

IMPROVING SELF-REGULATION AND MANAGING  
BEHAVIOR WITH MINDFULNESS  
BASED INTERVENTION

by

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A DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in the  
Department of Special Education and Multiple  
Abilities in the Graduate School  
of The University of Alabama

TUSCALOOSA, ALABAMA

2018

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## ABSTRACT

This study investigated the effects of a short-term mindfulness training in a group home for mentally ill, at-risk adolescents with mild to moderate disabilities. Disruptive behavior causes challenges in any setting. Moreover, disruption can lead to aggression, and when not controlled, can change the climate of group homes and schools. Eight adolescents were taught mindfulness-based techniques from *Mindfulness Curriculum for Adolescents* provided by the MindfulSchools Program. The participants, ages 12 -18, attended a public-school system and lived in a group home in a southern state in the United States. The clients were introduced to innovative mindfulness techniques for 4-6 weeks. The training introduced the participants to four lessons: mindful posture, mindful listening, heartfulness, and mindful thoughts. Clients and mentors were interviewed during the period of study. Narratives from the participants were compared and analyzed. A review survey was conducted at the end of the mindfulness training. Findings indicated that the high users, and frequent users showed better benefits from sub-optimal users in a mixed method study short-term mindfulness training. Clients shared that they felt calm and relaxed and were mindful when they experienced troubled situations. Mindfulness techniques and the six weeks training helped to regulate, control, and manage negative behavior in some clients. This intervention could be an alternate strategy that mentors, and teachers might use to manage children's interactions within any setting.

**Keywords:** mindfulness intervention, self-regulation, heartfulness, mixed method approach, embedded design

## ACKNOWLEDGEMENTS

This research has been a passion that I have carried inside me for a long time and has transformed from feelings and thoughts to words. My visions for this academic achievement was instigated by my parents, Mr. and Mrs. Gopinathan, who reside in India and have supported me throughout this journey. I want to thank my husband, Mike Norman, who has stood by me patiently to complete this pursuit. To my daughters, Meghna and Tanvi, who believed in me and held the flame of the candle high until the end of the journey. Thank you for being major pieces in my life and inspiring me to achieve my dream. I also want to thank my two dear friends from my cohort, Drs. Cathy Price and Amy Williamson, whose unfailing support and constant encouragement helped me through the stress and strain of this doctoral program. Both of you have kept me strong and motivated.

I thank Dr. Jim Siders, my chair, for his guidance, patience, and for molding me into ‘Lil Rudie’. What is most important is that he has given me the self-assurance to stay focused. I would like to thank Drs. Lawson and Swoszowski, whose unfailing support helped me complete my study, and Drs. Myrick and Viel-Ruma for providing valuable insights and timely feedback.

I want to thank Allie Sockwell, a good friend, who agreed to edit my work painstakingly time and over again. Without her help I could not have proceeded with my writing. Finally, I cannot overlook my mentor and counselor, Doug Cooke, whose kind words kept my “head straight.” The endless times he spent encouraging and talking to me about my study, and countless hours of counseling helped me in this journey that I undertook in 2013.

## CONTENTS

ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
CHAPTER I: INTRODUCTION.....	1
Current Approaches and Future Trends.....	3
Legal Deliberations on Student Discipline.....	3
Creating a Safe and Emergent Environment with ABA.....	6
Approaches for Evaluating Behavior.....	7
Positive Behavior Intervention Support.....	8
Alternative Salutary Intervention.....	11
Developing Alternatives Despite Preventative Supports.....	11
Statement of the Problem.....	12
Purpose of the Study.....	14
Research Question.....	15
Definition of Terms.....	15
Summary.....	18
CHAPTER II: LITERATURE REVIEW.....	20
Introduction.....	20

Theoretical Perspective.....	21
Self-regulation.....	22
Bandura’s Social Learning Theory .....	24
Bronfenbrenner’s Ecological Theory.....	25
Philosophy .....	27
Attuned Representational Model of Self: Embodied Self-regulation.....	27
Mindfulness Practice.....	30
History.....	31
Definition .....	31
Components of Mindfulness.....	32
Proponents of Mindfulness Practice .....	33
Mindfulness and Neuroscience of Brain.....	35
Mindfulness, Mindful Meditation, and Mindful Yoga .....	38
At-risk Students and Chronic Stress .....	39
Mindfulness Practice and Education.....	42
Daily Mindfulness Practice: A Path to Mindful Education .....	46
Summary.....	48
<b>CHAPTER III: METHODOLOGY AND PROCEDURES .....</b>	<b>49</b>
Introduction.....	49
Research Question .....	51
The MindfulSchools Organization.....	51
Setting.....	52
Participants.....	53

Research Design.....	55
Study Procedures .....	58
Embedded Mixed Method Design .....	61
Data Gathering.....	62
Structure of Interviews.....	62
Initial Individual Interviews.....	63
Second Individual Interviews .....	64
Third Individual Interviews .....	64
Focused Group Interviews .....	65
Mentor Interviews.....	65
Analyzing Journals.....	66
Independent Variables .....	66
Dependent Variables.....	67
Analyzing Mindfulness Review Document.....	69
Data Analysis and Validity.....	69
Assumptions of the Study.....	71
Limitations of the Study.....	72
Summary .....	73
CHAPTER IV: FINDINGS .....	74
Introduction.....	74
Participants.....	75
Quantitative Analysis.....	79
Qualitative Analysis.....	85

Participants' Interviews .....	85
Mentors' Interviews .....	91
Conclusion .....	95
Summary .....	96
CHAPTER V: DISCUSSION AND IMPLICATIONS .....	98
Introduction.....	99
Situating Mindfulness Study.....	100
Ecological Theory and Triadic Causation.....	105
Research Question .....	106
Implications.....	116
Significance of the Study .....	119
Limitations .....	120
Recommendations for Future Research .....	121
Conclusion .....	122
Summary .....	124
REFERENCES .....	126
APPENDIX A: INDIVIDUAL INTERVIEWS WITH CLIENTS.....	136
APPENDIX B: FOCUS GROUP INTERVIEWS WITH CLIENTS .....	138
APPENDIX C: INDIVIDUAL INTERVIEW WITH MENTORS .....	140
APPENDIX D: MINDFULNESS REVIEW SURVEY .....	141
APPENDIX E: MINDFULNESS LESSONS.....	143
APPENDIX F: IRB APPROVAL.....	148

LIST OF TABLES

1. Client Mindfulness Intervention Use and Disorders.....78

2. Clients and Mindfulness Intervention Outcomes.....79

## LIST OF FIGURES

1. Components of mindfulness .....	22
2. Bandura's social learning theory .....	25
3. Attuned Representational Model of Self (ARMS).....	28
4. Example of initial coding and focused coding during interview transcript analysis .....	63

## CHAPTER I: INTRODUCTION

There are many factors that contribute to behavior problems in all schools. Mismatch in curriculum and classroom environment, psychological factors, and difficulty in coping with school work are some factors that cause behavior challenges. Furthermore, behavioral issues in students could also stem from home environment and lack of attention (Cohen-Harper, 2010). Students face environmental stress in different ways. Low-income and minority students face overcrowded and deplorable living conditions as well as violence on their street. Health and personal safety is a major concern. Students who come from constant poverty suffer from depression and antisocial behavior (Shanahan & McLeod, 1996). In order to understand these factors and their impact on learners in the classroom, attention and proactive intervention are needed to promote a strong learning climate.

Aggression, non-compliance, inattention, hyperactivity, and bullying are some of the visible behavior traits seen in classroom settings from students with behavior problems (Zirpoli, 2012). The annual school incident report (SIR) at the Alabama State Department of Education (ALSDE) website shows that incidents like disobedience, defiance, and disorderly conduct have increased from 963 incidents in 2011 to 1,532 incidents in 2012. The first half of 2016 already includes reports of 929 incidents in Marshall County, AL (ALSDE, 2016). Autauga, Madison, and Limestone County reports demonstrate an increase in profanity, threats, larceny, and disobedience from 2013 to 2016. This creates a discouraging snapshot of discipline problems in schools. Students with behavioral problems not only pose serious challenges to other students,

but also to staff, para-educators, and administrators in the school setting. When untreated, students are prone to failure and dropping out of school or landing in juvenile detention centers. Some of these problems stem from early childhood trauma and neglect that has not been resolved. The U.S Public Health Service (2009) reported that domestic and family violence trigger a lot of aggressive and violent behavior in students.

Behavior management is still a chief concern of all educators (Elam, Rose, & Gallup, 1996). When students misbehave and disrupt classroom instruction, this keeps other peers from learning by wasting the educator's instructional time (Schloss, Schloss, & Schloss, 2009). Even the U.S. Department of Education Office of Special Education and Rehabilitative Services (OSERS, 2016) released a letter highlighting the importance of managing behavior with students with disabilities that further proves that the issue needs immediate attention.

Behavior management is a constant concern and researchers have developed the Behavior Management Model, which can be viewed as a three-tiered cone or a funnel (Martella, Nelson, & Martella, 2003). This model has been the beginning step of the prominent approaches to prevent behavior challenges. The top tier contains the largest body of students, who represent the whole school. This tier consists of behavior challenges that are prevented schoolwide. Next, the whole school is divided into classrooms where behavior is managed from a classroom perspective. Finally, behavior management is portrayed individually and funneled down to the bottom of the cone. A lot of skill and organization is needed to manage discipline issues in all three tiers. Unfortunately, school measures at controlling behavior continue to be characterized by negative responses and punishment rather than a positive learning event to reform undesirable conduct.

Occasionally, innovative behavior management tools are discovered and implemented to reduce discipline problems. Discipline is a process that occurs between educators, administrators,

and students in the classroom. Discipline is defined “*as behavior in accord with rules of conduct; behavior and order maintained by training and control: good discipline in an army*” (Webster dictionary). Discipline is sometimes confused with corporal discipline and punishment (Martella et al., 2003). Discipline should never be mistaken as a punishment. When discipline is replaced with corporal punishment and equated with corporal discipline students react negatively. Punitive measures have been considered and looked upon as a negative approach, hence researchers have developed preventive approaches like Positive Behavior Intervention Support (PBIS).

### **Current Approaches and Future Trends**

#### **Legal Deliberations on Student Discipline**

Some of the present approaches in behavior management examine teachers’ role on authority and discipline in classroom. According to Assertive Discipline Model (Canter & Canter, 1992), teachers are strong leaders with a focus on student’s behavior (Canter, 1989). It is important to emphasize positive discipline methods. Teachers should realize that their response tones set the pace of classroom discipline. A non-assertive response by the teacher results in a different response and shifts teacher-learner dialogue to an assertive response. In assertive responses, the teacher sets the rule; and when rules are broken, the teacher follows the discipline protocol. However, if the teacher responds with hostility, the threat and sarcasm cause the students to stop misbehaving out of fear of the teacher. Discipline can be developed with three factors: reasonable rules, positive recognition and practical consequences (Canter & Canter, 1992).

While considering discipline and legal consequence, courts distinguish the importance of giving teachers and school administrators authority over student behavior (Yell, 2006). The

modern analogy of education law has changed. Ultimately, parents are replaced by teachers at the place of education, allowing teachers to have control over students. The *loco parentis law* does not specify if teachers have the same control as parents. To maintain safety in school, students need to be aware of which behavior is acceptable and which is not acceptable. Students with and without disabilities are required to follow rules and regulations within the classroom and school and maintain awareness of what is right and wrong. Students who break rules, however, are accountable for their actions and subject to disciplinary measures by teachers and administrators. School discipline rules that are vague may end up violating student rights.

The United States Constitution specifies rights regarding disciplinary matters and provides a due process of clause in the 5<sup>th</sup> and 6<sup>th</sup> amendments. This means that the individual needs to be notified of the conduct violation committed and attend a hearing in which the student is aware of the charges applied. Students have the right to tell their version of the facts if they are arrested and removed from school. Unless a student shows that he or she has been mistreated or held accountable, no due process can be operative (Yell, 2006).

After the *Brown vs. Board of Education* (1954) case, the nation made great strides toward opening the doors of education to all students. The Federal court stated,

Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education... (Civil Rights.org)

The *Brown vs. Board of Education* case changed the rights for every child and children with disabilities in the United States, which led to many more concrete laws written in Individuals with Disabilities Education Act (IDEA), etc.

Before school shootings, it was believed schools were a safe haven for students. However, the present trend of school violence, aggression, and school shootings has created an urgent demand for school safety. In 1998, President Bill Clinton requested the U.S. Department of Education to help communities make schools safer in the future. The U.S. Department of Education came up with a manual which they provided to all schools and named *Safeguarding our Children: An Action Guide to Implementing Early Warning* (Riley & Reno, 2000). This led to creating positive behavior intervention support (PBIS) and social emotional learning (SEL). Both the programs have been effective; however, not all students with disabilities are served under these programs. A solution may be teaching students to reconnect to their responses, emotions, and body with self-regulation embodiment.

Disciplinary action for students with disabilities should not deprive them of an education or subject students to standard due process. Teachers and administrators should be aware of state law and regulations. For instance, disciplinary action for students with disabilities and students without disabilities is different. Courts made a provision that a *manifestation determination* be conducted when a group of people considers expelling a student with disabilities from school; it should be decided whether student misbehavior is the result of his or her disability (Dwyer for IDEA 1997, 1997). IDEA 1997 authorized school officials on suspensions and expulsions. Teachers of students with disabilities should keep records of the number of days a student with disabilities is suspended. IDEA also authorized school administrators to seek removal of students from school settings who are a risk to self and others and may change educational setting up to 45 days.

IDEA 1997 and 2004 specified an individual education plan (IEP) team to write an IEP to include a behavior intervention plan (BEP) for students with disabilities with behavior

problems. When behavior impedes a student or fellow peers from learning, then the IEP team needs to address these problems and create a safe environment and positive behavior approach. IDEA also includes 1) conducting an assessment; 2) writing measurable annual goals; 3) providing short-term objectives; 4) providing special education and related services; and 4) creating a practical behavioral intervention plan (IDEA.ed.gov).

### **Creating a Safe and Emergent Environment with ABA**

One way to reduce disciplinary problems is to adopt a discipline strategy that can be applied school wide. Positive Behavior Intervention Support (PBIS) developed into understanding social problems and analyzing behavior (Singer & Wang, 2009). The history of PBIS emerged from applied behavior analysis (ABA). Applied behavior analysis is an extension of the operant conditioning principles by Skinner (Kazdin, 1989). Operant conditioning is based on the relationship between overt events in the environment and changes in behavior. Another practical application of operant conditioning in non-laboratory setting is ABA and everyday situations and settings (Zirpoli & Beuse, 2012, pg. 146,). The basic element of ABA is not about what the individual has communicated or sensed, but the behavior that has been observed and studied within the natural environment. A behavior is clear and evident when it can be implicit and quantifiable in terms of frequency and duration. Factors that effect behavior are antecedents in the environment; antecedents are the stimuli that happen before a behavior, and consequences are events that happen following occurrence of target behavior. Some researchers (Singh, Wahler, Adkins, Myers, & 2003) have used single subject design (SSD) as experimental research for mindfulness studies, that parallels the application of applied behavior analysis (ABA). Single-subject designs (Singh et al., 2007) have been used in studies when assessing the behavior of a single participant or a group

of participants. There are several other ways to assess behavior. Self-reporting after intervention, as part of the study, has been used to report change in behavior (Le & Proulx, 2015).

### **Approaches for Evaluating Behavior**

Assessment in special education is an ongoing, dynamic process. The process consists of ‘observing, gathering, recording and interpreting information’ on students with target behavior (Smith, Polloway, Patton, & Dowdy, 2008). Evaluating students accurately is a teacher’s responsibility. The four core responsibilities of a teacher include 1) understanding assessment information as a consumer; 2) generating assessment by conducting it; 3) serving as communicators of assessments; and then 4) developing instruments to assess education related assignments.

There are formal and informal tests and measurements to determine what skills or knowledge students possess. A developmental-systems assessment (DSA) attempts to differentiate disturbed from non-disturbed learners and their social circles, including families and peer circle (Mash & Hunsley, 2007). A DSA can differ dependent on the child’s age or whether the behavior is internalized and externalized. A DSA behavioral assessment is a five-step model: 1) decide whether a problem exists; 2) determine whether intervention is warranted; 3) perform a functional assessment; 4) develop behavior management intervention; and 5) conduct on-going evaluation (Zirpoli, 2012. p. 209).

The five steps of developmental systems assessment must be organized. The first two steps, when followed carefully, lead to a functional assessment. The purpose of behavioral assessment is to find out student strengths and needs related to their behavior. These steps will help to plan educational interventions and help manage challenges.

Another formal special education process is the functional behavior assessment (FBA) which determines how a behavior functions and why behavior happens in the circumstances of its occurrences. FBA has been defined as “an analysis of the contingencies responsible for behavior” (Malott, Whaley, & Malott, 1997, p. 433). Understanding the function of the behavior helps show that a behavior does not occur in isolation but with antecedents and consequence of a behavior. The situations that occur before and after the episode can be studied to assess any occurrence of a behavior. Students with disruptive behavior always have a purpose to interrupt classroom instruction. If the purpose of the behavior is understood, then several steps can be established to deal with the cause of the behavior. For example, if the reason for disruptive behavior is academic difficulty, then curriculum modification might be an answer to reducing disruptive behavior. Identifying the purpose and consequences of target behavior does help manage classroom instruction (Kauffman & Landrum, 2009). However, disruptive behavior is still prevalent in classrooms with a modified curriculum. Alternative curricula like life skills and daily living curriculum based upon Alabama Alternate Assessment Standards taught in self-contained classrooms have not reduced disruptive behavior (personal observation).

### **Positive Behavior Intervention Support**

PBIS or PBS is a schoolwide process that proactively encourages positive behavior with a multi-tier system. Both RtI and PBIS have proven to be evidence-based practices that U.S Department of Education has approved (Kerr & Nelson, 2009). There is always an advantage while using practices that are supported by scientific research especially when it comes to students who are struggling with behavioral challenges and academic setbacks.

Positive Behavior Support (PBS) is a proactive strategy that is used as a preventative measure to propagate positive behavior. PBS is a collaborative, evidence-based approach to deal with problem behavior. This schoolwide PBS is an evidence-based approach promoting increased safety, decreased discipline problems, and positive school culture. PBS is a three-tiered model where the foundation is designed on a universal prevention platform. The second tier incorporates secondary prevention with students when the primary intervention did not work. The tertiary tier exists for students when secondary preventions failed (Sailor, Dunlap, Sugai, & Horner, 2009).

IDEA 2004 and *No Child Left Behind* (NCLB) of 2001 encourages schools to match services with student need (Sandomierski, Kincaid, & Algozzine, 2007). School wide positive behavior support (SWPBS) and Response to Intervention (RtI) are two initiatives that focus on preventing problem behavior in schools and classrooms. Both national initiatives are based on problem-solving models that offer a range of interventions. RtI practices high quality instruction and interventions that match students' needs.

Individuals with disabilities are at risk of developing serious behavior problems if not treated timely. Early intervention has always been a solution to resolve many problems with individuals with disabilities. Although functional behavior analysis most often assists individuals to communicate, it does not reduce the inner anomaly (Singer & Wang, 2009). An important quality of PBS is that it separates from applied behavior analysis (ABA) in assimilating the cultural context and meanings associated with disruptive behavior (Wang, McCart, & Turnbull, 2007). PBS provides positive alternatives for treating individuals with behavior challenges. For example, McLaughlin and Carr (2005) collected data on how the quality of rapport between staff members and individuals with disabilities can trigger episodes

of behavior and disrupt instruction. Their research provides solutions for creating a positive atmosphere in the classroom. Park, Singer, and Gibson's (2005) research demonstrated how facial expression and affective tone of special education teachers can offset behavioral problems in classroom. There should be a change in power dynamics between individuals that provide special services and the recipient of these services to bring forth a balance between individuals with disability and service provider. Research indicates even with an individualized educational plan, full inclusion is not an option for many (Cook, Semmel, & Gerber, 1999). For example, some individuals with disabilities do not receive personal assistance as required in the classroom, due to limited resources in the school system. When assistance is restricted, and personal choice is not fulfilled, there is a possibility of stress and frustration in these individuals (Doty, Kasper, & Litvak, 1996). Self-determination skill is a key component that needs to be taught to pursue lifetime goals, thus creating a sense of achievement. Both ABA and FBA have been too restrictive in what counts as core data and leaves the researcher to wonder about the social units of behavior.

Research in child development recognizes the impact of family in a child's development. Recognition of importance of family involvement, especially when it comes to children with disabilities is crucial. Behavioral challenges and disabilities can hamper community involvement of individuals with disabilities. Minuchin (1974) discussed family system theory that supports children and highlights community and family participation. Turnbull and Turnbull (2001) also recognized family involvement in community programs and in turn assisted individuals with disabilities. Similarly, PBS brings together individuals with special needs and highlights collaboration between family, community, and school with positivity and prevents antecedents that can trigger episodes of behavior. This social-based intervention immersed in SWPBS

(schoolwide positive behavior support) has helped school administrators and educators to work efficiently in treating behavioral challenges (Dunlap & Fox, 2009).

Both, SWPBS and RtI highlight emergent efforts to support students from failing. The wraparound process (Eber, Hyde, & Suter, 2011) inherent with SWPBS has helped bring community, family, and society together. Similarly, alternative therapies can contribute to RtI and SWPBS. The responsibility of the school systems to develop their own proactive support for positive behavior and SWPBS is one such support. Redirecting behavior of students with special needs with a mind and body therapy is a novel method with a foundation in self-embodiment theory (Cook- Cottone, 2015). This self-embodiment theory has its basis on mindfulness practices.

### **Alternative Salutary Intervention**

#### **Developing Alternatives Despite Preventative Supports**

Self-stimulatory behavior (SSB) and self-injurious behaviors (SIB) are seen as repetitive, frequent behaviors in individuals with pervasive developmental disorders (PDD) (Singh, Lancioni, Manikam, Winton, Singh, Singh, & Singh, 2011). Self-stimulatory and self-injurious behaviors not only cause obstructions in classroom instruction but affect social communication between other individuals in various settings. Functional behavior assessment, applied behavior analysis, and behavior intervention plan have shown progress and have assisted in reducing behavioral challenges. Nevertheless, disruptive behaviors like SSB and SIB persist with preventative positive behavior support (Singh et al., 2011). Conducting ABA to study antecedent behavior and analyzing consequences might result in conducting FBA. Though, episodes of anger coupled with self-injurious behaviors continue to be a huge concern among administrators, general education teachers, and special educators.

## **Statement of the Problem**

The purpose of this study was to implement an alternative intervention that embodies mind with body and increases self-awareness techniques that assists in reducing harmful disruptive behavior with mindfulness-based intervention. Disruptive behavior causes challenges in any setting. Moreover, disruption can lead to aggression, and when not controlled, can change the climate of group homes and schools. Dozens of studies have emerged explaining the effectiveness of mindfulness training for promoting changes in mental state. The most popular and well researched mindfulness training called the mindfulness-based stress reduction helped patients and adults with high stress and anxiety level (Kabat-Zinn, 1990). Mindful meditation develops valuable lessons in promoting self-regulation, self-awareness, empathy, compassion, and other qualities like kindness and gratitude. Combining mindfulness practices with neuroscience research has made it possible to evaluate and confirm the effectiveness of these practices. Experts have used scientific tools, such as brain imaging tools, as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET) to conduct mindfulness research. Numerous studies discuss beneficial effects of mindful meditation in intervening clinical disorders like anxiety (Miller, Fletcher, & Kabat-Zinn, 1995), preventing relapse in depression (Segal et al., 2007), eating disorders (Cook-Cottone, 2015), and substance abuse (Parks, Anderson, & Marlatt, 2001). Research studies have proved how brain circuitry systems are strengthened with mindfulness mediation that increases awareness, attention regulation, and decreases anger arousal. The most widely reported brain area that shows growth with meditation practice is the dorso-lateral prefrontal cortex, the anterior cingulate cortex (ACC), and the insula (Vago & Silbersweig, 2012).

As humans, we are connected to our body system through patterns of cellular networks. Mindfulness practice explores a simple awareness exercise that unravels the profound body systems. Children need other skills besides reading, writing, and arithmetic to deal with life's stressful situations. Mindfulness and yoga are such practices that embody mind, body, senses, and breathing that assist academic skills as well as coping with stress and anxiety (Neiman, 2015).

Unfortunately, many classroom strategies regarding behavior work initially and diminish over time without teacher attention to maintain the effect. Teaching is a highly-pressurized job. Teachers often respond to problem behavior by ignoring it at first, then warning, and finally removing the child from the classroom, or resorting to an office discipline report. Ultimately, school personnel may have the child suspended. These responses do not reduce the problem, but instead escalate the behavior into other forms.

As a teacher, the most important strategy is to enforce a safe, secure environment. This safe environment can be created by a healing space with help of embodied practice like mindfulness meditation. *Pranayama* means the universal life force '*prana*' or life to move freely in and out of our temple (body) with the help of breathing (Neiman, 2015). So, by practicing breathing in and breathing out, one can remove the stress of daily situations and establish it as a daily ritual. One of the benefits of mindfulness is in helping to recognize how to respond to situations. Mindfulness training creates awareness of surroundings and creates a stimulus, a pause to respond positively (Stahl & Goldstien, 2010).

Hence, this mindfulness study is going to evaluate an intervention that will create self-regulation within self and maintain harmony for self and others. Mindfulness is a practice in getting in touch with our surroundings, in a non-judgmental manner, at that moment (Kabat-

Zinn, 2003). According to Singh, Singh, Singh, Singh, and Winton (2007), mindfulness meditation is a gentle art of knowing who we are and helps to reconnect with our “natural state” and “unconditioned self” (p. 5). Mindfulness is a path to self-discovery.

### **Purpose of the Study**

The study was significant in that it is a unique mindfulness research conducted based on a mixed method. This study aimed at evaluating whether a mindfulness curriculum is effective with clients with mild to moderate disabilities at a group home setting. In addition, the study determines whether the students can relate and communicate their experiences to the researcher. The main goal of the mindfulness intervention with at-risk population with disabilities was to improve self-regulation skills which would directly prevent clients from engaging in severe disruptive behavior. Mindfulness-based intervention taught clients to be aware of their feelings and keep a check on emotional arousal and control anger, as well as verbal and physical aggression. Students with disabilities experience stress with academic work and communication skills in classrooms. Students also became aware of triggers that can keep a check on negative emotion that can work against an individual.

This research study analyzed, determined, and developed a sustainable mindfulness-based intervention (MBI) aimed at decreasing disruptive behavior in students with disabilities. The remedy to disruptive behavior may be a simple and direct practice of moment to moment observation of the mind-body process called mindfulness intervention. Several studies have demonstrated that practicing mindfulness causes healthy changes. By being aware of the thinking patterns and destructive emotions, mindfulness can play a crucial role in improving psychological and physical well-being.

## **Research Question**

The main question that structured this Mindfulness Based Intervention (MBI) study was how does mindfulness intervention use *MindfulSchools Curriculum for Adolescents* affect clientele in a group home setting (Mindfulschools.org, 2015)? To make the study comprehensible, it is important to define the certain aspects of the study to conduct analysis and operationalize the meaning of the phrase or word.

## **Definition of Terms**

*Mindfulness*: Mindfulness is defined as an awareness developed on purpose, of the present moment, non-judgmentally in a persistent and specific manner (Kabat-Zinn, 2012). Mindfulness is achieved with meditation by focusing on breathing. Mindfulness technique was observed by the researcher when the participant engaged in the lesson, joining other participants in breathing exercise by inhaling and exhaling and following guided imagery.

*Breathing*: Breathing is observed while inhaling or exhaling, for example, breathing out with your nostrils. In mindfulness, breathing is a process of systematically regulating one's breathing while taking in air as in-breath. Alternately, exhaling is giving it back to the world, or breathing out as an out-breath (Kabat-Zinn, 2012). Breathing was observed by the researcher when participants are instructed to breathe in and out.

*Compassion*: Compassion for others is a continuum between self and others based on mutual giving from the heart. The MindfulSchools Curriculum (2016) explains compassion as an emotion that comes from being kind and having a generous heart. Lessons in compassion will be taught by giving examples from daily activities showing kindness and generosity to family members, peers, and other associated people at school and out of school settings. Participants

were asked during reflection to share instances of being compassionate with people the students have interacted.

*Guided Imagery:* Imagery is a technique when the right brain engages the emotions, senses and thoughts (Neiman, 2015). Guided imagery is exploring feelings, sounds, smells, and taste by another person while speaking and suggesting images of these thoughts or feelings and engaging in one's senses or emotions. Imagery has proven to be very relaxing. Clients (participants) in the study were guided through lessons in imagery and asked to reflect on sights or feelings that make them happy, sad, or frightened.

*Reflection:* Reflection is defined as reproducing one's thoughts, feelings, and emotions with a trainer or therapist. The study had a lot of instances of reflection during instruction. Participants were asked to discuss how they felt about breathing exercises and relate it to the researcher. Participants were also asked to discuss different aspects of the lesson.

*Dysregulation:* Dysregulation is a sign of struggle, a process where an individual is not attuned to or not connected with self, and between an individual's inner mechanisms of self-regulation and restriction (Cook-Cottone, 2015). The individual may also not be connected or attuned to external context like family, community, and culture. Dysregulation is a sign of "a miss in our inner mechanism of control and restraint everywhere" (p. 10). Dysregulation occurs when a person is addicted to substance abuse, food, or is unable to regulate spending habits. Dysregulation is also seen in emotions and management skills. A client is not regulated when he or she is not able to complete work on time. A client may be unable to focus or control emotions, leading to altercations with others. Data of episodes of dysregulation were entered in field notes when the participant reflects on the above aspects.

