also incorporates all five layers of the individual, via physical postures, breath awareness, mindfulness, and meditation leading the way from separation, toward unity.

Easily defined, meditation is "a self directed method usually used to help quiet the mind and relax the body" (Derezotes, 2000, p. 100). Often times in meditation one focuses on a particular thought, sound, and visualization. Numerous types of meditation exist, however, research has consistently shown that they have similar effects (Chopra, 1991). The most researched types of meditation are transcendental mediation, the relaxation response, and mindfulness-based stress reduction (Derezotes, 2000; Kabat-Zinn, 1990).

In general, meditation has been shown to have many positive effects with clients such as promoting mental calmness, reducing mental activity, creating states of low physiological arousal, and fostering well-being (Benson, 1974; Dua, 1983; Greenspan, 1989). Kabat-Zinn (1994) defines mindfulness meditation as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" (p. 4). Mindfulness encompasses the quality of awareness and participation that a person brings to everyday life (Robins, Schmidtt III, & Linehan, 2004). Mindfulness meditation differs from other mediation approaches like transcendental meditation in that other approaches teach the individual to focus attention on a single stimulus, such as a word, syllable, object, or sound. Thus, when attention wanders from this single stimulus, it is redirected as soon as possible back to this object of attention. Wandering attention is considered a

distraction to the meditation process and no further attention is paid to the stimulus that distracted from the meditation. Mindfulness meditation also begins with attention being focused on one particular stimulus (e.g., the breath) and returns attention to this stimulus when attention has wandered. However, in mindfulness meditation, one is taught to practice nonjudgmental observation of the object that distracted from the meditation. The state of mindfulness is a state of mental readiness with no preoccupations or worries. Whatever may arise is dealt with instantly. When truly in a state of mindfulness, the nervous system is fresh and resilient, fostering insight. When a problem comes up, you simply deal with it, quickly, efficiently, and with minimum bother (Gunaratana, 2002). In mindfulness meditation mind wandering is another event that needs to be observed without judgment (Baer & Krietemeyer, 2006). Mindfulness is nonsuperficial awareness and when fully developed is a total absence of clinging to anything in the world. When this effect is preserved, no other means or device is needed to achieve freedom from our human weaknesses (Gunaratana, 2002).

We often look for happiness outside of ourselves and mindfulness meditation helps us search for it from within (Gunaratana, 2002). The emphasis and goal of self awareness as well as the breaking of habitual patterns of thinking and feeling are the common elements between psychotherapy and meditation, thus paving the way for change (Perez-De-Albeniz & Holmes, 2000).

Meditation elicits the relaxation response and reduces hyperarousal to stress. It is classified by Chan (2002) as one of many lifestyle and mind-body therapies. Eliciting the relaxation response with JSO's may be a key to reducing impulsivity. The stress response is a physical and emotional condition, a tool that is utilized in real or perceived

emergencies. It is a biological survival mechanism that allows individuals to react quickly in emergencies. Unfortunately, this stress response can be constantly active causing a continuous influx of arousal hormones and physical, mental, emotional arousal and will, on a long term basis, inhibit the relaxation response (Sapolsky, 2004). It is hoped that the practice of a Mindfulness of Breathing Meditation Program will elicit the relaxation response, consequently decreasing impulsive behaviors in JSO's.

Importance of Research

Cashwell and Caruso (1997) state that between 34 and 60 percent of sexual offenses are committed by adolescents. Due to the physical and emotional trauma of sexual abuse for the victim and the perpetrator it is imperative that counselors possess the most current knowledge and most effective skills for working with those who commit these crimes. The main approaches to treating sex offenders has been the relapse prevention and risk management model which maintains that the central goal of sex offender treatment is to avoid harm to the community rather to improve the quality of life of the offender. Enhancing the overall functioning and well-being of the sex offender is not a primary goal established in these models. The relapse prevention and risk management models do not focus on the offender's well being or internal processes (Polaschek, 2003; Ward & Stewart, 2003).

Although traditional structured treatment programs have been shown to be effective in the treatment of JSO's, they lack a holistic approach to the individual. Goocher (1994) recommends that juvenile sex offender programs move from an adult quasi-correctional model to a more holistic approach. Focusing on the overall well-being and healing of the individual, while combining traditional and non-traditional approaches,

exemplifies an integrated or holistic approach. An integrated approach expands beyond the traditional cognitive behavioral approach with sexual offenders, while incorporating humanistic knowledge and embracing the therapeutic relationship (Longo, 2004b).

Longo (2004a) purports that when experiential treatment methods are strategically combined with traditional models in the treatment of adolescent sexual offenders the process is enhanced and promoted. Furthermore, experiential treatments can facilitate self-growth and embed greater meaning to the treatment experience for the adolescent (Longo, 2004a).

This study allowed traditional models of juvenile sexual offender programs to move toward a more holistic approach. It is hoped that this research will support past studies that have shown meditation can promote mental calmness, minimize psychological arousal, reduce mental activity, and facilitate well-being (Benson, 1974; Dua, 1983). This research study is concerned with the enhancement of juvenile sex offenders' ability to self manage thoughts and behaviors by utilizing internal processes which in combination with traditional treatment approaches will further reduce chances of re-offending.

Research Question

The primary research question guiding this study is:

Will the practice of a Mindfulness of Breathing Meditation Program produce a significant difference between experimental and control groups' inattention, impulsivity, and hyperactivity scores on the CAT-C for JSO's.

Definition of Terms

Self- the idea of a person being in full awareness of his or her true nature, (Le Page & Le Page, 2005).

Self-awareness- the idea of a person becoming fully present to the psychological, physiological, energetic, and spiritual experiences of himself or herself, (Le Page & Le Page, 2005).

Chakra- the main energy centers in the body, which are a key to health (Le Page & Le Page, 2005).

Hatha Yoga- the physical form of yoga (Ramaswami, 1996).

Juvenile Sex Offender (JSO) – A person under the age of 18 convicted of a sexual crime, such as rape or sexual assault, in a criminal court of law (Barbaree & Marshall, 2006).

Mindfulness – The awareness of the present experience with acceptance (Germer, 2005)

Mindfulness of Breathing Meditation Program (MBMP) – This program is specifically designed for this research and includes a therapeutic combination of hatha yoga posture, mindfulness techniques, breath awareness, and meditation. The specific program is detailed in Appendix N.

Meditation – An activity of self-reflexive awareness. Meditation includes postures such as sitting, walking, or standing (Gach, 2004).

Savassana- A lying relaxation where the previous yoga practices can be fully integrated.

Vipassana – Meditation practice of looking into something with clarity and precision, seeing each component as distinct, and piercing all the way through to perceive the most fundamental reality of that thing (Gunaratana, 2002).

Organization of the Study

Chapter I presented an introduction, purpose for the study, theoretical framework, importance of the research and definition of terms. Chapter II reviews the literature in order to provide an expanded understanding of the topic. Then, Chapter III focuses on the methodology, procedures, participant selection, test instrumentation selection, and statistical analysis. The results of the study are reported in Chapter IV, and Chapter V contains conclusions, recommendations for practice, and recommendations for future study.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This study was designed to determine the effect of a mindfulness meditation program on inattention, impulsivity, and hyperactivity of adolescent males committed to a residential treatment facility for sexual offenses. In order to investigate a possible connection, it was necessary to review and analyze data from previous research. The literature review is organized according to the following: a) an overview of research on juvenile sexual offenders; b) characteristics of juvenile sexual offenders (JSO's); c) treatments for juvenile sexual offenders (traditional and alternative); d) treatment for impulsivity and attention problems (traditional and alternative); e) mindfulness, breath awareness, yoga, and meditation as treatment for various mental disorders.

Overview

Previous research with sexual offenders has largely been focused on adults (Graves, et al., 1992; Bourke & Donahue, 1996); however, more recently JSO's have been a major focus of research due to the increase of juvenile crimes. It has also been noted that juvenile sexual offending behaviors are a precursor to adult offending (Andrade, Vincent, & Saleh, 2006). Groth, Longo, and McFadin (1982) found that nearly half of a sample of adult rapists and child molesters reported committing sexual crimes in adolescence.

Throughout the decades, youth sexual experiences have been hypothesized as naive curiosity or experimentation. Many youth participate in normal sexual development which includes masturbation, kissing, fondling, and even penetration

(Cunningham & MacFarlane, 1996). However, recent studies have shown that sexual offending is not merely normal development (Fehrenbach et al., 1986). What is considered inappropriate sexual behavior? Sexual interactions with peers or younger children, coercion, aggression, threats to physical or psychological well-being and secrecy are considered problematic by the National Task Force on Juvenile Sexual Offending (1988). Gerardin and Thibaut (2004) define the juvenile sex offender as a youth who commits any sexual act with a person of any age against the victim's will, or in an aggressive, exploitive, or threatening manner. Unfortunately, because deviant sexual behavior varies from person to person, there has been no empirically validated model to describe the development of these behaviors (Becker, 1990; Becker & Hunter, 1997; Bourke & Donohue, 1996; Worling, 2001).

The National Crime Survey (FBI, 1999) reports that male adolescents commit 20% of the forcible rapes in the United States. Approximately 20% to 30% of all sexual offenses are committed by individuals under the age of 18. Furthermore, it has been estimated that 48% to 56% of sexual offenses perpetrated against children under 12 years of age are committed by adolescents. Nearly one half of adult sex offenders began sexually abuse behavior as juveniles (Fehrenbach, et al., 1986; Righthand & Welch, 2001). Fehrenbach et al. (1986) found that 59% of the sample studied was referred for indecent liberties, or sexual touching and fondling without penetration, while 23% were evaluated due to raping their victims. Other offenses included exposure (11%) and hands-off offenses, such as stealing underwear or peeping (7%) (Fehrenbach et al., 1986).

Research on adolescent sexual offenders has focused on social skills training (Graves, Openshaw, & Adams, 1992); treatment and interventions (Becker, 1990; Bourke

& Donohue, 1996; Marquoit & Dobbins, 1998); risk assessment (Christodoulides, et al., 2005); and characteristics and identification (Cashwell & Caruso, 1997; Witt, Bosley, & Hiscox, 2002).

Characteristics of JSO's

Past research has created a complicated profile of the adolescent sexual offender. There appear to be several different causes for adolescent deviant behaviors. An overall pattern of antisocial or conduct disordered behaviors has been shown in some adolescents (Becker, 1990). Overall, the typical adolescent sex offender can be described as having a combination of normal and abnormal thinking and behavior patterns (Derezotes, 2000).

Deviant sexual behaviors can also be caused by psychological paraphilias. These offenders have deviant sexual fantasies that are accompanied by a recurring urge to engage in inappropriate sexual behaviors such as pedophilia (sexual encounters with children), exhibitionism (exposing themselves), or voyeurism (nonconsensual observation of others), as well as other paraphilias (Becker, 1990). These behaviors must occur over a period of at least six months and have a minimum age criteria of 16 years old (Diagnostic and Statistical Manual of Mental Disorders IV-TR, 2000). However, some paraphilias are being diagnosed at an earlier age, such as frotteurism (APA, 2000) with this occurring mostly in ages 15 to 25 (Seligman & Hardenburg, 2000). Galli et al. (1998) found that 95% of his sample exhibited two or more paraphilias.

In addition to paraphilias, Galli, McElroy, Soutullo, Raute, and Keck (1999) found a high rate of other DSM-IV disorders in youth who had sexually offended. In the sample of 22 JSO's, the most commonly met criterion were for conduct disorder (94%), substance abuse disorders (72%), ADHD (71%), and bipolar (27%). It has also been

shown in research that adolescent sex offenders frequently have learning problems in school, and a myriad of attention problems which span from inattention to impulsivity with destructive behaviors such as stealing, arson, and vandalism (Fehrenbach, et al., 1986; Lakey, 1994). Individual characteristics common among juvenile sexual offenders include learning disabilities, poor social skills, social anxiety, impulse control problems or attention deficit hyperactivity disorder (ADHD), narcissistic personality disorder, psychosis, depression, or substance abuse problems.

Kavoussi, Kaplan, and Becker (1988) conducted a study to determine psychiatric characteristics of adolescent sex offenders. The sample population of the study consisted of adolescents referred for outpatient assessment and treatment. Kavoussi et al. (1988) examined the presence of psychiatric diagnostic criteria for diagnosis. Conduct disorder was the most frequent with 67%, while 35% of the youth showed symptoms for attention deficit disorder and 21% showed symptoms of adjustment disorder. With 48% of the sample diagnosed with conduct disorder, poor impulse control and antisocial behaviors may play a part in juvenile sexual offending. Kavoussi et al. reported that 48% of this population met the full criteria for conduct disorder, while 19% of the youth did not meet any DSM criteria. In regard to adolescent psychopathology, Sheerin (2004) found a correlation between conduct disorder and the commission of sexual offenses and furthermore suggested a relationship between ADHD and paraphilias.

Langstrom and Lindblad (2000) investigated the historical and clinical features of young sex offenders between the ages of 15 and 20 years old. A history of problems in school was found in an extraordinary percentage of the sample. Sixty-two percent of the youth had a history of hyperactivity, attention, or concentration problems, while 45% had

difficulties in reading, writing, or speech. Langstrom and Linblad (2000) also report 64% had previously received special educational services.

Galli et al. (1998) conducted a study of male adolescents with a diagnosis of pedophilia and found high rates of co-morbidity with other psychiatric disorders. Galli reported 95% of participants had two or more paraphilias, 82% met criteria for mood disorders, and 55% met the criteria for an anxiety disorder. Galli also found these adolescents met the criteria for behavioral disorders, including 94% with conduct disorder, 71% with attention deficit hyperactivity disorder, 55% with an another impulse control disorder, and 50% had a substance abuse disorder. Bradford (1996) found a relationship between paraphilias and impulse control, as well as obsessive compulsive disorders.