*Embodied Self-regulation:* Embodied self-regulation is the internal ability to self-regulate with one's mind and body, which helps to attain self-mastery and lead a balanced and sustainable life (Cook-Cottone, 2015). To accomplish self-regulation skills, the person is able to have control over managing a job, emotions, and focusing on their task. Participants showed self-regulation by controlling their focus on completing a task. Students were attentive in the classroom or other setting and follow instructions given by any adults. Clients had control over their emotions and will not yell, scream or harm others by hitting or kicking when angry and upset. Attaining self-regulation skills were noted when participants were interviewed. Data was collected from participants (clients) in the form of self-reports after completing training.

*Disruptive behavior:* Disruptive behavior is when an individual is uncooperative and prevents self and others in the setting from working (Yell, 2009). A disruptive child also manages to gain an adult's attention and prevents the adult from giving attention to other children in the setting. Students display disruptive behavior by making unwelcome sounds, tapping relentlessly, screaming, yelling, hitting self and others, or asking questions that have no relevance for that moment of time. Participants were interviewed on episodes of disruptive behavior and changes in disruptive behavior after mindfulness intervention at the group home setting.

*Clients:* Clients are residents of the group home where the study was conducted. Clients are also the participants in the study. Clients are adolescent boys who received training in mindfulness techniques.

*Mentors:* Mentors are adult caregivers who worked with the clients in the group home and were part of the study. The mentors worked very closely with the clients. Mentors were also

involved in counseling sessions with the clients. Mentors were not counselors. They were involved in group counseling when all the clients had a joint session.

*Researcher:* The researcher is also the primary investigator and inquirer of the study. The researcher conducted the four mindfulness lessons and trained the clients in mindfulness techniques. The researcher also interviewed the clients and mentors.

### **Summary**

It is observed with increasing prevalence that disruption and aggression cause hindrance in classroom instruction. Individuals at risk and with disabilities undergo anger, stress, anxiety, and emotional or behavioral challenges (Smith et al., 2008) every day. Unrepressed anger is exhibited as verbal and physical aggression (Singh et al., 2011). Aggression in any form changes the climate of classrooms. Aggressive behavior was not only reported by researchers, but classroom teachers have reported violent behavioral challenges in classrooms that have caused disruption and distraction during instructional times. Youth aggression is not only a burden to school administrators and staff; it is a community health hazard and is a leading cause of death in major cities (Centers for Disease Control and Prevention, 2013). Hence, this specific mindfulness training study will find techniques to calm down participants and redirect thoughts, feelings, and action that will prevent disruptive behavior.

Integrating mindfulness technique into education has been encouraged by some U.S politicians (Bendery, 2014). Tim Ryan, a congressman from Ohio, serves on school advisory boards in the state of Ohio and has recommended mindfulness intervention to be integrated in all school systems throughout the country. University researchers have been evaluating mindfulness programs in classrooms and have highlighted the benefits of implementing mindfulness techniques in their school districts.

This chapter has provided an overview of mindfulness research that evaluates how getting trained in mindfulness theory assists participants in regulating thoughts, emotions and actions in everyday situations. The chapter also discussed interventions used in the past to address lowering of stress and anxiety in children and adults. Some research studies in mindfulness have addressed lowering of aggression when children practiced mindfulness at least three times a week. Chapter I also delves into how mindfulness practice has progressed over time. This research will hopefully provide an effective mind and body practice that can be used in a variety of classrooms. The use of mindfulness-based intervention with adolescents with disabilities in this manner has not been extensively researched. The desire was to extend the research of mindfulness as a unique study using mixed method study with an embedded design. Chapter I also made a comparison with past studies conducted with individuals with disabilities in the past and discussed the effect of mindfulness on them. Mindful inquiry with individuals who displayed behavioral challenges and effects of mindfulness were reviewed. The next chapter II provides a review of the literature that has guided this research project.

## CHAPTER II: LITERATURE REVIEW

The main intent of the study was to investigate how implementing a specific mindfulness-based intervention for youth with mental illness, and mild to moderate disabilities (ADHD, ODD) might aid in improving attentive ability and self-regulation skills, and may decrease disruptive behavior in different settings like group home, classrooms, etc.

### **Introduction**

Fifteen years ago, mindfulness was an unknown field to students, teachers, and professionals in education. Mindfulness was originally engaged as a therapy for patients in health and therapy clinics, which assisted individuals in reducing stress and anxiety (Kabat-Zinn, 1997). After a decade of intense neuro-biological research of mindfulness on cancer patients, monks, and most recently in classrooms, researchers have anticipated imminent benefits to children with dysregulation. With researchers' support, it has been proved that mindfulness practice improves the well-being of teachers and students in the classroom (Rechtschaffen, 2014).

Since 2005, a surge of innovative curricula has occurred in yoga and mindful meditation. Curricula like *Radiant Child Yoga* ([www.childrensyoga.com](http://www.childrensyoga.com)), *Yoga Ed* ([www.yogaed.com](http://www.yogaed.com)), *Transformative Life Skills* ([www.niroga.org](http://www.niroga.org)), or *MindfulSchools K-5; 6-12 curriculum* ([www.mindfulschools.org](http://www.mindfulschools.org)) have been implemented. These curricula have proven to be evidence-based practice (EBP) in school systems. School districts in California and New York have implemented mindfulness curriculum to improve school outcomes. More school districts are becoming aware of these alternate prevention programs to avert violence and propagate safe

schools (Frank, Bose, & Schrobenauser, 2014). The curriculum, *Transformative Life Skills*, (Frank, Bose, & Schrobenauser, 2014) is one such curriculum implemented at intercity schools in Oakland, California, that has decreased violence among teenagers. *Meditation on the Soles of the Feet for Anger Management Trainer's Manual* (Singh, Singh, Singh, Singh, & Winton, 2011) has been used to reduce anger, aggression, and violent behavior among adults with mental illness (Singh et al., 2007) as well as adolescents (Singh et al., 2011).

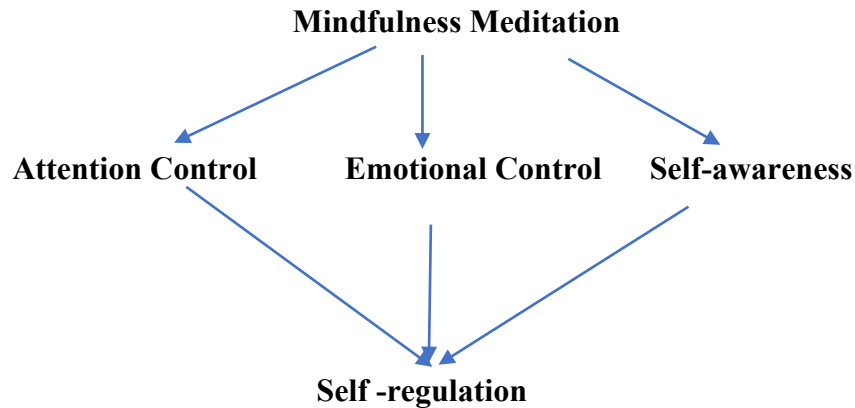
This chapter will address the key points regarding mindfulness and its impact on students. Three theoretical perspectives will be discussed that will bring clarity to how mindfulness techniques work. This chapter will analyze relationships between an individual and embodied practice of mind and body technique, which brings about self-care, self-awareness and self-regulation that controls events affecting their lives. This literature review will elaborate on mindfulness and attention, mindfulness and self-regulation, and mindfulness and self-awareness. It will touch on various mindfulness studies conducted within school systems.

Moreover, certain terms used in mindfulness literature will be discussed that will bring clarity to the subject of mindfulness. All relevant texts and articles pertaining to mindfulness literature will be made available in the glossary and references. A clear distinction will be made to avoid any religious connotation between mindfulness and meditation.

### **Theoretical Perspective**

Leading researchers of neuroscience (Fox, Nijeboer, Dixon, Floman, Ellamil, Rumak, Sedlmeier, & Christoff, 2014; Siegel, 2007) have proposed how mindfulness meditation improves attention control, emotional regulation, and self-awareness, which improve self-regulation skills (see Figure 1). Mindful meditation and yoga are linked to the larger prototype, the Attuned Representation Model of Self (ARMS: Cook-Cottone, 2006). ARMS will be

discussed in detail in this chapter. The connection between ARMS and Bandura’s social learning theory is made in this chapter. ARMS demonstrate how an individual is tied to internal self and external self, which controls self-regulation and self-embodiment, forming a crucial link to the theoretical framework of mindfulness practice.



*Figure 1.* Components of mindfulness

### **Self-regulation**

Self-regulation begins with goal-directed activities. Learning and gathering knowledge on self-regulation skills is based on how to manage thoughts, feelings, and control of emotions.

Karoly (1993) explained three factors to describe self-regulation: 1) self-regulation is an internal process that allows people to follow and accomplish goal-directed activities; 2) self-regulation is managing thoughts, touch, behavior and focus intentionally by using specific instruments and accommodating skills; and 3) self-regulation skills are normally introduced to children when there is hindrance in normal activities or some work impacts goal directedness. Hence, self-regulation is composed of 1) deciding on goals; 2) perception of goals; 3) maintenance of right path and; 4) knowing when to dismiss goals.

From observation, clinical practice, and research, it is known that when embodied sense of self is lost, then one faces trouble with self-regulation (Cook-Cottone, 2015). To be effective in life's duties, every individual must have an effective embodied self that can be attained with self-regulation.

Self-regulation is an important component of school readiness. Research says that children in kindergarten do not attain self-regulation skills until effortful control (EC) and executive function (EF) is well developed (Razza, Bergen-Cico, & Raymond, 2015). Both EC and EF are developed in the pre-frontal cortex of the brain. In a four-year old the pre-frontal cortex is not completely developed, and hence these skills need to be taught to a kindergartener (Zelazo & Lyons, 2012). Similarly, individuals who experience a lot of stress, anxiety, and illness have a dysregulated pre-frontal cortex (PFC). EC and EF factors are reduced for these individuals because the PFC is not performing its function. Hence, these individuals cannot perform goal-directed tasks (Siegel, 2007). Students with disabilities like ADHD, autism, and intellectual disabilities have lower self-regulation skills as the pre-frontal cortex is not able to plan, organize, or pay attention, due to lack of EC and EF (Razza, Bergen-Cico, & Raymond, 2015).

Stress and depression are clearly linked to dysregulated self. Exposure to chronic stress has a cumulative effect on the body, which is referred to as allostatic load (AL) (Kinsler, Goehler, & Taylor, 2012). The body has its own mechanism to deal with stress when the brain activates a neurobiological stress management reaction. However, when stress becomes chronic, the neurobiological mechanisms become dysregulated. Hence, both mental and physical health deteriorates. Some individuals who are prone to anxiety and depressive disorders have lowered dopamine and serotonin levels in the pre-frontal cortex. Due to the lowering of these chemicals

in the brain, these individuals are not able to lead a healthy, regulated life. Emotions are dysregulated; hence they appear overwhelmed and emotionally chaotic (Kinser, Goehler, & Taylor, 2012).

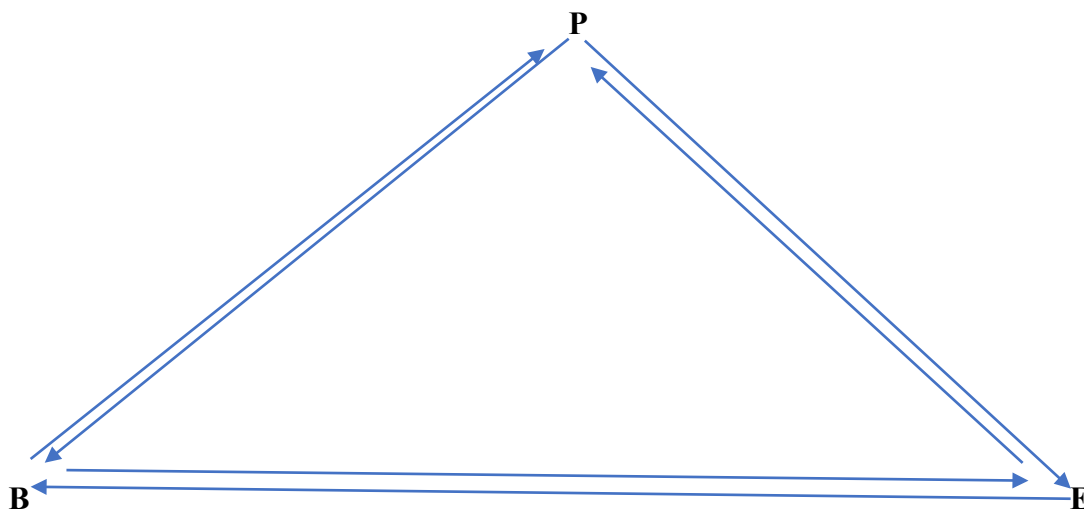
One way to support functions like EC and EF in the pre-frontal cortex is by integrating activities like mindfulness and yoga (Kabat-Zinn, 1997; Siegel, 2007). Some aspects of a healthy, functioning, and regulating well-being include 1) regulation of body: coordination, balance, alertness, and energy; 2) self-awareness: sense of ourselves, building positive social connections; 3) emotional regulation: emotional experience is appropriately activated; and 4) fear modulation: ability to calm and soothe (Siegel, 2007).

### **Bandura's Social Learning Theory**

Bandura's theory in self-regulation hypothesized that people observe their own behavior, judge it against their own standards, and reinforce or punish themselves (Bandura, 2006). Mindful yoga and meditation also help cultivate an alignment of mindful practice and mental health that concentrates on self, mindful practices crave and thrive on integration of self as occurring at that moment (internally and externally). This awareness helps cultivate a better being. According to Bandura's social cognitive theory, a human operates within a "triadic reciprocal causation" (Bandura 1986a, p. 6.). Bandura explains how an individual's relationship with self and society interact with internal personal factors like cognition, affect, and behavior relating with environmental events. All interacting factors between the individual and society have bi-directional influence with each other.

Bandura's (1986) triadic structure has three determinants that influence behavior in an individual (see Figure 2). P stands for internal personal factors in form of biological vents, cognition, and affective factors; B refers to behavior, and E represents external environment. The

three triadic points are not equal and influence each other based on different events and under different circumstances. It takes time for a causal factor to exert its influence. Changes are bound to happen, which is one important insight of mindfulness. Life has its ups and downs (Greenland, 2015). If an individual is aware of life's changes, it is easier to get through daily activities. Sometimes, the pursuit of life is harder in childhood. Solutions to childhood problems do not come easy. People do not live in isolation; when they work together it produces positive effects. A full understanding requires an integrated causal perspective in which social influences operate through self-processes that produce actions. Thus, the theory of triadic reciprocal causation with its socio-structural and personal factors interacts together as integrated causal framework.



*Figure 2.* Bandura's social learning theory

*Note.* Connection between the three-human agency in *Triadic Reciprocal Causation* (Bandura, 1986a, p. 6). P- internal personal factors (affective, cognitive, biological); E- external environment (community, home, and work place); B (behavior).

### **Bronfenbrenner's Ecological Theory**

Bronfenbrenner's ecological theory and Bandura's triadic reciprocal causation theory have some parallels. Both theories revolve around personal factors, external setting leading to

changes in behavior. Bronfenbrenner's theory (Bronfenbrenner, 1999) emphasizes a bio-ecological approach that draws its conclusion from many factors influencing the development of a child. The *microsystem* is the center of the structure, which in this case is the child. The child is connected to school, family, peers, day-care, neighborhood, family, church, and doctor to form the *mesosystem*. There is an enormous amount of influence of family and home on a child. The mesosystem binds children to parents. This extends to the next level which is the *exo-system* comprised of extended family, neighbors, friends of family, community health services, mass media, and school board. The *exo-system* affects development directly and through influence on families. The outer circle consists of the *macro-system* that consists of the laws and customs of the society and culture. This includes cultural and religious values. Changes occur within the ecological circle that influences a child. Influences like divorce, job loss, changes in church, community and school may change behavior in a child.

Human abilities are manifested in different forms. The self-efficacy theory (Bandura, 1986) accepts diversity in human capabilities. Efficacy beliefs fall back on exercise of self-control and self-regulation. This regulation is based on other factors like motivation, affective traits, and physiological state of mind. A perceived self-efficacy is concerned with what you believe you can do under a variety of circumstances with the skills acquired (Schwartz & Gottman, 1976). Children who regard themselves as able and skillful are more successful than those who make poor use of their abilities (Bandura & Jourden, 1991). Effective control (EC) and executive functioning (EF) require improvisation of multiple sub skills to manage ever-changing, unpredictable, and often-stressful elements in life. Mindful awareness training for children who are anxious (and stressed) helps them react to stressful situations by being aware and finding a solution (Greenland, 2013) instead of being "zoned out" (p. 31).

## **Philosophy**

In Buddhist philosophy stress and struggle in life is understood as suffering. The philosophical truth centers around how life's suffering is viewed and how one responds to it. Just a shift of perspective gives the key to happiness. The final insight here into Buddhist philosophy is achieving happiness (*Nirvana*) (Rosenberg, 1998). Every individual has a right to happiness; hence suffering is inevitable and individuals who practice mindfulness regularly will have the knowledge and control over the struggles. The final insight of Buddhist meditation is that happiness is within reach when suffering ends. It is mindfulness meditation that creates this happiness with self-embodiment. Hence, if students who struggle on regular basis practice mindfulness techniques, they will learn skills to control emotional outburst, aggressive behavior, and non-compliance to help them focus (Greenland, 2013).

### **Attuned Representational Model of Self: Embodied Self-regulation**

Attuned Representational Model of Self (ARMS) (Cook-Cottone, 2015, ARMS, see Figure 3) is clearly distinct from cognitive approaches to self-regulation. Embodied self-regulation begins with a lived experience in the physical entity of body as a container that is made of *self* (Cook-Cottone, 2015). ARMS model embraces an individual's journey of self-regulation, which is to reach the goal of embracing the final path to truth-happiness. The ultimate journey to truth and happiness (*Nirvana*) is led by mindfulness meditation (Rosenberg, 1998).

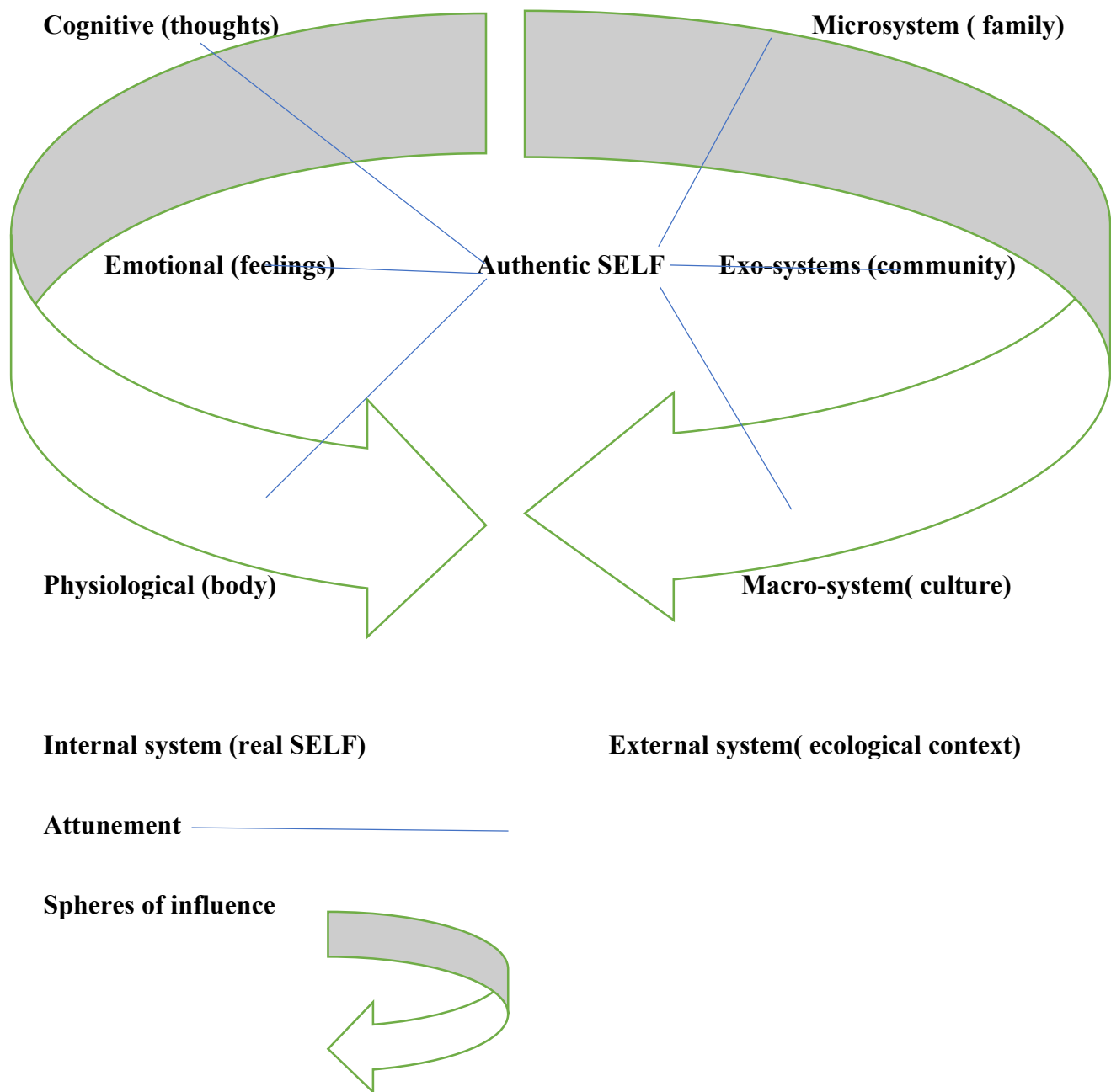


Figure 3. Attuned Representational Model of Self (ARMS)

People are diverse and differ in the manner they process information and control emotions in their social world. At the best physical shape, human beings are made of external and internal selves. ARMS is a comprehensive model that addresses cultural, community, and

familial influences on individual development and individual behavior (Cook-Cottone, 2006). From a unified entity that is *self*, an individual is mindful of the effect choices will have on people that the individual cares for as well as the society within which the individual lives. It is important to cultivate an integrated and embodied self of cultural and social values to balance the internal and external system that the individual is connected. This balance or attunement between inner self (emotions, thoughts, and physiological needs) and outer *self* (micro system, exo-system, and macro-system) is embodied within the *authentic self*, which falls within context of love, support, and challenge. Regulating the *authentic self* is important in discovering balance or equanimity between inner or outer self to find happiness.

Hence ARMS is an all-inclusive model that addresses the ecological context, comprised of *microsystem* (family), the *exo-system* (community) and *microsystem* (culture) of an individual. It (ARMS) also links the authentic self with internalizing components of *real self* that contains *cognitive self* (thoughts), *emotional self* (feelings), and *physiological self* (body). A balance between *real self* and ecological context brings a regulated *authentic self*, which is the representation of *self*. For *self* to be mentally and physically healthy (happiness), there should be a balance between internal systems (real self) and external systems (ecological context) (Cook-Cottone, 2015).

To be embodied with *self* allows one to be self-regulated, which would lead to having self-control and awareness. Embodiment is to give a tangible form to something. Embodiment helps individuals to be in action, eventually to attunement and healthy self. Some individuals are not resistant or protected from dysregulated behaviors. Dysregulated behaviors are habits like substance use, excessive eating, any kind of addiction, and violent behavior, which are adopted to overcome inner struggles. Individuals struggle with critical elements when there is an

imbalance or struggle between physiological needs, emotions, and thoughts. This could be due to job changes, relationship with partner, or changes and challenges both in school and home for children, resulting in allostatic overload which leads to dysregulated functions in PFC (Kinser et al, 2012; Siegel, 2007). Mindfulness practice helps to bring the balance, the equanimity within. This balance is the attunement of authentic self with external and internal systems (dysregulated self).

### **Mindfulness Practices**

Mindfulness practitioners, Dalai Lama (2004), Thich Nhat Hahn (2012), and Mahatma Gandhi, a spiritual leader from India, (Rechtschaffen, 2014) discuss how there should be a complete harmony or balance between speech and action. To be in harmony with embodied-self, there should be equanimity or balance between authentic selves.

Embodiment and embodied practices like mindful yoga and mindful meditation are critical elements in the development of a healthy self. Mindfulness and yoga are two pathways to embody well-being (Cook-Cottone, 2015). A non-embodied self develops into a dysregulated struggle between real self, ecological context, and representation of self. Dysregulation may be corrected with mindfulness and yoga. Both are powerful tools that can be taught to children. Mind and body therapy, when taught to children, will help them to connect to their bodies, understand their personal strength, deal with life's challenges in a better fashion, and build stronger social connections. Mindful meditation has showed positive results with children with autism (Singh et al., 2011). Mindful meditation helps improve empathy and calm nature and forms a connection and awareness of immune strengthening. The results were not studied neuroscientifically, but anecdotes from children with autism have been reported. The participants who are autistic have practiced meditation in schools and have relayed promoting self- awareness, the

first step to self-regulation. Understanding the origin of mindfulness, what mindfulness is composed of, and the chief proponents of mindfulness is central to the literature of mindfulness intervention.

## **History**

Mindfulness practices have been carried on for centuries. The practices do not belong to a sect, religion, or region. Although mindful meditation is linked to Buddhism and Asia (Stahl & Goldstein, 2010), people of ancient civilizations have carried out mindfulness practices throughout history, as evidenced by buried monuments. Mindfulness was practiced in Middle Eastern countries where the birth of three religions (Judaism, Christianity & Islam) evolved, but eventually disappeared from non-practice (Brown, Ryan, & Creswell, 2007).

Many Asian religious observances have an affinity with meditation, which is the center of mindfulness practice. Hindu saints and Buddhist monks meditated to be aware of their worldly experiences that awakened their inner world of thinking. This essence of meditation that was an Eastern concept is now a universal technique that has deep practical benefits to all who practice regularly (Cullen, 2011). The conjunction of mind and body with breath brings awareness. This awareness that is achieved with meditation is focused on breath. Self-awareness is enhanced when focusing on sensation of mind and body while breathing.

## **Definition**

Mindfulness has different meanings based on how it is applied. Mindfulness can be considered a state of mind, an individual trait, or could be considered a personal practice. One can have a moment of mindfulness (state of mind) or be sensitive to surroundings (personal trait) or intentionally practice mindfulness formally or informally. According to Jon-Kabat Zinn, (1994) “mindfulness is the awareness that emerges through paying attention on purpose, in the

present moment, and non-judgmentally to the unfolding of experience moment by moment” (p. 4). The quality of attention is more important than the object of attention (MindfulSchools, 2015). Mindfulness techniques go a long way toward our well-being. It is an internal embodying technique to understand what brings happiness and what triggers stress and dissatisfaction. Paying attention to experiences in our surroundings and within us leads to a self-regulated path of life.

### **Components of Mindfulness**

There are two facets of mindfulness: present-time awareness and equanimity. A fine balance between awareness and equanimity generates a positive effect in life. Awareness is paying attention on purpose to the present moment, without making any judgment of the happening, in such a manner that living depends on paying detailed attention (Jon Kabat-Zinn, 2012). Equanimity is a state of mental stability and calm mental composure during events of emotional dysregulation (MindfulSchools, 2015).

Equanimity is derived from the Latin word *aequanimitas*, which means having an even or balanced mind in a healthy body (Brensilver, 2015). This can be achieved by practicing mindfulness and meditation. This virtue of equanimity is extolled in many religions and philosophies. Present time awareness leads to alertness, paying attention to the surroundings, clarity, and stability of mind. Equanimity leads to easing and calming of the mind, momentary acceptance of the present state, and non-compulsion of action. The model of *How Mindfulness Works* by Brensilver discusses the effect of mindfulness meditation on attention control, emotional regulation, and self-awareness; these three, in turn, work on self-regulation of an individual (Mindfulschools.org, 2015). It is important to discuss some of the proponents of mindfulness and their work on mindfulness.

## **Proponents of Mindfulness Practice**

Seigel, Kabat-Zinn, Rosenberg, and Hanh are big supporters and proponents of mindfulness practice. Kabat-Zinn's (1997) belief is that mindfulness is being completely mindful and aware of whatever is happening in the present moment, without forming judgment of any situation or individuals. Walpola Rahula (1974) said mindfulness is simply observing, watching, and examining self in relationship with self and others. It is a way of learning how to relate directly to one's life. Meditation, in general, is the process of seeing our mind and learning to hold it. Surprisingly, it is much more popular in the West than in the East (Centre for Mindfulness Research and Practice, 2015). One of the people who inspired the early practice of Buddhism in the West was Thich Nhat Hanh. Hanh, a Vietnamese monk and peace activist, who practices mindfulness (mindful step & mindful breath) tried bringing harmony and calmness among practitioners. Mindfulness is a step closer to establishing peace in the world (Hanh, 2012). By creating a collective consciousness (Stahl & Goldstein, 2010) among individuals (individual consciousness) in the world, it is transformed to collective consciousness and ultimate harmony among people. Rosenberg (1998), master of *Anapanasati sutra*, compares mindfulness to a mirror, which reflects what is there in the present moment. According to him, mindfulness is not biased, and it does not judge; it reproduces the truth. Mindfulness is a form of participation by being awake and aware of life.

Mindfulness technique is a better way to improve learning process in students who struggle in the classroom. Since the late 1900s, large amounts of research have been carried out to understand the benefits in dealing with depression, substance abuse, pain, and illness. However, it was Jon Kabat-Zinn who placed a scientific lens on Buddhist mindfulness and studied it at the Stress Reduction Clinic at the University of Massachusetts Medical School

(Centre for Mindfulness Research and Practice, 2015). Kabat-Zinn, the founder of mindfulness-based stress reduction (MBSR) at the University of Massachusetts Medical School, was the first to bring meditation and mindfulness to the mainstream world. Kabat-Zinn (Seigel, 2007) introduced mindfulness into medicine in 1979 and has impacted the fields of medicine, military, psychotherapy, and most recently education. MBSR was developed at the University of Massachusetts Medical Center to help lower stress and pain from cancer treatment and other illnesses. Herbert Benson pioneered in the field of mind-body medicine and founded the mind-body center at the University of Massachusetts. According to Benson (1976), some people, especially individuals who are prone to mental illness, are ill-equipped to handle stress in life and are prescribed prescriptions like tranquilizers. His Mind-Body Center in conjunction with Kabat-Zinn's MBSR Program is an alternative way to cope with stress and anxiety.

Daniel Siegel's work on brain and neuro-biology opened a new chapter in neuro-science, psychology, and education. Siegel (2007), a scientist, psychiatrist, educator, and mental health researcher has explored mind-body practices to discover groundbreaking approaches in mindfulness. Siegel coined the term mindful awareness practices (MAPs) for similar applications like mindfulness meditation, yoga, and Tai Chi, which focus the mind in very specific moment-to-moment experiences. In all these practices, there is an initial use of breath as a focal point that centers on the mind's attention. Siegel made a very important observation that mindfulness consists of self-regulation of attention and a certain orientation to experience with observation, reflection, and self-awareness. Siegel concluded that awareness of awareness could be considered a form of reflection. Siegel invented an acronym called COAL that stands for curiosity, openness, acceptance, and love. Based on this reflective COAL mindful approach, also called "discernment," it is possible to be aware of your thoughts in the totality of the person you

are (Siegel,2007). Discernment also assists in providing the wisdom to interact with others using compassion and thoughtfulness. Discernment with mindfulness resulted in the therapeutic approach of psychotherapy (Mindfulness-based cognitive therapy) that prevents relapse in chronic depression. Patients with chronic depression, post-traumatic stress disorder (PTSD), and anxiety have gained tremendous benefits using mindfulness therapy. Mindfulness has improved the lives of people dealing with medical and psychological problems (Stahl & Goldstein, 2010).

### **Mindfulness and Neuroscience of Brain**

To have a clear working understanding of mindfulness, one needs to know the structure of the brain. The brain is a complex organ that is composed of cerebrum, cerebellum, and brain stem. The complicated neural path connects different parts of the brain to the brain stem that in turn connects to the spinal cord. The cerebrum is made of a right and left hemisphere and has important functions like vision, hearing, smell, speech, emotions and emotional regulation, learning, fine control of movement, and interpreting touch. The surface of the cerebrum has folds called cortex that are made of neurons or nerve cells. The cerebellum is located under the cerebrum and has a crucial function to coordinate muscle movements, posture, and balance. The brainstem is comprised of the midbrain, pons, and medulla. It functions as a relay center connecting the cerebrum and cerebellum to the spinal cord. The brainstem also performs automatic function like breathing, heart rate, maintaining body temperature, among others. Ten of the 12 cranial nerves start in the brain stem (Siegel, 2007). Other important areas of brain associated with mindfulness techniques are 1) the prefrontal cortex, which includes the orbitofrontal cortex (the side area of the prefrontal region is important for facilitating working memory and carries out important executive functions that enable self-regulation of our behaviors and influences attention flow); 2) the corpus colosseum, which connects the two

halves of the brain to each other; 3) the hippocampus, which is an important part of limbic region including the sub-cortical region and is crucial to long-term memory; and 4) the amygdala, which is an important structure in limbic region that is important for processing emotion and a fundamental part of implicit memory.

It is a unifying theory that stress, and anxiety cause an increase in the brain's allostatic load (Streeter, Gebarg, Saper, Ciraulo, & Brown, 2012). Stress induces an imbalance of the autonomic nervous system (ANS) with decreased parasympathetic nervous system (PNS) increased sympathetic nervous system (SNS) activity, lower gamma amino-butyric acid (GABA), and higher allostatic load. Chronic stress results in a prolonged increase in glucocorticoid levels in the hippocampus region. Stress is also associated with reduced GABA levels in the Hippocampal region of prefrontal cortex, inducing depression. Mind and body therapy, like mindful yoga and mindful meditation, has been shown to increase GABA levels and cortisol levels. Mindfulness practices showed increased cortisol and GABA levels, proving that this is a sound alternative technique for individuals with depression and other mental illnesses.

Various studies were conducted that addressed change in the brain's plasticity due to mindful meditation. One such study used eight monks that His Holiness Dalai Lama recruited for participation in scientific experiment at Madison, Wisconsin, under Richard Davidson's study (Davidson, 2005). Davidson, a neuroscientist at the University of Wisconsin, revealed Buddhist monks, who practiced mental training with mindful meditation in a disciplined practice, could change the inner circuits of the brain and increase awareness. Davidson's research affirmed that there was a high level of brain activity in the pre-frontal cortex that is associated with happiness, positive thoughts, and emotions. With a functional Magnetic Resonance Imaging (fMRI) technique, Davidson proved brain plasticity was a process that occurs with meditative practice.

Neuroplasticity occurs with any kind of training or exercise to the brain. Mindful meditation is one disciplined training that creates new neurons in the brain (Davidson & Lutz, 2008).

Josipovic, a neuroscientist at New York University, conducted brain study on 21 Buddhist monks, who meditated for 21 days, and found significant change in brain structure. Josipovic (2010) studied fMRI images of the brains of monks who underwent meditation practice for hours. He discussed his interpretation of changes in monks' brains and how mindful meditation leads to emotional balance and equanimity between self and the surroundings (2010). Elkman (2004) mentioned that individuals who mindfully meditate could recognize change in emotions in self and others. They are subtle about it and are aware of their surroundings. Individuals who meditate can withstand changes and can handle new experiences better than those who don't meditate.

Today's children, however, face a lot of pressure in the school setting. Their attention spans are deteriorating, increases in stressful conditions are occurring in classrooms, and increased emotional dysregulation has been observed among children (Rechtschaffen, 2014). Youth are inundated with information from various social media, mindfulness training will assist them to focus and control this challenge. Teachers are looking for alternate methods to increase class performance. Understanding the needs of children is very crucial to reducing episodes of emotional disturbance and disruptive behavior in classrooms.

In 2011-12, MindfulSchools partnered with the University of California, Davis conducted one of the largest randomized-controlled studies on mindfulness and children (Fernando, 2010). The study involved 937 children and 47 teachers in three Oakland public elementary schools. The MindfulSchools Curriculum (which is taught to educators called *Mindful Educator Essentials Course*) produced statistically significant improvements in paying attention and

participation in class activities. The study compared the control group with an experimental group receiving just four hours of mindfulness instruction for the students – a very small, low-cost dose.

### **Mindfulness, Mindful Meditation, and Mindful Yoga**

This research study was solely a mindfulness study with no aspect of yoga practice other than mindful meditation. Although the literature review discusses research in yoga practices in students with behavioral issues, mindfulness is the only process that is implemented in this dissertation study.

Many times, the terms mindfulness, mindful meditation, and mindful yoga, are co-mingled and used for mind and body therapeutic techniques. Although they are different processes, the results at the end are very similar. The three benefits from practicing mindfulness are awareness, attentiveness, and emotional control. Awareness is being alert and responding positively; being attentive or being focused is paying attention; and regulating and controlling emotions during challenging situation is being mindful or practicing mindfulness. Therefore, being alert, focused, and controlling emotion leads to self-regulating.

Mindful meditation is when one practices breathing and is totally focused on breath, also called mindful breathing. Mindful yoga is being attentive or focused while practicing yoga. Yoga is composed of innumerable physical postures, imagery, and breathing techniques. All three components are part of yoga. Mindfulness (and yoga) when practiced regularly and intensively can be adopted as a trait. Adopting a mindfulness trait will eventually happen with regular practice, which results in adopting a mindfulness state.

A research study based on yoga is referenced in the literature; yoga and mindfulness meditation adopt the same procedures. However, yoga is different for its many poses, which is

not a part of mindful meditation. All yoga practices have a component of breathing exercise, which is being in a meditative state.

All three, mindfulness intervention, mindful meditation, and mindful yoga, are popular mind and body therapy techniques. Being mindful and being acutely aware can allow one to enter an ‘autopilot’ state of alertness. Practicing mindfulness is an old idea that comes to life with total commitment. There is not much research on sustainability and mindfulness; however, it is believed that with more mindfulness practice, the mindful trait is inherited that fulfills the desire to be content. Hence, having the participants talk about their experience would determine the use of benefits of mindfulness techniques. Proponents of mindfulness believe that the mind and body therapy do help the present day needs and adapt to unexpected changes in a sustainable way. Being focused and being aware are two skills that we learn from regular mindfulness practice that help to see the world and our place in it clearly. Mindfulness is the operating system that supports that view. The point of being mindful is to help respond and harmonize any change with the worldly system that supports us.

### **At-risk Students and Chronic Stress**

Environmental stress, academic challenges in school, and social pressures are some factors that trigger emotional upheaval in children and teenagers. Stress causes behavioral challenges in individuals in any setting. Hence, enhancing cognitive and social-emotional development through a simple school administered program may be an effective way to implement social-emotional competence (Schonert-Reichl, Oberle, Lawlor, Abbott, & Thomson, 2015).

In many school systems, alternative school programs seem to be the answer to handle discipline in children with disruptive behavior (WestEd, 2008). Public school systems in

Alabama (personal experience) and other states (Frank Bose & Schrobenhauser-Clonan, 2014) place students who disrupt classroom instruction in alternate school settings, which are also called *In-School Suspension*. Alternative schools also serve students who are suspended, expelled, or exhibit disruptive behavior (Lehr, Tan, & Ysseldyke, 2009). Some students who are placed in alternative schools represent youth at risk (Frank, Bose & Schrobenhauser-Clonan, 2014).

Research discusses that students at-risk are prone to drug-related crime, engaging in violence, sexual promiscuity, deviant gang-related behavior, and substance abuse. These teenagers from minority ethnic groups live in squalid conditions, which prey upon their physical and mental health (Johnson & Taliaferro, 2011). Youth at-risk, including many from ethnic minorities, experience depression and serious mental illness (Benson, Wilcher, Greenberg, Huggins, Ennis, Zuttermeister, & Friedman, 2000). Many of these teenagers at risk also become involved in aggressive violence and are a public health concern (Centers for Disease Control & Prevention, 2013). Students from diverse ethnic groups who are at-risk are exposed to huge amount of stress, unemployment, poverty, and suicidal behavior (Thompson, Connelly, Thomas-Jones, & Eggert, 2013) with no community support. These students who are exposed to stressful situations and negative school outcomes need an alternate, positive school support that is less challenging than in-school or alternative school.

Similarly, alternative education programs and behavioral challenges in schools in Hawaii led Le and Proulx (2015) to conduct a feasibility study on incarcerated Native Hawaiian/Pacific Islanders. The study was aimed at discovering if mindfulness-based intervention improved youth's stress levels and if the mindfulness training resulted in a more skillful response to stress. Measures were first person self-reports and third person measures of salivary cortisol and SIgA.

Results suggested that impulsivity lowered, self-regulation improved, and mindfulness practice showed lowered salivary cortisol levels and improved SIgA levels.

Likewise, in *Letters from the Dhamma Brothers*, a book written by two convicts at Alabama's Donaldson Prison narrates their experiences with mindful meditation (Phillips, 2008). The book is a collection of intimate thoughts, struggles, and dreams of convicts when they attended *Vipassana* meditation at jail premises. The convicts took part at first in an intensive voluntary meditation program. The convicts were hard core criminals with life sentences, and most of them were used to culture of violence and abuse. The convicts agreed to participate in mindful mediation, more so silent meditation, which transformed their life to adopting a life of non-violence. If such mindfulness practice can be adopted with social and learning program (SEL), it would prevent a lot of juvenile crimes in the community.

In 2014, Rechtschaffen discussed social-emotional learning programs (SEL) in his book *The Way of Mindful Education* (2014). SEL programs are not readily available for students who are exposed to stressful conditions. SEL is a curriculum adopted by some school districts to help individuals with emotional and behavior disorders. One such curriculum is the Collaborative for Academic, Social, and Emotional Learning (CASEL) program. Linda Lanteri, the founding member of CASEL, led a discussion with Goleman and Siegel on core competencies of SEL. She suggested that this program could be incorporated better with mindfulness practice (Rechtschaffen, 2014). M County school district, where the study was conducted, did not have SEL programs nor CASEL programs. To instruct SEL in schools, the central office needs funding and training for teachers in any innovative SEL lessons ([www. Casel.Org](http://www.Casel.Org)). It would therefore be a good idea to introduce the MindfulSchools Curriculum.

## **Mindfulness Practice and Education**

Developing effective intervention for children with learning challenges is crucial. Mindful meditation and mindful yoga are increasingly becoming popular across different school districts throughout the United States. Mindfulness is classified as a mind-body therapy by the National Center for Complementary and Alternative Medicine (2011) as having many benefits. One plus is aiding in lowering stress and promoting calmness in the individual. Almost all studies on mindful yoga consisted of physical poses, pranayama (breathing/meditation), and relaxing poses. Mindfulness studies consisted of guided practice in breathing (meditation), imagery, and relaxing poses.

Peck, Kehle, Bray, and Theodore (2005) conducted the earliest studies in mindful yoga. A yoga videotape by *Gaiam* was used as tool of instruction. In this tape the participants had to watch the instructor on video teach three students deep breathing as in mindful meditation, physical postures as part of mindful yoga, and other relaxation exercises, performed for 30 minutes, two times a week for three weeks. The participants were identified as students with attention deficit hyperactivity D disorder- inattentive type (ADHD). A multiple baseline design across groups was introduced in the study: a comparison group that didn't participate and another group participated in yoga techniques. The ten participants with ADHD were selected to participate and find out the effectiveness of yoga intervention on class performance. Students with ADHD showed a change in effect sizes. Participants who did not participate in the yoga program, however, showed no variation. Their episodes of behavior neither increased nor decreased. Data collected from participants in the school-based yoga video program showed little variation. Episodes of behavior never increased and remained steady. The effect sizes ranged from 1.5 to 2.7 as a function of intervention. The effect sizes at follow up decreased from .77 to

1.95. Data from the peer on task report remained unchanged (Peck, Kehle, Bray, & Theodore, 2005).

A school-based yoga program at a single alternative school for at-risk youth in California proved to be a successful social-emotional learning program. This program called Transformative Life Skills (TLS) (Frank, Bose, & Schrobenauser-Clonan, 2014) is a universal classroom-based program for use with adolescent mental health to cope with stress and change attitudes towards violence. Parents from home and teacher referrals from high school were instigators for using TLS program in this study. The students (participants) were referred because of academic failures including failing grades, absenteeism, disruptive behavior, suspension, and expulsion. A quasi-experimental control group pretest-posttest design was used. Student assessment was given in small groups and the questions were read to them. After completing the questionnaire, TLS lessons were implemented first period for three to four days during the first semester for 30 minutes. A certified yoga instructor instructed all lessons, and the practice was conducted with 80% fidelity. General affect, emotional distress, stress symptomology, and attitude towards violence were studied. Results showed significant changes in prosocial behavior, attitudes towards violence, and lowering of anxiety, depression, and psychological distress.

Students with emotional and behavioral disorder participated in a yoga intervention study at an urban elementary school (Steiner, Sidhu, Pop, Frenette, & Perrin, 2013). The yoga training consisted of sessions using a leading yoga curriculum, *Yoga Ed*. Thirty-seven students participated in small groups of seven and ten individuals twice per week for nearly four months. A 90% attendance for yoga training was realized which consisted of poses, pranayama (breathing), and relaxing poses. Teachers, parents, and students completed a systematic pre-and

post-intervention assessment. Educators mentioned improved attention, adaptive skills, and reduced episodes of depressive mood. Parental survey, however, reported no observed change in student's behavior. This feasibility mindful yoga study for children with emotional and behavioral disorders proved to be very effective in reducing symptoms. Also, the study proved that the *Yoga Ed.* curriculum was successful with students from a special population.

A study conducted in India by researchers from the U.S. was a multi-modal behavior program. The study implemented a yoga program for children with ADHD. It was incorporated at a high school in Najibabad, New Delhi, India (Mehta, Mehta, Mehta, Shah, Motiwala, Vardhan, Mehta, & Mehta, 2011). Seventy-six students enrolled in the program who were diagnosed with ADHD. The multi-modal program included one-hour session, twice weekly, for six weeks of combined 25 minutes of physical postures of yoga, simple breathing exercises, 30 minutes of behavior therapy, and 5 minutes of discussion of past sessions. A Vanderbilt questionnaire was translated to Hindi and sent to identify children with ADHD. After six weeks of therapy, results showed 90.5% of children showed improvement in academic performance and improved symptoms of ADHD. Sixty-three students completed the intervention. Teachers reported that there was significant improvement in the behavior of 25 students; yoga posture scores showed significant improvement of 73.9% and meditation results showed no significant correlation between their ability to learn meditation and initial performance score. The performance level was compared to the control group. The results of the pilot study highlighted the benefits of this multi-modal mind and body therapy for students with ADHD. More than 50% of the children showed improvement in academic and behavior output.

Occupational therapists have used school-based yoga programs to improve class-wide performance with students with autism spectrum disorder (ASD) (Koenig, Patten, Buckley-Reen,

& Garg, 2012). This study used a pre-test and post-test control group design to investigate the effects of the Get Ready to Learn (GRTL) program with children with ASD. Eight classes of six children were recruited for the intervention session. The group of 25 children received manualized yoga programming daily for 6 weeks, and the control group of 24 did not receive the GRTL program. The GRTL program was implemented every school day for a period of 16 weeks. The students selected ranged from elementary school aged 5-12. The children assisted in getting the classroom ready for the yoga training. Yoga mats were laid out and the children watched a DVD of the GRTL program and performed it in the classroom. The same DVD was used every day. Fidelity check of the implementation included a 16-point checklist. The first and third authors assessed the checklist for good program implementation. A score of 12/16 points proved that the study followed the fidelity checklist and achieved a 100% agreement on two independent periods. Researchers used the aberrant behavior checklist (ABC) to assess challenging behavior. This was used as pre-test and post-test. The study showed that regular use of daily classroom-wide yoga program had significant impact on target behavior among children with ASD.

One such yoga study with adults had an emphasis on mindful yoga. Here, the role of body awareness and mindful eating (Martin, Prichard, Hutchinson, & Wilson, 2013) was conducted with female exercisers recruited from fitness centers and yoga centers. Participants completed a questionnaire on measures of exercise behavior and dietary intake. Descriptive statistics were calculated for all variables. Testing between sessions proved that there was no support for yoga participation and food consumption. There was, however, a correlation between yoga participation and mindful eating and body awareness.

A curriculum called *Meditation on the Soles of the Feet* (Singh, Lancioni, Winton, Singh, Adkins, & Singh, 2011) was implemented as a clinical and benefit-cost outcome of teaching mindfulness-based procedure to adult offenders with intellectual disabilities. Six offenders with mild intellectual disability participated in the study. The adult offenders were trained in simple meditation skills that assisted them to shift their focus and awareness from negative thoughts of aggression to the soles of the feet as a neutral point on their body. Results showed that moments of physical and verbal aggression decreased. Due to mindfulness practice, these adults benefited from saving money on lost days of work, medical services, rehabilitation services, and any kind of bodily injury due to physical altercation. This research study proved that mindfulness is a good alternative and cost-effective method of supporting adult offenders to control physical and verbal aggression.

### **Daily Mindfulness Practice: A Path to Mindful Education**

With increase in stress, behavior challenges are on the rise; attention spans are decreasing, compliance is waning low, and aggression is going up. Cultivating mindful education is another way of educating teachers and students in mindfulness. Bringing regular mindfulness practice into classrooms can be beneficial. Teachers need to discover revolutionary and innovative activities to nurture the developing minds of children (Rechtschaffen, 2014). Research shows a sudden decrease in cognitive and emotional abilities among children with stress (Goleman, 1995). Mindful listening in the classroom and awareness around the environment helps improve communication, control of negative emotions, and increase critical thinking when working in a team.

Educators have experimented with introducing mindfulness lessons after experiencing compounding problems in classrooms. Initially there was skepticism in mindfulness-based

intervention as a solution (Rechtschaffen, 2014). With increased integration into health care and as clinical therapy increased for people who struggled with depression and anxiety, educators started using mindfulness as contemplative practice in academic settings. Research studies show mindfulness worked with adults; therefore, it will be easier to teach children and teenagers compassion, kindness, and self-awareness techniques.

Mindfulness is not about learning spelling or remembering lines from poetry. It is training students to listen and be aware of sensations, emotions, and thoughts in order to learn to be non-judgmental and non-reactive. It is being immersed in the present moment. To train mindfulness to students, teachers must be mindful of their surroundings. Teachers have expressed how stressful the teaching profession has become today. Students can pick up on teachers' emotions and stress levels and mindfulness can be a tactic teacher can mirror for their own students in improving teachers' stress levels as well.

There is a perpetual clash between students who have difficulties and have no way to open their emotions. There should be a contemplative way to calm their emotions, a space where students can calm down. Practicing mindfulness is a method for teachers and students to be embodied with self and nourish their inner lives. Almost all mindfulness practitioners develop a state of mindfulness due to regular intensive practice of mindfulness techniques and are acutely aware of their settings and emotions. They learn to control and self-regulate their emotions and feelings automatically. Almost all proponents of mindfulness adopt the mindfulness trait to lead a successful life.

A child's emotional environment is the key to development. Both physical and mental health is key to holistic health which mindfulness-based intervention provides. This study may

plant a seed of hope in youths at a desired setting, whether that may be an educational surrounding or a group home setting, which will bring a life-changing experience.

### **Summary**

This chapter provided literature on mindfulness practice, its history, theoretical framework, and important proponents of mindfulness intervention. The chapter discusses how societal influence and pressure leads to an imbalance in the individual. This imbalance may be resolved by practicing mindfulness and yoga-based activities that are beneficial to mental and physical health. This chapter also discusses Bandura's social theory and compares it with Bronfenbrenner's ecological theory. Bronfenbrenner's theory and Cook-Cottone's self-embodiment theory have a lot of similarities. Both theories portray how an individual can become dysregulated when events within their circle get disturbed.

Mind and body therapy such as mindfulness and yoga-based practices may help struggling individuals to a holistic healthy option. Chapter II also discussed various research carried out in classrooms and school settings that have proven to help students with a variety of disorders. This chapter builds the framework to Chapter III; the theoretical framework lays steps to methodology and mixed method approach.

## CHAPTER III: METHODOLOGY AND PROCEDURES

Chapter III provides a detailed, comprehensive account of the method, research design, and steps involved to conduct the mindfulness intervention. Chapter III describes the setting of the study, the number of subjects who participated in the study, the procedures taken to collect data on the participants, the description of the mindfulness-based intervention (MBI), as well as discussing how the data was analyzed. The chapter discussed some restrictions, validity issues, and implications.

Mindfulness is an emerging phenomenon. To prove its effectiveness, a mixed method study was conducted in a group home setting among adolescents with mental illness and mild to moderate disabilities. This study involved both quantitative data (mindfulness surveys) and qualitative data (interview narratives from clients, and mentors). Field notes, observation and memos also supported the study.

### **Introduction**

Research approaches are plans, procedures, and methods that a researcher decides to use when conducting a study. The overall decision is carried out after researching the topic. There are three basic approaches that a researcher uses to conduct research: qualitative, quantitative, and mixed methods. Qualitative method is transcribing people's thoughts and feelings of an event (Strauss, 1987). Quantitative method is prominently survey, and various experimental methods. Mixed method involves both experimental and qualitative methodologies (Creswell, 2014).

Qualitative research investigates and comprehends the feelings and thoughts of the participants who participated in the study. The process involves discussion based on questions asked to the participants. Hence, researchers or enquirers develop, or construct, theories based on participants' experiences or understanding of the world (Strauss & Corbin, 1998). Social constructivists are researchers who believe in learning and understanding from the contexts in which they live and work. Social constructivists research by asking questions about a phenomenon. These questions are broad, general, and open-ended. According to Crotty (1998), qualitative researchers use open-ended questions as part of the interview process so that the participants can express their views on the topic discussed. The world comprises of individuals from diverse countries and wide-ranging cultures, and the semantics of events that people experience hold a different meaning to each person. So, the enquirers want to find out how answers to questions are interpreted and connect the findings to that particular setting. This interpretation is always social and arises from interaction with human community. Observing participants and their behavior and collecting data while performing mindfulness training allow researchers to note developing patterns. Triangulation (Creswell, 2014) in research occurs by taking field notes, memos, asking participants to keep journals, and interpreting these reports supports the qualitative method.

This research study was an embedded study based on a mixed method approach. The quantitative strand was supported by reviewing surveys and the qualitative strand was supported by individual and focused group interviews, taking field notes, memos. To prove that mindfulness intervention produced beneficial effects, the surveys and narrative data from interviews were compared and analyzed. The qualitative strand was embedded in the quantitative

study in this embedded design using a mixed method approach. The findings from narratives and responses from survey were analyzed for validity.

### **Research Question**

The chief purpose of this study was to investigate the effect of mindfulness-based techniques (intervention) on self-control, and, self-regulation skills of the clients (individuals with mild to moderate disabilities) and whether the clients were able to manage their behavior. This study used breathing techniques, imagery, and guided meditation, which helped control and decrease altercations and aggressive behavior (verbal and physical aggression). Clients learned to control their impulse and regulate their emotions by using mindfulness techniques. Mindfulness training helped sharpen their focus and in turn created self-awareness and decreased emotional outbursts. The research questions for this inquiry were formulated after discussing the client's behavior with the director and assistant director of the group home program.

The hypothesis stated that MBI may decrease disruptive behavior when clients learn to control their impulse and regulate emotions. Clients with mental illness and mild to moderate disabilities were trained to use mindfulness techniques that helped them to sharpen their focus and create self-awareness to decrease emotional outbursts. The study showed that mindfulness training lowered and managed disruptive behavior with clients with psychological disorders.

The research question for this inquiry was how does mindfulness intervention using *MindfulSchools Curriculum for Adolescents* effect clientele in a group home setting?

### **The MindfulSchools Organization**

MindfulSchools is a non-profit body solely committed to training people such as educators, students, and parents in mindfulness techniques. MindfulSchools was founded in 2007 in Emeryville, California, to provide resources and training to educators, social workers,

occupational therapists, and psychologists supporting mindfulness in educational settings. These courses have impacted children both in and outside school settings (MindfulSchools.org).

The principal investigator is registered with The MindfulSchools Organization, which enabled her to use the curriculum in the classroom. The principal investigator underwent a three-month training to be qualified to conduct lessons in mindfulness techniques, which makes the principal investigator proficient to teach lessons both with students in K-5 classrooms and adolescent groups (6-12).

### **Setting**

This mindfulness study took place in a group home that houses adolescent boys between ages 12 to 21. Group homes are places of residence for children under foster care with significant emotional and behavioral challenges. *Safe Haven* (fictional name for privacy) is the group home where all 10 residents of the study resided. It is in Carolina town (fictional town name for privacy), a rural community in a southern state in the United States. Carolina town is a small rural town bordering three other counties. It has a population of 79 people, according to the 2016 census. Most of the school-going children attend county schools: primary, middle and high school. All the residents from the group home attended middle or high school.

The *Safe Haven* group home serves as a program for adolescent boys with severed home life who have severe emotional and behavioral challenges. The organization primarily operates in the Group Foster Home business/industry within the Social Services sector. This organization has been operating for approximately four years. *Safe Haven* is estimated to generate \$201,315 in annual revenues, and employs approximately a dozen people at this single location. “It takes a whole community to work with these children,” according to Amanda McCulley (not real name), mother of Patrick McCulley (not real name), the owner of this special program. The program

director collaborates with mentors, therapists, and counselors who work with the adolescent boys. At one point in this study, the group home inhabited 10 adolescent boys. The youngest will turn 13 years old and the oldest 18 years old. The group home has several rooms, rooms for the adolescent boys, rooms for mentors, a large kitchen, a pantry, a laundry room, a room to hold interventions, and three bathrooms. There is a basketball court, a tiny flower garden, and many trees. PI observed that a couple of trees had hammocks for the boys to enjoy nature.

An email clarifying the intent of the study was sent to the director and assistant director of the group home. The PI met with the director and assistant director to explain the study. The director and assistant director contacted the caseworkers that are guardians and have a responsibility to give consent for the residents (also called clients) to participate in the study. There are eight mentors who worked with the residents. They are on a shift basis and have various chores they encourage the clients to complete. The mentors were asked to be interviewed, and their consent procured.

### **Participants**

*Safe Haven*, where all ten clients (participants) resided, was a 10-bedroom group home. The PI had gotten assent from all 10 clients in the group home to participate in the study. A few days after giving assent to participate in the study, two clients withdrew from the study. One client became employed and the other client left the group home. PI worked with eight (8) clients for six weeks. The PI implemented four lessons from the *Mindful Schools Curriculum* with all of the clients. The director of the program gave descriptions of all 10 participants and their needs and target behavior. The description of the participants helped to understand what the desired population needed and benefited, and how this mindfulness training encouraged further review

of mindfulness instruction. Below is a description of eight clients who participated in the research.