Treatment for Juvenile Sexual Offenders

Traditional Treatment

Treatments for juvenile sexual offenders range from highly structured, locked inpatient facilities to less structured outpatient programs. In addition, therapy for JSO's may occur in an individual or a group setting. Group therapy allows for an open arena where youths can confront and teach each other appropriate values, thinking, and behaviors (Becker & Johnson, 2001).

Traditionally, treatment for juvenile sexual offenders relies on mostly Cognitive Behavioral interventions and Psycho-education. Table 1 outlines the interventions typically utilized in JSO inpatient, residential, and outpatient programs, as well as a description of the purpose of each intervention.

Table 1 Overview of Traditional Treatment Methods for JSO's

Therapeutic Intervention	**Purpose**
Cognitive Behavioral Therapy	
Cognitive Restructuring	Focuses on identifying patterns of thinking that may be inappropriate such as the identification of erotic triggers and employing alternative behaviors. Also includes thought stopping and confronting cognitive distortions (Gerardin & Thibaut, 2004; Seligman & Hardenburg, 2000; Becker, 1990;).
Covert Sensitization/Aversion Therapy	Incorporating unpleasant thoughts causing the disruption of deviant fantasies (Aylin, Reddon, & Burke, 2005; Becker, 1990). It involves teaching the adolescent to recognize thoughts and behaviors that place the youth at risk to abuse, then interrupting these thoughts and behaviors with an adverse consequence (Becker & Johnson, 2001; Seligman & Hardenburg, 2000).
Satiation training	Repetition and saturation of deviant thoughts to reduce arousal (Becker, 1990).
Relapse Prevention	The youth are taught to identify situations or factors that are associated with the risk of sexually re-offending. The youth are taught to utilize strategies to avoid or manage situations as they occur (Righthand & Welch, 2001; Becker, 1990;)
Restorative Justice	Restorative justice and victim empathy training focus treatment on how the offender's behaviors have impacted the society and the victim. The focus of this treatment is designed to develop an understanding of empathy and consciousness towards others (Becker & Johnson, 2001).
Victim Empathy Training	Trainings include understanding the feelings of others, the reduction of objectifying people, and the reading of victim statements. The development of empathy decreases the likelihood of further sexual offending (Friedrich, 1990).
Psycho-Education	
Sex Education	Teaching about normal sexual development, sexual myths, and sexually transmitted diseases (Lakey, 1992).
Social Skills	Taught to improve communication skills, social competency, and relationships with peers (Gerardin & Thibaut, 2004; Graves et al., 1992; Becker, 1990).

As illustrated, traditional interventions for JSO's are derived from a cognitive-behavioral approach to creating personal change and also emphasize psycho-educational training. In reviewing these traditional interventions it is noted that the attention has been on relapse prevention and risk management utilizing techniques focused on the offending behaviors. The main approach to treating sex offenders has been the risk management and relapse prevention models which maintain the central goal of sex offender treatment is to avoid harm to the community rather than to improve the offender's quality of life (Polaschek, 2003). As previously mentioned, enhancing the offender's wellbeing is not the focus of the risk management model, nor is the focus on the internal processes of the individual (Ward & Stewart, 2003).

Alternative Interventions

Although most juvenile sex offender programs employ traditional treatment methods, a few studies have been conducted researching the effects of other interventions with juvenile sexual offenders. For example, Ronis and Borduin (2007) recommend a treatment involving a multisystemic therapeutic approach including addressing sexual offending behaviors, the youth's peer and family relationships, and academic performance. In addition, Ward and Stewart (2003) proposed a good lives model which incorporates enhancing offenders' quality of life. Although these programs differ somewhat from the traditional treatment programs, none have included specific complimentary and alternative interventions.

Carpentier, Silovsky, and Chaffin (2006) conducted a randomized trial comparing a group cognitive behavioral therapy with a group play therapy for sexual behavior problems in 135 children between the ages of 5 and 12 years old. Carpentier et al.

compared the outpatient therapeutic participants with 156 general clinic children to distinguish the differences between sexual and nonsexual behavior problems in the children. Carpentier et al. then collected 10-year follow-up data through juvenile justice, adult criminal justice, and child welfare databases of the state where the study was conducted. This follow-up information included juvenile arrests and adult arrests of the participants in the study.

The two treatment approaches used in the study were cognitive behavioral therapy (CBT) and play therapy (PT). Both approaches utilized twelve 60-minutes sessions for the children and separate sessions for the parents. The CBT treatment group was highly structured and relied on behavior modification and psycho-educational principles. Topics included identifying inappropriate sexual behaviors, learning sexual behavioral boundaries, learning sexual coping techniques, and general sex education. The PT group treatment consisted of client-centered and psychodynamic play therapy principles and was less directive and structured than the CBT groups. A different activity was used during each session and included drawing self outlines.

The 10-year follow-up comparison concluded that the use of short term, focused, educative CBT may reduce future incidents of sexual behavior problems in children (Carpentier et al., 2006). Carpentier et al. found the future sex offense rates of children with sexual behavior problems that participated in CBT were low (2%) and similar to the comparison group of clinic children (3%). The PT treatment group future rate of sexual re-offending was only slightly higher at ten percent. Based on these findings the researchers oppose the public policy and administrative practices of juvenile justice and

child welfare programs to utilize registries and more restrictive placements for young offenders.

In a qualitative study Derezotes (2000) explored the experiences of yoga and meditation training with adolescent sexual offenders. Nine male adolescent sexual offenders who were part of a traditional juvenile sexual offender program agreed to participate in the yoga and meditation program for approximately nine months. Thorough qualitative inquiry data was collected via in-depth interviews. Interviews were conducted with the participant, at least one member of the participant's family and with the trainer four different times: prior to commencement of training and 3, 5, and 9 months into the training process.

The data from the interviews revealed that all of the participants viewed the experience positively, with most of them enjoying the training. During the study no participants relapsed with sexual offenses and all of them reported the yoga and meditation training helped them avoid committing another sexual offense. Specifically one participant stated, "It's doing me good with my anger and urges to offend." Another participant stated, "Stress is what led up to my offense, so if I have stress I can use the techniques instead of offending." All of the participants reported using the exercises outside of the classroom to help with their control problems, most using them to help control stress and anger, particularly the use of breathing exercises in stressful situations. Derezotes found all the participants felt more relaxed and less anxious after the classes. All but one participant expressed improved ability to recognize and control personal thoughts and feelings. In regard to self control, one participant stated, "I can replace unwanted thoughts much more easily now. I try not to control my feelings, just feel

them, otherwise they can get stuffed and come out some other way, as abuse." Most of the participants also noted improved self-esteem and focus at school, the ability to control their impulsive behaviors including sexual aggressiveness, and improved feelings of relaxation (Derezotes, 2000).

Treatment for Impulsivity/Attention problems

Traditional Treatment

When treating impulsive and hyperactive behaviors, clinicians generally utilize several kinds of behavioral, cognitive, and cognitive-behavioral interventions. These therapies focus on decreasing unwanted behaviors and replacing them with more acceptable and appropriate ones (Conners & Jett, 1999).

Basic behavior therapy focuses on how reinforcement and punishment influences behavior. Behavior theory does not address thoughts or feelings of the individual, but only if the behavior will occur again. Common behavioral interventions include the A-B-C method, positive reinforcement, punishment, time out, and extinction. The A-B-C method consists of an antecedent, a behavior, and a consequence (Conners & Jett, 1999). For a behavior to occur there must be a presenting antecedent or stimuli. Whether the behavior increases or decreases depends on the consequence that follows. If the behavior is followed by a reward it will increase the likelihood of the behavior occurring again. Positive reinforcement is used to increase the probability of behaviors recurring. If the behavior is followed by a negative consequence it will decrease the likelihood of the behavior occurring again. Punishment is utilized to decrease the chances of negative behaviors recurring (Conners & Jett, 1999).

Other basic behavioral interventions used by clinicians are time out and extinction. Time out is utilized when the child is removed from a reinforcing environment and placed in a less desirable one. Extinction is established by ignoring the undesirable behavior. By not providing any reinforcement, the behavior may completely stop or become extinct (Conners & Jett, 1999).

Cognitive therapy emphasizes reinforcement principles to alter thoughts related to negative and unwanted behaviors. Cognitive interventions focus on irrational or distorted internal thoughts resulting in inappropriate behavior. Cognitive treatment goals involve increasing the client's ability to problem solve and self monitor behaviors. Intrinsic motivation for most youth with ADHD begins with extrinsically rewarded interventions such as skills building and behavior management, before internal, cognitive changes will appear (Hinshaw, 2000).

Alternative Treatment

Alternative treatments have increasingly surfaced in the literature and have had focus in many therapeutic areas. One focus has been on the use of these treatments in reducing attention problems and impulsivity with children, adolescents, and adults. The use of mindfulness based cognitive therapy has been reported to help with anger management, interactions with peers, and increasing patience in a youth diagnosed with ADHD (Semple, Lee, & Miller, 2006).

Using a yoga-based model as an intervention, Peck, Kehle, Bray, and Theodore (2005) conducted an observational study and found there to be an increase in time on task for children who were identified as having attention problems. The ten children in the study were in first, second, and third grades and participated in a yoga program for 30

minutes, twice per week. The yoga program consisted of deep breathing, physical postures, and relaxation exercises. The children watched a yoga DVD while being observed by a school psychologist. The results indicated a significant increase in time on task for these children which is commensurate with previous research which has shown the benefits of yoga for children (Peck, Kehle, Bray, & Theodore, 2005).

Harrison, Manocha, and Rubia (2004) investigated the use of Sahaja Yoga Meditation (SYM) as a family treatment method for children diagnosed with ADHD. The 48 children and their parents or guardian participated in a 6-week meditation program that met twice per week for 90-minute sessions at the clinic. The participants were also instructed to conduct daily meditation sessions at home. During the 90-minute clinic sessions, the participants were given 2 periods of 5-15 minute meditation sessions. Results during the SYM program showed improvement in ADHD symptoms including reduced inattention, hyperactivity, and impulsiveness. Harrison et al. report a number of the parents reduced their child's ADHD medication during the program. Other benefits reported during the SYM program included improved sleep, the ability to concentrate more on schoolwork, less panicky feelings and more feelings of calmness. Ninety-two percent of the parents felt their children benefited from the program, also adding that the relationship between them was improved. Harrison et al. concluded the SYM program may be a beneficial and effective tool to help with the treatment of childhood ADHD.

Alternative Treatment for Various Mental Disorders

Mind-body interventions for mental illness are becoming ubiquitous in current research. Associations are being established between mindfulness, breath awareness, and meditation in the reduction of various symptoms related to mental illness. In addition to

symptom reduction, participants in these studies are reporting further benefits relating to overall well-being (Brown & Gerbarg, 2005).

Research using sudarshan kriya (SKY), a program comprised of various yogic breathing techniques, meditation, and yoga postures, has shown its effectiveness in reducing symptoms of various mental disorders. SKY produced a reduction in depression after 1 week of training and three additional weeks of daily practice (Gangadhar & Naga, 1998). In another 3-month open trial using specific breathing exercises to treat dysthymic disorder, 68% of the participants reported a remission of symptoms (Naga & Gangadhar, 1998). Another study by Naga & Gangadhar (2000) compared the effectiveness of bilateral electroconvulsive therapy (ECT), imipramine, and SKY of treating severe melancholic depression. The results showed ECT was more effective than both SKY and imipramine, but the difference between SKY and imipramine was statistically insignificant. This indicates that SKY is an effective alternative to imipramine.

A series of four unpublished pilot studies that examined the effectiveness of a yoga program in the treatment of symptoms related to post traumatic stress disorder (PTSD) found a statistically significant reduction in symptoms. The yoga program included breathing exercises, meditation, and yoga postures which decreased hyperarousal symptoms of sleep disturbances, outbursts of anger and flashbacks. The researchers stated the implementation of breathing exercises and meditation was much more effective in combination with the yoga postures than only practicing the yoga postures (Carter & Byrne, 2004). This indicates the enhanced benefits of integrating breath awareness and meditation as an alternative adjunct intervention.

Mindfulness based approaches are being applied with a wide range of populations, from those with recognized mental disorders or medical conditions, to those seeking stress reduction or enhanced well-being (Baer & Krietemeyer, 2006). Bowen, et al. (2006) explored the effects of Vipassana Meditation (VM) on substance use and psychosocial functioning in males and females incarcerated in a minimum security prison. The participants were separated by gender and attended nine, 10-day courses. There was a baseline, a 3-month follow up and a 6-month follow up that consisted of self report drug use and alcohol use questionnaires and a life orientation test. At the end of the 15-month period there were a total of 173 in the final sample population. The control group received treatment which consisted of chemical dependency treatment and substance use education. Bowen et al. found VM participants reporting a significant decrease in the use of marijuana, alcohol, and crack cocaine and fewer alcohol related consequences 3-months after release from incarceration. Bowen et al. concluded that mindfulness meditation may be a useful alternative to traditional substance abuse treatment for those who may not have succeeded in traditional treatment.

When considering offenders, their families, the victims, and society as a whole, the costs of juvenile sexual offending is considerable (Righthand & Welch, 2001). To minimize these costs, timely and appropriate interventions are needed. Mindfulness meditation may be a low cost alternative to expensive treatments.

As an application to the standard behavior therapy practices of the 1970s, Linehan started dialectical behavior therapy (DBT) to treat suicidal individuals. Four basic tenets that influence DBT are: the wholes relationship to differing parts that hold no independent significance; the whole is greater that the sum of its parts; the parts and

wholes are interrelated; and change being an aspect of the present in all systems (Robins, Schmidtt III, & Linehan, 2004). Dialectical behavior therapy (DBT) was developed by Linehan (1993a) as treatment for chronically suicidal individuals with Borderline Personality Disorder (Rathus, Cavuoto, & Passarelli, 2006). DBT is an integration of behavioral and crisis intervention approaches with a dialectical philosophy and Zen practice. This blending is represented by DBT's ongoing emphasis on behavior change balanced with acceptance and validation of patients as they are.