Client 1 (C1) is an 18-year-old African American adolescent from a southern county in the U.S. He was a senior at the county high school. Client 1 was diagnosed with oppositional defiant disorder (ODD) and unspecified depressive disorder.

Client 2 (C2) was almost 13 and the youngest resident. He was an African American from a southern county in the U.S. He was a Grade 7 student and attended the county middle school. Client 2 was diagnosed with ODD and adjustment disorder.

Client 3 (C3) was a 13-year-old African American, who very recently moved from a southern county in the U.S. He was a Grade 8 student at the county middle school. Client 3 was diagnosed with unspecified psychological abuse, conduct behavior, and adjustment disorder.

Client 4 (C4) was a 16-year-old African American who very recently moved from southern county. He was a sophomore at the county high school. Client 4 was diagnosed with adjustment disorder, unspecified psychological abuse, conduct behavior, and unspecified depressive disorder.

Client 5 (C5) was 13-year-old Caucasian, who recently moved from a southern county in the U.S. He was a Grade 8 student at the county middle school. Client 5 was diagnosed with ADHD, conduct disorder, juvenile depression (major depressive disorder), and has harmed himself and threatened to kill himself.

Client 6 (C6) was a 15-year-old Black from a southern county in the U.S. who originally moved from Haiti when he was nine (9) years old. He was a sophomore and attended county high school. He was diagnosed with adjustment disorder, conduct disorder, unspecified child psychological abuse, and unspecified depressive disorder.

Client 7 (C7) was a 15-year-old Black from a southern county in the U.S. who originally moved from Haiti to the U.S. He was a sophomore at county high school. He was diagnosed with ADHD, unspecified child psychological abuse, borderline intellectual functioning, and oppositional defiance disorder.

Client 8 (C8) was an 18-year-old Caucasian adolescent from a northern state in the U.S. He was diagnosed with ADHD, anxiety and bipolar depression disorder and has been institutionalized for mental illness. He was a senior at county high school and will graduate in 2018.

### **Research Design**

Mindfulness-based studies have been conducted in several countries around the world including The Netherlands (Hurk, Schellekens, Molema, Speckens, & Van Der Drift, 2015), Australia (Hwang, Kearney, Klieve, Lang, & Roberts, 2015), and the U.S. (Schure, Christopher, & Christopher, 2008). Some of the mindfulness studies in the U.S. were neuro-biological (Streeter, Gerbarg, Saper, Ciraulo, & Brown, 2012) and neuro-psychological (Davidson & Lutz, 2008), and some studies were based on implementing mindfulness curriculum in schools (Singh, Lancioni, Manikam, Winton, Singh, Singh, & Singh, 2011) and colleges (Messer, Horan, Turner, & Weber, 2016). This study was a mixed method study that implemented an adolescent curriculum in a group home setting with teenage boys between the ages of 12 to 18.

Using a mixed method study (MM) had numerous advantages. The primary purpose of a mixed method study was to better understand the complexities of mindfulness, comprehend multiplistic sights and situations that are noticeable in the settings, and be knowledgeable of perceived thoughts and actual occurrences (Greene, 2007). Mindfulness has many salutary effects on human functioning and behavior. The best way to understand the outcome of

mindfulness training and techniques was to use the qualitative approach to hear the voices and speech behind the mindfulness training, and the quantitative strand to understand the nuances of the training making it a mixed method approach. A mixed method approach understood the profound effect of mindfulness when a qualitative strand was embedded in a quantitative strand. Hence a mixed method design will detect and observe multiple ways of seeing and hearing (Greene, 2007, p. 20). A combination of qualitative and quantitative approaches rationalized various methods of triangulation and data collection to strengthen the study (Tashkori & Teddlie, 1998). The analysis included mindfulness surveys, client and mentor interviews, narratives, self-reports, and field notes.

An appropriate mixed methods design was crucial to answering the research questions in this study. Designing a study is very challenging when dealing with a mind and body study. According to Creswell and Plano-Clark (2011), planning a mixed method study can be complicated. Mixed method designs may be fixed or emergent, and researchers need to be familiar with the approaches and choose the best alternative. Fixed mixed methods are studies that use quantitative and qualitative approaches and predetermine how to include these approaches. Emergent mixed method design is when the researcher finds a need to use either quantitative or qualitative as the research develops while conducting the study. Since this design is pre-determined, it is a fixed mixed method. An embedded mixed method design will orient the mindfulness study.

The qualitative inquiry included first person experience of the participants that shed light on all aspects of the four lessons instructed during the mindfulness training. Cliental perspective from surveys highlighted the quantitative aspect of the study. The survey design, incorporating descriptive quantitative design, completed a uniquely built mindfulness study bringing together

the mind and body embodiment concept. The qualitative approach explored the research questions that the participants reflected on during and after interviews, which became embedded in the quantitative strand. The narratives from interviews, self-reports during training, observations by PI, field notes, and memos enhanced this mixed method study.

This mixed method study addressed the effect of mindfulness intervention. An embedded design is when either the qualitative data is embedded in quantitative data or quantitative data is embedded in a qualitative data. The purpose of an embedded design is conclusive when the secondary strand support and enhance the primary strand. The quantitative data was used to test the theory that depicted mindfulness techniques and discover how the study will positively influence the occurrence of disruptive behavior, non-compliance, and inattentiveness in clients with psychological disorders with co-morbidities at a group home that housed teenaged boys. The qualitative data that was embedded in the larger experimental quantitative strand also satisfied triangulation.

The philosophical position, research design, and varied approaches add a pragmatic approach (Creswell & Plano-Clark, 2011). It would be difficult to capture the effects of mindfulness intervention without following a mindful inquiry of the researcher. Mindfulness study weaves between positivism and pragmatism to a mindful inquiry. Mindful inquiry can be confused as a research method. Within the context of this study, it means mindfully studying the phenomenon. The theoretical model that arises from mindful inquiry (Bentz & Shapiro, 1998) can be applied with this mindfulness study. Mindful inquiry can be applied in this case where the investigation is built on paying attention to a phenomenon (of mindfulness) in students. Students' sensitivity to the process of mindfully participating and narrating their feelings while participating in the mindfulness training can be noted. A mindful inquiry can also be part of

being a mindful researcher and being aware of the crucial components of the inquiry: critical hermeneutics theory and Buddhist phenomenology. Hermeneutics in mindful inquiry can be understood from the interpretation of the interview texts and the field notes by the researcher. Hermeneutics emphasizes the understanding of the theoretical framework; here it encompasses staying in touch with basic mystery (questions compounded from the research) and expecting answers from the observation. Hence, this involves embodiment of mind and body. Mindful inquiry stems from Buddhism, that alleviates the Zen ideology, where human beings are lifted from suffering when they practice mindful meditation. It is mindfulness that creates awareness of body sensations and emotions and controls impulses to overcome the suffering (Kabat-Zinn, 1997).

### **Study Procedures**

One crucial element in research study is the procedure. This mixed method study was a pilot study with eight participants, as a small group intervention, in a group home that treated and housed adolescent boys at risk. Procedures are often used to describe research methods. The central foundation of this study is the mindfulness-based intervention. The mindfulness study consists of multiple steps: clients trained in mindfulness techniques, clients interviewed individually and in groups, and mentors interviewed individually. The study concluded with a survey that highlighted the effect of mindfulness training and techniques.

Lessons in mindfulness breathing were taught after receiving consent from guardians and assent from participants to participate in the study. Lessons started in the month of June and continued for approximately four to six weeks. The residents of the group home were trained by the primary investigator. This mindfulness study was solely directed by the principal investigator (PI). The PI taught lessons from the *Mindfulness Curriculum for Adolescents* imparted

techniques in mindfulness practice and led mindful games. The PI conducted lessons in awareness, compassion, mindful listening, loving kindness, generosity, and mindful thoughts that improved the students' focus and awareness that could transpire to other settings beyond the group home.

The lessons (sample of lessons in the appendix) were conducted every morning for 20 minutes individually. The PI also requested participants to have a short 'quiet time' mindfulness practice before the end of the day. The PI also regularly discussed mindfulness lessons before mindfulness training. The PI enquired about mindfulness practice and the challenges during and after training times. The residents also completed a self-report when the researcher asked how they felt after the training. Mindfulness processes collectively regulated the students' impulses and emotions. The PI also discussed cues like "just breathe in and out," "calm down and breathe," or "hold your palms together and breathe" for students to respond to and calm down in stressful situations. The PI reported mindfulness cues to the caregivers during the interviews, so they can ask the students to apply during other times in other settings. Mindfully having a quiet time is a hint or cue to be given by the caregiver. The residents may use the cue to control and regulate emotions like anger and fear and use it in event of emotional dysregulation.

The PI provided mindfulness training and followed a Middle-High School Adolescent Curriculum followed by MindfulSchools. Prior to the intervention, participants were told about the breathing exercise and lessons in mindfulness. Participants were told the importance of calming techniques and encouraged to be aware of impulses in order to control negative emotions when faced with situations.

Lessons in mindfulness breathing and the cues may complicate the understanding of self-regulation among individuals; hence, cues are given to help control their negative behavior.

Research says mindfulness benefits self-control of emotion, which is being aware of the present and increasing attention to the moment that will instill self-regulation (Cook-Cottone, 2015). The ability to self-regulate will automatically be noticed among participants, when they learned to control behavior with mindfulness techniques.

The main approach was interviewing the clients, who lived in the group home, and mentors, who worked with the clients. The PI interviewed the residents and caregivers on student behavior. Reflections and discussions with the participants were audiotaped and transcribed. Students also completed a self-report chart, kept a journal, and shared their mindfulness experiences with the PI.

Interviews, both individual and focus groups, were conducted before the study, during the study, and after the study. Field notes that were made of any visible data helped the inquiry. The study benefited from narratives on mindfulness training made between participants' self-report. Here the narratives in the qualitative approach answered the research question in the study. The narratives also supported the quantitative strand in the mindfulness intervention. This approach gave clarity to both the interview protocol and the mindfulness survey. The mindful narrative by participants and mindful inquiry by the researcher created a unique situation within this study.

The intervention included lessons like *Introduction to Mindfulness Posture*, *Mindful Body*, *Mindful Listening*, and *Mindful Breathing*, *Mindful Thoughts*. The PI explained each lesson to the participants, and they participated in a discussion. At the end of lessons, the PI requested participants to either close their eyes or lower their gaze and focus on breathing. The whole mindfulness training consisted of guided sessions.

The researcher wrote field notes every day after mindfulness training. Field notes were jotting notes taken down every day and observation of any subtle changes in activities that helps

“getting into place” (Emerson, Fretz, & Shaw, 2011 pg. 22) with research. The inquirer also made memos of the items as a reminder note to help write field notes after the training. Also writing memos helped with keeping up with the mindfulness lessons that were to be carried out the following day. Transcribing interview scripts happened continuously. The inquirer also made field notes to help with coding and making drafts. Coding and themes were created from interview transcripts. Coding is where interview transcripts are inferred line by line; this is how a theory is built. The researcher considered the transcripts as narratives and self-report material. Making memos in the margins of the transcripts helped the researcher to unravel or broaden some aspect of the study.

### **Embedded Mixed Method Design**

The embedded design is when one strand, whether it is qualitative or quantitative strand supports and enhances the other strand. It involves collecting and analyzing one data within the design of another framework. It is also when one study is embedded in another study. Here the qualitative data is embedded in the larger quantitative data. The purpose of the embedded data is to “enhance the interpretation of the larger design” (Creswell & Clark, 2011, p.123).

The researcher gathered both interviews and surveys from clients at the group home. Mentors were also interviewed and their relationship with the clients was analyzed. The responses from the survey were the main data of the mixed method study. The narratives from the interviews enhanced the survey data. The narratives were embedded qualitative data within the quantitative data. The notation of the study’s design can be written as QUAN (+ qual) = A mixed method approach (enhanced experiment).

The primary investigator periodically interviewed the participants and mentors. All interview questions are available in the appendix. Interviews were conducted three times during

the period of study. The PI secured an audio recording of the conversations. The initial (first) interview questions dealt with student behavior and methods used by clients and mentors at the group home to lessen episodes of behavior in the past. The second and third interview questions inquired about changes that PI had seen with the implementation of mindfulness practice. Field notes and memos added to the study procedures, considered data. Reflections by the clients on mindfulness practice were transcribed from their descriptions. Clients' emotional states were documented in field notes and from discussions with the PI before and after training. Clients were asked at the end of the training sessions: 1) did you apply mindfulness techniques today; 2) did you follow all the steps; 3) what did you exactly do; and 4) did you complete the journal? Clients were also required to complete mindfulness reviews at the end of the last interview.

### **Data Gathering**

An interactive, in-depth interview procedure benefits the profound nature of narratives. The main objective of narratives is to use the stories to build up a strong foundation to the study. Comparing the stories between clients also helped illustrate the similarities and differences in their attitude towards mindfulness intervention. It also helped to understand any complex aspect of the stories that the clients contributed to the study.

### **Structure of the Interviews**

Transcribing interviews, coding, and encoding themes lengthened the study but had advantages (Charmaz,2014). After the interviews were conducted and the perspective of the clients' feelings was understood, the themes were added to the result of the intervention. Transcripts were coded, and themes created while decoding and interpretation reflect from the themes. Once the themes were ready for interpretation, then the outcomes of the inquiry were

identified. Interviews were conducted three times allowing different interpretations to be collected.

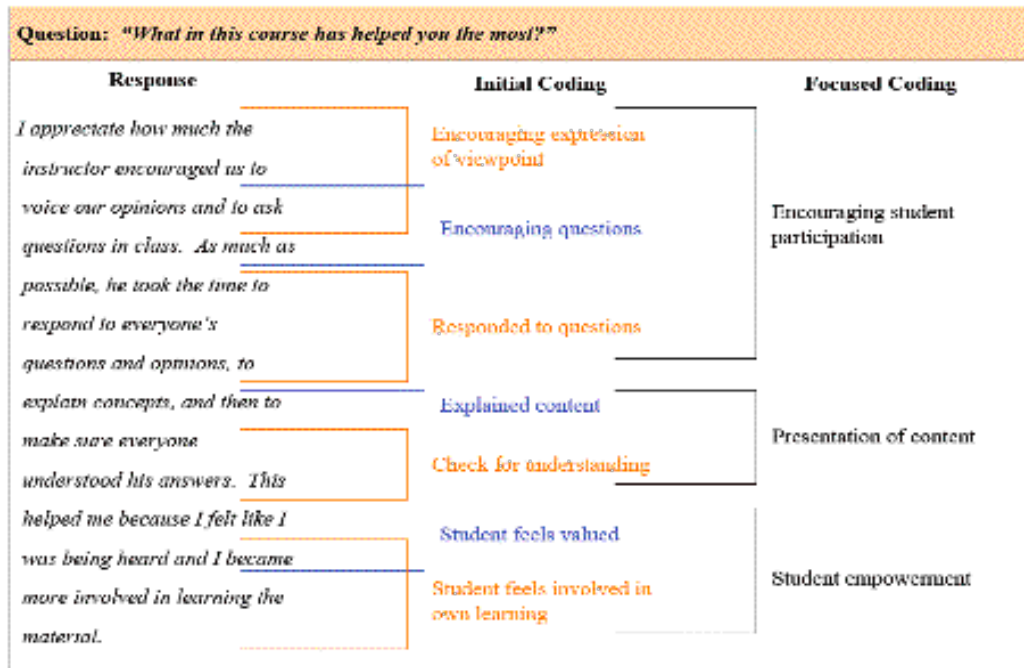


Figure 4. Example of initial coding and focused coding during interview transcript analysis

### Initial Individual Interviews

The first individual interview focused on clients describing happy events and unhappy events at home and school. These questions led to how they dealt with disappointment and strategies at different settings. Questions then led to what kind of coping mechanisms did the clients use when situations arose and turned ugly. Questions were asked on happy situations at home. Based on the answers, major codes, focused and axial codes, categories, and themes were created. During the coding procedure, three columns were made at first: direct speech placed in first column, the properties created from the direct speech placed in second column, and finally the first set of codes formed placed in third column. Later, from the first set of codes, followed focus codes, axial codes, categories, and finally themes. The categories were color-coded and

formed major themes from common categories. However, the interview narratives were used for data analysis and findings. Codes and themes from interviews were not used for findings.

### **Second Individual Interviews**

The second set of interviews was based on participant experiences with mindfulness intervention. Questions were formulated in such a way that clients were asked about experiences and how they benefited from practicing mindfulness techniques. Analyzing the second interviews was similar to the first interviews. Based on the answers, major codes, focused and axial codes, were created. From these codes, categories and themes were created. During the coding procedure, three columns were made at first: direct speech placed in first column, then the properties created from the direct speech, and finally the first set of codes formed. Later, from the first set of codes, focus codes were created from open codes, axial codes and categories and finally themes. The categories were color-coded, and from common categories formed major themes. analysis and findings. However, the interview narratives were used for data analysis and findings. Codes and themes from interviews were not used for findings.

### **Third Individual Interviews**

The third set of interview questions was focused on mindfulness intervention and relating to the four lessons learned. The clients were also asked about their favorite lesson and whether they were able to control emotions, focus on breathing, and regulate their thoughts. Analyzing third interviews was similar to the first and second set of interviews. Based on the answers, open codes, focused and axial codes were created. During the coding procedure, three columns were made at first: direct speech placed in first column, then the properties created from the direct speech, and finally the first set of codes formed. Later, from the first set of codes, followed focus codes, axial codes and categories and finally themes. The categories were color-coded, and from

common categories formed major themes. However, the interview narratives were used for data analysis and findings. Codes and themes from interviews were not used for findings.

### **Focused Group Interviews**

These interview questions were different in the sense that clients were grouped according to their availability time for a focused group interview. Students were in groups three times like the individual interview. The first set of focused group interviews was on postures. Participants were asked to portray and express what they felt and whether they would like to participate in a training that would help to learn coping strategies. The second set of focused group interview questions asked the client about experience of mindfulness training; they were asked to explain the techniques they had learned and whether they benefited. Then the answers were placed in three columns similar to individual interviews. During the coding procedure, three columns were made at first: direct speech placed in first column, then the properties created from the direct speech, and finally the first set of codes formed. Later, from the first set of codes, followed focus codes, axial codes and categories and finally themes. The categories were color-coded, and from common categories formed major themes. However, the interview narratives were used for data analysis and findings. Codes and themes from interviews were not used for findings.

### **Mentor Interviews**

Four mentors were interviewed, and questions were asked on their job description and the role each of them assumed at the group home. Similar to interviewing clients on mindfulness, mentors were also asked if they had heard of mindfulness. The questions focused on whether this innovative training would benefit the clients of the group home and the best time of year when the training could be implemented. The mentors also shared information on barriers to implementing mindfulness in the group home setting. Mentors also discussed specific criteria for

clients to receive mindfulness training. During the coding procedure, three columns were made at first: direct speech placed in first column, then the properties created from the direct speech, and finally the first set of codes formed. Later, from the first set of codes, followed focus codes, axial codes and categories and finally themes. The categories were color-coded, and from common categories formed major themes. However, the interview narratives were used for data analysis and findings. Codes and themes from interviews were not used for findings.

### **Analyzing Journals**

As part of the *Middle-High School Mindfulness* curriculum, students were asked to complete journal writing after every lesson. This required the participants to write about emotions and lessons learned. The PI explained to participants the steps to follow. PI explained that these journals are just for them to write thoughts in and would not be evaluated. “You don’t need to worry about punctuation or spelling. You will not be graded. No one would be graded for keeping a journal, unless you want us to.” The different methods of triangulation will help to construct validity and reliability of the study.

Each component of data is analyzed separately. It also involves using techniques from both sets of information, qualitative and quantitative, to be mixed and the results analyzed. The PI will start converting the raw data into concrete data. Although codes and themes were created they were not used to analyze findings. Only the transcripts were used as narratives. Narratives were analyzed for data purpose.

### **Independent Variables**

The PI provided mindfulness training to the students. The PI followed a Grade 6-12 Adolescent Curriculum by MindfulSchools. Prior to the intervention, participants were told about the breathing exercise and lessons in mindfulness. Participants were told the importance of

calming techniques as well as the need to be aware of impulses and the need to control negative emotions.

The mindfulness-based intervention served as an independent variable. Clients were given instruction every day for 20 minutes during the training. Clients were asked to practice breathing another time individually in their room. Practicing another time individually is believed to benefit participants. It was only known from the survey whether practiced mindfulness techniques every day. Practicing mindfulness regularly produces better outcomes, for example like helping to remain calm and lower anxiety and develop skills to focus and be self-aware of situations at group home.

Independent variables are those that probably source, result, or mark outcomes of the study (Creswell, 2014). Independent variables are also called ‘treatment, manipulated, antecedent, or predictor variables’ (Creswell, 2014 pg. 52). Here the independent variable, mindfulness training, worked independently and caused an influence or affected the outcome and may bring change in dependent variable, the behavior of the child here managing behavior of the clients.

### **Dependent Variables**

Dependent variables are completely dependent on independent variables for change (Creswell, 2014). Variables are attributes or characteristics of an individual. The dependent variables in this study that were observed for change with mindfulness intervention include attentiveness, which is defined as focused attention to practice non-reactive attention or focus towards a chosen object. Inattentiveness is not being focused on as a selected objective.

Attentiveness in participants was noted, observed, when the participant focused on breath and was evaluated from the response completed in the survey and answered interview questions

on being focused or inattentiveness. Attentiveness was also observed when the client practiced mindfulness lesson and techniques. Self-reports on being focused and not focused was also acceptable.

Inattentiveness is defined as not focused or not attentive on the mindfulness lesson for a period of five minutes. If the participant appeared lost in thoughts, seemed far away, and not interested in participating in the training when rest of the clients were observed in partaking and practicing techniques, and appeared inattentive during training.

Being calm and relaxed is to be non-reactive and stable without reacting to any outsource. Being disruptive is any kind of violent or hostile behavior provoked by a trigger producing emotion that could lead to either physical and/or verbal aggression. A client was calm and relaxed if he sat in his seat comfortably, with an expression of harmony, not fidgeting, not berating, and not yelling. The clients also completed the survey question and responded on being calm and relaxed. Clients also answered interview questions how they felt after a mindfulness session. The client was considered calm and relaxed if he appeared comfortable, hassle-free, and showed no anger, or emotion or outburst for the time he was in the room where the mindfulness sessions were conducted.

A client was considered disruptive when he reacted violently or aggressively to a situation in the group home. The client could have disrupted activities or participation/activity/instruction by yelling, throwing things, banging, hitting self, and/or others, or crying. Data on being calm and disruptive behavior was evaluated from the mindfulness survey. Whenever client portrayed any disruptive behavior would be portrayed from self-reports and narratives on any such incident.

The act of conforming is being compliant. Failure or refusal to act per law or rules of the group home is being non-complaint. Mentors mentioned that all clients portrayed non-compliance various times a week. Clients were also asked about how the day or weekend went during sessions. Act of compliance was asked every day and every time the client followed instruction from an adult in the group home. Clients also reported being compliant and non-compliant by responding to the survey and interview questions. Act of compliance included following group home rules, following orders from an adult, or conforming to group home discipline. Observer made a note of positive behavior seen within the period of instruction.

Non-compliance was recorded from narratives and the survey the clients completed. Non-compliance was also when the client broke group home rules, did not follow instructional orders. Non-compliance was recorded s self-reports when clients were asked about any particular episode that they were non-compliant.

### **Analyzing Mindfulness Review Survey Document**

A survey method offers a quantitative or numeral part of the study (Creswell, 2014). From the sample of survey results the clients were separated into three categories. As part of mindfulness intervention, every client was required to complete a mindfulness review document after the last interview. There were 13 questions, and clients were required to circle the best possible answer. This mindfulness review survey accounted for the quantitative aspect of the study. The appendix contains a copy of the survey.

### **Data Analysis and Validity**

Analyzing data is a continuous process with data collection (Maxwell, 2013). In mixed methods research, the investigator will analyze the data from qualitative interview process and quantitative experimental procedure separately (Creswell & Plano Clark, 2011). According to

Creswell (2014), the PI should pay close attention to both qualitative and quantitative data analysis and determine the conclusions to build on. If a researcher uses grounded theory in qualitative research, the focus will be different from a case study or ethnography. The grounded theory combines positivism with the pragmatic world of field of research. It brought Strauss' idea that human beings are dynamic mediators in processes and brought about social and subjective meaning to emerging methods. Individuals are not passive onlookers but problem-solving beings that permeate to grounded theory (Charmaz, 2014). Glaser advocated creating codified qualitative research. Codifying transcripts and discussion leads to specifying obvious propositions for conducting research like codified quantitative research, where the emphasis is on analyzing data (Charmaz, 2014). If the inquiry was a descriptive ethnography or a single subject case study, data collection and data analysis will be totally different from grounded theory.

In this mixed method analysis, the researcher analyzed both qualitative strand and quantitative strand. This involved preparing the data for analysis, exploring the data between clients and their disorders, answering the research questions and comparing the findings from both strands. The study was concluded when the research findings are reported, keeping in mind that the collected data was analyzed, and hypothesis tested and established. Validating the data results, and interpretation is also very crucial to the study (Tashkori & Teddlie, 2009). Before publishing data, trustworthiness needs to be established. In research (Teddlie & Tashkori, 1998), reliability and trustworthiness involves 1) credibility-confidence in the 'truth' of the findings; and 2) member checking; 3) transferability, which is showing that the findings have applicability in other contexts or other settings; 4) dependability, which is showing that the findings are consistent and could be repeated by replicating method; 5) confirmability, which is the extent to

which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest; and 6) triangulation also includes reflexivity, which is an attitude of attending systematically to the context of knowledge construction, at every step of the research questions. Also, all copies of transcripts, codes and themes were shared with the committee chair that authenticated audit trail. Audit trail in research is when documents or journals relating to research is maintained and sent to the committee chair, making all the steps clear. Audit trail also helps clarify changes made in the original research (Teddlie & Tashkori, 1998).

Moreover, member checking, and audit trial are the best methods to adopt when the research is conducted solely by one person (Teddlie & Tashkori, 1998). Both mentioned methods allow clarity in data gathering. The transcripts were read and signed by the participants. At times both the researcher and participants were able to clarify certain items in transcripts. Inter-rater reliability would be efficient method if more than one researcher was conducting research.

Putting together an audit trail (Teddlie & Tashkori, 1998) is crucial and subject to external review. The following is how the study was conducted: 1) raw data (including all raw data, written field notes, unobtrusive measures (documents)); 2) data reduction and analysis products (including any summaries, condensed notes); 3) data reconstruction and synthesis products (structure of categories); and 4) process notes (including methodological notes).

### **Assumptions of the Study**

Individuals with mental illness and mild to moderate disabilities undergo frustration, spells of anxiety, anger, and temper tantrums in the group home, classroom, and other settings. Mindfulness-based interventions have become very popular and have shown innumerable benefits in children. The purpose of this mindfulness training is to help clients manage stress and become happier, kinder, and more compassionate individuals. The major assumption here is that

when students with disabilities are taught mindfulness techniques, they will learn skills to self-regulate and control disruptive behaviors when they face adversaries in group home and classroom setting. It was assumed that clients would be able control their impulse to scream, yell, or destroy items. Clients would also focus in work and remain attentive in any setting. It was also assumed that clients would learn to be kind and compassionate towards each other and be polite and respectful to friends and adults. It was assumed that clients who practiced mindfulness techniques would enter a mindfulness state automatically with regular mindfulness practice and learn to adopt this as a trait and apply it everywhere.

### **Limitations of the Study**

This study included a small sample size. It was difficult to generalize results of this experiment to a larger population. Since students with mild to moderate disabilities do not represent the whole population of educational institute, it is not easy to generalize the outcome of the study to the other group homes or public schools.

Another limitation could be trying to implement mindfulness to a larger group. A mindfulness program adopted for the whole school system through physical education may address this concern. A choice can be made available for students with disabilities to partake in mindful yoga therapy with their special services like occupational therapy or physical therapy. Such interventions proved to be successful and if they were part of a larger school wide program that would ultimately provide ground for stronger research (Gay, 1996). Large group mindfulness studies may be developed into evidence-based practice that could be implemented as school wide positive behavior support.

## **Summary**

This chapter provided the methodology of the study and structural design of the study. This was an embedded mixed method design. All the different facets of the approach like the dependent and independent variables were explained. The chapter provided descriptions of the approaches and the theory used, details of the setting, number of participants, measures, data collection techniques and collection of data. Definitions and descriptions of intervention and curriculum and behaviors observed during intervention was included. Member checking was carried out as part of credibility and reliability of the study. Assumptions and limitations close the chapter. Chapter III provided a foundation to findings that is presented in Chapter IV.

## CHAPTER IV:

### FINDINGS

Ray (2010) refers to mindfulness as an antidote for conquering anxieties and challenges in life by using breathing to live in the present moment. Although mindfulness includes breathing, this study reinforced that mindfulness is more than breathing; it is staying with your breath and being aware of the calmness within you, allowing self-control of situations. The findings from this study verified that six weeks of mindfulness training created calm feelings, reduced anxieties, and controlled challenging situations for some clients. Not all clients experienced the same benefit.

#### **Introduction**

This study required eight (8) clients to undergo mindfulness training for a period of six weeks. Residents of the group home were referred to as clients by the social workers. These clients who participated in the mindfulness study ranged from ages 13 to 18 years. To assess if mindfulness helped improve the demeanor of clients, the clients participated in individual and focus group interviews. The clients also completed a mindfulness training survey at the end of the training.