DBT includes a variety of CBT strategies designed to help clients change their thoughts, emotions, and behaviors. As one of its most important precepts, DBT also includes mindfulness skills. Mindfulness is at the center of the DBT process and is used to facilitate the synthesis of acceptance and change (Baer & Krietemeyer, 2006).

Williams, Duggan, Crane, and Fennell (2006) conducted a pilot study using mindfulness based cognitive therapy (MBCT) for the prevention of the recurrence of suicidal behaviors. MBCT is a cost effective therapeutic technique that utilizes mindfulness meditation methods and cognitive behavioral techniques. Mindfulness mediation techniques used in the study included attention to breathing, a body scan, yoga and stretching, as well as other exercises that develop and sharpen awareness. Cognitive therapy technqies used in MBCT include psycho-educational exercises that focus on symptoms, negative thoughts, and unhelpful defense mechanisms. MBCT participants learn how to become aware of the small experiences which are usually ignored in daily lives. A main feature of MBCT is not only to reduce negative emotions, but to improve positive well-being (Williams et al., 2006).

The study included 16 participants and consisted of 2 hour sessions, one time per week for 8 weeks. The participants were also required to practice meditation each day between the sessions for up to an hour using tapes or compact discs. Williams et al. (2006) used the Mindful Attention and Awareness scale (MAAS) to measure the participants' levels of mindfulness. Williams et al. found a significant increase in the participants' scores on the MAAS from pre to post-testing. The results suggest MBCT may be a useful therapeutic tool for treatment of people who may have experienced suicidal ideation in the past. MBCT may teach the necessary skills to enable people to respond more capably in times of crisis.

Singh, et al. (2007) conducted a study assessing the effects of mindfulness meditation training on the levels of aggression of adolescents at risk for expulsion from school. The participants of the study were three adolescents diagnosed with conduct disorder and referred for treatment by their school. Singh et al. used a multiple baseline design which consisted of 4 phases; baseline, training, mindfulness practice, and follow-up.

During the baseline phase historic and current data was collected and reviewed. The second phase, the training phase, consisted of meeting with the adolescents individually for 15 minutes, 3 times a week for 4 weeks. In this phase the participants were briefed on the study, motivation was assessed, and they were provided standard training of the *Mediation on the Soles of the Feet* meditation program. After 4 weeks, the adolescents met with a therapist to review and rehearse the meditation practices of the program and data were collected on conduct disorder related behaviors. The youth also received additional training if necessary. This phase lasted for the next 10 sessions.

During the mindfulness practice phase, the participants were expected to continue their practice of the meditation program. This phase lasted 25 weeks and the participants met with a therapist to discuss their practice and behaviors for about 15 minutes once a month. The final follow-up phase occurred after one school year to review school records for data that initiated their referrals for treatment (Singh, et al., 2007).

Singh et al. concluded there was a significant reduction in aggressive behaviors as a result of the meditation practice. One of the participants reduced fire setting behaviors by 52%, another participant reduced his cruelty towards animals behavior by 18%, and the final participant showed minimal reduction in noncompliant behaviors (4%). All three participants graduated from middle school without further incidents that would result in expulsion. Self reports of the students reflected an improvement in behavior, increased relaxation, reduced impulsive behavior, more focus on tasks and better sleep.

Summary

Chapter II presented an overview of the characteristics and treatments for juveniles that have sexually offended. It discussed recent research findings of various alternative treatments for JSO's in general and then more specifically the symptoms of impulsivity. Research has shown the effectiveness of alternative treatments including yoga, mindfulness, and meditation in treating problems such as impulsivity, aggression, depression, suicidal feelings, and drug and alcohol abuse. The research on these alternative treatments is a springboard for the current study. No research studies were found which clinically documented the benefits of mindfulness of breathing meditation on the levels of impulsivity in JSO's. If a relationship can be firmly established between

these two variables, mindfulness meditation can be included as an integral part of current JSO residential treatment.

CHAPTER III

METHODOLOGY

Introduction

Chapter III includes a description of the research design and discusses the rationale for the approach. In addition the sample population, research procedures, and instrumentation are described. Finally, issues of external validity, data analysis, and limitations are discussed.

Research Design & Rationale

This was an experimental study, using a randomized control-group pretest post test design. Utilizing this design allowed the researcher to investigate a possible cause and effect relationship. This design is characterized by its employment of an experimental and control group where the experimental group received the treatment and the control group received no treatment. Participants were randomly assigned to the groups from a population of juvenile sex offenders in a male residential sex offender facility (Isaac & Michael, 1997).

The internal validity of a study asks to what extent the experimental treatment, or independent variable, caused the change in the dependent variable. In this design, internal validity was safeguarded. The effects of extraneous variables that occurred between sessions were similarly controlled since they were equally likely to affect both groups. To control for within session instrument differences, the CAT-C pre-test was given to all subjects prior to the random assignment of experimental and control groups. Random assignment is a key factor in this design as it controls for differential selection of subjects, statistical regression, and differential experimental mortality. Maturation and

pre-testing effects were equal in both groups as all subjects were exposed to the same period of time lapse and all subjects completed the pre-test (Isaac & Michael, 1997).

External Validity

External validity deals with the extent to which the research findings can be generalized to other populations beyond the experimental participants. (Isaac & Michael, 1997). Due to the nature of the participants living in structured residential treatment program the generalizability of the results to a non-incarcerated population is limited.

Research Questions & Hypotheses

The primary research questions and corresponding hypothesis guiding this study is as follows:

- Research Question 1: Will the practice of Mindfulness of Breathing Meditation produce a significant difference between experimental and control groups' inattention scores on the Clinical Assessment of Attention-Deficit-Child (CAT-C) in juvenile sex offenders?
- Research Question 2: Will the practice of Mindfulness of Breathing Meditation produce a significant difference between experimental and control groups' impulsivity scores on the Clinical Assessment of Attention-Deficit-Child (CAT-C) in juvenile sex offenders?
- Research Question 3: Will the practice of Mindfulness of Breathing Meditation produce a significant difference between experimental and control groups' hyperactivity scores on the Clinical Assessment of Attention-Deficit-Child (CAT-C) in juvenile sex offenders?

- Hypothesis: The practice of a Mindfulness of Breathing Meditation Program will significantly reduce scores on the CAT-C in juvenile sex offenders.
- Null Hypothesis: The practice of a Mindfulness of Breathing Meditation Program will not significantly reduce scores on the CAT-C in juvenile sex offenders.

Independent Variable

As stated by Leedy and Ormrod (2005) the independent variable is one that is directly manipulated by the researcher. The independent variable, the intervention, directly influences another variable and directly effects or influences the outcome (Isaac & Michael, 1997). For this research study, the independent variable was the Mindfulness of Breathing Meditation Program.

Dependent Variable

The variable that is potentially influenced by the independent variable is called a dependent variable. How and to what extend it is influenced depends on the independent variable (Leedy & Ormrod, 2005). The dependent variable, the outcome, is dependant on how the independent variable is managed or manipulated (Isacc & Michael, 1997). In this study the dependent variables are the inattention, impulsive behaviors, and hyperactivity as measured by the CAT-C.

Participants

All participants in this study were living in a residential treatment facility for male juvenile sexual offenders. All participants have been adjudicated as sex offenders by a court of law and legally sentenced to a high-risk residential treatment facility. All participants are between the ages of 14 though 20 years old. The residential facility

utilizes a Multi-Modal approach which incorporates relapse prevention and cognitive-behavioral interventions to address the goals of treatment. The total number of participants for the experimental group is 15 and for the control group is 15. Participation in the research study was voluntary for the JSO's in the facility.

Selection of Participants

The Vice President of Public Programs for Three Springs, Inc was contacted in writing to request permission to conduct the research study (Appendix A). A private meeting with the VP of Public Programs for Three Springs, Inc was held to discuss the guidelines and requirements of Three Springs and the standards of the Florida Department of Juvenile Justice (DJJ).

The researcher submitted the proposal to the Florida Department of Juvenile Justice Institutional Review Board (IRB) and requested approval for research. The researcher completed all documents required by the Florida DJJ IRB and permission was granted to commence the study.

Participants were recruited by posting a notice in the residential treatment facility master control hall, which described the details of the study and asked for volunteers (Appendix B). After reading the notice, residents interested in participating in the study contacted the researcher with a request for service document (Appendix C). This request was posted with the recruitment flyer and was the sole means of contacting the researcher at the residential facility. After the resident approached the researcher and requested participation in the study, the researcher contacted the resident's parent(s) or Department of Children and Families case manager, in the instance of the youth being in foster care,

and requested approval for participation in the study. The parent(s) or guardian was provided with parental consents for inclusion in the study (Appendix D).

The Principal of Alternative Education for Volusia County School Board was contacted in writing to request permission for the teachers to participate in the research study (Appendix E). The teachers and youth care workers were recruited by posting a notice in the residential treatment facility master control hall, which describes the details of the study and asks for their voluntary participation (Appendix F, Appendix G).

The researcher contacted Don Hayward, a Licensed Mental Health Counselor, via letter (Appendix H), to request his participation in the study. Mr. Hayward acted as the designated advocate for the youth participating in the study. Mr. Hayward has no involvement in the study or with Three Springs Incorporated and was asked to sign a Third Party Confidentiality Agreement (Appendix I) before the start of the study.

A group meeting with all the volunteers was conducted at the facility in the multi-purpose room. The purpose and procedures of the study were explained. It was emphasized that research participation is strictly voluntary and residents will not receive negative repercussion for deciding not to be involved with this study. It was also explained to the participants of the study that they will not receive compensation of any sort, including a reduced length of stay, for their involvement in the research. It was also clarified that if they decline to participate or should choose to drop out at any time during the study, there would be no adverse effects whatsoever. This process is described in the researcher's script (Appendix J).

Issues regarding confidentiality were discussed and assent was explained. The assent forms were distributed, signed, and collected (Appendix K). The assent form took

approximately 15 minutes to complete. If the participant was age 18 or older, he completed a consent form (Appendix L). The completion of the consent form took approximately 15 minutes. The researcher answered any questions at this time. The researcher gave the participants his contact information and explained to them they can call him in regards to the research study. Each participant then completed a demographic data survey (Appendix M). The demographic data survey took approximately 5 minutes to complete. Finally, the voluntary participants were asked to complete the CAT-C questionnaire as a pre-test. The CAT-C took approximately 20 minutes to complete.

The participants were randomly assigned to the Mindfulness of Breathing training group or the control group through number selection. The participants' assigned numbers were written on pieces of paper and placed in a bowl. The first 15 numbers selected were assigned to the experimental group and the remainder was in the control group. The Mindfulness of Breathing Meditation Program commenced the following week.

Confidentiality

A key coding system was used to protect the identities of the participants in this study. Each participant was assigned a number which was used to identify him on the CAT-C pre and post evaluations. No names were used in any publications to ensure the participant's confidentiality. Only group mean data are used when describing the results of this study. When the data was collected, it is maintained along with demographic data sheets, and the key codes in a locked and secure location to which only the researcher has access. Consent forms are also stored in a secure location, however separate from the other data. All raw data, including demographic data will be destroyed after five years in accordance with Florida laws and university policies and procedures.

Risks

Potential physical risks for the participants of the study were minimal; however possible risks included, but were not limited to, strained or pulled muscles and joint pain. In the case of any of the participants in the study having had experienced any physical injury or discomfort, the residential facility had a nursing department on site daily from 7am until 7pm. No injuries were reported during the completion of the study.

There are no known psychological risks associated with this experiment, but should any participants experience any emotional distress, the residential facility has licensed mental health counselors on site seven days per week. No psychological distress was reported during the completion of the study.

Instrumentation

The test instrument selected for use in this study was the Clinical Assessment of Attention Deficit-Child Version (CAT-C). This test was designed by Bracken and Boatwright (2005), to assist in the diagnosis of Attention Deficit Hyperactivity Disorder in children and adolescents between the ages of 8 and 18. The participants who were above the age of 18, still completed the child version of the test. The Clinical Assessment of Attention Deficit-Adult Version (CAT-A) is composed of two parts; childhood memories and current symptoms, while the child version, CAT-C only assesses current symptoms. Since this research is only concerned with current symptoms of inattention, impulsivity, and hyperactivity the CAT-C is appropriate for a 19 or twenty year old participant. The CAT-C is a 42 item self, parent, or teacher administered questionnaire that describes behaviors related to the diagnosis of ADHD. The individual is directed to select one statement that best explains their experience with inattention,

hyperactivity, or impulsivity. Each item is rated from *Strongly Disagree* to *Strongly Agree.* The CAT-C is designed to be completed in approximately 20 minutes. The CAT-C is scored by calculating the sum of the ratings for the 42 items. The ranges of scores corresponding to the severity of ADHD are as follows: 0-59, normal range; 60-69, mild clinical risk; 70-79, significant clinical risk; 80 and above, very significant clinical risk (Bracken & Boatwright, 2005).

The CAT-C contains three clinical scales including inattentive, hyperactive, and impulsivity, which will be used to assess the behavioral symptoms of the participants. Just as the DSM-IV explains the importance of the disorder in multiple settings, the CAT-C considers clinical behaviors in multiple settings via personal, academic or occupational, and social settings. The CAT-C also considers the personal locus of control through external behaviors exhibited or internal sensations felt. The CAT-C is designed to assess the symptoms of ADHD through the perspective of the child or adolescent, the parent, or the teacher. The self rating form and parental rating form were utilized for this study. The parent rating from will be completed by a youth care worker or a therapist with knowledge of the participants' behaviors. The CAT-C parent form is written at a sixth grade level and the self report form is written at a fourth grade level. However, in the event that the self report form cannot be understood by a participant, it is permissible for the researcher to read the items to the youth.

The psychometric properties of the CAT-C are sound. Reliability is concerned with the accuracy, stability, and consistency of an instrument (Isaac & Michael, 1997). In testing for reliability, coefficient alpha reliability with a clinical sample was .92 for the self rater and .95 for the parent rater tests. The test-retest reliability coefficient is high,

.83 over an average 17.17 days for self rater form and .77 over an average 17.13 for the parent rater form (Bracken & Boatwright, 2005).

Validity refers to the degree to which an instrument measures what it is claiming to measure (Isaac & Michael, 1997). Evidence for concurrent validity of the self rater form was demonstrated through a moderate correlation with the Conner's Adolescent Self Reporter Scales: Short Form (r=53.46) in the clinical sample (Bracken & Boatwright, 2005). Evidence for concurrent validity of the parent rater form was demonstrated through a moderate correlation with the Conner's Parent Rating Scales-Revised: Short Form (r=62.24) in the clinical sample (Bracken & Boatwright, 2005).

Procedure

The experimental and control groups were comprised of JSO's committed to a residential treatment center in Central Florida. Both the experimental and control groups continued with the traditional treatment protocol at the facility while participating in the Mindfulness of Breathing Meditation Program (Appendix N). The sessions occurred on Thursdays 3:30 p.m. - 4:15 p.m., Saturdays 6:00 p.m. - 6:45 p.m., and Sundays 10:00 a.m. - 10:45 a.m. for a period of 6 weeks. During this time the residents usually participate in large muscle activities, however the MBMP program contains large muscle exercises and was substituted for the normal exercises. The control group continued with their traditional large muscle activities. The CAT-C was given as a pretest and posttest measure to both groups.

During the first session the participants were informed of the study from the researcher, completed all consents, completed the demographic survey, and completed the pre-test CAT-C to establish baseline impulsivity from their perspectives. The

researcher met with the youth care workers and teachers separately from the participants to complete the pretest CAT-C to establish baseline impulsivity problems. The youth care workers and teachers signed a Third Party Confidentiality Agreement to ensure the participants information will remain confidential (Appendix I). In place of his name, the participant's identification number was written on the CAT-C assessment tool. The youth care workers completed a Youth Care Worker Consent Form (Appendix O), taking approximately 15 minutes, to provide approval for their participation in the study. The teachers completed a Teacher Consent Form (Appendix P), taking approximately 15 minutes, to provide approval for their participation in the study.

Following the initial meeting, The Mindfulness of Breath Meditation program lasted for the next six weeks, three times per week, for 45 minutes each session. A yoga therapist led the entire 6 week MBMP. The yoga therapist signed the Third Party Confidentiality Agreement to ensure the participants information will remain confidential (Appendix I).

Each session consisted of four stages. The first stage is a twenty five minute practice of Hatha yoga postures. These postures are selected based on the surmised separation at the chakra points (energy centers) most affected within the participants. These chakra points are relevant to this population due to the adolescents' separation from psychological qualities such as stability, acceptance of change, and compassion towards others and themselves (Judith, 2004). Weeks one and two focused on chakras one and two which facilitates a theme of groundedness, stability, and accepting change. Weeks three and four focused on chakra three carrying a theme of personal power and transformation. Weeks five and six focused on the fourth chakra incorporating a theme

of compassion towards self and others (Judith, 2004). Overall these postures are geared toward preparing the physical body for the seated meditation while also increasing the receptivity of the body, mind, and spirit for the experience. The second stage is a ten minute seated mindful breath meditation practice. Participants were guided through a seated meditation using the breath as a focal point while integrating concepts of mindfulness. The third stage is a five minute savasana, a lying relaxation where the previous practices can be fully integrated. The fourth stage is a verbal processing where the participants can share any observations from the experience. The entire sessions are specified in Appendix N.

After the six week program, both groups took the post-test CAT-C to identify any changes in impulsivity levels. The youth care workers and teachers also completed a post test CAT-C to identify any changes in impulsivity levels. The control group received the MBMP at the conclusion of the first six week MBMP program. The pre-test and post test scores were compared. Finally, a statistical analysis was conducted to assess differences between the two groups (Isaac & Michael, 1997). The researcher conducted an hour long feedback session with the participants describing the results of the study at the conclusion of the experiment. Again, the results utilize only mean data and no personal information is disclosed.

Data Analysis

This study used a t-test as its statistical procedure. The t-test is a method of statistical analysis used to determine differences among the means of two or more groups on a particular variable (Isaac & Michael, 1997). Isaac and Michael emphasize that the t-test is useful for large samples, however is well indicated for small samples. The

Statistical Package for the Social Sciences for Windows, Version 11 was used to analyze the results (SPSS, Chicago, IL).

Limitations

Potential limitations of the study are described in the statements below:

1. For generalization purposes the sample size of subjects participating in the study is considered small.
2. The results pertain only to the scores on the CAT-C and may not be generalized to other test scores.

Assumptions

- The participants will be honest with their responses on the CAT-C.
- The participants will participate in each session.

Delimitations

- The study will include participants who are currently incarcerated in a residential treatment program for juvenile sex offenders in the Central Florida area.
- The study will be limited to juvenile sex offenders and not attempt to predict the usefulness of the MBMP on adult sex offenders.
- The study will not attempt to predict the benefits of the MBMP on all JSO's with inattention, impulsivity, and hyperactivity problems.
- This study will not control for other treatment effects such as the current JSO treatment protocol.

Summary

This was an experimental study, using a randomized control-group pretest post test design. Participants were juvenile sex offenders living in a residential treatment program in the Central Florida area. The experimental group participated in a six-week Mindfulness of Breathing Meditation Program as an adjunct to the standard treatment protocol and the control group will only participate in the standard treatment. A t-test was used to analyze the data to either confirm or disconfirm the researcher's hypothesis.

CHAPTER IV

RESULTS

Introduction

This chapter provides a comprehensive analysis of the data obtained from the study using descriptive and inferential statistics. The pretest and posttest scores were obtained from the Clinical Assessment of Attention-Deficit-Child (CAT-C), a standardized assessment tool. In the tables and charts below, descriptive statistics identify demographic, pretest, and posttest data. The data were analyzed using a t-test with a significance level of 95% in order to access differences in the pretest and posttest scores among the experimental and control groups.

The hypothesis tested was: The practice of a Mindfulness of Breathing Meditation Program will significantly reduce scores on the CAT-C in juvenile sex offenders. To evaluate this hypothesis, all participants completed the CAT-C. After the random assignment of participants into experimental and control groups, only the experimental group received the adjunct treatment consisting of the Mindfulness of Breathing Meditation Program three times per week for six weeks. At the completion of the six weeks, both the experimental and control groups were again administered the CAT-C in order to obtain the posttest scores.

Descriptive Statistics and Demographic Data

Figure 1, 2, 3, and 4 display the age, the educational level, the length of stay, and the ethnicity/race of the participants of the study, respectively. The total number of participants in the study was 30, with 15 in the experimental group and 15 in the control group. All 30 participants completed the study and all were male.

Figure 1 displays the ages of all participants in the study. The ages ranged from 14 to 20 years old, with a mean age of 16.5 years old, with a standard deviation of 1.28. Figure 2 displays the educational level of the participants in the study which ranged from seventh grade to a high school diploma/GED. The experimental group educational level ranged from ninth grade to a high school diploma/GED. The control group educational level ranged from seventh grade to a high school diploma/GED. Figure 3 displays the participants' length of stay at the facility. The length of stay is identified as less than 6 months, six months to one year, and over 1 year. Figure 4 displays the ethnicity/race of the experimental and control groups. Of the 30 participants fourteen were Caucasian, thirteen identified as African American, one was Hispanic, and two identified themselves as Other. In the experimental group the ethnicity/race distribution was eight Caucasian, five African American, and two Other. In the control group the ethnicity/race distribution was eight African American, six Caucasian, and one Hispanic.

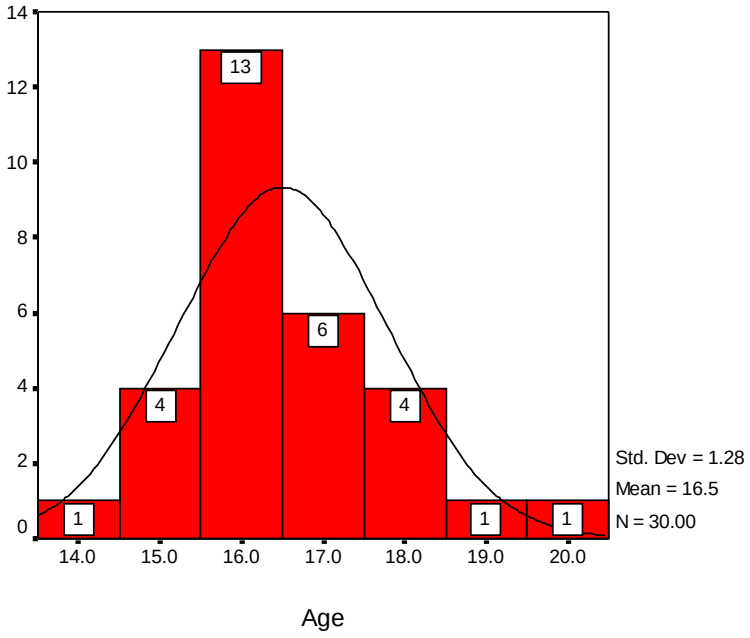

Figure 1. The distribution of age for experimental and control groups.

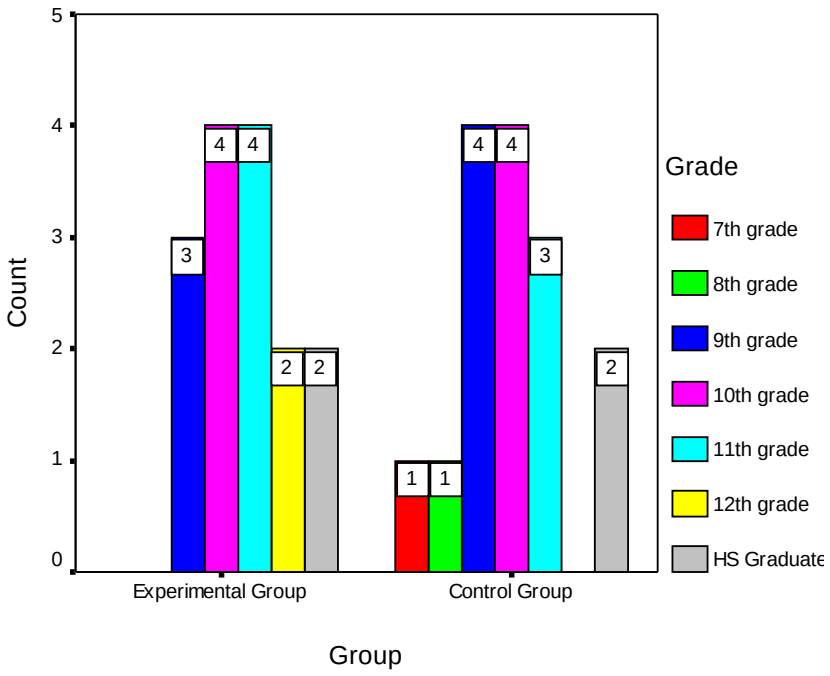

Figure 2. Education levels of experimental and control groups.

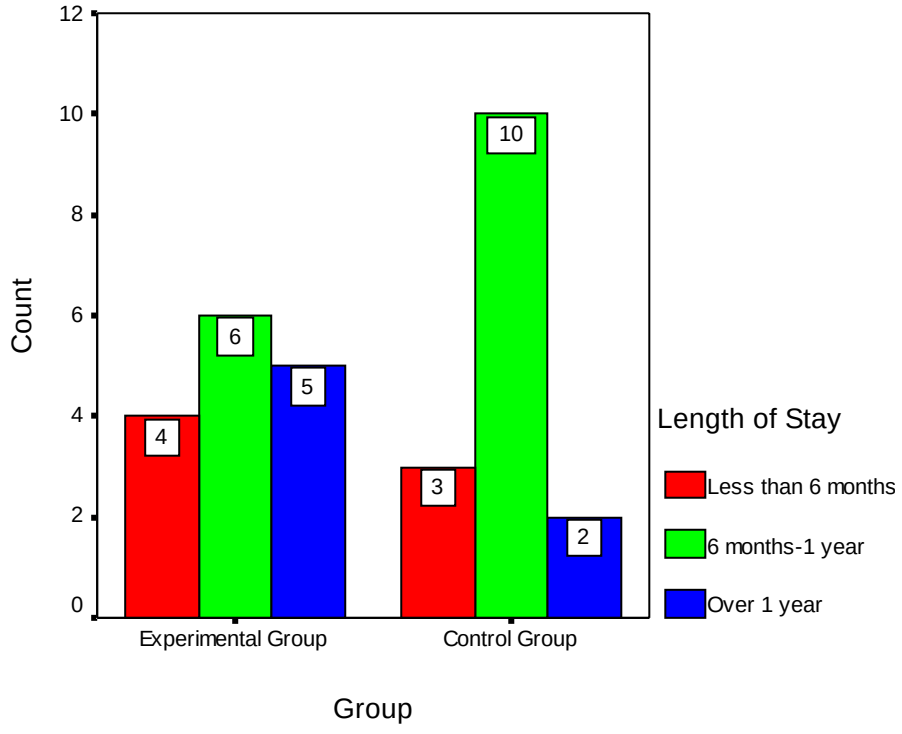

Figure 3. Length of stay of experimental and control groups.