Chapter IV refers to results from the survey and the findings acquired from narratives, which included one-on-one interviews with mentors, as well as focused group interviews and individual interviews with clients. The interviews were transcribed, codes were created, and themes were determined. However, the codes and themes were not part of the analysis and findings. The eight clients who lived in a group home were trained in mindfulness for six weeks.

This chapter discussed the clients' reactions to mindfulness training in addition to the mentors' feedback on clients who underwent the intervention.

### **Participants**

The group home housed ten clients. All clients were boys between ages twelve (12) and eighteen (18). Seven clients were moved from foster home care to a group home. Two clients were Haitian, four clients were African American, and the remaining two were Caucasian. All the clients were diagnosed with mental illnesses, resulting in mental instability and behavioral challenges. Two clients from the original ten residents, dropped out of the study after giving consent to participate in the intervention. These eight clients participated in mindfulness training:

Client 1 (C1) was an 18-year-old African American teenager from a county in a southern state in the U.S. From an interview that took place before intervention, C1 remembered happy days as the time spent with his mother before her death due to sickle cell anemia. He mentioned his stepfather was a loving dad and very much involved in his life. C1's time at school was good, where he performed very well in class tests and always received good grades. Life took a turn for the worse after his mother's death. C1 was sent to live with his biological father and stepmother. He was physically and sexually abused. He was forced to partake in robbery, which landed him in juvenile jail. C1 moved among many foster homes and finally ended up in the group home. C1 harbors a lot of anger and has abnormal behavior due to his terrible childhood incident. Client 1 had a very serious personality. He assented to participating in research and was always very respectful throughout the sessions.

Client 2 (C2) was a 12-year-old African American who moved from foster home to foster home from a very young age. According to the group home director, he was rescued from adults

who were drug addicts. According to mentor 1, C2 is immature and the most difficult client to work with. He has been diagnosed with Oppositional Defiance Disorder (ODD) and has had several case managers. He was non-complaint and has gotten into trouble not only at the group home, but also at school.

Client 3 (C3) was a 13-year-old African American teenager from a county in a southern state in the U.S. C3 was moved from a home where the adults in his house were involved in sexual abuse. He will be moved back after a federal judge gives consent to move him back home once his parents' charges are cleared. He was diagnosed with adjustment disorder, conduct disorder, and unspecified child psychological abuse.

Client 4 (C4) was a 16-year-old African American teenager from a county in a southern state in the U.S. He was the older brother of C3 and was moved out of his house due to sexual abuse in the family. He will be allowed to move back after appearing in court, and when his mother and stepfather are cleared of charges. He was supposed to have witnessed his stepfather sexually abusing his sister. C4 was diagnosed with adjustment disorder, conduct disorder, and unspecified child psychological abuse.

Client 5 (C5) was a 13-year-old white teenager from a southern county in a southern state in the U.S. He is mentally challenged with ADHD, conduct disorder, and major depressive disorder (juvenile depression). He has threatened to end his life more than once. His parents were helpless and struggled to discipline him. He portrayed fits of anger and temper tantrums and has often gotten into trouble at school.

Client 6 (C6) was a 15-year-old Haitian. He was taken away from his mother by his biological father and moved to the U.S. at 9 years old. He struggled emotionally after being separated from his mother and moving to the U.S. His father's physical abuse scarred him

permanently. He was moved into a foster home due to his aggressive behavior. He was diagnosed with conduct disorder, adjustment disorder, unspecified child psychological abuse, and unspecified depressive disorder.

Client 7 (C7) was a 15-year-old Haitian and prefers not to talk about his past or his Haitian culture. He was diagnosed with ADHD, ODD, borderline intellectual functioning disorder, and unspecified child psychological abuse. He had many times during mindfulness training referred to himself as “normal” with “normal behavior.”

Client 8 (C8) was an 18-year-old white teenager from a northern state in the U.S. He has been diagnosed with ADHD, anxiety disorder, and bipolar depression. He felt abandoned when his parents transferred him to a mental institute after moving to his present town. His parents have moved back north after leaving him behind to complete high school. He continued to struggle with mood swings and is the only client who kept a diary of his moods.

The clients were diagnosed with multiple mental disorders. Table 1 details clients with their disorders and brief description for the mental illnesses. These disorders are believed to have had an effect on each client’s response to the mindfulness intervention. All eight clients participated in individual interviews and focused group interviews. The clients reported their experiences and views on mindfulness training as part of a survey conducted at completion of the study.

Table 1

Client Mindfulness Intervention Use and Disorders

Disorder	Degree of Use	Adjustment Disorder	Attention Deficit Hyperactive Disorder	Anxiety and Bipolar Disorder	Borderline Intellectual Functioning	Conduct Disorder	Major Depressive Disorder	Oppositional Defiant Disorder	Unspecified Child Psychological Abuse	Unspecified Depressive Disorder
CLIENT1	Frequent							X		X
CLIENT2	Low end	X						X		
CLIENT3	Frequent	X				X			X	
CLIENT4	High	X				X			X	X
CLIENT 5	High		X			X	X			
CLIENT6	Frequent	X				X			X	X
CLIENT7	Low end		X		X			X	X	X
CLIENT8	High		X	X						

**Adjustment Disorder (AD):** difficulty coping with stressor or any new event. Lasts for a year to two.

**Attention Deficit Hyperactive Disorder (ADHD):** Challenges with attention, not able to complete task due to being easily distracted, can be aggressive, easily frustrated.

**Anxiety Disorder:** intense excessive persistent worry and fear about everyday situations.

**Bipolar Depression (BD):** mood swings from manic phase to depressed phase to delusional at times.

**Borderline intellectual functioning (BIF):** IQ between 70-80. Poor attention, concentration, low grades, anger frustration.

**Conduct disorder (CD):** repetitive pattern of behavior that is against societal norm.

**Major Depressive Disorder (Juvenile depression):** low mood, low self-esteem, low energy to do anything; effects school work, suicidal.

**Oppositional defiant disorder (ODD):** angry irritable mood, argumentative, defiant, vindictive, easily annoyed.

**Unspecified child psychological abuse:** mental, emotional and physical abuse carried out for a period of time.

**Unspecified depressive disorder:** all symptoms of various types of mood and mental disorder that effects daily outcome.

## Quantitative Analysis

Quantitative data were analyzed from the survey the clients completed at the end of the study. The narratives and self-reports that emerged from the interview were part of the qualitative data. This mindfulness intervention was an embedded mixed method study. Findings from the survey conducted were categorized in Table 2.

*Table 2*

*Clients and Mindfulness Intervention Outcomes*

Clients and Disorders	Users	Benefits	Outcomes	Mindfulness Intervention Practice
Client 1/ODD & UDD	Frequent user	Improve focus; control behavior; calm and relax	Like to have more training to improve kindness	More than five times a week
Client 2/ODD & AD	Low end user	Improve focus; control behavior; calm and relax	No Not sure/need more practice	Whenever having a rough situation
Client 3/AD, CD, UCPA	Frequent user	Improve focus; control behavior; calm and relax	More training in future to improve focus	More than five times a week
Client 4/AD, CD, UCPA, UDD	High user	Attention, calm and relax	More training in future	Once daily
Client 5/ADHD, CD, MDD	High user	Improve focus; control behavior; calm and relax	More training to regulate emotions, lower confusion	Once daily
Client 6/AD, CD, UCPA, UDD	Frequent user	Improve focus; control behavior; calm and relax	Maybe more practice	More than three times a week
Client 7/ADHD, BIF, ODD, UCPA, UDD	Low end user	Calm and relax	No Not sure/need more practice	Whenever having a rough situation
Client 8/ADHD, AD	High user	Improve focus; control behavior; calm and relax	Like to have more training to regulate emotions and feelings	Once daily

Table 2 also refers to clients and their outcomes from mindfulness intervention. Based on the mindfulness intervention survey, the participants were categorized as high-end users (daily), frequent users (5 and 3 times), and low-end users (when needed). Clients reported outcomes ranging from none to very good outcomes. The themes developed from the findings were represented in this manner:

1. Good outcomes for high-users (three high users portraying benefits);
2. Sub-optimal outcomes for Low end users (two sub-optimal users);
3. 2 of 3 low-end users have ODD and the third comorbidity;
4. 2 of 3 frequent-users were diagnosed with co-occurring adjustments, conduct, and abuse histories and need more training;
5. One high-user has same diagnostic profile as frequent-user (AD, CD &UCPA) but experienced selective benefits;
6. One frequent user with ODD and comorbidity did well;
7. All frequent and high users diagnosed with AD and CD had decent outcomes; and
8. Age of clients plays a role. Younger clients with ODD response to training is sub-optimal when compared to older client with ODD. Older client with ADHD & Depression has better outcomes than younger clients.

The findings of the quantitative part of study were answered by questions that emerged from analyzing the quantitative data: Do students practice/adopt the mindfulness intervention (MI)? Yes, all eight clients practiced and adopted mindfulness intervention to various degrees and personal levels.

Clients 4, 5, and 8 were high users of mindfulness techniques. All three clients used mindfulness techniques once daily. Two out of three high users of mindfulness techniques, for example, clients 5 and 8, suggested that it improved attention, and were able to control behavior, felt relaxed after mindfulness practice, and experienced calm feelings. Client 5 and client 8 would like to receive more training to regulate emotions and feelings. Client 5 also wanted more

training to reduce his confusion. Client 4 felt his only benefits were improved attention, feelings of calm, and ability to relax. Client 4 wanted to continue training so that all aspects such as confusion, focus, and behavior can be refined.

Clients 1, 3, and 6 were frequent users of mindfulness techniques. Two of the three were frequent users (client 1 and 3) and practiced mindfulness five times or more every week. Client 6 practiced mindfulness three times or more weekly. Frequent users like clients 1, 3, and 6 all experienced the same benefits from mindfulness interventions. They suggested that it improved attention, and allowed them to control behavior, feel relaxed after mindfulness practice, and experience calm feelings. Client 1 would like to have more training to improve loving, kind feelings with more training. Client 3 wanted more training to be able to continue improving focus. Client 6 felt he wanted more training and practice in all factors of mindfulness, including improved focus, self-regulation of behavior, and ability to control anger.

Clients 2 and 7 were sub-optimal low-end users. Client 2 and client 7 used mindfulness techniques during rough times. The benefits of these clients varied. Client 2 experienced improved attention and was better able to control behavior. He felt relaxed after mindfulness practice and experienced calm feelings. Client 7 only felt calm and relaxed feelings after mindfulness interventions. Client 7 was not sure if mindfulness helped him control and decrease difficult situations or regulate emotions and feelings. Client 2 was unsure if it helped him lower confusion and stress.

Do all clients benefit from mindfulness intervention (MI)? To a certain extent, all clients did benefit, but intervention frequency matters to implement mindfulness techniques. The three high-end users, clients 4, 5, and 8, demonstrated benefit from the mindfulness intervention. They implemented mindfulness techniques in everyday activities. Client 4 benefited by cultivating

focus, regulating emotions and feelings, experiencing better loving kindness feelings, and improving friendship, as well as assisting in lowering anger and confusion. Client 4 reported an ability to control and decrease difficult situations when reflecting on mindfulness techniques which helped calm and relax him. Also, mindfulness intervention enhanced focus according to client 4. Client 5 practiced mindfulness techniques every night (as explained in his narratives). He felt a need for more training to regulate his emotions and feelings. He felt that more practice in mindfulness, rather than only a six-week intervention, would have been beneficial to him. Client 8 used and was grounded in mindfulness techniques due to his regular practice. Client 8 also practiced mindfulness at night. Similar to client 5, he wanted more training to regulate his emotions and feelings. Client 8 thought that this short-term mindfulness training was very valuable and positive.

Low-end users, clients 2 and 7, revealed in their surveys that they used mindfulness only in time of need, for example, when they faced a difficult situation. Both low-end users reported sub-optimal benefits and mentioned that this short mindfulness training might have helped them over a longer period of time. Client 2 felt that he was able to regulate his feelings and emotions. However, he was not sure if mindfulness lowered anger, confusion, or stress. Client 7 mentioned in his survey that he felt mindfulness techniques aided in feeling calm and getting relaxed. Moreover, he mentioned that mindfulness techniques maintained and improved his focus. However, he wasn't sure if his mindfulness training facilitated regulation of emotions and feelings. Similarly, he was not sure if he was able to control difficult situations with mindfulness techniques. Both low-end users felt that mindfulness would have helped them with more practice.

Does the ‘effect’ of MI use vary by psychological condition or disorder? Yes, response patterns from this study revealed that effect of mindfulness techniques and intervention vary by psychological condition. Two out of the three low-end users have ODD plus at least one other co-morbidity. Client 2 was diagnosed with oppositional defiant disorder and adjustment disorder. Disorders like ODD and AD make it extremely grim for client 2 and individuals like him to learn, adopt, and implement a new intervention. Individuals with these disorders have a past history of aggression, mental, and physical abuse, which makes it difficult to adopt new interventions (Smith et al., 2008; Zirpoli, 2012). Client 2 had past affiliation with substance users and addicts. Client 7 moved from his country home in Haiti to Florida in the US. Under psychological conditions of aggression, mental abuse and psychological abuse individuals need intense interventions lasting longer than six weeks to demonstrate effective change.

Which psychological conditions/profiles appear the most amenable to MI benefits and use? Clients with conduct disorders seemed to be more cooperative, compliant, and obliging during the period of study. Four of the eight participants were diagnosed with conduct disorders. Clients 3, 4, 5, and 6 reported from the survey that this short-term mindfulness training was beneficial. Clients 4 and 5, both with conduct disorder, were high users of mindfulness techniques. Clients 4 and 5 were grounded in mindfulness techniques when compared to clients 2 and 7. Clients 3 and 6, both with conduct disorder, were frequent users of mindfulness techniques. However, they practiced mindfulness five or more times when compared to other clients leading to calm and relaxed feelings, and felt they improved attention, and controlled anger and behavior with mindfulness intervention.

Which psychological conditions appear more resistant to MI benefits and/or use? Oppositional defiant disorder (ODD) was one psychological condition in this group of

participants that stood out as resistant to mindfulness benefits and use. Three out of eight clients in the group home were diagnosed with ODD. Seventy per cent of the clients with ODD struggled with mindfulness intervention. Clients 2 and 7 were unaffected and impervious to this short-term mindfulness training. They were not sure if mindfulness benefited them. Client 2 was not sure if it lowered anger, confusion, and stress after practice. In fact, he was not sure if mindfulness calmed and relaxed him. Client 7 was not sure if mindfulness helped him with difficult situations.

How can we explain anomalous cases in the data? Client 1, who is 18 years old with ODD, seemed to be anomalous in the data collected. Client 1 has embraced this new intervention well during the study; he was a frequent user of mindfulness. He practiced mindfulness and implemented mindfulness techniques five or more times over the course of six weeks. The only area that he reported needing extra training and practice was in being kind and loving. He mentioned in his survey that he felt mindfulness techniques aided him in lowering anger, stress, and confusion, allowing him to take control of difficult situations. When compared to his two peers with ODD, client 1 was compliant with the training and felt the benefits of mindfulness. Client 1 was an 'outlier' in this mixed method study.

Does age of the clients appear to be a factor to MI benefits and/or use? All clients fell between ages 12 to 18 years. Clients 1, 3, and 6 who were frequent users and clients 4, 5, and 8 who were high users spanned the age range of 13 to 18. Low-end user clients reported suboptimal benefit of mindfulness and were younger than the frequent and high users of MI. Client 2 was nearly 13 years of age, not yet 13 when he completed intervention, and client 7 was 15 years of age. Clients 2, 3, and 5 were close to 13 years old and students in middle school. Client 2 was the youngest client in the study. Client 4 and client 6 were 16 years old, and client

7 was 15 years. Client 1 and client 8 were 18 years old and seniors in school. Clients 1 and 8 were frequent and high users of MI and benefited well from mindfulness training. Age and psychological disorder combined may have played some role in MI restraints, benefits, and use.

## **Qualitative Analysis**

### **Participants' Interviews**

Three individual one-on-one interviews with each participant (client) were conducted as part of the study. The first one-on-one interview was conducted before the mindfulness intervention, the second one-on-one interview was conducted during the intervention, and the third and last one-on-one interview was conducted after the intervention. The focused group interview followed similar procedures to individual interviews, and the interviews were conducted in groups of two, three, or four clients together who were present at the time of interviews. Focused group interviews were held before the intervention, during the intervention, and after the intervention. The outcome of the study from interviews were answered as follows.

To what extent did the qualitative data support enhance, or contradict my quantitative finding? The interview narratives threw light and perception into the subtleness of the intervention. The qualitative data provided some important insight into these dynamics. For example, all clients were asked during interview process what they thought about mindfulness. Client 1 shared that mindfulness is a great tool for everybody to know: "People should know about mindfulness and how it can help you. Because it can turn a bad day into a really good day." During the focus group interviews, client 1 thought he could better understand himself after being trained in mindfulness. Client 8 shared that he could focus better and bring more clarity to his thoughts. Client 1 sensed a spirituality from mindfulness.

C1: To me, mindfulness is just being one with your body. I learned how to become one with myself. Channel all my inner thoughts towards me. I feel better spiritually.

C2: Ummm, I have learned how to clear my head. So, I can focus better. (No mam) So, that I can use it as a meditation technique.

Client 3 picked out the techniques he learned and that benefited him. Client 3 said, “It is very good for the mind. Use your good posture. Make you show more gratitude.” Client 2 mentioned that mindfulness helped him to be aware and control incidents of anger. He also liked closing his eyes and breathing. If he wanted to change anything, it was deep breathing. He would rather breathe normally. Client 2 stated, “It helped me control my anger. Closing my eyes! I don’t like to take deep breaths.” Instead client 2 wanted to “Just breathe normally.”

Client 1 and client 8 have changed with mindfulness practice as reported.

C1: I don’t feel the same mindset I used to have like a little kid would have. My mindset is adapting and telling me to get ready for adulthood.

C8: I haven’t changed bodily but mentally I feel happier, calmer, more ready (readier) to meet the challenges in life.

When asked if they wanted to continue mindfulness, client 8 mentioned he would continue mindfulness practice. He stated, “I like it and I want to do it more. And try to incorporate it in my daily routine.” Client 1 mentioned that he would continue, but at his own pace. C1’s interest in mindfulness and his confidence reflect that he wanted to share mindfulness techniques with his peers. He stated, “I would be training with it but I would be doing it on my own. I have been under your guidance and now it is my turn to practice what you have taught me. And teach others.” Client 3 thought that he might not be able to continue as he was leaving the facility. His comments suggest that he was dependent on a mentor or trainer to prompt his practice. He said, “I don’t know. Probably not because I will be leaving.” Client 3 response to what he liked about the training was knowing how to learn to be self-aware. Client 3 said, “It helped me be self-aware, and to bring in that inner quietness.” When C3 was interviewed with C7, he said he would

continue mindfulness. Client 7 mentioned that he would rather have positivity than negativity in his life. Mindfulness had helped him to stay positive. C7 stated, “I think it is stuck in my head now and so instead of being negative I can be positive. Because getting on positivity helps you go through the days rather than being sad and thinking about bad things don’t help.” Client 3 thought that this mindfulness training had changed him. C3 stated, “A little, it helps me keep my cool sometimes.”

Client 4, who would readily perform mindfulness and responded with positive thoughts about this mindfulness training, said “I thought it was great and it helped me more; helped me feel better.” On asking to come up with a situation, Client 4 mentioned,

Like when I argue with someone. And when they argue or talk back, I put the space between me and the person and I just walk away. It is between me and the person. So that there is no conflict started. Uhhh, it helped me control my anger, and be positive and not listen to what other people say. And that I am a mountain, and no one can bring me down.

Client 5 usually practiced mindfulness at night. Like so many others, he liked the lesson in heartfulness and liked the calm feeling that was created from practicing mindfulness.

Mindfulness to him was practicing breathing. C5 mentioned he learned to walk away from trouble.

I like the part about (uhmm) about sending out the loving kindness thoughts to somebody. (Uhhh), I learn how to be kind to others and just like pray for others. (Uhhh), I don’t know, it is heartfulness, it is deep breathing. I learned that you can walk away from anger, walk away from hard things like.

When Client 6 was asked after mindfulness training, his response was he enjoyed and learned to pass loving, kind thoughts. This client mentioned that he used mindfulness when a situation upset him, or he felt anger. The best thing about mindfulness was the feeling of calm.

I like sitting up straight and breathing, that part really calm me. That’s my favorite part. Well, whenever I get mad at like I said the other time. I just go into my room. Think

about it for five minutes, do some mindful breathing exercise, other mindfulness stuff, and I get over myself.

C6, like other clients, had applied the heartfulness lesson when he was asked to think of a person he cared about. He thought of a mentor; he felt warmth and kindness in his heart towards the mentor. Client 6 was aware of the knowledge of creating space when emotions like anger were aroused. He said, “The other day this kid he lied, he was making a whole bunch of stuff, which really bothered me. I got really mad. I went into my room and for five minutes did some mindfulness, I did some deep breathing, and focusing on my anchor and stuff.” He continued, “If I bring in the space, we will not argue or fight or whatever.”

Mindfulness has helped C6 and C7 to be aware and control their anger. Client 7’s experiences are like C6’s. Mindfulness helped him to reduce his anger. C7 stated, “I used it when I get angry in certain situations when I thought I couldn’t handle things very well, and so it helps me sometimes when I take two, three or four deep breaths, and then I get calm and get over it.” Client 7 claims that his challenge was to get ‘there’ to be aware and control emotions. He elaborated, “Yeah! It’s getting there but I don’t know why, I always feel that way, a little anxious.” Client 7 felt a personal outcome by being aware of his own negativity and overcoming it by thinking about the positives. His other personal outcomes include remembering mindfulness lessons he learned and applying them. Positivity and being positive was a huge change in client 7. He explained, “Show gratitude, to be kind, don’t expect something back, and be kind, and forgive. Because getting on positivity helps you go through the days rather than being sad and thinking about bad things don’t help.”

Client 8 felt most positive about mindfulness training; for him, mindfulness was a very personal experience. His views were most mature and parallel to Client 1. Client 8 said, “Mindfulness to me is sort of like meditation to clear your thoughts.” C8 mentioned that one of

the most personal outcomes was learning a coping strategy to remain calm. He said, “Uhhh, during this whole mindfulness thing one of my experiences by doing this mindfulness training, I have been more calm. And, I have another coping skill added to my roster as it were.”

Just like C7, C8 learned one important theme from mindfulness: the feeling of positivity that was born within himself was due to mindfulness. C8 explained, “Uhhh, one thing I learned is that the power of positive thinking is strong. You know, it is very important while you are doing mindfulness. You got to think positive of yourself. And it helps you think positive of other people to get you sort of centered.” C8’s analysis about mindful posture and the benefit of assuming mindful posture portrayed his capability and comprehension skills. He expounded, “Yeah, if you sit with a mindful posture, you know you can apply that to everyday life say, like when you are going for an interview, apply mindful posture, and you can focus more on what you need to do. (uhmm) you like apply to everyday life and it helps you focus.”

Another benefit C8 learned was improvement of social skills with positivity. C8 said, “Just mindfulness training makes you feel more at ease with yourself and with others.” Learning to focus was a challenge to C8. He mentioned that he practiced mindfulness at night due to this problem. “It can be challenging if you have got a lot going on and on your mind that day, and mindfulness will help clear the you know...”

Client 1 on asking what he learned from mindfulness stated “I learned how to stay focused. I really feel good about mindfulness. I feel really relaxed and calm down while breathing.” When asked the question about applying mindfulness during daily situations, these were the answers that came up from Client 7 and Client 3 during the focused group situation:

C7: When I was playing basketball, I didn’t get angry and I got along with everyone in the game and the kids around me.

C3: Whenever somebody tries to argue with me, I just walk off and I am mindful and go to my room.

C7: Maybe, lowered, I haven't come to a problem like that. At times, I breathe of course.

Two clients, C1 and C5, mentioned practicing mindfulness at night.

C1: Yes, I apply mindfulness training right before I go to sleep. I know how mindfulness has helped me to control myself, so I am able to control.

C5: Mostly every night (Mindfulness)

The narratives from clients show clearly how mindfulness had benefited clients like C1 and C5 as they are frequent users and high users of mindfulness. Another client mentioned a previous uncomfortable mood and relaxing soon after practicing mindfulness.

C8: Yesterday, I was a bit annoyed and irritated in the morning. So, I went to my room and did some mindfulness training and I felt relaxed and calm down after breathing in and out.

C8: Ummm. I liked it because there is a lot of negativity that goes around here. Like most group homes there are lots of negative feelings between the residents, and so the lesson on heartfulness and positive feelings and feelings of happiness is important. And so, with Heartfulness, it is feeling of positivity and so we should try to do it more.

C8 had a very clear perception of how group homes contained a lot of pressure and tension from living with a group of adolescents. His observation and analysis of the situation made him understand that practicing mindfulness helped him to create a balance in his life. Likewise, he pointed out how understanding the mindfulness lessons was crucial to him, in the same manner as applying mindfulness techniques like mindful posture and anchor techniques were employed during practice sessions. Client 8's thoughts were very clear about mindful posture:

C8: Well, if you have got an uncomfortable body position, you will not be able to concentrate, and you will be thinking about that more than what you are supposed to be thinking about and it will be harder to relax and be harder to rather think, think positive thoughts.

Some of the apparent challenges clients faced were with mindfulness techniques like the art of focusing on breathing. Almost all clients had difficulty focusing. Client 1 thought focusing on

breathing was not as challenging as some other clients. C1 stated, “No mam, focusing comes easy.” Client 7 mentioned that his focusing was not very sharp by stating, “Not really, only focus, it was neutral, not sharp.” Client 2 mentioned that he was able to control his focus a few times. Deep breathing and focusing on breathing for longer periods of time was challenging for this client. C2 said, “Uhhh, a few times.” Client 4 mentioned not being able to focus longer. He also had difficulty trying to control his temper. Eventually, he improved with mindfulness.

C4: My mind was wandering but about different things, good things, positive.

C4: When two clients kept antagonizing me and kept calling me names, and I retaliated, and it made into a big old argument and, so I was really mad and stuff, and so when I did your lesson, it relieved my stress and I calm down and relieved my stress.

The qualitative part of the study focused on narratives, self-reports, field notes, memos and observation. The triangulation brought about by narratives, field notes, and observations supported the quantitative part of the study. During the interviews and from narratives, clients 1, 3 and 6, all frequent users of MI, mentioned that mindfulness training did benefit them tremendously. In addition, high users of MI, clients 4, 5 and 8, mentioned in their interviews how positive mindfulness was to them. However, client 2 and client 7 were not sure whether they completely benefited and needed more time practicing. The four mentors were picked randomly for interviews.

### **Mentors' Interviews**

Several mentors and therapists worked at the group home with the clients. Four mentors were interviewed- two women and two men. There is always a huge turnover with mentors at the group home. The four mentors have worked at this home from four months to three years.

Mentor 1 (M1) worked part-time at the group home. She has worked there for one and a half years. M1 is also a graduate student of social work at a prestigious university. She appeared

to be the youngest among the four mentors that were interviewed in the study. When the mindfulness study started, M1 worked first shift from 8 am to 2 pm. She seemed to have good control over decisions that the clients made at the group home. She reasoned with them and was firm.

Mentor 2 (M2) was the second mentor interviewed at the group home. He was middle-aged and could easily be the oldest mentor interviewed. He has worked at the group home for three years. He had a low voice and was capable of getting all the clients to follow his instructions. He has also worked in a school system and has been around teenage boys and understands their behavior. He was in the afternoon shift from 12 to 8 pm, during the period of study.

Mentor 3 (M3) is originally from another state in the U.S. She is middle-aged and has worked in the school system in and around county close to the group home. She mentioned that she loved her job and has been working for about two years. She was raised in a family of boys and has a teenage son, and so handling these “typical adolescent boys” was not a huge deal. From her interaction with the clients, she was both firm and loving. The boys respected her and got all the chores completed under her supervision. She didn’t deal with carelessness or excuses for work undone or carried out dismally.

Mentor 4 (M4) worked part-time at the group home and in jail. According to M4, he aspires to become a law enforcement officer. The boys considered him their buddy. From their interactions, he was friendly with the clients. M4 had trimmed the clients’ hair and participated in board games with them. He has worked at the group home for four months. He seemed very protective of the clients and not very trustworthy of newcomers during the time of the mindfulness training. Mentor 4 had his guard up during the interview and first few interactions in

the group home. He had an expression of unfriendliness and stared in an unfriendly manner when compared to the three other mentors. He worked first shift when mentor 1 was off.

The second question that came from qualitative analysis was what role do mentors play in helping to explain student use and/or benefits of mindfulness intervention (MI)? All except one mentor knew about mindfulness intervention prior to this study at the group home. Mentor 1 practiced yoga and meditation occasionally. Mentor 1 was the only person in the group home who had direct experience with mindfulness and/or yoga. She practiced yoga and meditation during her undergraduate years at college. Mentor 1 practiced mindfulness imagery with some of the clients after they were trained in the study. The first three weeks M1 was in the morning shift and she could practice mindfulness with some of the clients whenever they requested imagery, after which she worked night shift. She was asked if she had heard about mindfulness and if mindfulness training would work for the clients at group home.

M1: I did, I used to meditate, so

M1: Yes, Uhhh and so I like to meditate, and it will be good for them.