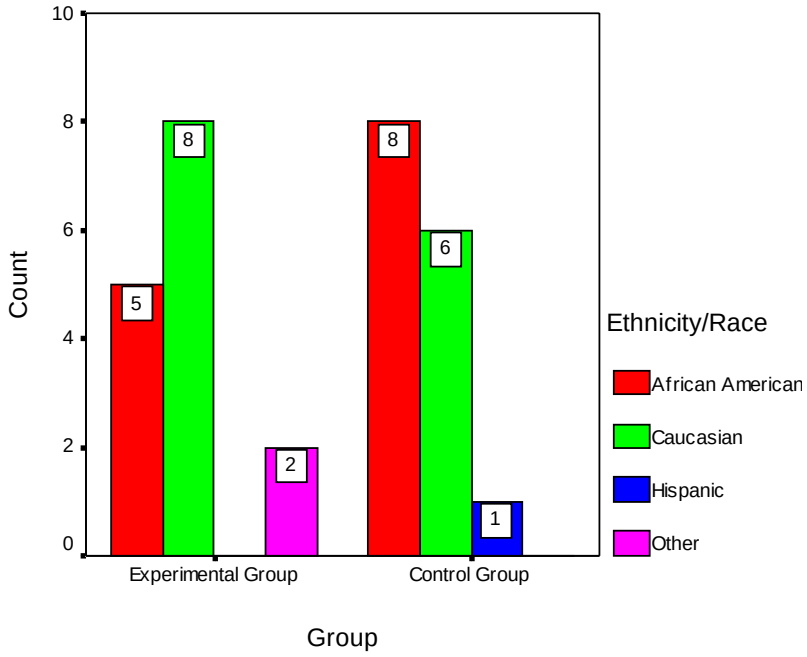

Figure 4. Ethnicity/Race of the experimental and control groups.

Group Equivalency Analysis

Independent samples *t*-tests were conducted to determine if any significant differences existed between the experimental and control groups on the CAT-C pretest subscales of inattention, impulsivity, and hyperactivity. The results of the analyses are presented in Tables 2 and 3. Only the teacher ratings for inattention and hyperactivity were significantly different for the experimental and control groups, with the control group being rated as more inattentive and hyperactive than the experimental group.

Table 2. Group Equivalency T–test Results: Experimental

Reporter: Pretest, Experimental	Behavior Cluster	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Participant Self Report	Inattention	15	51.67	8.829	-.056	28	.478
	Impulsivity	15	59.13	12.614	-.708	28	.242
	Hyperactivity	15	58.27	11.367	.698	28	.245
Staff Report	Inattention	15	50.47	16.093	-1.158	28	.128
	Impulsivity	15	61.53	10.190	-.051	28	.480
	Hyperactivity	15	60.33	10.286	.327	28	.373
Teacher Report	Inattention	15	45.73	15.016	-2.505	28	.009
	Impulsivity	15	51.13	17.308	-1.296	28	.103
	Hyperactivity	15	44.93	15.508	-2.493	28	.009

Table 3.

Group Equivalency T–test Results: Control

Reporter: Pretest, Control	Behavior Cluster	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Participant Self Report	Inattention	15	51.87	10.73	-.056	28	.478
	Impulsivity	15	62.13	10.501	-.708	28	.242
	Hyperactivity	15	55.27	12.174	.698	28	.245
Staff Report	Inattention	15	55.67	6.608	-1.158	28	.128
	Impulsivity	15	61.73	11.398	-.051	28	.480
	Hyperactivity	15	59.20	8.604	.327	28	.373
Teacher Report	Inattention	15	57.07	9.035	-2.505	28	.009
	Impulsivity	15	57.73	9.453	-1.296	28	.103
	Hyperactivity	15	58.07	13.253	-2.493	28	.009

Inferential Statistics

Introduction

This section will present the inferential statistics in this experiment. Inferential statistics are those that allow the researcher to make inferences, or conjectures, about a larger population from a smaller sample (Leedy & Ormrod, 2005). In this research an independent samples *t*-test was conducted to evaluate the hypotheses and to determine if the Mindfulness of Breathing Meditation Program significantly reduced the scores on the

CAT-C assessment for juvenile sex offenders. The CAT-C subscales of inattention, impulsivity, and hyperactivity were analyzed separately for student, staff, and teacher ratings. A difference score was calculated by subtracting the participant's posttest score from his pretest score.

Inattention Subscale

The mean difference score for the student attention subscale for the experimental group was 12.93 and for the control group was 2.87. This test was significant, t (28) = 2.361, p = .012. The mean difference score for the staff attention subscale for the experimental group was 4.47 and for the control group was 2.60. This test was not significant, t (28) = .451, p = .328. The mean difference score for the teacher attention subscale for the experimental group was .20 and for the control group was 1.47. This test was not significant, t (28) = -.533, p = .299. Table 4 summarizes these statistics for the experimental group. Table 5 summaries the statistics for the control group.

Table 4.

Mean Difference in Inattention Subscales for the Experimental Group

Inattention Pre-Post Difference Experimental	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Student	15	12.93	11.859	2.361	28	.012
Staff	15	4.47	14.633	.451	28	.328
Teacher	15	.20	6.450	-.533	28	.299

Table 5.

Mean Difference in Inattention Subscales for the Control Group

Inattention Pre-Post Difference Control	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Student	15	2.87	11.488	2.361	28	.012
Staff	15	2.60	6.588	.451	28	.328
Teacher	15	1.47	6.556	-.533	28	.299

Impulsivity Subscale

The mean difference scores for the student impulsivity subscale for the experimental group was 16.87 and for the control group was 7.20. This test was not significant, t (28) = 1.627, p = .057. The mean difference score for the staff impulsivity subscale for the experimental group was 13.13 and for the control group was 5.33. This test was significant, t (28) = 2.081, p = .023. The mean difference score for the teacher impulsivity subscale for the experimental group was .87 and for the control group was -.80. This test was not significant, t (28) = .724, p = .237. Table 6 summarizes these statistics for the experimental group. Table 7 summarizes the statistics for the control group.

Table 6.

Mean Difference in Impulsivity Subscales for the Experimental Group

Impulsivity Pre-Post Difference Experimental	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Student	15	16.87	16.936	1.627	28	.057
Staff	15	13.13	12.293	2.081	28	.023
Teacher	15	.87	7.110	.724	28	.237

Table 7.

Mean Difference in Impulsivity Subscales for the Control Group

Impulsivity Pre-Post Difference Control	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Student	15	7.20	15.936	1.627	28	.057
Staff	15	5.33	7.724	2.081	28	.023
Teacher	15	-.80	5.375	.724	28	.237

Hyperactivity Subscale

The mean difference score for the student hyperactivity subscale for the experimental group was 16.40 and for the control group was .27. This test was

significant, *t* (28) = 2.316, p = .014. The mean difference score for the staff hyperactivity subscale for the experimental group was 10.80 and for the control group was 4.73. This test was significant, *t* (28) = 1.810, p = .040. The mean difference score for the teacher hyperactivity subscale for the experimental group was 1.33 and for the control group was 6.80. This test was not significant, *t* (28) = -1.171, p = .126. Table 8 summarizes these statistics for the experimental group. Table 9 summarizes the statistics for the control group.

Table 8.

Mean Difference in Hyperactivity Subscales for the Experimental Group

Hyperactivity Pre-Post Difference Experimental	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Student	15	16.40	16.923	2.316	28	.014
Staff	15	10.80	11.583	1.810	28	.040
Teacher	15	1.33	7.889	-1.171	28	.126

Table 9.

Mean Difference in Hyperactivity Subscales for the Control Group

Hyperactivity Pre-Post Difference Control	N	Mean	Standard Deviation	*t*	*df*	Sig. 1-tailed
Student	15	5.27	7.759	2.316	28	.014
Staff	15	4.73	5.861	1.810	28	.040
Teacher	15	6.80	16.275	-1.171	28	.126

Summary

The results of the independent samples *t* tests indicated that participating in a Mindfulness of Breathing Meditation Program yielded a significant difference in test scores for student self report of inattention, student self report of hyperactivity, staff report of impulsivity, and staff report of hyperactivity when compared to a control group. None of the teacher reports of inattention, hyperactivity, or impulsivity were significantly different for the two groups.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Sexual aggression committed by juveniles has become a growing problem in the United States over the past several years (Hunter, 2000). In fact, approximately 20 to 30 percent of all sexual offenses are committed by individuals under 18 years old and 48% to 56% of sexual offenses against children under 12 years old are committed by adolescents (Fehrenbach, et al., 1986; Righthand & Welch, 2001). Due to these statistics it is imperative that juvenile sex offender treatment programs employ the most effective treatments available.

Currently the most widely used treatment interventions for JSO's include cognitive behavioral interventions such as cognitive restructuring, relapse prevention, satiation training, covert sensitization, restorative justice, and victim empathy training (Becker, 1990; Becker & Johnson, 2001; Friedrich, 1990; Gerardin & Thibaut, 2004; Righthand & Welch, 2001; Seligman & Hardenburg, 2000). They also include psycho-educational components in areas such as sex education and social skills (Becker, 1990; Gerardin & Thibaut, 2004; Graves et al., 1992; Lakey, 1992). At the foundation of these interventions is a focus on public safety and protection for the community rather than enhancing the offender's well-being. In other words, the central goal of sex offender treatment is to avoid additional harm to the community, rather than to improve the offender's quality of self and quality of life (Polaschek, 2003; Ward & Stewart, 2003). Adding the latter components to already existing treatment programs may enhance their effectiveness.

The Mindfulness of Breathing Meditation Program is a holistic approach to treating an individual based in yoga philosophy. Yoga is an ancient science which emphasizes balance in all levels of human beings: physical, energetic, emotional, wisdom, and bliss. Inherent in this philosophy are the ideas of dis-ease and unity. Unity occurs when all five levels are in complete integration and balance, while dis-ease emerges as the result of separation at any of the five levels. Separation, again which creates dis-ease, occurs within the five layers of the self through many systems, one being the chakra system (Le Page & Le Page, 2005).

Enhancing traditional cognitive behavior based JSO programs with holistic interventions such as the Mindfulness of Breathing Meditation Program may improve the effectiveness of these programs by not only safe guarding society, but also enhancing the overall well-being of the adolescent (Longo, 2004a). The purpose of the current study was to examine the effects of a Mindfulness of Breathing Meditation Program as an adjunct treatment for inattention, impulsivity, and hyperactivity in juvenile sex offenders. The Mindfulness of Breathing Meditation Program was studied in order to assess its effectiveness in promoting mental calmness, minimizing psychological arousal, reducing mental activity, and facilitating well-being all characteristics associated with impulsivity (Benson, 1971; Dua, 1983). The Mindfulness of Breathing Meditation Program incorporated tools such as meditation, breathe awareness, mindfulness, and yoga postures to address imbalances in the chakra system specifically for the JSO population. Therefore, the focus of the Mindfulness of Breathing Meditation Program was to promote a positive sense of well-being and internal locus of control for the JSO's.

Restatement of the Methodology

This research study was an experimental, randomized control-group pretest-posttest design (Isaac & Michael, 1997). Participants who volunteered for this study were living in a residential treatment facility for male juvenile sexual offenders. The participants were randomly assigned to either a treatment group or a non-treatment group. The CAT-C, a standardized inventory used to assess current symptoms of ADHD in children and adolescents, was used to establish pretest and posttest scores for all participants on three scales: inattention, impulsivity, and hyperactivity. As an adjunct to their traditional treatment, the experimental group received a mindfulness breathing meditation program three times a week, for six weeks. The control group did not receive the Mindfulness of Breathing Meditation Program and continued with the traditional treatment of the facility during these six weeks. At the conclusion of the six weeks of the Mindfulness of Breathing Meditation Program treatment, both groups completed the CAT-C as a posttest measure.

An independent samples *t*-test was used to determine the equivalence of the CAT-C pretest scores for the experimental and control groups. An independent samples *t*-test was then conducted to determine if there were significant changes in the CAT-C posttest scores between the two groups.

Conclusions

The research question guiding this study was: Will the practice of Mindfulness of Breathing Meditation produce a significant difference between experimental and control groups' inattention, impulsivity, and hyperactivity scores on the Clinical Assessment of Attention-Deficit-Child (CAT-C) in juvenile sex offenders? A *t*-test analysis was used to

assess the difference in posttest scores between the experimental and control groups providing insight into the aforementioned research question. As previously discussed, the CAT-C assesses symptoms of ADHD by individually measuring inattention, impulsivity, and hyperactivity.

Inattention Subscale

The inattention subscale assesses areas such as limited concentration, boredom, wandering thoughts, communication difficulties, and forgetfulness (Bracken & Boatwright, 2005). The *t*-test analysis revealed a statistically significant difference between the experimental and control group in the student report of inattention on the CAT-C. The CAT-C posttest score for the student report of inattention reveals a mean difference of 10.07 between the experimental and control groups. This significant difference suggests that due to the practice of the Mindfulness of Breathing Meditation Program the experimental group increased levels of concentration while decreasing areas such as wandering thoughts, boredom, and communication difficulties. The practice of the Mindfulness of Breathing Meditation Program increased the participants' ability to be more attentive to his environment resulting in increased focus, connection, and awareness (Bracken & Boatwright, 2005). Additionally, it is important to consider that the Mindfulness of Breathing Meditation Program reduced inattention as reported by participants which would indicate a shift from an external locus of control to an internal locus of control. This concept is the foundation of the Mindfulness of Breathing Meditation Program philosophy. It indicates a movement from separation and dis-ease to balance and unity.

The *t*-test analysis did not reveal a statistically significant difference between groups in the staff or teacher reporting of inattention on the CAT-C. There are various reasons for the lack of significant difference in the staff and teacher reporting on the inattention subscale. One of the reasons for the staff ratings may be due to the characteristic differences between the behaviors of inattention, impulsivity, and hyperactivity. Typically characteristics of inattention lead to daydreaming, disorganization, forgetfulness, and losing items (APA, 2000). These characteristics are typically less disruptive compared to impulsive and hyperactive behaviors and therefore may not be as noticeable to staff. As far as the teacher rating, it can be noted that a potential reason for no statistically significant changes occurring in the inattention subscale may be due to the highly structured environment of the small classroom setting at the facility.