M1: Yes, with a few of them are really liking it and some of them don't have the same response

M1: In fact, some of them they asked me after you left, they wanted to sit here in the room and meditate and so some of them really like it.

The other three mentors had never heard of mindfulness intervention. M2 became interested once the boys discussed mindfulness with him. He later discussed the intervention with M1 and that gave him a clearer view of mindfulness training. He stated that to him mindfulness seemed like a good "coping" mechanism like "breathing," thoughtfulness of self, body, and feelings that happen inside one's mind.

Mentor 3 had never heard of and had no understanding of mindfulness. The researcher explained the steps to mindfulness techniques. Mentor 3 was also invited to attend a couple sessions and was “blown away” from what she experienced. In her own words:

M3: Yes, then I would like to be part of that. I think the two lessons I was here was really great. I think it affected me the day I was here with GJ (student 5) and going through it myself and I was like wow!! And that it was so calming that if an adult could be calmed, a house full of boys could be too. I think it would be great whenever you plan to have it. And the mentors on duty could be there too and go through all the steps that are going to be on. Yes!

Mentor 4 had heard details about mindfulness from the boys. According to him, he knew minimal information and he was at a disadvantage if he were asked to talk about it. He too, like mentor M3, was taught about mindfulness techniques, which gave him comprehension of the mindfulness study. M4 said, “I have heard of it a little bit, not really enough to know to talk about.. It is clearing of the mind. And, getting along with others, and being happy.”

All the mentors thought that mindfulness would be effective intervention for the boys. M1 had direct involvement with imagery mindfulness training with the boys. M2 thought it would be an effective intervention, and M3 thought others at the group home needed to be trained in mindfulness techniques to help other new clients who were not in the study. M4 thought that mindfulness would be worthwhile training due to the background of clients.

The mentors had similar ideas about mindfulness in the beginning. Some had positive thoughts, and others had speculation and different understanding about its effectiveness after the interview.

Mentor 1 approached it totally different from her background experience with mindfulness and yoga. She shared that she enjoyed practicing meditation, and it helped her to deal with stress in college. She wasn't sure how the boys would take it when she heard the researcher discuss it with them in their first interaction. Mentor 1 was surprised by the response

of the boys. She would conduct mindfulness highlighting imagery. She mentioned that boys enjoyed those mindfulness sessions.

Mentor 2 knew the clients who were brought into the group home. He elaborately discussed their demeanor. He was honest that it was not just mindfulness, but any new training would take at least a month to show its effectiveness. He mentioned that the boys had gone through a lot and the trust factor was crucial in any kind of training. He said that such clients would take longer than other individuals to accept a new instructor and take the intervention to heart. He said consistency was another factor for effective intervention.

Mentor 3 thought the clients were typical teenagers and thought a similar response from clients was not surprising. After attending two mindfulness sessions, she thought she saw a change in one of the clients and was positive that mindfulness would be effective with the clients at the group home.

Mentor 4 highlighted that embracing a new intervention like mindfulness was dependent on the clients understanding the therapy and accepting it. He mentioned that comprehending mindfulness could be a factor for the training's effectiveness. However, he was of the opinion that including it at the group home setting would be a positive effort.

### **Conclusion**

Chapter IV was a decisive section to this study. This chapter discussed all the compiled results of the mindfulness survey and the interviews with clients and mentors. Field notes and memos from the training triangulated the effectiveness of MI with some users, but not all mindfulness users. The survey analysis tied together the narratives and self-reports from the clients. Data from the surveys was analyzed and findings reported that mindfulness training was

well-liked by some and made a positive impact on six out of eight users, especially frequent and high users of mindfulness.

The study was an embedded mixed method where the qualitative data enhanced and supported the quantitative data. Clients were qualified by frequency of mindfulness practice they undertook during mindfulness intervention. The survey was supported with self-reports and narratives during the study. Mentors were deeply involved with each client's life and would intervene when situations got difficult. The mentors understood the difficulties of clients and would assist them almost every day with decisions. Mentors' interviews brought clarity and helped the researcher understand details of the clients that were not shared otherwise.

Clients underwent meetings and discussions with the researcher. Situations occurred which caused a lot of stress, tension, and sometimes violence, too. Clients also mentioned details of happy moments in their past life before they started mindfulness training. During mindfulness training, the clients discussed how mindfulness was helping them to control and regulate their actions and emotions. After mindfulness training, the clients discussed the positive effects of mindfulness training. The clients also compared life before mindfulness intervention and their attitudes during mindfulness intervention. At the end of the session, the clients shared knowledge of mindfulness lessons. According to mentors and clients, mindfulness techniques benefited everyone in varying degrees in the group home situation. Mindfulness techniques may be beneficial in any setting if the clients practice it regularly.

### **Summary**

The findings from the mindfulness study demonstrate that all clients adopted mindfulness intervention to various degrees. Mindfulness intervention benefited all clients to a certain extent depending on intervention frequency. Psychological conditions and profiles of the clients played

a crucial part on mindfulness intervention. Clients with conduct disorders were most amenable to mindfulness intervention benefits and use. Clients with oppositional defiant disorder were most resistant to mindfulness benefits. There were a few outliers who displayed benefits despite ODD.

## CHAPTER V:

### DISCUSSION AND IMPLICATIONS

*“Things that spark our minds, touch our hearts, make us smile- or roll our eyes, is in our breath”- Anonymous mindful practitioner*

Chapter V is designed to achieve three primary purposes. First, to relate research findings back to literature reviewed in Chapter II. The researcher helps the reader understand findings, sustain, improve, and cover current understanding of how mindfulness interventions work among at-risk adolescents in a group home setting.

Following the discussion, three related kinds of implications for practice are offered because the study is derived from and intended to benefit educators and social service providers who work with similar, vulnerable populations. Second, policy implications are suggested as derived from this study. Finally, implications for future research on mindfulness interventions with at-risk populations in school settings are offered.

Chapter V also situates the mindfulness study within the theoretical framework and how the methodology addressed mind and body theory. The descriptive quantitative study highlighted the use of mindfulness, the frequency of application, and the effects of mindfulness intervention with the clients. The quantitative data is enhanced by qualitative data collected from narratives and self-reports of the clients and mentors at the group home, making the study an embedded mixed method.

## **Introduction**

In this study, eight adolescent boys (clients) living in a group home participated in a six-week training in mindfulness intervention. The clients were introduced during the summer of 2017 to a short, intense mindfulness training. Four lessons were taught over a period of four weeks. Training and mindfulness techniques were reviewed for two more weeks for a study total of six weeks. Clients participated in individual interviews and focused group interviews. The clients completed a mindfulness review survey at the end of the study. In addition, mentors of the group home were randomly selected and interviewed during the period of study. Mentors discussed their role with clients at the group home. The mentors also discussed the behavior of the clients, specifically their duty and mentor involvement. The study compared clients' survey choices with their narratives and self-reports in order to answer the research question. Some of the clients and mentors had a clear, but concise, understanding of how mindfulness techniques worked within a situation and a possibility as a future intervention at group homes and at schools.

The clients living in an all-boys group home have faced a lot of challenging situations in their past. Life hardships caused clients to exhibit various emotional and behavioral disorders (Cohen-Harper, 2010). Mindfulness training was evaluated as a coping skill that the clients learned to cultivate personal well-being. The study determined if the clients developed self-awareness skills, self-regulation skills, compliance and whether behavior outbursts would be controlled from mindfulness training. Since behavior management is a constant concern for educators, mindfulness training may prove that teachers will experience less stress by substituting mindfulness training for student behavioral issues. When mindfulness practice is a foundation of an individual's life, the individual's self-awareness, skill to focus, and skill to

control outbursts improves, minimizing challenging behavior. The study proved that mindfulness may have positive effects with high and frequent users and sub-optimal benefits with low-end users.

### **Situating Mindfulness Study**

Due to a rise in classroom disruption, teachers have sought out different strategies to reduce challenging behavior in students (Elam, Rose, & Gallup, 1996). Disruptive behavior includes the displayed actions and speech people portray to others when aroused. Behavior can also be both overt and covert (Zirpoli, 2012). Emotional outbursts are common among adolescents, especially with clients who lived in the group home where the study was conducted. The primary reason to train the eight clients in mindfulness techniques was to regulate emotions and feelings that would in turn control and manage behavior resulting in reduced stress (Stahl & Goldstein, 2010) and aggression in group home settings.

Behavior is influenced by physical environment, social environment, (Miltnerberger, 2001) and internal happiness. Mindfulness training shows that the mental state of happiness is not due to the external stimulus (sensory) or internal stimulus (ego). To reach this state of mindful happiness, one may need regular mindfulness practice. Happiness may be achieved in a mindful state by allowing a restful mind, moments of feeling calm, and loving kindness towards others (Goldstein, 2015). With a calm and clear mind, the grip of stress loosens (Cook-Cottone, 2015); therefore, the act of paying attention may prevent behavioral issues. Mindfulness emphasizes paying attention to self, emotions, and surroundings (MindfulSchools.org, 2015). Mindfulness interventions are based on the view that happiness may be achieved when 'self' is happy, and this happiness is externalized from within. The clients at the group home were taught

mindfulness techniques to be aware of sounds, emotions, and body reactions, and to pay better attention to people and surroundings.

At-risk individuals, like the clients in this study, are socially and emotionally challenged (Cohen-Harper, 2010). Their past experiences make them emotionally charged. These individuals lack many life skills like social skills, communicative skills, and organizational skills to name a few. They face difficulties in paying attention long enough to complete tasks (Cohen-Harper, 2010). They are constantly fighting personal hindrances (psychotic behavior, treatment compliance) in different settings (Rechtschaffen, 2015). Social barriers present a constant struggle hampering communication. Individuals at-risk with disabilities also exhibit serious self-injurious behaviors and aggressive behaviors consistent with the clients at the group home, specifically client 2, client 5, and client 7. Individuals with self-injurious behavior, anger, and aggression are believed to struggle to achieve success and happiness.

All eight clients had various levels of emotional and mental illness that they struggled to handle. Their anger and emotional stress were hidden or revealed in different forms. One of the solutions for this health crisis is found in an alternate therapy like mindfulness training. Mindfulness meditation with a similar population in a different community setting with multiple-baseline proved to be successful (Singh et al., 2007). A twelve-week mindfulness study using a Kindness Curriculum (KC) with preschool children showed improved prosocial behavior (Flook, Goldberg, Pinger, & Davidson, 2015). Similarly, another mixed method study with Native Hawaiian delinquents was conducted with positive results (Le & Proux, 2015).

This mindfulness study was a mixed method study similar to the Le and Proux (2015) study. This mixed method study of mindfulness intervention analyzed the effectiveness in at-risk youth with mental health issues and mild to moderate disabilities. The clients were interviewed

three times during the course of study. In addition, four mentors, who worked with the clients at the group home, were interviewed.

The clients ended the study with a survey on mindfulness techniques. The clients' self-reports were analyzed to evaluate and support the quantitative indicators like self-regulation and control, being calm and relaxed, being compliant and non-complaint to name some. This mindfulness study with clients at the group home showed positive responses from high users and frequent users. Both self-reports and narratives supported the quantitative indicators. Mindfulness training benefited all clients in various degrees based on frequency of mindfulness practice.

Mentors at the group home mentioned how some clients are constantly disruptive, with little or no attention span. They were difficult to handle because of their non-compliant demeanor. As a primary investigator, conducting interviews with clients and mentors was one source of data. Concepts were developed from the data collected. In addition to interviews, memos and field notes were taken. Both memos and field notes were used as data as well. Being the primary investigator, the opportunity to understand the perspectives of participants is greatest. Adopting a mixed method helped to explore the mindfulness phenomenon and explain and interpret mindfulness training among the clients at the group home through the forms of survey, interview, field notes, and memos. The qualitative aspect of the research complemented the quantitative aspect of the embedded study (Creswell & Clark, 2011).

All clients participated in all the lessons. The lessons started with grouping the participants together in small groups of two and three. At times participants had to be trained individually as the client either had a doctor's appointment or returned after football practice (Client 1). Due to ADHD condition, Clients 5, 7, and 8 requested to be trained individually.

Individual sessions helped dealing with attention deficit and when trained individually, have a successful session without disruptions. Client 2 was best trained individually due to his disruptive tendencies. Clients 3 and 4 were trained together most of the time since they were siblings working towards the same goal. Client 5 was trained individually and at times with Clients 3 and 4.

Four lessons were taught from the *Mindfulness Curriculum for Adolescents* curriculum from MindfulSchools.org, (Mindfulschools.org, 2015), licensed to teach students in middle and high school. The first lesson, an introductory lesson in the curriculum, was about regular mindfulness practice and why students should be trained to the model. The lessons started by asking clients if they have ever been in difficult situations (MindfulSchools.org, 2015, p. 5). All clients acknowledged experiences not being able to control anger, saying or doing things they regretted, being in bad moods, not being able to sleep, not being able to pay attention in classrooms, and not being able to focus on work they were doing. When they faced a difficult situation, they responded with frustration and/or being spaced out.

The first lesson defined and elaborated on the meaning of being mindful. Maintaining a good body posture and being attentive of surroundings, which benefits everyone, were taught next. During the first week's meetings, poor client body posture was obvious. Poor body posture associated with inattentiveness among the clients while initially teaching mindfulness lessons. Clients 1, 3, 4, 6, 7, and 8 understood the concept of mindful posture within days of practice and talked about it in their second interview. Clients 1, 4, 5, 6, and 8 connected mindful body posture with maintaining mindful body posture in other settings. Another issue some of the frequent and high users of mindfulness prior to training had trouble sleeping. Clients 1, 5, 6, and

8 disclosed that they had trouble sleeping and practiced mindfulness before sleeping. By the end of the mindfulness training Clients 1, 6, and 8 were able to sleep better.

All clients participated in mindfulness training at least four times a week. According to high users and frequent users of mindfulness training, it developed calm feelings. These clients have undergone different levels of trauma and pain in their past. Stress and anxiety have a cumulative effect on the psyche, which is referred to as allostatic load (Kinser, Goehler, & Taylor, 2012). Accumulation of allostatic load added to chronic stress has other side effects such as sleeplessness, affecting mental and physical health.

Stressful events cause imbalance and disconnectedness in thought processes and internal stress reaction (Kinser et al., 2012). Stress and anxiety bring disconnectedness within mind and body. There is a valid report that long standing stress leads to sleeplessness, depression and ‘chronic hyperarousal’ (Kabat-Zinn, 1990). Similarly, the clients at the group home have been through tough times as young as primary school. The clients faced stressful events in their life that may be conceived as imbalance and disconnectedness, internal stress, anxiety bringing disconnectedness within mind and body. C1 was very young when he saw his mother die in front of his eyes. His biological father received custody of him, and C1 was involved in physical abuse and juvenile crime. Clients 3 and 4 had to be removed from home to a safe place when they witnessed sexual abuse. Clients 5 and 7 was literally pulled out of their home country. Client 5 and his family had trouble handling his condition and had to be moved for better treatment and safe settings where he could be treated. Client 2 was too young to know about his situation. His ODD condition makes it even more difficult to handle him. Client 8 was abandoned by his family because they couldn’t handle his mood swings and anxiety spell. All had internal stress within them that caused disconnectedness between mind and body (Kinser et al., 2012).

Kabat-Zinn (1990) discussed how people seek out maladaptive coping mechanisms to deal with stress. Many individuals harbor anger that is reflected as aggression. Almost all four mentors mentioned the aggressive demeanor of the clients. C5 yelled and screamed initially when he got to the group home, because this was his first time away from home. He was frustrated and confused some times during the period of study.

### **Ecological Theory and Triadic Causation**

Connections exist between clients' nature of behavior and the three factors of the *triadic structure*: personal factors (P), behavior (B), and external environment (E) (Bandura, 1986). Personal factors like cognition and affect vary for different people. The manner in which C8 coped with his trauma is different from how C1 coped with his pain. C5 and C2 are younger when compared to C1 and C8. Their coping strategy is affected by age and their thinking capacity. The external environment also has a huge impact on behavior. All eight clients were raised where the three factors (P, E, and B) culminated to cause explosive situations in personal, social, and community levels.

The Bronfenbrenner's Ecological Theory (1999) can also be used to understand why the clients behave as they do and how all the factors in the bio-ecological approach influence a child. Every child (being the center) is interconnected to the outer spokes of the biological theory considered to be school, family, and church in the *mesosystem*, with the further spokes being the *exo-system* (neighbors) and *macrosystem* (society). Changes within the system result in overt and covert behavior. The same is true with all the stories of the clients. Clients like C6 and C7 were pulled out of their comfort nest in Haiti and forcibly moved to the U.S., resulting in both mental and physical trauma. C6 was about nine years old when he fled Haiti, leaving his mother and grandmother behind. C6 still harbors pain and anguish and deals with it in his own way. He does

not cry because it doesn't help. C7 does not like talking about it. The answer to improved coping with heartbreaks and hurt for these adolescents was found in mindfulness.

Mindfulness is being aware of the moment (Kabat-Zinn, 1990). Mindfulness, self-regulation, and self-awareness are bound together. My study trained clients in mindfulness and, by focusing on breathing, benefitted some to regulate thoughts, to be aware of emotions, and control anger. Mindfulness is more than breathing. It is finding peace and calm with mindfulness practice. It is also finding a balance and equanimity with *self*. This is where theory of embodied self-regulation comes into play. Embodied self-regulation is represented by *attuned representational model of self* (ARMS) model (Cook-Cottone, 2015). A unique role of mindfulness is bridging the internal and external system of I or *self* - the embodied self.

### **Research Question**

How does mindfulness intervention use *MindfulSchools Curriculum for Adolescents* (Mindfulschools.org, 2015) effect clientele in a group home setting? The mindfulness intervention effected the clientele in various degrees. Every client benefited in some manner depending on frequency of practice. The six-week short term mindfulness training used a well-researched, evidence-based mindfulness curriculum. This *Mindfulness Curriculum for Adolescents* is a 57-page document that was published by MindfulSchools Organization. This curriculum has been administered by dozens of schools in California and other states in the U.S., as well as different parts of the world.

This curriculum has eighteen components of mindfulness lessons and techniques. For the six-week study, the first four lessons and the *Introduction* were taught in a period of four weeks and review lessons for the following two weeks. *Introduction* and *Mindful Listening* were completed during the first ten days of the study. The second lesson on *Response versus Reaction*

was completed at the end of the second week. The third lesson, *Heartfulness*, was taught in the third week, and the fourth week the lesson was on *Mindful Thoughts*. With mindfulness training, the first four lessons were basic of mindfulness techniques in a training. The mindful posture is a pose that was taken up every day before the session. All clients automatically took up mindful posture by the third day of training. However, clients 2 and 7 had to be prompted to get the pose. clients 2 and 7, and at times client 5 would sit up straight with prompts before the session. Mindful listening is to be aware of sounds around self. Clients were aware of sound around when asked what they could hear. Response to reaction is to respond positively and learning to bring the space before reacting negatively. Heartfulness is a lesson to create kind feelings within, that comes from repeating the *Metta phrase*. The last lesson on mindful thoughts is to focus on thoughts. Clients were instructed to use phrases like *thinking, thinking* to revert to focus. Clients answered questions posed to them during and after every lesson. Since lessons were on mindful techniques, the decision to advance to next lesson was made when the clients answered the questions accurately and proved it by applying it to situations when asked about techniques during interview sessions.

The same four lessons were reviewed after fourth week. The clients also were trained with longer periods of mindfulness sessions. Although 90% of the study was conducted indoors, the last two weeks of mindfulness sessions were conducted outside on the porch. Mindfulness teachers can change venues depending on the needs of the participants. Some clients liked to have the mindfulness sessions out in the porch to avoid sound of TV that might have disturbed their training. Some clients wanted to practice mindfulness in a quieter and larger area away to have space and avoid sitting too close to other clients. A quiet, lit up area is best recommended to practice mindfulness by all mindful instructor ([Mindfulschools.org](http://Mindfulschools.org)).

The mindful lessons at group home totaled three hours daily, with 15-20 minutes for each client. This curriculum has been a feasible project and can be implemented in other group home settings. Eight clients were segregated to high-end users, frequent users, and low-end users depending on frequency of use of MI. It is crucial here to understand that high users have better outcomes when compared to sub-optimal outcomes from low users. The initial challenges occurred while trying to focus on breath. Focus is a tough skill that comes with regular practice. It is often said “practice makes you perfect,” hence practicing mindfulness and focusing on breath will ultimately help one to focus better. The responses from the clients on knowledge of lessons and techniques suggest that the use of MindfulSchools’ Curriculum could have shown positive effects to some and mild effects to a couple of clients.

Regular mindfulness practice involves developing skills to be attentive by focusing on breathing (Kabat-Zinn, 1990). Focusing on breathing also strengthens brain activities (The MindfulSchools.org, 2015). This improvement in brain activities has been proven by select studies. Davidson (2005) and his group of researchers at the University of Wisconsin-Madison conducted research on the mental and physical health of a group of workers at a biotech company. The effects of the *mindful based stress reduction* (MBSR) program was studied for eight weeks. Results from this study showed that the meditation group participants experienced significant changes to the brain frontal areas that control emotion regulation. Additionally, the study by Davidson revealed fascinating associations to immune system functioning. The participants were given flu vaccinations at the end of eight weeks. Those who practiced meditations had increases in antibodies when compared to control groups. This proved that mindful meditation also helped with the immune systems. Lazar (2005) relied on brain scans after mindful meditation and showed a thicker region in the frontal cortex that deals with

decision making (EF and EC) and emotional response, among many other features. EF and EC are lower with individuals in a highly stressed environment like in group home. The same is true with the group home setting. Client 8 had mentioned in his interview mentioned that mindfulness was probably very helpful to everyone at the group home because the boys were stressed and literally over the edge. Mindfulness would help to calm and relax them. Client 8 said he enjoyed the positivity and calm feeling he got from the mindfulness training.

This six-week mindfulness study was not a neuroscience experiment. This study explored how a brief period of mindfulness training given to a group of adolescents, as an innovative experience, caused calm and peaceful feelings and controlled aggressive reaction. Some of the participants of this short-term study may have used mindfulness to be grounded in daily life skills and could have become grounded in mindfulness. High users who practiced seven days a week may have noticed their ability to focus improved. Frequent users may need more practice to get the same benefit. Hence, proving that the calming effect reduces emotionally reactive situations (Brefczynski-Lewis, 2007). Brefczynski-Lewis's (2007) proved that practicing mindfulness lowered amygdala activation, which decreased emotionally reactive situations.

After every session, clients were asked if they understood the lessons on various techniques. If they did not understand, the primary investigator clarified their concerns. Client 1 and Client 2 mentioned in the survey that the lesson in heartfulness was their favorite lesson. For Client 1, this lesson on heartfulness may have brought him closer to his mother. Similarly, the lesson in heartfulness may have brought Client 2 closer to his younger brother. Clients depending on their comprehension levels chose their favorite lessons. Client 1 mentioned that he wanted extra training in the lesson on loving kindness in order to perfect the technique. Client 2 and Client 7 had concerns both in survey and self-reports of inability to lower anger, stress, and

confusion after mindfulness intervention. It could be the age of the clients and disorder of the clients that caused a barrier to these outcomes. Clients like C2 and C7 showed sub-optimal outcome. C2 was not yet 13, and C7 was 15 and were diagnosed with ODD. Individuals with ODD are defiant and hard to work with. Older clients like C1 and C8 had better outcome when compared to C2 and C7. Even though Client 7 was diagnosed with ODD, he also struggled with ADHD, borderline intellectual functioning, a disorder that might cause difficulty in ability of comprehension, and other capability to follow instruction.

When mindfulness is established within an individual, it changes the thought process. Practicing mindfulness regularly is an antidote (Kabat-Zinn, 2007) for relieving anxiety, reducing stress, and making decisions that would favor the clients. With individuals with disabilities like ADD and ADHD, the effortful control (EC) and executive functions (EF) are underdeveloped (Razza et al., 2011). EF is a set of mental tools that assist in accomplishing tasks. Skills like organizing and completing work, paying attention, and managing time fall under EF. These skills are controlled in the frontal lobe of the brain. Mindfulness training is one technique to improve EC and EF in such individuals. It is assumed that when practicing mindfulness, the deep breathing balances the autonomic nervous system and decreases cortisone levels and lowers stress. Hence, individuals who practice mindfulness techniques regularly might be able to deal with the pressures of life. Davidson (2005) studied brain's plasticity in monks' brain with mindful meditation. The neurons in the brain may change with regular meditative techniques, hence improving EC and EF skills in people with mental illness, ADD, and ADHD. Clients 5 and 8 are high users of mindfulness and showed better outcome than Client 7, proving that frequency of mindfulness practice definitely helps.

Students at middle school act and behave differently from students at high school. Future research could study age, disorder and frequency of mindfulness practice, and outcomes of students at middle schools and make a comparison to students at high school during mindfulness training? Hence, these variations may be learned from further mindfulness studies. Clients 2, 3, and 4 expressed their inability to become focused on their breath. Focusing on breath is the basis of mindfulness practice. Hence, Clients 2, 3, and 4 requested for more practice and training in that technique. Clients 5 and 8 had expressed more training to regulate feelings and emotions. Both, Clients 5 and 8 have been diagnosed with ADHD and depressions, hence, they struggled with regulating with feelings and emotions. So, they had requested for more practice and training to regulate their feelings. A future study also with students with specific psychological comorbidity might answer this question. As mentioned earlier individuals with ADHD (Clients 5, 7, and 8) bipolar disorder/bipolar depression (Client 8) may have had lowered EF and EC (Razza et al, 2011). Mindfulness training may have helped to increase EF and EC and have better self-regulation skills. Zelazo & Lyons (2012) research showed potential benefits of mindfulness training in early childhood. This is a definite indicator that mindfulness practice in classrooms beginning at primary level classrooms may lead to handling and coping difficult situations in higher grades in a better manner.

With mindfulness training and techniques, silent meditation helps to be with self (Kabat-Zinn, 2007). In the survey, C1 mentioned that this short-term mindfulness training had been very helpful. From the narratives, C1 mentioned that he discovered his “*self*” through mindfulness practice. In the survey, C8 mentioned that he felt calm and relaxed and expressed he was at peace and felt calmness within once he incorporated mindfulness practices. Client 1 mentioned that he practiced silent meditation that may have determined the depths of *self* with silent

meditation and stillness in their mind (soul searching). Clients 3, 4, 5, and 6 mentioned the calmness that they experienced both in the survey and self-reports. All these clients were diagnosed with conduct disorder. This discovery showed that clients with same diagnostic profiles had similar outcomes.

The benefits from the curriculum could be identified when the clients expressed the changes they felt within from narratives and the survey choices. C1, although a frequent user of mindfulness, mentioned in his survey he had improved attention, ability to regulate emotions, control behavior, and feel calm and relaxed. C1 in his narratives mentioned that when he meditated silently and felt one with himself. This is a spiritual aspect of mindfulness that C1 experienced. C1 was the only one to express the spiritual outcome. This is a point of interest that only one client shared his experience with self. C1 has mentioned during interview that he was academically a good student. He received grade A all the time. The director of the group home also backed that Client 1 was a good student. Could it be C1's comprehension skill that helped him learn better than other clients? Could it be that an academically good student with good grades make C1 a better user of mindfulness? Could academic excellence be a factor that could have also helped C1 acquire, practice and adopt a new intervention in six weeks is yet to be understood in mindfulness intervention?

C2 in the survey conveyed that he was aware of his emotions and feelings and reported anger and sadness during and after MI. C3 expressed he felt he had benefited from mindfulness intervention and acquired mindfulness which was good for his thinking and mind. However, he wanted to learn to focus better after mindfulness training. C4 mentioned that he was kinder and showed gratitude after the heartfulness lesson. He was aware of his frustration during a situation and applied what he learnt from mindful thoughts kept telling '*thinking thinking*'. Client 4

remembered to breathe and focus on his breath which calm him down that stopped him from having an altercation. C4 mentioned it in his narratives that he felt kind feelings towards other clients and deal better at group home. C4 wanted to continue with training after the study. C3, C4's brother, did not think he would because he was moving away. It is yet to be understood whether clients like C3 and C4 would be able to practice mindfulness without an instructor and guidance. Both, C3 and C4 are brothers and were awaiting orders from court to move back to their home. Client 3 was confident that he was going home after court case, Client 4 hoped to go home after court appearance. The reason why C3 mentioned he was not sure if he could continue mindfulness, whereas Client 4 being a high-user experienced the benefits and wanted to continue mindfulness as long as it was available to him.

C6 expressed a desire for more practice since he had missed a few sessions. He enjoyed the calmness that he felt after mindfulness lessons. C7 expressed in his survey learning to focus. He mentioned that he learned to show gratitude from *Heartfulness* lessons and would like to practice what he learned. C7 discussed heartfulness lesson elaborately in his interview and during sessions. A lesson that might have helped him to form friendship in group home. In the beginning of the training, C7 had expressed that he did not have any friends at school and group home. It was soon after heartfulness lesson that he mentioned about a basketball game he played with the clients and how he interacted well without any fights or arguments. It may have been heartfulness lesson that helped him not have any altercation with other clients. C8 liked the positivity that mindfulness lessons portrayed. C8 struggled with mood swings, anxiety, and bipolar depression. So, mindfulness was a coping strategy that provided positivity against his depression. C5 in his survey mentioned that he needed more training and practice to reduce confusion. C5 during his initial move to his first group home, wanted to harm himself. This may

prove how his co-morbidity played an important factor to mindfulness intervention benefits and use.

Individuals with depression use maladaptive strategies to deal with situations (Dimidjian, Martell, Addis, & Herman-Dunn, 2008). Individuals with depression may “turn inwards” (Dimidjian, Martell, Addis, & Herman-Dunn, 2008, p. 329) when they do not find any positive reward from implications of positive reinforcement. Other maladaptive strategy is “doing nothing” (Dimidjian, Martell, Addis & Herman-Dunn, 2008, p. 329) when energetic attempts to do something does not produce positive consequences. C5 and C8 may have used some of the maladaptive strategies to deal with his condition before being exposed to mindfulness training. Mindfulness training may have helped to overcome these maladaptive strategies. C6 in his survey mentioned that he needed more training and practice to experience mindfulness benefits. C6 has been so severely abused that his hurt and sorrow overwhelmed him, and his maladaptive strategy was to never show emotion. He said he never cried because it never helped him.

Clients 3 and 4 showed signs of anxiety and stress before the court date for release from the group home. Both discussed about going home but were fearful of the possibility of if the request was turned down. During one of the mindfulness sessions, the hearing officer had come to meet the boys. Meeting and talking to the hearing officer was point of stress for both clients. C7 shied away from his identity when he mentioned that he didn't like to talk about his culture and hated to be identified by his culture. C7 might have low self-esteem, low self-worth, and lack skills to overcome the fear of meeting people and having a friendly conversation. C7 might also have trust issues and the reason why he has trouble making friends. Mindfulness training and heartfulness lessons may help to fix this challenge. C8 felt abandoned when his family left him in a mental institute. He spent sleepless nights that may have drove him deep into

depression. Can these clients with these comorbidities practice mindfulness on their own at a group home setting? Would it help them to be trained both at a group home and school to be a high user of mindfulness intervention that would help improve attentiveness and breathing?

Similarly, a study that evaluated youth's change in behavior in juvenile correctional facility among Native Hawaiian/Pacific Islander (Le & Proulx, 2015) proved to be effective. Similarity can be observed between my study and the study conducted with Native Pacific Islanders as the 36 participants had prior mental health condition. This study was a mixed method study with quantitative markers as testing salivary cortisol and SIgA (biomarkers) and qualitative pointers as personal reflections. Ten modules from Mind Body Awareness Project mindfulness curriculum were taught in five weeks, and cortisol levels tested showed significant change and self-reports stated increased self-awareness and feelings of calm and love. This proves that mindfulness intervention may have reduced cortisol levels (Le & Proulx, 2015) in ANS circuits in the brain, decreasing levels of stress and anxiety (Kinser et al., 2012). Similarly, this dissertation study involved individuals who have been at juvenile correctional facility and inclined to be at the correctional facility being at-risk youth. Mindfulness intervention may have benefited all the clients in various degrees and keep them away from committing crimes.

Stress and anxiety were concerns with the clients at group home. Prior to mindfulness training, C1 mentioned that he tried to ignore difficult emotions during challenging situations when he faced them. C2 did not have any strategy and he often got into problems. One mentor mentioned C2 was the toughest kid to handle, and that he had many changes in caregivers. When C3 and C4 were at home, they turned to their mother to deal with problematic behavior. At the group home, C4 mentioned he thought about positive things which did not completely help him. C3 mentioned he seemed angry most of the time. C5 got into arguments during difficult

situations. C6 ignored the problem and bottled up anger and frustration. C7 got into trouble and apologized. C8 would read books, which would redirect his thoughts. None of the clients had concrete coping mechanism before mindfulness training.

While participating in mindfulness training, Clients 1, 3, 4, 5, 6, and 8 were able to notice the frustration, the anger, and emotions. The clients were able to pause and understand emotions and feelings and take some deep breaths. It can be assumed that learning mindfulness techniques, the clients may have become aware of the emotions, applying space and controlling unhappy situations. Instead of fight or flight response (Rechtschaffen, 2014), the clients proceeded to their rooms to complete a few minutes of mindfulness breathing that would calm them. The clients noticed a short-term change when they practiced and focused on their breath. The four lessons got the high users and frequent users to discover benefits by using the mindfulness technique. It may have helped them to calm down, control anger, and become aware of their situation and reaction. It may be addressed that when grounded in regular mindfulness practice, the stress levels improved in Clients 1, 3, 4, 5, and 8, hence calming the clients.

Both my quantitative data and qualitative data provided some important findings. The data showed insight into the dynamics of mindfulness and its good benefits and sub-optimal benefits for the clients at group home.

### **Implications**

Mindfulness is increasing in acceptance and practice, gaining more focus in neuroscience, stress reduction therapy, and brain science. Two decades ago, mindful meditation practitioners were looked upon as a religious cult. Research in neuroscience and education have brought definitive changes about mindfulness. There are a few propositions and suggestions that emerged from this study. The study contributed to a gap in research about alternative

intervention added to other interventions for dealing with disruptive behavior in classrooms and other settings (group home). Some qualitative study and mixed method studies have been conducted on yoga and mindfulness (Le & Proulx, 2015) prior to this study. This mindfulness study has added to the literature in areas of innovative mindfulness study, alternative intervention, mind and body therapy, and upcoming mindful education. Most of the mindful studies conducted by neuroscientists were conducted under strict enforcements of laboratory procedures. Most were conducted in the medical field as MBSR programs with adult patients to relieve stress and pain.

This study was conducted in an adolescent (males only) group home with less structure during summertime when the boys were not attending school. Without schoolwork, the stress and anxiety from school wasn't present during the study. However, some of the boys who were active with school activities were bored, hence this study intervention worked well among the residents of the group home. Similar studies with mindful yoga and mindful meditation have been conducted in school settings (Fernando, 2015), but none in a group home setting. Both the setting and the population makes the study unique. It is important to understand that practicing mindfulness and participating in mindful meditation at the group home setting is a harbinger to being mindful at school. This study's findings portray that behavior challenges occur both at school and other settings. Therefore, the clients are contributing in a major way to newer interventions that can be implemented at school. Furthermore, this new intervention could be discussed by boys at school, promoting positive dispositions towards mindfulness techniques. Mindfulness intervention resulted in good outcomes for high and frequent users. Frequency of mindfulness practice is key to success. Also, some psychological conditions like ODD with comorbidities appear to be resistant to MI benefits. Future research may include stronger focus

on imagery techniques (Nieman, 2015) added on to mindfulness sessions such as creative artistry and/or dramatics to enhance the impact of both activities. Furthermore, some conditions like conduct disorder seem to be amenable to mindfulness intervention.

This study with its findings could promote research at school settings. School districts could introduce this intervention into tier 2 and tier 3 behavior plans to foresee change in behavior. When it comes to individuals with disabilities, there are always tense, anxious moments at school stemming from academics, tests, a fear of being bullied, and inability to get classwork completed. Learning mindfulness techniques is a good way of becoming aware of self and emotions and controlling any arousal in classroom settings. Future study with general population can be studied for students who can also apply these mindful techniques at a time when focusing is difficult. The researcher can also make mindful inquiry suggestions based on clients' every day inquiry of self. It has been proven that this curriculum works at school settings (Fernando, 2015). The study was a randomized study at Oakland, CA. Fernando conducted the study with the largest sample size of 937 students in a school setting. His mindfulness intervention exhibited an improvement in attention, enhanced calm and relaxed feelings, self-care and better-quality social skills. Associating mindfulness lessons and practice as a tier 2 or tier 3 intervention by special educators, occupational therapists, and physical therapists may warrant school districts implementation. This group of individuals have been subject to many coping skills and various interventions, which elevated them to tier 4. The positive findings of this study suggest that regular, daily intervention may be a solution to regulating emotions and outbursts to better self-manage behavior and prevent behavior disruption.

## Significance of the Study

The purpose of this study was to find out whether a short-term mindfulness training approach would change behavior among eight youth in a group home. This study may benefit students with disabilities who have psychological disorders with comorbidities by implementing mindfulness intervention as part of behavior therapy in school settings.

This study was significant for its setting and participants. The participants' psychological disorders and their matching narratives complemented the study. Every participant was diagnosed with at least two psychological disorders with traumatic events that caused everlasting mental scars. Most of the clients have moved among several residences. The group home setting and the participants with multiple disorders made the situation unique and extremely crucial to implement any new intervention. However, providing a new intervention like mindfulness with a population like the one at the group home also came with challenges like trust issues, time preferences etc. These complexities worked towards the individuals wanting to be trained with a new coping strategy like mindfulness.

Although quantitative research is known for its scientific procedures, using a mixed method study, a study within a study, allowed for new insight to emerge. Research in mindfulness has been carried out in various settings, but never in a small, rural group home with adolescent boys. The stay at *Safe Haven* group home is for individuals with MI (mental illness). For some of the clients, this is the last stop before returning to foster care or living with guardians/parents. They either successfully completed the program, or, if no progress was observed or the client regressed, they would be asked to leave. According to the director, *Safe Haven* is a better choice when compared to moving from one foster home to another foster home. Four clients exited out of the *Safe Haven* program at the end of the study. Three of the four were

clients from the study. Clients 2, 6, and 7 moved out of the group home five weeks into training, and the reason why their survey choice mentioned requirement for more practice and training in mindfulness for them to be proficient in techniques. This proved that consistency in practice and longer duration would help to avoid the challenges that the clients faced during training. The four mentors at the group home suggested that mindfulness intervention could be most beneficial if everybody at the facility is trained to keep facilitate a new intervention such as the practice in this study.

### **Limitations**

There are some restrictions in this study. Despite the hopeful trends, there are few potential limitations to be acknowledged with this mindfulness study. The first restriction is the threat to validity. Here the question of validity brings the query whether the choices in the survey (quantitative part) and the narratives and self-reports (qualitative part) by the clients validate the benefits and outcomes of the study. The second major limitation is the small sample size and the post intervention training that some clients opted to join. A couple of clients left the group home during the end of six weeks, which was revealed in the survey data. The narratives from the clients expressed a desire for more mindfulness practice. However, the field notes, the memos, self-reports and observations, all accounted for the study being triangulated, that accounted for its validity and reliability. The embedded nature of the study, where the qualitative narratives were entrenched in quantitative data supported the study in a lot of aspects. When survey choices were analysed, the choices were compared to the narratives spoken by clients. The narratives from clients matched the choices they made in survey questions. This proved that narratives reinforced the survey.

To prevail over the controversy of effectiveness and credibility, the researcher conducted member checking with the participants, and trail audit with the chair of the study was conducted with this study making it valid (Kolb, 2012). Member checking was a critical step to check biases in the narratives. Field notes, memos, observation, and self-reports from clients and mentors' interviews supported the validity. Despite these limitations, the voluntary nature of participation in this study made it possible to conduct the study and benefit the clients. Also, the sample of the population in the study varied from 50% African Americans, 25% non-American, and 25% White, generalizability in the study is effective with adding more number of participants in a future study. A small sample always has issues with generalizability.

It is also unclear whether the clients who stopped practicing mindfulness would revert to old ways. It is understood that mindfulness training benefited the clients as an intervention. Four clients continued mindfulness lessons for another five weeks after concluding the study. The nature of the study being mixed method has possibilities for discrepancies during the double process, and longer time duration during analyzing data from both quantitative and qualitative indicators can be a possibility. Approaching a mixed method study is different when compared to a solely quantitative or qualitative approach. Some approaches have unequal results (Creswell, 2015).

### **Recommendations for Future Research**

This study contributes to the body of literature that is present with mindfulness research, brain research study, and mind and body exercise that can be used in classrooms. It makes a positive contribution to many educational journals, which will assist not only special education teachers but general education teachers, as well as occupational therapists and physical education coaches. Future research will help answer questions and show further understanding on the use

of different methods in different settings. For example, conducting a study with a larger number of participants instead of interviewing four mentors could reveal additional findings by contacting and interviewing the counselors and teachers who deal with the clients. Moreover, research across two group homes with different genders and different disorders could reveal different aspects.

Furthermore, conducting a single subject design at school settings may reveal additional meaningful results. Conducting a mixed method study in a school setting may enhance more understanding of mindfulness training. A similar study could be conducted in school settings, and a comparative study could be established between group home and school settings.

Documenting episodes of behavior both at home and in school settings may provide another dimension of effectiveness. In addition, video recording the training and sharing it with the clients for video self-evaluation may develop a stronger representation of mindfulness training and techniques. Being a lone researcher makes it difficult to show all aspects of the study (Kolb, 2012). Conducting research as a team has positive aspects and collaborative in research may strengthen similar findings. Collaborative work among researchers may also enhance code cross checking and remove concerns of ethical analysis.

### **Conclusion**

The findings from this study are based upon surveys completed by the clients and revealed distinctions such as good outcomes for high users and frequent users, and sub-optimal outcomes for low-end users. The surveys also highlighted various levels of benefits. As a researcher, the short-term mindfulness intervention served the clients and mentors with an alternative strategy to deal with challenging situations in the group home; therefore,

improvement in managing behavior and improving self-regulation (in clients) may be attributed to mindfulness-based intervention.

As a researcher, the conclusions of the study were inspiring. An outcome of the qualitative approach in research explored and recognized the meaning that individuals and groups attributed to any new event. In this instance, a new intervention was conducted in a group home that involved residents, mentors, and the researcher. Unknown to participants, a mindful inquiry occurred at the research setting. The researcher was mindful of many factors for example the tone of the participants, the tired look at client's face after football practice, the use of lighting in the room where mindfulness was conducted. The worried look among Clients 3 and 4 when the hearing officer asked for them was an obvious mindfulness moment for the researcher.

Client 6 met the researcher a few weeks after completing training. He successfully completed the program and is now living with a mentor. He had come to visit his mentors and clients at *Safe Haven*. He joined in mindfulness training with the clients. He shared that he practiced mindfulness because it helped him to sleep better. The change of residence had caused moments of anxiety for Client 6, but by practicing mindfulness techniques, he was able to sleep and function better. The director of the group home had watched a couple of mindfulness sessions. The effect and appeal of the technique is also evident from the director of the group home when she approached the researcher to ask if she could be taught mindful lessons on Mindful Eating and requested personal training in mindfulness.

Sometimes as a researcher looking at the unexpected an awareness of new layers in the study or understanding participants' perspectives occurs. It could bring moments of realization why the client (C7) who kept calling himself "normal" several times during intervention agreed

to participate because he thought he was “normal”. What is being normal, is participating in the training or not participating in the training?

The quantitative and qualitative strands in the study made every moment of data collection, and data analysis critical to find the outcome of the study and leading to the question, “Will the survey match the narratives and self-reports made by the clients?” Keeping up with observations and writing memos and field notes helped lead to results and conclusions. Interviewing the clients made them feel like important people. Without the clients’ participation, this study could not have been completed. It can be concluded that the mixed method study met its objective with good outcomes from high users and frequent users and more training hours for suboptimal users.

### **Summary**

I experienced a new insight as a mindful inquirer such as being self-aware, being engaged in multiple perspectives of the study, being better aware of self, and being a part of an ongoing process. Awareness of being part of the study (Bentz & Shapiro, 1998) and interpreting others, including their cultural makeup, is a role that a researcher plays. Other than being part of the study, as a researcher I was conscious of not being carried away by biases in the study. The steps taken to avoid pre-conceived notions about the mindfulness training and the participants were taken into consideration to avoid any personal biases.

Being grounded in mindful inquiry assists researchers to be able to deal with social media, multi-cultural, and multi-disciplinary factors that have become a part of all research (Shenk, 2007). Separating self from research and understanding that one must be objective is crucial in a research study. Having a clear mind is crucial in conducting a study. Clarity of mind is more likely to be achieved when the mind is not tired. Clarity is reached when the mind is still.

The mindful inquiry used here to realize the answers to research questions revealed the true meaning of mindfulness experienced during the research work.

In closing, results from this study indicate that mindfulness intervention represents a promising strategy for supporting the social and behavioral needs of students with multiple social and psychological challenges. Although my results strongly suggest that mindfulness intervention can be “taken up” by students irrespective of their challenges, they also suggest that additional training and support are needed beyond the initial six-week intervention period. In fact, leaders from the group home requested additional training from the investigator while these final chapters were being written.

All in all, this study suggested that mindfulness interventions need to be tailored to fit the nuances of people, places, and contexts. This study attended to this nuance through a unique mixed methods design that was developed to attend to the unique strengths and challenges of youth in a group home. To the extent that this study helped inform future mindfulness interventions with vulnerable populations in a group home setting. The study also achieved its primary aim of evaluating a successful mindfulness study at group home that may have a possibility of supporting mindfulness intervention for students mild to moderate disabilities with improved self-regulation and managing behavior at middle schools and high schools.

## REFERENCES

- About Mindful Schools*. (2016, December 27). Retrieved from Mindfulschools:  
<http://www.mindfulschools.org>
- Annual School Incident Report*. (2016, November 1). Retrieved from Alabama State Department of Education: <http://www.alsde.com>
- Bandura, A. (1986a). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman & Company.
- Bandura, A. (2006). Guide to the construction of self-efficacy scales. In F. U. Pajares, *Self-Efficacy beliefs of adolescents* (pp. 307-337). Greenwich: Information Age Publishing (IAP).
- Bandura, A., & Jourden, F.J. (1991). Self-regulatory mechanisms governing the impact of social comparison on complex decision making. *Journal of Personality and Social Psychology*, 60, 941-951.
- Bendery, J. (2014, May 8). *Tim Ryan mindfulness*. Retrieved from The Huffington Post: <http://www.thehuffingtonpost.com>
- Benson, H. (1976). *The relaxation response*. New York, NY: Harper.
- Benson, H. (2011). *Relaxation revolution*. New York: Scribner.
- Benson, H., Wilcher, M., Greenberg, B., Huggins, E., Ennis, M., Zuttermeister, P.C., & Friedman, R. (2000). Academic performance among middle school students after exposure to a relaxation response curriculum. *Journal of Research and Development in Education*, 33, 156-165.
- Bentz, V.M., & Shapiro, J.J. (1998). *Mindful Inquiry in social research*. Thousand Oaks: Sage.
- Brefczynski-Lewis, J.A., Lutz, A.H., Schaefer, H.S., Levinson, D.B., & Davidson, R.J. (2007). Neural correlates of attentional expertise in long-term meditation practitioners. *Proceedings of the national Academy of Sciences*, 104(27), 11483-11488.

- Brensilver, M. (2015, July 23). *Integrating mindfulness into education*. Retrieved from Education Week:  
[http://Blogs.edweek/leadrship\\_360/2015/07/integrating\\_mindfulness\\_into\\_education](http://Blogs.edweek/leadrship_360/2015/07/integrating_mindfulness_into_education)
- Bronfenbrenner, U. (1999). *Environments in development perspective: Theoretical and operational models (1st Ed.)*. Washington, D.C.: American Psychological Association.
- Brown vs. Board of Education*. (1954, May 17). Retrieved from Civil Rights:  
<http://www.civilrights.org/education/Brown>
- Brown, K.W., Ryan, R.M., & Creswell, D.J. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, 18(4) 211-237.
- Canter, L. (1989). Assertive discipline: More than names on the board and marbles in a jar. *JSTOR*, 71 (1) 57-61.
- Canter, L., & Canter, M. (1992). *Assertive discipline: Positive behavior management for today's classroom (2nd ed.)*. Santa Monica, CA: Canter and Associates.
- CDC. (2013, January 10). *2009 national youth risk behavior survey*. Retrieved from Centers for Disease and Prevention.: <http://www.cdc.gov>
- Center for Disease Control and Prevention. (2013). *Youth Risk Surveillance Behavior System*. Atlanta: CDC.
- Center for Mindfulness Research and Practice*. (2015). Retrieved from Center for Mindfulness Research and Practice: <http://wwwcmrp.org>
- Charmaz, K. (2014). *Constructing grounded theory (2nd ed.)*. Thousand Oaks, CA: Sage Publications.
- Cohen-Harper, J. (2010). Teaching yoga in urban elementary schools. *International Journal of Yoga Therapy*, 20 99-109.
- Cook, B.G., Semmel, M.I., & Gerber, M.M. (1999). Attitudes of principals & special education teachers forward the inclusion of students with mild disabilities: Critical differences of opinion. *Remedial and Special Education*, 20(4), 199-207.
- Cook-Cottone, C. (2015). *Mindfulness and yoga for self-regulation*. New York: Springer.
- Cook-Cottone, C.P. (2006). The attuned representation model for the primary prevention of eating disorders: An overview for school psychologists. *Psychology in the Schools*, 43, 223-230.
- Creswell, J.W. (2014). *Research Design : Qualitative, quantitative, and mixed methods approaches*. Los Angeles Thousand Oaks CA: Sage.

- Creswell, J.W., & Plano Clark, V.L.. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Thousand Oaks, CA: Sage.
- Cullen, M. (2011). Mindfulness-based interventions: An emerging phenomenon. *Mindfulness*, 1-8.
- Davidson, R. (2005). *The science and clinical applications in meditation meeting*. Presented at the 13th Annual Investigating the Mind, Washington, D.C.
- Davidson, R.J., & Lutz, A. (2008, January 1). *Buddha's brain: Neuroplasticity and meditation*. Retrieved from NIH: <http://www.ncbi.nlm.nih.gov/pmc/articles>
- Department of Education (2001). *Report of the surgeon general's conference on children's mental health: A national action agenda*. Retrieved from U.S Dept. of Education Washington DC: [www.US Dept. of Education.gov](http://www.US Dept. of Education.gov)
- Dimidjian, S., Martell, C.R., Addis, M.E., & Herman-Dunn, R. (2008). Behavioral activation for depression. In D. Barlow (Ed.), *Clinical handbook of psychological disorders* (pp. 328-364). New York, NY: The Guilford Press.
- Doty, P., Kasper, J., & Litvak, S. (1996). Consumer-directed models of personal care: lessons in medicaid. *Milbank Memorial Fund Quarterly*, 74, 377-409.
- Dunlap, G. (2009). Positive behavior support and early intervention. In W. S. Sailor (Ed.), *Handbook of positive behavior support* (pp. 49-71). New York: Springer Spring Street NY.
- Dunlap, G., Sailor, W., Horner, R.H., & Sugai, G. (2009). Overview and history of positive behavior support. In W. D. Sailor (Ed.), *Handbook of positive behavior support* (pp. 3-16). New York, NY: Springer.
- Dunlap, G., & Fox, L. (2009). Positive behavior supports and early intervention. In W. D. Sailor (Ed.), *Handbook of Positive Behavior Support* (pp. 49-71). New York, NY: Springer.
- Dwyer, K.P., Osher, D., & Warger, W. (1998). *Early warning, timely response: A guide to safe schools*. Retrieved from U.S. Department of Education: <http://www.ed.gov>
- Eber, L., Hyde, K., & Suter, J.C. (2011). Integrating wraparound into a schoolwide system of positive behavior supports. *Journal of Child Family Study*, 20, 782-790.
- Elam, S.E., Rose, L.C., & Gallup, A.M. (1996). The 28th annual Phi Delta Kappan/Gallup poll of the public's attitudes toward public schools. *Phi Delta Kappan*, 78(1), 41-59.
- Elkman, P. (2004). The universality of emotion. In D. Goleman (Ed.), *Destructive emotions* (pp. 119-156). New York, NY: Bantam Dell.

- Emerson, M.R., Fretz, R. I., & Shaw, L.L. (2011). *Writing ethnographic fieldnotes*. Chicago, IL: The University of Chicago Press.
- Fernando, R. (2010, April). *Research*. Retrieved from Mindfulschools: <http://www.mindfulschools.org>
- Fox, K.C.R., Nijeboer, Dixon, M.L., Floman, J.L., Ellamil, M., Rumak, S.P., Sedlmeier, P., & Christoff, K. (2014). Is meditation associated with altered brain structure? A systematic review and meta-analysis of morphometric neuroimaging in meditation practitioners. *Neuroscience and Biobehavioral Reviews*, 43,48-73.
- Frank, J.L., Bose, B. & Schrobenhauser-Clonan, A. (2014). Effectiveness of a school-based yoga program on adolescent mental health, stress coping strategies, and attitudes toward violence: Findings from high risk sample. *Journal of Applied School Psychology*, 30:1 29-49.
- Gay, L.R. (1996). *Educational Research: Competencies for Analysis and Application*. Boston: Merrill.
- Gibbs, G.R. (2007). *Analyzing qualitative data*. Thousand Oaks, CA: Sage.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.
- Glaser, B.G. & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New Brunswick: Aldine Transaction.
- Glaser, J., & Laudel, G. (2013). Life with and without coding: Two methods for early-stage data analysis in qualitative research aiming at causal explanations. *Forum Qualitative Sozialforschung/ Forum: Qualitative Social Research*, 14(2), Art. 5.
- Goleman, D., Dalai Lama. (2003). *Destructive emotions*. New York, NY: Bantam Book- Random House.
- Greene, J. (2007). *Mixed methods in social inquiry*. San Francisco, CA: Jossey- Bass.
- Greenland, S. (2013). *The mindful child*. New York: Atria Paperback.
- Hwang, Y.S., Kearney, P., Klieve, H., Lang, W., & Roberts, J. (2015). Cultivating mind: Mindfulness Interventions for children with autism spectrum disorder and problem behaviors, and their mothers. *Journal of Child Family Studies*, 3093-3106.
- IDEA. (1997). *Individuals with Disabilities Education Act regulations*. Washington, D.C.: U.S. Department of Education.
- IDEA. (2004). *Individuals with Disabilities Education Act*. Washington, D.C.: U.S. Department of Education.

- Johnson, K.E., & Taliaferro, L.A. (2011). Health behaviors and mental health of students attending alternative high schools: A review of the research literature. *Pediatric Nursing*, 17, 79-97.
- Kabat-Zinn, J. (1990). *Full catastrophe living*. New York: Bantam Book House.
- Kabat-Zinn, J. (1994). *Wherever you go there you are*. New York: Hachette Books.
- Kabat-Zinn, J. (1997). *Everyday blessings: The inner work of mindful parenting*. New York: Hyperion.
- Kabat-Zinn, J. (2005). *Wherever you go there you are*. New York, NY: Hachette Books.
- Kabat-Zinn, J. (2012). *Mindfulness for beginners*. Boulder, CO: SoundsTrue.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual Reviews Psychology*, (44) 23-52.
- Kauffman, J.M., & Landrum, T.J. (2009). *Characteristics of emotional and behavioral disorders of children and youth (8th ed.)*. Upper Saddle River, NJ: Merrill/Pearson Education.
- Kazdin, A. (1989). *Behavior modification in applied settings*. Pacific grove, CA: Brooks/Cole.
- Kerr, M.M., & Nelson, C.M. (2010). *Strategies for addressing behavior problems in the classroom*. Boston: Pearson.
- Kinser, P.A., Goehler, L.E., & Taylor, A.G. (2012). How might Yoga help depression? A neurobiological perspective. *Explore: National Institute of Health*, 8(2) 118-126.
- Koenig, K.P., Buckley-Reen, A., & Garg, S. (2012). Efficacy of the get ready to learn yoga program among children with Autism Spectrum Disorders: A pretest -post test control group design. *The American Journal of Occupational Therapy*, 538-546.
- Kolb, S.M.. (2012). Grounded theory and the constant comparative method: Valid research strategies for educators. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3 (1) 83-86.
- Lama, D. (2004). *Destructive emotions*. New York, NY: Bantam Dell.
- Law, P. (2002). *No Child Left Behind Act of 2001*. Statistics 1425. *No Child left behind*. Retrieved from U.S Department of Education: [Http://nclb.org](http://nclb.org)
- Lazar, S.W., Kerr, C.E., Wasserman, J.R., Gray, D.N., Greve, D.N., & Treadway, M.T. (2005). Meditation experience is associated with increased cortical thickness. *NeuroReport*, 16(17) 1893-1897.
- Le, N.Thao., & Proulx, J. (2015). Feasibility of mindfulness-based intervention for incarcerated mixed-ethnic Native Hawaiian/Pacific islander youth. *Asian American Journal of Psychology*, 6(2) 181-189.

- Lehr, C.A., Tan, C.S., & Ysseldyke, J. (2009). Alternative schools: A synthesis of state-level policy and research. *Remedial and Special Education, 30*,19-32.
- Mallot, R.W., Whaley, D.L., & Malott, M.E. (1997). *Elementary principles of behavior*. New York: Prentice Hall.
- Martella, Nelson, Marchand-Martella. (2003). *Managing disruptive behaviors in the schools*. Boston: Pearson Education, Inc.
- Martin, A. (2010). *The everyday advocate*. New York NY 10014: Penguins Books Ltd.
- Martin, R., Pritchard, I., Hutchinson, A.D., & Wilson, C.,. (2013). The role of body awareness and mindfulness in the relationship between exercise and eating behavior. *Journal of Sport & Exercise Psychology, 35*, 655-660.
- Mash, E.J., & Hunsley, J. (2007). Assessment of child and family disturbance: A developmental-systems approach. In E. Mash (Ed.), *Assessment of childhood disorders* (pp. 3-50). New York: Guilford.
- Maxwell, J.A. (2013). *Qualitative Research Design An Interactive Approach*. LosAngeles Thousand Oaks CA: SAGE Publications Inc.
- McEvoy,A., & Welker,R. (2000). Antisocial behavior and academic failures and school climate: A critical review. *Journal of Emotional and Behavioral Disorders, 8* 24-33.
- McLaughlin, M.D., & Carr, E.G. (2005). Quality of rapport as a setting event for problem behavior: Assessment & intervention. *Journal of Positive Behavior Intervention, 7* (2) 68-91.
- Mehta, S., Mehta, V., Mehta, S., Shah, D., Motiwala, A., Vardhan, J., Mehta, N., & Mehta, D. (2011). Multimodal behavior program for ADHD incorporating yoga and implemented by high school volunteers: A pilot study. *International Scholarly Research Network*, doi:10,5402/2011/780745.
- Messer, D., Horan, J.J., Turner, W., & Weber, W. (2016). The effects of internet-delivered mindfulness training on stress, coping, and mindfulness in university students. *AERA Open, Jan-Mar vol 2, No.1*.pp1-8.
- Miller, J.J., Fletcher, K., & Kabat-Zinn ,J. (1995). Three-year follow up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders. *General Hospital Psychiatry, 17*(3) 192-200.
- Miltenberger,R.G. (2001). *Behavior Modification- Principles and Procedures*. Belmont, CA: Wadsworth/Thomas Learning.
- Mind-Body Therapy*. (2011). Washington,D.C.: National Center for Complementary and Alternative Medicine.