Impulsivity Subscale

The impulsivity subscale addresses areas associated with self control and self monitoring, as well as issues of communication, risk taking behaviors, judgment, and decision making (Bracken & Boatwright, 2005). The *t*-test analysis revealed a statistically significant difference between the experimental and control group in the staff report of impulsivity on the CAT-C. The CAT-C posttest score for the staff report of impulsivity reveals a mean difference of 7.80 between the experimental and control groups. This significant difference infers that due to the practice of the Mindfulness of Breathing Meditation Program the facility staff observed the youth in the experimental group exhibiting more self control and displaying less impulsive behaviors than the control group.

The *t*-test analysis did not reveal a statistically significant difference between groups in the student or teacher report of impulsivity on the CAT-C. Even though the student rating on the impulsivity subscale did not result in statistically significant changes, it bordered the significance level. For the teacher rating, similarly to the inattention subscale, a potential reason for no statistically significant changes occurring in the impulsivity subscale may be due to the highly structured environment of the small classroom setting at the facility.

Hyperactivity Subscale

The hyperactivity subscale assesses symptoms related to restlessness, anxiety, challenges with task persistence, and higher energy levels (Bracken & Boatwright, 2005). The *t*-test analysis did reveal a statistically significant difference between the experimental and control group in the student and staff reports of hyperactivity on the CAT-C. The CAT-C posttest score for the student report of hyperactivity reveals a mean difference of 11.13 between the experimental and control groups. This significant difference infers that the Mindfulness of Breathing Meditation Program reduced hyperactivity as reported by participants. This decrease in restlessness, anxiety levels, and other hyperactive behaviors indicates a change from an external locus of control to an internal locus of control. The CAT-C posttest score for the staff report of hyperactivity reveals a mean difference of 6.07 between the experimental and control groups. This significant difference indicates that due to the practice of the Mindfulness of Breathing Meditation Program the facility staff identified the experimental group displaying less hyperactive behaviors, as well as observed them decrease restlessness, talking out of place, and impatience than the control group.

However, the *t*-test analysis did not reveal a statistically significant difference between groups in the teacher report of hyperactivity on the CAT-C. For the teacher rating, as with the other subscales, a potential reason for no statistically significant changes occurring in the hyperactivity subscale may be due to the highly structured environment of the small classroom setting at the facility.

Recommendations for Practice

The results of this study support a positive link between the practice of a mindfulness of breath meditation program and inattention, impulsivity, and hyperactivity with juvenile sex offenders. These results support previous research on alternative treatment such as yoga, mind-body, mindfulness, and meditation for treatment of children and adults with various mental disorders (Baer & Krietemeyer, 2006; Carpentier et al., 2006; Peck, et al., 2005; Semple, et al., 2006).

In addition to the statistical results linking the Mindfulness of Breathing Meditation Program to a reduction in inattention, impulsivity, and hyperactivity the participants and staff verbally reported many other benefits. Many of the participants stated the Mindfulness of Breathing Meditation Program helped them control their temper, manage anger, decrease tension and reduce stress levels. They reported that the components of the Mindfulness of Breathing Meditation Program taught them to use mindful breathing and meditation exercises in order to calm self and prevent angry outbursts. Some participants reported being able to manage their anger when being challenged by others, such as peers and staff, as well as being confronted by difficult situations such as negative memories and self criticism. The participants also reported that during and immediately after the practice they felt less irritable, more relaxed, a

calmer state of mind, more focused, and had improved concentration. They also reported that utilizing the techniques of the Mindfulness of Breathing Meditation Program outside of the class sessions such as while in group sessions, interacting with peers, and in school allowed them to mange emotions, reduce impulsive behaviors such as not making rash decisions, and thinking before acting. Some participants even reported that they had not received negative consequences or reduced levels since beginning the Mindfulness of Breathing Meditation Program. Additionally many of the participants stated that they were sleeping better, noticed improved concentration when reading, were able to control thoughts, and improved relationships between their peers and staff. One participant in particular stated that he had the most productive and positive treatment team meeting since he was transferred to this facility.

In addition to the numerous emotional benefits reported by the participants, many of them developed a genuine interest in learning about the concepts and philosophy of yoga, meditation, and mindfulness. The yoga therapist was able to donate the equipment, books on yoga and meditation, and a yoga DVD at the completion of the study so all of the JSO's could continue the practice. After completion of the study the yoga therapist continued to offer the Mindfulness of Breathing Meditation Program to the control group for six weeks. During this time several of the experimental group participants expressed an interest in co-teaching these sessions. With supervision from the yoga therapist, these individuals were able to teach a small portion of the class. This teaching activity seemed to enhance the benefits they reported experiencing during the study as it required attention, focus, and concentration. It also enhanced their commitment to the practice of yoga, meditation, and mindfulness, while developing leadership skills via role-modeling.

Many of the staff reported that the participants were sleeping better, appeared more relaxed, and were less hyperactive. In addition, the staff reported that the participants appeared to be more focused, attentive, and less behaviorally problematic. The staff also reported a reduction in nighttime behavior problems. The staff, therapists, and program administrator stated on numerous occasions that the youth were committed to the practice and heard them talking about how they enjoyed the Mindfulness of Breathing Meditation Program.

These results of this study support the benefits of alternative treatments. Specifically, this research provided additional empirical evidence for the inclusion of alternative interventions such as yoga, mindfulness, and meditation in traditional juvenile sexual offender programs. These results are vital to JSO's whose challenges and difficulties go beyond the sexual offenses they have committed.

Recommendations for Future Research

The data acquired from this research continues to substantiate results from previous studies that reported positive effects of alternative treatments on various mental deficits (Baer & Krietemeyer, 2006; Carpentier et al., 2006; Peck, et al., 2005; Semple, et al., 2006). The results of this study are convincing enough to warrant further investigation of a Mindfulness of Breathing Meditation Program on the treatment of inattention, impulsivity, and hyperactivity of juvenile sex offenders. Per information reported from the participants, other areas of improvement such as anger control, tension release, improved sleep, improved concentration, reduced stress levels, overall calmness, improved communication, and better decision making ability, were noted. Each of these areas is noteworthy positive outcomes from practicing the Mindfulness of Breathing

Meditation Program that warrant further investigation. Utilizing assessment measures for each of these areas and researching the effects that an Mindfulness of Breathing Meditation Program or other yoga, meditation, or mindfulness program have on them is recommended. This additional research would enhance the empirical body of support for the inclusion of alternative interventions in the traditional treatment programs for juvenile sex offenders.

This study utilized a sound methodology safeguarding internal validity through specific methods; however additional research utilizing larger sample sizes would increase external validity. Utilizing a larger sample size would increase the generalizability of the results. Noting that it is challenging to complete experimental research with large number of participants, it can also be recommended that this study be replicated in multiple JSO settings with small sample sizes as another means to increase generalizability.

Additional recommendations would be to study the long term effects of a Mindfulness of Breathing Meditation Program on inattention, impulsivity, and hyperactivity in juvenile sex offenders. Testing at intervals beyond the completion of the study would provide valuable information on the long term effects of the treatment. It will also be recommended that long term research be conducted whether or not participants continue the practice beyond the experiment, either while in the juvenile sex offender program or after completion of the program. This would provide insight into the likelihood of a JSO continuing to practice these alternative strategies versus continuing with traditional treatments. Additional research focusing on the effects of a Mindfulness of Breathing Meditation Program on the variable of internal locus of control would be

beneficial. Finally, further research is needed to identify the mechanism of change inherent in alternative treatments such as a Mindfulness of Breathing Meditation Program, yoga, mindfulness, and meditation.

Summary

The data and analysis generated from this research supported the hypothesis that the practice of a Mindfulness of Breathing Meditation Program would significantly reduce scores on the CAT-C in juvenile sex offenders. The results indicated significant differences in all three subscales of the CAT-C, inattention, impulsivity, and hyperactivity. Recognizing that two of the most common psychiatric diagnoses given to juvenile sex offenders include impulse control disorders and ADHD, addressing these symptoms would no doubt improve the success of JSO treatment while also improving the overall well-being and sense of self in the individual (Hunter, 2000).

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APPENDIX A

LETTER OF REQUEST

Richard Block
Vice President of Public Programs, TSI
1386 Indian Lake Road
Daytona Beach, FL 32124

Dear Mr. Block:

I am currently in the dissertation phase at Barry University in Orlando and would like to complete the research study using the residents and facility of Three Springs of Daytona. The purpose of the study is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders. The research question and hypothesis for the study is as follows:

Research question: Will the practice of MBMP produce a significant difference between experimental and control groups' impulsivity scores on the Clinical Assessment of Attention Deficit-Child Version (CAT-C)?

Hypothesis: The practice of MBMP will significantly reduce scores on the CAT-C for juvenile sex offenders.

The participants will be recruited through the use of a flyer posted in the facility. The participants will receive the appropriate informed consents, assents, and protection with confidential measures. The participants will be informed that their participation in the study will not affect their length of stay in the program, either positively or negatively. The anticipated start date of the 6 week MBMP program is February 2008.

The participants will be given a pre-test and a post-test using the Clinical Assessment of Attention Deficit-Child Version (CAT-C). Between pre and post testing they will participate in the 6 week MBMP which includes meditation and yoga postures. The participants will then be provided a summary of the results of the program.

More information regarding this study can be provided at your request. Please consider this opportunity and provide a written letter of approval.

Sincerely,

Adam Bazini, LMHC
Program Administrator

APPENDIX B

RECRUITMENT FLYER

Meditation and Yoga Program

Want to Learn to Control your Impulsiveness on your own??

This research study program is called a Mindfulness of Meditation Breathing Program. In this program you will practice 30 minutes of physical yoga postures in order to relieve physical tension and stress. The physical poses are beginner level that will help you stretch and strengthen your muscles. Then you will do a seated meditation for 10-15 minutes. The purpose of meditation is to calm the mind and clear your thoughts. The classes will meet 3 times a week for 6 weeks. The classes will be taught by a yoga teacher/therapist and facilitated by Mr. Adam Bazini. The classes will be held in the multi-purpose room.

Here is more information about the research study:

Purpose of the study:
A doctoral research study is being conducted by Adam Bazini, a doctoral candidate at Barry University in the Adrian Dominican School of Education. The study is investigating a Mindfulness Breathing Meditation Program and the levels of impulsivity with juvenile sex offenders in a residential setting.

Requirements to Participate:
As a participant in this study, you will be required to complete a demographic survey and a pre and post assessment taking 20 minutes to complete identifying your experience with impulsivity. You will be assigned to one of two groups. Depending on your assignment, you may be required to participate in an alternative breathing and meditation program for 45 minutes, 3 times per week for 6 weeks. Your participation in the study will not affect your progress or length of stay at Three Springs.

Request to Participate:
To participate or for more information, please complete the "Request for Participation in the Research Study" form and put it in Mr. Bazini's mailbox.

Confidentiality:
Your confidentiality will be carefully protected and your participation is voluntary.

APPENDIX C

REQUEST FORM

Request For Participation in Research Study

Youth Name/ID# _____

Date: _____ Time: _____

Please give this form to Mary Brown, Program Administrator.

Purpose of request:

The purpose of this request is inquire about participation in the research study titled "Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in a Residential Setting".

Youth Signature: _____Date: _____Time: _____

Staff Receiving Request: _____ Date: _____Time: **_____**

This Section is to be completed by the youth once he receives information regarding the research study.

___ I intend on participating in the research study and will complete the Assent Form once the study begins.

___ I do not intend on participating in the research study and this is my formal decline to participate.

Youth Signature
_____Date_____

Program Administrator Signature _____Date_____

APPENDIX D

CONSENT FORM

Barry University
Parent Consent Form

Your child's participation in a research project is requested. The title of the study is Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in a Residential Setting. The research is being conducted by Adam Bazini, MS, a Ph.D. student in Counseling Department at the Adrian Dominican School of Education department at Barry University, and is seeking information that will be useful in the field of counseling. The aim of the research is to understand the practice of meditation and its affects on levels of impulsivity in juveniles that have committed a sexual offence and are currently residing in residential care.

In accordance with this aim, and if you allow your child, who must be between the ages of 14 and 19 to participate in this research study, the following procedures will be used:

- Completion of an Assent form by your child. The Assent form should take 15 minutes to complete.
- Your child's participation in a Mindfulness of Breathing Meditation Program for 45 minutes, 3 times per week for 6 weeks.
- Completion of the Clinical Assessment of Attention Deficit-Child (CAT-C) in a group setting in Three Springs of Daytona. This is a 42-item self-report instrument with a Likert scale format. The CAT-C takes 20 minutes to complete. This scale asks your child to rate questions related to their experience with impulsivity, hyperactivity, and inattention on a four point continuum from "strongly agree" to "strongly disagree." This scale will be filled out two times, once before the 6 weeks of Breathing Meditation and once at the end of the 6 weeks.
- A youth care worker from the facility will complete the CAT-C parental form to report on their experience with your child's impulsivity. Only group mean data will be used for this research.
- A teacher from the facility will complete the CAT-C teacher form to report on their experience with your child's impulsivity. Only group mean data will be used for this research.
- Your child will fill out a demographic information form which will include: his age, gender, ethnicity, grade in school, and his current length of stay at the facility. The demographic survey should take 5 minutes to complete.

I anticipate the number of participants to be thirty and they will all be residents of Three Springs of Daytona. Your child's consent to be a research participant is strictly voluntary and should he decline to participate or should choose to drop out at any time during the study, there will be no adverse effects whatsoever. Your child's participation

will not impact his progress or length of stay in the program in any way.

Fifteen students will be in the experimental group, and 15 will be in a control group. All students in the control group will be offered the Breathing Meditation Program upon completion of the experimental group. While the experimental group is participating in the Breathing Meditation Program, the participants in the control group will attend the regular activities of the school.

Potential physical risks, although minimal include, but are not limited to strained or pulled muscles and joint pain. Should your child experience any physical injury or discomfort, the Three Springs nursing department is on site daily from 7am until 7pm. There are no known psychological risks associated with this experiment, but should your child experience any emotional distress, Three Springs of Daytona has Mental Health Professionals on site seven days per week.

No personal identifiers will be attached to the survey instrument, and confidentiality will be assured to you and your child. To ensure confidentiality, no names will be used in any publications to protect the resident's identity, and confidentiality will be maintained to the full extent of the law. Only group mean data will be used when describing the results of this study. When the forms are completed and given to this researcher, the forms will be labeled "Confidential" and placed in the locked file cabinet. The key will be kept in a separate locked file cabinet. All raw data, including demographic data will be destroyed after five years in accordance with Florida laws and university policies and procedures.

If you have any questions or concerns regarding the study or your child's participation in the study, you may contact me, Adam Bazini, MS, at (407) 348.4218, The Barry University Chair person, Dr. Eeltink, at (321) 235-8401, the Barry University Institutional Review Board point of contact, Mrs. Nildy Polanco, at (305) 899-3020, or the Department of Juvenile Justice Institutional Review Board, at (850) 488-3102. If you are satisfied with the information provided and are willing to allow your child to participate in this research, please signify your consent by signing this consent form.

Voluntary Consent

I acknowledge that I have been informed of the nature and purposes of this experiment by Adam Bazini, MS, and that I have read and understand the information presented above, and that I have received a copy of this form for my records. I give my voluntary consent for my child to participate in this study.

_____ _____

Signature of Participant's Guardian *Date*

_____ _____

Researcher *Date*

APPENDIX E

LETTER OF REQUEST

Rod Miller
Principal of Alternative Education; Volusia County
1386 Indian Lake Road
Daytona Beach, FL 32124

Dear Mr. Miller:

I am currently in the dissertation phase at Barry University in Orlando and would like to complete the research study using the residents and teachers of Three Springs of Daytona. The purpose of the study is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders. The research question and hypothesis for the study is as follows:

> Research question: Will the practice of MBMP produce a significant difference between experimental and control groups' impulsivity scores on the Clinical Assessment of Attention Deficit-Child Version (CAT-C)?
> Hypothesis: The practice of MBMP will significantly reduce scores on the CAT-C for juvenile sex offenders.

The teachers will be recruited through the use of a flyer posted in the facility. They will be asked to complete a pre-test and a post-test using the Clinical Assessment of Attention Deficit-Child Version (CAT-C) on residents that have volunteered for participation in the research study. The CAT-C takes approximately 20 minutes to complete for each resident and I anticipate 30 participants. The teachers will be required to sign a third party confidentiality agreement for participation in the study.

More information regarding this study can be provided at your request. Please consider this opportunity and provide a written letter of approval.

Sincerely,

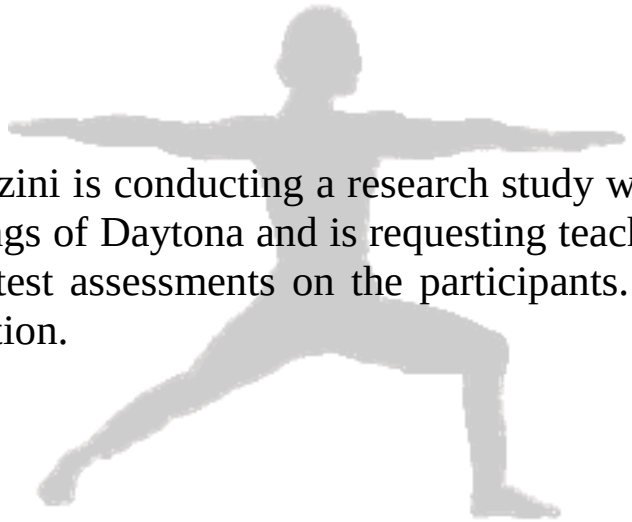
Adam Bazini, LMHC

APPENDIX F

TEACHER FLYER

ATTENTION TEACHERS

VOLUNTEERS NEEDED



Mr. Adam Bazini is conducting a research study with the residents at Three Springs of Daytona and is requesting teachers to complete pre and post test assessments on the participants. See below for more information.

Purpose of the study:
A doctoral research study is being conducted by Adam Bazini, MS, LMHC. A doctoral candidate at Barry University in the Adrian Dominican School of Education, investigating a Mindfulness of Breathing Meditation Program and the levels of impulsivity with juvenile sex offenders in a residential setting.

Responsibility as a Volunteer Rater:
As a volunteer rater you will complete a CAT-C scale which is a 42 item questionnaire that describes behaviors related to the diagnosis of ADHD. You would select one statement that best explains the participant's experience with inattention, hyperactivity, or impulsivity. Each item is rated from *Strongly Disagree* to *Strongly Agree.* The CAT-C is designed to be completed in approximately 20 minutes for each participant. The approximate time for the pre and post testing will be approximately 2 hours each time.

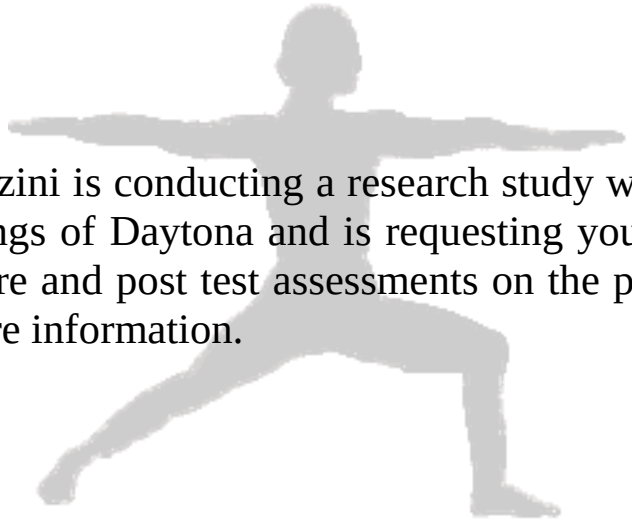
To Participate:
To participate or for more information, please call Mr. Bazini at 407.348.4218, ext. 201.

APPENDIX G

YOUTH CARE FLYER

ATTENTION YOUTH CARE WORKERS

VOLUNTEERS NEEDED



Mr. Adam Bazini is conducting a research study with the residents at Three Springs of Daytona and is requesting youth care workers to complete pre and post test assessments on the participants. See below for more information.

Purpose of the study:
A doctoral research study is being conducted by Adam Bazini, MS, LMHC. A doctoral candidate at Barry University in the Adrian Dominican School of Education, investigating a Mindfulness of Breathing Meditation Program and the levels of impulsivity with juvenile sex offenders in a residential setting.

Responsibility as a Volunteer Rater:
As a volunteer rater you will complete a CAT-C scale which is a 42 item questionnaire that describes behaviors related to the diagnosis of ADHD. You would select one statement that best explains the participant's experience with inattention, hyperactivity, or impulsivity. Each item is rated from *Strongly Disagree* to *Strongly Agree.* The CAT-C is designed to be completed in approximately 20 minutes for each participant. The approximate time for the pre and post testing will be approximately 2 hours each time.

To Participate:
To participate or for more information, please call Adam Bazini at 407.348.4218, ext. 201.

APPENDIX H

ADVOCACY LETTER

February 1, 2008
Mr. Don Hayward
10112 Arbor Ridge Trail
Orlando, FL 32817

Dear Mr. Hayward,

This letter is soliciting your help with a research study I am conducting on Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in a Residential Setting. The research is being conducted by Adam Bazini, MA, a Ph.D. student in Counseling Department at the Adrian Dominican School of Education department at Barry University, and is seeking information that will be useful in the field of counseling. The purpose of the research is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders living in a residential setting.

The adolescents that are taking part in this study reside at Three Springs of Daytona and are between the ages of 14-20. I am requesting, as a licensed clinician, if you would participate in this study as an advocate to protect the rights of the adolescents while they take part in the study.

The potential physical risks, although minimal, include, but are not limited to strained or pulled muscles and joint pain. Should any of the participants experience any physical injury or discomfort, Three Springs has a nursing department on site daily from 7am until 7pm. There are no known psychological risks associated with this experiment, but should any of the participants experience any emotional distress, Three Springs has three mental health professionals on site for a total of 120 hours, 7 days per week. The adolescents will be advised that if they experience emotional distress they can schedule a counseling session with their assigned therapist in the facility. In addition, the adolescents will be informed that they may stop the process at anytime, without penalty.

If the research supports the hypothesis, the potential health benefits will be a decrease in impulsivity.

This study will be conducted in the late afternoon, three days a week for 6 weeks. The date and time has yet to be established. If you choose to participate as their advocate, please call me at 321.303.4409 and we can discuss your role in the process. I will have you sign a confidently agreement during the first session.

Thank you,
Adam Bazini

APPENDIX I

THIRD PARTY CONFIDENTIALITY AGREEMENT

Confidentiality Agreement

As a member of the research team investigating Mindfulness Breathing of Meditation Program and impulsivity in juvenile sex offenders, I understand that I will have access to confidential information about study participants. By signing this statement, I am indicating my understanding of my obligation to maintain confidentiality and agree to the following:

- I understand that names and any other identifying information about study participants are completely confidential.
- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research project that could identify the persons who participated in the study.
- I understand that all information about study participants obtained or accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information unless specifically authorized to do so by office protocol or by a supervisor acting in response to applicable protocol or court order, or public health or clinical need.
- I understand that I am not to read information and records concerning study participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.
- I understand that a breach of confidentiality may be grounds for disciplinary action, and may include termination of employment.
- I agree to notify my supervisor immediately should I become aware of an actual breach of confidentiality or situation which could potentially result in a breach, whether this be on my part or on the part of another person.

_____ _____ _____

Signature Date Printed Name

_____ _____ _____

Signature Date Printed Name

APPENDIX J

RESEARCHER SCRIPT

This is the researcher's script to residents describing the study.

Hello, my name is Mr. Bazini and I would like to thank all of you for volunteering for this research study I am doing. I am a student at Barry University in Orlando. I would also like to introduce Don Hayward, he is here as your advocate to make sure that your rights are not violated and to help you if you feel any discomfort.

Your participation in this study is voluntary and includes 6 weeks of a Mindfulness of Breathing Meditation Program, Saturday, Sunday, and Thursday from 3:30 pm until 4:15 pm. The MBMP program includes breath awareness, mindfulness, meditation, and yoga postures.

Today you will be asked to complete several documents including an assent or consent form, demographic survey, and a questionnaire describing your experience with hyperactive, impulsive, and inattentive behavior.

I know that confidentiality is very import to all of you, so I will tell you that your names will not be used, nor would any other information that could identify you. Once you hand me back the forms I will put them in the locked file cabinet.

Your participation is voluntary and if you should choose to drop out at any time during the study, there will be no adverse effects whatsoever. If any of you experience physical distress you can schedule an appointment with the nursing department. Should you experience any emotional distress you can schedule a counseling session with your assigned therapist.

I am going to distribute pens and the consent or assent form for you to complete. These consent and assent forms describe the study and let you know that it is voluntary and again, if you feel any discomfort you may stop at any time and if you need to you may schedule an appointment with a nurse or your assigned therapist. This form states that you are willing or not willing to participate in the research study on mindfulness of breathing meditation.

I am now going to pass out the demographic survey which describes basic information regarding you. This information includes your gender, age, ethnicity, education level, and length of stay at the facility.

The next form I am going to distribute is the Clinical Assessment of Attention Deficit-Child (CAT-C). This questionnaire asks you to rate questions related to your experience with impulsivity, hyperactivity, and inattention on a four point scale. When you fill out

the questionnaire, please look at the top of the form which says strongly disagree, disagree, agree, and strongly agree. Please read each sentence and select the best response, one that represents you, to each statement by circling the appropriate number, 1, 2, 3, or 4 under the selection it represents.

This assessment will take approximately 20 minutes and I am asking that you do not talk to each other while filling it out. When you are done please raise your hand and I will collect them.

Thank you very much for your time and participation in the study.

Adam Bazini

APPENDIX K

Barry University
ASSENT FORM

I am doing a research study that includes adolescents and would like to ask you to take part in the project. The title of the study is Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in Residential Setting.

The research will be done by Adam Bazini. I am a student in the Counseling PhD program of Barry University.

Purpose: The purpose of this study is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders as measured by the Clinical Assessment of Attention Deficit-Child Version (CAT-C).

What will you do in this Study? If you decide to participate in this study, with your parent or guardians approval, the following procedures will be used:

- Completion of an Assent form by you and a Consent Form by your parent or guardian. The Assent form should take 10-15 minutes to complete.
- Completion of the Clinical Assessment of Attention Deficit-Child (CAT-C) in a group setting in Three Springs of Daytona. This is a 42-item self-report instrument with a Likert scale format. This scale asks you to rate questions related to your experience with impulsivity, hyperactivity, and inattention on a four point scale from "strongly agree" to "strongly disagree". The CAT-C self report form is written in language you should understand; however in the event that you do not understand any of the questions it is permissible for the researcher to read the items to you. This assessment is designed to be completed in 10 to 20 minutes.
- You will fill out a demographic information form which will include: your age, gender, ethnicity, grade in school, and your current length of stay at the facility. The demographic survey should take 5 minutes to complete.
- You will randomly be assigned to one of two groups. Both groups will continue with the traditional treatment protocol at the facility. While the first group continues to receive the traditional Three Springs treatment, the second group practices the Mindfulness of Breathing Meditation Program for six weeks. At the end of the six weeks the first group will be given the opportunity to participate in the Mindfulness of Breathing Meditation Program for six weeks.
- You will be required to participate in the Mindfulness of Breathing Meditation Program for 45 minutes, 3 times per week for 6 weeks.
- After six weeks, both groups will take the CAT-C as a post test measure to identify

any changes in impulsivity. This will take 10 to 20 minutes.

- The researcher will also conduct an hour long feedback session with you after the conclusion of the study. This session will review the results of the study. Again, no personal information will be disclosed.

I anticipate the number of participants to be thirty and you will all be residents of Three Springs of Daytona. Your consent to be a research participant is strictly voluntary and should you decline to participate or choose to drop out at any time during the study, there will be no adverse effects whatsoever. Your participation will not impact your progress or length of stay in the program in any way.

Costs to You: You will not have to pay anything to be in this study.

Payment to you: You will receive no money for being in this study.

This is strictly voluntary and if you decide not to do it or should your want to drop out at any time during the study, there will be no bad effects on you.

Your rights:

- Your name will not be included in any reports or speeches about this study.
- You don't have to be in this study if you don't want to be.
- You can change your mind at any time and leave the study without any problem.
- You can choose not to answer any questions if you prefer.

Potential Risks/Discomforts: Potential physical risks, although minimal, include, but are not limited to strained or pulled muscles and joint pain. Should you experience any physical injury or discomfort, the Three Springs nursing department is on site daily from 7am until 7pm.
There are no known psychological risks associated with this experiment, but should you experience any emotional distress you can schedule an individual counseling session with your Mental Health Counselor assigned at the facility.

Potential Benefits to You: If the research supports the hypothesis, the potential health benefits will be a decrease in impulsivity.

Questions: If you have any questions about this study, you can ask Mr. Bazini or complete a Request for Services Form.

If you sign below, it means that you have read the information on this sheet, asked any questions you want, and you would like to be in this study.

By signing below, you acknowledge receipt of this assent form.

Voluntary Consent
I have been informed what this experiment is about by Adam Bazini. I have **read** and understand the information presented **above,** and I have received a copy of this form.

____ I am willing to be a part of the research study.

____ I am not willing to be a part of the research study.

_____ _____
Signature of Child *Date*

_____ _____
Signature of Researcher *Date*

APPENDIX L

Barry University
CONSENT FORM

I am doing a research study that includes adolescents and would like to ask you to take part in the project. The title of the study is Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in Residential Setting.

The research will be done by Adam Bazini. I am a student in the Counseling PhD program of Barry University.

Purpose: The purpose of this study is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders as measured by the Clinical Assessment of Attention Deficit-Child Version (CAT-C).

What will you do in this Study? If you decide to participate in this study the following procedures will be used:

- Completion of a Consent form by you, which should take 10-15 minutes to complete.
- Completion of the Clinical Assessment of Attention Deficit-Child (CAT-C) in a group setting in Three Springs of Daytona. This is a 42-item self-report instrument with a Likert scale format. This scale asks you to rate questions related to your experience with impulsivity, hyperactivity, and inattention on a four point scale from "strongly agree" to "strongly disagree". The CAT-C self report form is written in language you should understand; however in the event that you do not understand any of the questions it is permissible for the researcher to read the items to you. This assessment is designed to be completed in 10 to 20 minutes.
- You will fill out a demographic information form which will include: your age, gender, ethnicity, grade in school, and your current length of stay at the facility. The demographic survey should take 5 minutes to complete.
- You will randomly be assigned to one of two groups. Both groups will continue with the traditional treatment protocol at the facility. While the first group continues to receive the traditional Three Springs treatment, the second group practices the Mindfulness of Breathing Meditation Program for six weeks. At the end of the six weeks the first group will be given the opportunity to participate in the Mindfulness of Breathing Meditation Program for six weeks.
- You will be required to participate in the Mindfulness of Breathing Meditation Program for 45 minutes, 3 times per week for 6 weeks.
- After six weeks, both groups will take the CAT-C as a post test measure to identify any changes in impulsivity. This will take 10 to 20 minutes.

- The researcher will also conduct an hour long feedback session with you after the conclusion of the study. This session will review the results of the study. Again, no personal information will be disclosed.

I anticipate the number of participants to be thirty and you will all be residents of Three Springs of Daytona. Your consent to be a research participant is strictly voluntary and should you decline to participate or choose to drop out at any time during the study, there will be no adverse effects whatsoever. Your participation will not impact your progress or length of stay in the program in any way.

Costs to You: You will not have to pay anything to be in this study.

Payment to you: You will receive no money for being in this study.

This is strictly voluntary and if you decide not to do it or should your want to drop out at any time during the study, there will be no bad effects on you.

Your rights:

- Your name will not be included in any reports or speeches about this study.
- You don't have to be in this study if you don't want to be.
- You can change your mind at any time and leave the study without any problem.
- You can choose not to answer any questions if you prefer.

Potential Risks/Discomforts: Potential physical risks, although minimal, include, but are not limited to strained or pulled muscles and joint pain. Should you experience any physical injury or discomfort, the Three Springs nursing department is on site daily from 7am until 7pm.
There are no known psychological risks associated with this experiment, but should you experience any emotional distress you can schedule an individual counseling session with your Mental Health Counselor assigned at the facility.

Potential Benefits to You: If the research supports the hypothesis, the potential health benefits will be a decrease in impulsivity.

Questions: If you have any questions about this study, you can ask Mr. Bazini or complete a Request for Services Form.

If you sign below, it means that you have read the information on this sheet, asked any questions you want, and you would like to be in this study.

By signing below, you acknowledge receipt of this consent form.

Voluntary Consent
I have been informed what this experiment is about by Adam Bazini. I have **read** and understand the information presented **above,** and I have received a copy of this form.

____ I am willing to be a part of the research study.

____ I am not willing to be a part of the research study.

_____ _____
Signature of Participant *Date*

_____ _____
Signature of Researcher *Date*

APPENDIX M

DEMOGRAPHIC SHEET

1. Assigned Participant Code: _____

2. Gender:
    1. Male
    2. Female

3. Age: _____

4. Your current grade level:
    1. 6th grade
    2. 7th grade
    3. 8th grade
    4. 9th grade
    5. 10th grade
    6. 11th grade
    7. 12th grade
    8. High School Graduate or GED.

5. Current length of stay at facility:
    1. Less than 6 months
    2. 6 months to 1 year
    3. Over 1 year

6. Ethnicity:
    1. African-American
    2. Caucasian
    3. Hispanic
    4. Asian
    5. Other: _____

APPENDIX N

Week 1-2	
Yoga Asana - 25 minutes	
Pose (Sanskrit Language)	**Pose (English Language)**
Surya Namaskar A x2	Sun Salutation A x2
Surya Namaskar B x2	Sun Salutation B x2
Tadasana	Mountain pose
Vrksasana	Tree pose
Virabhadrasana III	Warrior III pose
Uttanasana	Standing forward bend
Chaturanga Dandasana	Plank
Adho Mukha Svanasana	Downward Facing Dog
Kapotasana	Pigeon pose
Balasana	Childs pose
Mindfulness of breath meditation - 10 minutes	
Savasana – 5 minutes	
Processing – 5 minutes	

MBMP FORMAT

Week 3-4	
Yoga Asana - 20 minutes	
Pose (Sanskrit Language)	**Pose (English Language)**
Surya Namaskar A x2	Sun Salutation A x2
Surya Namaskar B x2	Sun Salutation B x2 - lunge with brahma mudra to prayer twist
Utkatasana	Chair pose
Utthita Utkatasana	Revolved chair pose
Chaturanga Dandasana	Plank pose
Bhujangasana variation	Sphinx pose
Parivritta Bhujangasana variation	Revolved Sphinx pose
Jathara Parivartanasana	abdominal twist
Mindfulness of breath meditation - 15 minutes	
Savasana – 5 minutes	
Processing – 5 minutes	

APPENDIX N (continued)

Week 5-6	
Yoga Asana - 20 minutes	
Pose (Sanskrit Language)	**Pose (English Language)**
Surya Namaskar A x2	Sun Salutation A x2
Surya Namaskar B x2	Sun Salutation B x2 - Variation – crescent moon with prana mudra
Gomukhasana	Cow face pose
Setu bandha Sarvangasana	Bridge pose
Apasana	Energy freeing pose (one-leg)
Matsyendrasana	Fish pose
Apanasa	Energy Freeing pose (both legs)
Mindfulness of breath meditation - 15 minutes	
Savasana – 5 minutes	
Processing – 5 minutes	

APPENDIX O

Barry University
YOUTH CARE WORKER CONSENT FORM

I am doing a research study that includes adolescents and would like to ask you to take part in the project. The title of the study is Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in Residential Setting.

The research will be done by Adam Bazini. I am a student in the Counseling PhD program of Barry University.

Purpose: The purpose of this study is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders as measured by the Clinical Assessment of Attention Deficit-Child Version (CAT-C).

What will you do in this Study? If you decide to participate in this study the following procedures will be used:

- Completion of a Consent form by you, which should take 15 minutes to complete.
- Completion of the Clinical Assessment of Attention Deficit-Child (CAT-C) on the participants of the study residing in Three Springs of Daytona. This is a 42-item parent-report instrument with a Likert scale format. The researcher has contacted the author of the CAT-C and received approval for your participation as the care giver to the youth. This scale asks you to rate questions related to your experience with the participants' impulsivity, hyperactivity, and inattention on a four point scale from "strongly agree" to "strongly disagree". This assessment is designed to be completed in 20 minutes for each participant.
- The participants will have knowledge of your participation in the study; however they will not know who personally completed the assessment tool based on their behaviors.
- You will fill out a Third Party Confidentiality Agreement to ensure all participants confidentiality in the study. The Third Party Confidentiality Agreement should take 5 minutes to complete.

Costs to You: You will not have to pay anything to be in this study.

Payment to you: You will receive no money for being in this study.

Your rights:

- Your name will not be included in any reports or speeches about this study.

- You don't have to be in this study if you don't want to be.
- You can change your mind at any time and leave the study without any problem.
- You can choose not to answer any questions if you prefer.

This information will be used to contribute to psychological literature. Your names or any identifying factors will NOT be used in the study; therefore there will no retribution for your participation from the residents.

I anticipate the number of participants to be thirty and they will all be residents of Three Springs of Daytona. Your consent to be a research participant is strictly voluntary and should you decline to participate, there will be no adverse effects whatsoever. Your participation will not impact your relationship with Three Springs of Daytona.

If you have any questions about this study, you can contact Mr. Adam Bazini at (407) 348-4218, extension 201.

If you sign below, it means that you have read the information on this sheet, asked any questions you want, and you would like to be in this study.

By signing below, you acknowledge receipt of this consent form.

Voluntary Consent
I have been informed what this experiment is about by Adam Bazini. I have **read** and understand the information presented **above,** and I have received a copy of this form.

____ I am willing to be a part of the research study.

____ I am not willing to be a part of the research study.

_____ _____
Signature of Youth Care Worker *Date*

_____ _____
Signature of Researcher *Date*

APPENDIX P

Barry University
TEACHER CONSENT FORM

I am doing a research study that includes adolescents and would like to ask you to take part in the project. The title of the study is Mindfulness of Breathing Meditation and Levels of Impulsivity with Juvenile Sex Offenders in Residential Setting.

The research will be done by Adam Bazini. I am a student in the Counseling PhD program of Barry University.

Purpose: The purpose of this study is to examine the effects of Mindfulness of Breathing Meditation Program (MBMP) as an alternative adjunct treatment for impulsivity with juvenile sex offenders as measured by the Clinical Assessment of Attention Deficit-Child Version (CAT-C).

What will you do in this Study? If you decide to participate in this study the following procedures will be used:

- Completion of a Consent form by you, which should take 15 minutes to complete.
- Completion of the Clinical Assessment of Attention Deficit-Child (CAT-C) on the participants of the study residing in Three Springs of Daytona. This is a 42-item teacher-report instrument with a Likert scale format. This scale asks you to rate questions related to your experience with the participants' impulsivity, hyperactivity, and inattention on a four point scale from "strongly agree" to "strongly disagree". This assessment is designed to be completed in 20 minutes for each participant.
- The participants will have knowledge of your participation in the study; however they will not know who personally completed the assessment tool based on their behaviors.
- You will fill out a Third Party Confidentiality Agreement to ensure all participants confidentiality in the study. The Third Party Confidentiality Agreement should take 5 minutes to complete.

Costs to You: You will not have to pay anything to be in this study.

Payment to you: You will receive no money for being in this study.

Your rights:

- Your name will not be included in any reports or speeches about this study.
- You don't have to be in this study if you don't want to be.

- You can change your mind at any time and leave the study without any problem.
- You can choose not to answer any questions if you prefer.

This information will be used to contribute to psychological literature. Your names or any identifying factors will NOT be used in the study; therefore there will no retribution for your participation from the residents.

I anticipate the number of participants to be thirty and they will all be residents of Three Springs of Daytona. Your consent to be a research participant is strictly voluntary and should you decline to participate, there will be no adverse effects whatsoever. Your participation will not impact your relationship with Three Springs of Daytona.

If you have any questions about this study, you can contact Mr. Adam Bazini at (407) 348-4218, extension 201.

If you sign below, it means that you have read the information on this sheet, asked any questions you want, and you would like to be in this study.

By signing below, you acknowledge receipt of this consent form.

Voluntary Consent
I have been informed what this experiment is about by Adam Bazini. I have **read** and understand the information presented **above,** and I have received a copy of this form.

____ I am willing to be a part of the research study.

____ I am not willing to be a part of the research study.

_____ _____
Signature of Teacher *Date*

_____ _____
Signature of Researcher *Date*