- Mindfulschools k-5 curriculum.* (2007). Retrieved from Mindful Schools:  
<http://mindfulschools.org>
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- National Center for Complementary and Alternative Medicine [NCCAM].* (2011).
- Neiman, B. (2015). *Mindfulness and yoga skills for adolescent and children OTR*. Eau Claire WI: PESI Publishing & Media.
- Nhat Hahn, T. (2012). *Making space creating a home meditation practice*. Berkeley, CA: Parallax Press.
- Park, S., Singer, G.H.S., & Gibson, M. (2005). The functional effect of teacher positive and neutral affect on task performance of students with significant disabilities. *Journal of Positive Behavior Support*, 7, 237-246.
- Parks, G.A., Anderson, B.K., & Marlatt, G.A. (2001). *Interpersonal handbook of alcohol dependence and problems*. New York: John Wiley.
- Peck, H.L., Kehle, T.J., Bray, M.A., & Theodore, L.A. (2005). Yoga as an intervention for children with attention problems. *School Psychology Review*, 34(3) 415 -424.
- Phillips, J. (2008). *Letters from the Dhamma brothers*. Onalaska, WA: Pariyatti Press.
- Radiant Child Yoga.* (2016). Retrieved from Children's Yoga: <http://www.childrensyoga.com>
- Rahula, W. (1974). *What the Buddha taught*. New York: Grove Press.
- Razza, R.A., Bergen-Cico, D., & Raymond, K. (2015). Enhancing preschoolers' self-regulation via mindful yoga. *Journal of Child Family Studies*, 372-385.
- Rechtschaffen, D. (2014). *The way of mindful education- Cultivating well-being in teachers and students*. New York: W.W. Norton & Company.
- Riley, R.W., & Reno, J. (2000, April 21). Implementing early warning, timely response. *Safeguarding our children: An action guide*. Washington,, D.C.: Department of Education.
- Rosenberg, L. (1998). *Breath by breath*. Boston: Shambala.
- Sandomierski, T., Kincaid, D., & Algozzine, B. (2009). *Response to intervention and positive behavior supports: Brothers from different mothers or sisters from different misters?* New York: National Center for learning Disabilities.
- Satcher, I. (1996, January 1st). *Youth risk behavior surveillance: United States 1995 Vol 45-SS4*. Retrieved from [www.cdc.gov](http://www.cdc.gov)

- Schloss, P., Schloss, A., & Schloss, C.N. (2007). *Instructional methods for secondary students with learning and behavior problems*. Boston, MA: Allyn and Bacon.
- Schonert-Reichl, K.A., Oberle, E., Lawlor, M.S., Abbott, D., Thomson, K., Oberlander, T.F., & Diamond, A. (2015). Enhancing cognitive and social-emotional development through a simple-to-administer mindfulness-based school program for elementary school children: A randomized controlled trial. *American Psychological Association*, (51)1, 52-66.
- Schure, M.B., Christopher, J., & Christopher, S. (2008). Mind-body medicine and the art of self-care: Teaching mindfulness to counseling students through yoga, meditation, and qigong. *Journal of Counseling and Development*, 86(1) 47-56.
- Segal, Z., Williams, M.G., Teasdale, J.D., & Kabat-Zinn, J. (2007). *The mindful way through depression*. New York: Guilford Press.
- Shanahan, M.J., & Mcleod, J.D. (1996). Trajectories of poverty and children's mental health. *Journal of Health and Social Behavior*, (3), 207-220.
- Shriner, J.G., Ardoin, S.P., & Yell, M.L. (2009). Assessment of students with emotional and behavioral disorders. In M. M. Yell, *Evidence based practices for educating students with emotional and behavioral disorders* (pp. 45-60). Upper Saddle River, NJ: Merrill/Pearson.
- Siegel, D. (2007). *The mindful brain*. New York, NY: W.W. Norton and Company.
- Singer, G.H.S., & Wang, M. (2009). The intellectual roots of positive behavior support and their implications for its development. In W. D. Sailor (Ed.), *Handbook of positive support* (pp. 17-46). New York, NY: Springer.
- Singh, N.N., Lancioni, G.E., Manikam, R., Winton, A.S.W., Singh, N.A., Singh, J., & Singh, A.D.A. (2011). A mindfulness-based strategy for self-management of aggressive behavior in adolescents with autism. *Research in Autism Spectrum Disorders*, 1153-1158.
- Singh, N.N., Lancioni, G.E., Winton, A.S.W., Adkins, A.D., Singh, J., & Singh, A. (2007). Mindfulness training assists individuals with moderate mental retardation to maintain their community placements. *Behavior Modification*, 31, 800-814.
- Singh, N.N., Lancioni, G.E., Winton, A.S.W., Adkins, A.D., Wahler, R.G., Sabaawi, M., & Singh, J. (2007). Individuals with mental illness can control their aggressive behavior through mindfulness training. *Behavior Modification*, 31, 313-328.
- Singh, N.N., Lancioni, G.E., Karazsia, B.T., Winton, A.S.W., Myers, R.E., Singh, A.N.A., Singh, A.D.A., & Singh, J. (2013). Mindfulness-based treatment of aggression in individuals with mild intellectual disabilities: A waiting list control study. *Mindfulness*, 4 159-167.
- Singh, N.N., Singh, A.D.A., Singh, A.N.A., & Winton, A.S.W. (2011). *Meditation on the Soles of the feet for anger management: A trainer's manual*. Raleigh NC: Fernleaf Publishing.

- Singh, N.N., Wahler, R.G., Adkins, A.D., Myers, R.E., & The Mindfulness Research Group. (2003). Soles of the feet: A mindfulness-based self-control intervention for aggression by an individual with mild mental retardation and mental illness. *Research in Developmental Disabilities*, 24; 158-169.
- Skenk, D. (1997). *Data smog: Surviving the information glut*. San Francisco: Harper Edge.
- Smith, T.E.C., Polloway, E.A., Patton, J.R., & Dowdy, C.A. (2008). *Teaching students with special needs in inclusive setting (5th Ed.)*. Boston: Pearson.
- Stahl, B., & Goldstein, E. (2010). *A mindfulness based stress reduction workbook*. Oakland, CA: New Harbinger Publications.
- Stake, R. (1995). *The art of case study*. Thousand Oaks, CA: Sage.
- Steiner, N.J., Sidhu, T.K., Pop, P.G., Frenette, E.C., & Perrin, E.C. (2013). Yoga in an urban school for children with emotional and behavioral disorders: A feasibility study. *Journal of Child Family Study*, 22, 815-826.
- Strauss, A. (1987). *Qualitative analysis for social scientists*. Cambridge, England: Cambridge University Press.
- Strauss, A. & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Streeter, C.C., Gerbarg, P.L., Saper, R.B., Ciraulo, D.A., & Brown, R.P. (2012). Effects of yoga on the autonomic nervous system, gamma-aminobutyric-acid, and allostatis in epilepsy, depression, and post-traumatic stress disorder. *Medical Hypothesis*, 571-579.
- Swenson, S., & Ryder, R.E. (2016, August 1). *Office of Special Education and Rehabilitative Services*. Retrieved from United States Department of Education: <http://www.ed.gov>
- Tashakori, A. & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Taylor, C., Harrison, J., Haimovitz, K., Oberle, E., Thomson, K., Schonert-Reichl, & Roeser, R.W. (2015). Examining ways that a mindfulness-based intervention reduces stress in public school teachers: A mixed-methods study. *Mindfulness*, 1-18.
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research*. Thousand Oaks, CA: Sage.
- Thompson, E.A., Connelly, C.D., Thomas-Jones, D., Eggert, L.L. (2013). School difficulties and co-occurring health risk factors : substance use, aggression, depression, and suicidal behavior. *Journal of Child and Adolescent Psychiatric Nursing* , 26, 74-84.
- Transformative Life Skills*. (2014). Retrieved from Niroga: <http://www.niroga.org>

- Turnbull, A.P., & Turnbull, R. (2001). *Families, professionals, and exceptionality (4th ed)*. Upper Saddle River, NJ: Merrill.
- U.S. Department of Education. (2008). *Emotional and behavioral disorder*. Washington D.C.: U.S. Department of Education.
- United States Public Health Service. (2009). Retrieved from report of the surgeon general's report on domestic and family violence: <http://www.usphs.com>
- Vago, D.R., & Silbersweig, D.A. (2012). Self-awareness, self-regulation, and self-transcendence (S-ART): A framework for understanding the neurobiological mechanisms of mindfulness. *Frontiers of Human Neuroscience*, 6, 296.
- Van Der Hurk, D.G.M., Schellekens, M.P.G., Molema, A.E.M., Speckens, A.E.M., & Van der Drift, M.P. (2015). Mindfulness-based stress reduction for lung cancer patients and their partners: Results of a mixed methods pilot study. *Palliative Medicine*, 652-660.
- Wang, M., McCart, A., & Turnbull, A.P. (2007). Implementing positive behavior support with Chinese American families: Enhancing cultural competence. *Journal of Positive Behavioral Interventions*, 9, 38-51.
- WestEd. (2008). *California healthy kids survey. Technical report secondary Orange County*. Los Alamitos, CA: Department of Education.
- Willard, C. (2016). *Growing up Mindful*. Boulder, Colorado: Sounds True.
- Yell, L. (2012). Legal considerations for schools. In J. Zirpoli (Ed.), *Behavior management: Positive applications for teachers* (pp. 33-51). Boston: Pearson.
- Yell, M. (2006). *The law and special education (2nd ed.)*. Upper Saddle River, NJ: Merrill/Pearson Education.
- Yin, R. (2014). *Case study research: Design and methods (5th ed)*. Los Angeles: Sage.
- Yoga Ed. (2016). Retrieved from Yoga Education: <http://yogaed.com>
- Zelazo, P.D., & Lyons, K.E. (2012). The potential benefits of mindfulness training in early childhood: A development social cognitive neuroscience perspective. *Child Development Perspectives*, 1-7.
- Zirpoli, T. (2012). *Behavior management: Positive applications for teachers*. Boston: Pearson.
- Zirpoli, T. & Buese, D. (2012). Data collection techniques. In T. Zirpoli (Ed.), *Behavior management -positive applications for teachers* (pp. 141-179). Upper Saddle River: Pearson.

## APPENDIX A:

### INDIVIDUAL INTERVIEWS WITH CLIENTS

PI to the participant: Hey, I am here to interview you for about 30 minutes to one hour. Thank you so much for agreeing to participate in my research study. I would like to understand how you cope with emotions like anger, fear, distress in your life. Please answer each of my questions based on your own experience. If you are uncomfortable, you can inform me. You do not have to share anything with me that you are not comfortable sharing.

**1. Before Mindfulness training:** All of us have bitter and sweet experiences in our life. Some examples of these are moments like anxiety before tests in the classroom, likes and dislikes in school, becoming angry with someone, or frustration from not having things that you need.

What are some bitter (difficult) things you have experienced?

How do you cope with these situations?

What would you like to change about how you cope with difficult things, if you could?

I am here to teach and train you in a new coping method called mindfulness. Mindfulness training may help you manage stress and anxiety. You will also learn to deal with emotions like anger. Do you have any questions?

### **2. During Mindfulness training:**

You've probably had some experiences that you might want to share about mindfulness practice.

What did you learn from today's session? How do you feel right now? What component or part of today's training did you like?

What do you notice in your body? In your mind?

What kinds of emotions are you feeling? What kind of thoughts are you having?

How does your breath feel right now? Do you think that this mindfulness training is helping you? Do you have any questions?

### **3. After Mindfulness Training**

Finally, we are coming to the end of our mindfulness sessions. Can please share your experiences about mindfulness training? What did you like about the sessions? What did you learn from the sessions? What did you think of mindful posture? Can you explain.

Did you understand the concept about '*fractal*'? Can you explain.

Who did you pass your loving kindness thought during heartfulness practice? Will "Metta" phrases bring a change in your life? How?

How was it to be aware of your breath in your anchor?

During the sessions how often were you able to focus on your breathing? Like if we did a session of 7 minutes, are you aware of 2 minutes, 5 minutes or the whole time?

We did a lesson on mindful thoughts. Can come with a situation that you can use the lesson on mindful thoughts? Is it easy or challenging to stay focused on your breathing during session? How do you feel when you are lost in your thoughts?

Has mindfulness training helped you to be aware of your emotions? Have you been able to control emotions like anger or feelings of aggression?

Are you able to regulate and control your feelings? Would you like to continue mindfulness training? What did you like about the training? and what would you like to change about the training?

Do you have any questions?

## APPENDIX B:

### FOCUS GROUP INTERVIEWS WITH CLIENTS

#### PI to the participants

**1. Before Mindfulness Training:** This is the first time all of you all meeting together with me, and we will be meeting few times during this training.

All of us have own mechanism to deal with stress. I am going to get you to do an exercise that is adapted from teachers in mindful self-compassion lessons (Willard, 2015).

Close your eyes and hold your hands in front of you, making tight fists. As you do, be aware of your emotions, bodily response, and your breath.

What did you notice in your body? What kind of thoughts were you having? What kind of emotions did you feel?

How many times a day or week do you feel this way? Would you like to feel this way all the time? Similarly, slump over the couch and let your head fall in your chest like you are overcome with sadness or disheartened.

What did you notice in your body? What kind of thoughts were you having? What kind of emotions did you feel?

How many times a day or week do you feel this way? Would you like to feel this way all the time? Do you have any questions?

#### **2. During Mindfulness Training:**

So, when I ask you to sit down and find a comfortable posture and settle your mind and body. Are you able to follow that instruction? Can you explain one or two situations when you applied your mindfulness training and when it was difficult to apply?

With mindfulness training, we are understanding our own mind and allowing it to take control over our emotions and feelings. How many times a day or week are you aware of your emotions and feelings? How often do you take control of it and are aware of it?

Since you have been doing mindfulness training, are you able to quieten your mind and body when you get agitated? Are you being mindful of your situations? How many times a day do you try to diffuse an 'ugly' situation? Do you have any questions?

#### **3. After Mindfulness Training:**

We have come to the end of this study/training and I have few questions on the session we have had.

This is a group interview so each one of you will be given a chance to speak.

What is mindfulness and what do you know learn about mindfulness sessions? How did it help you? Were you able to use the techniques in daily situation? How?

Mindful Body Posture is important pose while practicing mindfulness. Why is it important to have a mindful posture? Do you use it in regularly? Can you use mindful posture on any other settings?

Do you think you understood the concept of space in mindfulness practice? Why do you use space during situations?

Why is it important to anchor your breath? Where do you anchor your breath? Do you remember the heartfulness phrases? Can you repeat the phrases? How does it help to pass on loving kindness thoughts to somebody you care? Who did you pass it on today?

How many thoughts did you have today during mindfulness session? What kind of negative thoughts do you usually get? Were you able to get rid of thoughts that caused negative emotions? Was it easy or tough to use the lesson to use mindful thought tool?

Do you remember the first time we met I asked you to do two exercises? Let's try them again.

Close your eyes and hold your hands in front of you, making tight fists. As you do, be aware of your emotions, bodily response, and your breath. Now use mindfulness techniques and tell me what you felt.

What did you notice in your body? What kind of thoughts were you having? What kind of emotions did you feel?

How many times a day or week do you feel this way? Would you like to feel this the way all the time?

Similarly, slump over the couch and let your head fall in your chest like you are overcome with sadness or disheartened. What did you notice in your body? What kind of thoughts were you having? What kind of emotions did you feel? Now use mindfulness techniques and tell me what you felt.

How many times a day or week do you feel this way? Would you like to feel this way all the time? Do you notice a change in how your body, mind and your emotions have changed after undergoing these exercises this time? Can you please explain how they have changed?

According to the *Times* magazine "*Mindfulness is a new science of health and happiness.*" Do you agree to this statement? Why or why not?

What are your feelings about this mindfulness coping mechanism? Would you tell your friends about mindfulness? Would you recommend it to them? Do you think you will continue practicing mindfulness now that our training sessions are over? Why or why not?

I want to thank each one of you very much for participating in this interview. Do you have any questions?

## APPENDIX C:

### INDIVIDUAL INTERVIEW WITH MENTORS

Researcher: “Thank you so much for agreeing to participate in this study. I would like to ask you a few questions to better understand what residents (clients) are most appropriate for mindfulness training and if you think mindfulness training is feasible to implement in the group home. I understand that these residents are referred as clients by all personnel at group home. Please answer each question with as much information as you would like to share.”

1. Have you had any experiences with mindfulness in the past? What were they? If so, what were there benefits to you? Were there benefits for the resident (clients)?
2. What does mindfulness look like?
3. What are your residents/clients like?
4. Do you think mindfulness training can be an effective intervention for your residents?
5. Do you think mindfulness training is feasible to implement with your residents in your setting?
6. Is your setting conducive to implementing mindfulness training?
7. Is there a better time of the year to implement mindfulness training with your residents? When is that? Why?
8. If we look at the three times of the year – fall, spring, summer – which do you find the most feasible for mindfulness training implementation and benefit to the residents? Which is the least feasible? Why for both?
9. Of the student/residents you work with now, describe the characteristics of the kids you think would benefit from mindfulness training (please remember not to use names of kids for confidentiality purposes)? Why?
10. Is there specific criteria for what student/residents should receive mindfulness training?
11. Are there barriers to implementing mindfulness with the types of residents you serve?
12. Are there barriers to implementing mindfulness training in the group home setting?
13. Are these barriers more prominent during different times of the year for implementing check-in/check-out? If so, when and why?
14. Should mindfulness training be an intervention strategy offered to residents in this facility? Why or why not?

APPENDIX D:

MINDFULNESS REVIEW SURVEY

1. What is the purpose or benefits of mindfulness techniques to you?
  - a. Improve attention (focus)
  - b. Regulate emotions and feelings
  - c. Control behavior
  - d. Help to calm and relax
  - e. All the above
  
2. How many times do you practice mindfulness?
  - a. Once daily
  - b. 3 times a week
  - c. More than 5 times a week
  - d. Whenever I am having a rough situation
  
3. Did the mindfulness practice help regulate your emotions and feelings?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
4. Did the mindfulness practice help lower anger?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
5. Did the mindfulness practice help lower confusion?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
6. Did the mindfulness practice help lower stress?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure

7. Did the mindfulness practice help improve kindness and heartfulness in group home?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
8. Did the mindfulness practice help improve friendship in group home?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
9. Did the mindfulness techniques help you control and decrease difficult situations?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
10. Did the mindfulness techniques help you calm down and relax?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
11. Did the mindfulness techniques help you focus better?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
12. Did the short mindfulness training helped you?
  - a. Absolutely
  - b. Yes, I would like to have more training in future
  - c. Maybe with more practice
  - d. No, not sure
  
13. Which is your favorite mindfulness lesson?
  - a. Lesson 1: Mindful posture & Mindful Listening (imagery)
  - b. Lesson 2: Mindful Space and Anchor
  - c. Lesson 3: Mindful Heartfulness (Loving kindness)
  - d. Lesson 4: Mindful Thoughts
  - e. All the above

## APPENDIX E:

### MINDFULNESS LESSONS

Lessons reviewed during mindfulness study

#### 1. LESSON 1: *Mountain Pose*

Welcome to daily mindfulness. Today we are going to discuss a new breathing technique called Mountain Pose.

Let's start today's pose by settling into a comfortable position. Take a moment to stretch out in whatever way it feels best to release any tightness or kinks in your body that is holding up. Get settled in your comfortable position, lay your arms gently on your side or on your lap. Whenever you are ready close your eyes and take a moment to pause any mental activity holding your mind. And let's tune in your breath as you usually do, take deep breath in and breath out slowly and gently. Hold for moment after you breathe in and then breath out slowly. As you are breathing relax all your muscles and inhale deeply. Hold for a moment and exhale slowly. As you breathe out let all the muscles in your body relax, take another deep breath, hold for a minute and exhale slowly letting all the muscles in your body relax completely. Breathe in deeply and breathe out slowly.

Now allow your breathing to be normal breathing and begin to observe your breath as you flow in and out. You can even follow this practice as follow the leader, following your breath as it moves through you. Stay connected to each breath you take. Follow the breath in and hold for 2 seconds and follow the breath out slowly. Stay as close to it as you can. Keep breathing in and stop and breathe out.

If you feel you are distracted bring back your thoughts back to your breath. And now we will follow an exercise that brings the stillness and beauty of mountains in practice. Originally introduced by Jon Kabat Zinn, who created Mindfulness Based Stress Reduction program. This will benefit you to calm and relax your body similar to the stillness and beauty of mountains for peaceful meditation. Picture the most beautiful mountain you can think of, whether from the real world or imagination. In your mind's eyes pour over the details. The soaring snow covered peak, the gigantic ragged slopes. The dark green trees at the base, notice how vast, still and unmoving it is. Notice the lush green meadows around it. As you sit deeply inhale and hold for minute and slowly exhale. Keep this image in your mind's eye. Now imagine brining the tall mountain in your body. Take the outline and place in within you. Sitting straight like a mountain and breathe in deeply, stop, breathing out slowly. Your head is the peak, your torso, shoulders are the slopes on the mountain, your lower body the base of the mountains with dark green trees, your thighs and legs the lush green meadows, and the deep roots of the grass and trees planted firmly in the ground.

Allow your tall, dignified mindful body posture be compared to the tall mountain standing straight up rises from earth and towers up to the blue sky. Allow your body to rise with the mountains noble and dignified. Hold this mountain feeling while breathing slowly and deeply. Your breath has not wavered, it is there for years like mountain sitting majestically, looking straight up to the sky. Storms come and go, problems come and go but be like the mountain stand straight up with this mountain mindfulness posture.

Now, bring back your attention to the room, feel your presence by wriggling your toes and fingers and gently open your eyes. Hope you had a lovely mindfulness session.

## 2. Lesson 2: *Fractioning mindfulness*

Welcome to daily mindfulness.

Today we will be talking about fractions. Before we start the session, take a comfortable position, settle your weight into a cushion or chair. Keep your back straight and relax yourself into a sitting position. And, if you are ready close your eyes or relax your gaze downward by softening your eyes. As you soften your eyes pay attention to your temples and unhinge your jaws and relax all your muscles. However, be alert and focus on your breath and different sensations of your body. Now bring your attention to the breath. Feel the sensation of deep inhale and slow exhale. Observing your breath as it moves in with openness and curiosity.

Now sense the breath as it moves through different areas of the body. Start by bringing your attention to the edge of the nostril. On taking in breath feel the cool caress of the air when it moves inside. On breathing out or exhale feel the warm air that comes out of the lungs out of your body. Let your attention flow from the breath through the nostrils into the lungs and out from mouth. Rushing past your cheeks, behind the tongues and into your throat, and now follow your breath from throat to the lungs in your body.

Let your attention flow from breath to the nostrils into the lungs and out from mouth. Rushing past your cheeks and follow your breath to the lungs and into stomach, where you can feel the expansion and contraction in the rib cage and movement of your belly as the diaphragm rises and falls with each breath. If it is difficult to notice, place one hand over your belly and you can feel the movement of the belly. Now focus your attention to see if you can feel the breath as a whole from the tips of nostrils to all the way to belly, inhale hold for a minute and exhale warm air.

As we watch our breath from inhale to exhale we can experience the natural movement from beginning to the end like a pattern of the movement of trees, the ocean waves crashing on sand and the wind blowing in the beach front. All this form a pattern just like our breathing forms a pattern in our body. So, as we gently relax our attention, today we will explore the idea of fractals in mindfulness. Let's imagine you are flying in a helicopter over the ocean and observing the rugged coastline off the beach over 3000 miles from above. The coast with its jagged coastline appears far away from higher altitude but as we zoom down to lower altitude it looks similar, but the shape looks closer with the image of sweeping bays and sandy coast. As you descend it appears larger whole like a basic motif. Similarly, with mindfulness whether you practice it for 10 minutes or 15 minutes one day or don't practice it for 20 minutes, each session

forms a fractal of the whole. The mindfulness session can be zoomed in or out counts for a whole like the fractal of the jagged edge of the ocean from higher altitude.

This pattern of mindfulness with focus on mindful body, anchor and space remains part of larger whole whether you practice for 2 minutes on one day to 10 minutes on another day. It will always be part of a fractal of mindfulness.

Now, gently take a deep inhale and a slow exhale and bring back your attention to the room, feel your presence by wiggling your toes and fingers and gently open your eyes. Hope you had a lovely mindfulness session.

### 3. Lesson 3: Heartfulness (*Metta*)

Welcome to daily mindfulness. Today we are going to practice *Metta* technique.

Start by finding a comfortable seat. Gently lengthen your spine and hold it straight. Allow your shoulders to relax, and find a restful position for your arms and hands. Close your eyes and relax all your tiny muscles around your eyelids. Soften your forehead, your temples, and skin of your cheek and nose. Release any tension around your lips and jaw. As you settle in let your mind and body be relaxed. Try to get away with any kind of thoughts that will hasten you to stress. Now turn in your focus to your breath. Noticing your breath moving in and out. Allow your inhales to be deeper, observe your rib expand to receive your breath and relax when your breath exhales and ribs soften to release the breath slowly.

Continue following your inhales and exhales as if you were following your leader. Letting your whole body breathe with you. And, now we will begin the practice of *Metta*. *Metta* is a *Pali* word. It is often translated as loving kindness or benevolence. It is a practice that many of you are familiar with.

When we develop *Metta*, we develop friendly, amicable and kind thoughts and action. As a practice *Metta* is always directed to ourselves and eventually like a ripple effect it is passed into the world to others.

The practice is simple. It involves directing your internal thoughts to your heart and reciting these loving kind phrases. As you silently repeat these phrases, help them to resonate in your whole body:

*“May I be happy*

*May I be well*

*May I be safe*

*May I be at peace.”* (2) Once more repeat the above phrases and let it sink in your body. Let extend the same phrases to another person that you care about:

*“May you be happy*

*May you be well*

*May you be safe*

*May you be at peace.*" (2) And, now give yourself permission to rest in kind, loving safe space which you have created for yourself.

As humans, we all need to be loved and cared for, yet it is challenging to hold ourselves with the same kindness towards us. The thing is if we are not gentle and loving towards ourselves, constantly pouring the loving kindness to other will leave us exhausted and depleted of energy. No able to take care for anyone at all. Metta tradition starts within us before it is carried out to others. The Dalai lama said we cannot obtain outer space before we make peace with ourselves. Metta reduces our suffering. When we care for others our happiness and self-respect for others increases. When we are comfortable knowing and accepting who we are, loving others become nourishing and enriching. It is easier when we hold ourselves with loving kindness. The inside of the inner heart creates a connection with the outer world when we are loving and kind. Metta instinctively forms a connection to the outside by touching others with love, kindness and comparison and friendliness. As an experiment send mindfulness thoughts with Metta phrases and celebrate self-love.

#### 4. Lesson 4: *Mindful Thoughts* ---- being present

Welcome to daily mindfulness. Today we are going to start our session with the importance of presence or present moment.

Take a comfortable position. If you are wearing glasses, please remove it, close your eyes, relax the tiny muscles around your eyes. Relax around your temple and unhinge your jaws. Now gently focus your mind on your breath. Taking a posture allow your breath to flow easily and bring a soft smile to your lips.

Bring attention to any physical sensation of breathing. Follow your breath from the very beginning of your nose as the cool breath flows in to the lungs and the warm breath flows out from the lungs. Feel your ribcage fill with breath when air flows in and softens when air flows out. Similarly, if you touch your belly you can feel the rise and fall of the belly which tells you how the air moves in and out of human body.

Now consciously focus on your normal breathing and observe the pattern that follows with your breathing in and breathing out. get curious about how each breath feels in your body. Observe if it is longer or shorter? Is the breath deep or shallow? Are you able to tune in to all the sensations of the breath? Notice every time you have a thought and get distracted, gently come back to your breathing by saying: thinking, thinking. Sometimes we have thoughts we don't want to have. By noticing or being aware of these thoughts, we can more easily let it go.

Sometimes you notice that you are feeling nervous, or angry, or excited, bored or scared. Be aware of these body sensations and feelings and bring back your focus to your thoughts> now relax your attention and notice how you feel.

The spiritual scientist Dalai Lama was once asked what surprised him about humanity? He said 'man'> because man sacrifices his health in order to make money, he then sacrifices his money to recuperate his health, then he is so anxious about the future that he doesn't enjoy the present moment. The result being he doesn't live in the present or the future as if he is never really lived

in the present and as if he is never going to live for the present. It is important to live in the present moment because that's where everyone is when they live.

So, how do we exist in the present moment the only one we truly have. The answer is practice living in this moment with mindfulness. Jon Kabat-Zinn calls it capturing your moment constantly being aware of moment to moment where the mind is right now. Your breath is a great tool to bring you to the present moment. So, focus on your breath and if you notice getting anxious, nervous or angry, bring in the space and veer your thoughts to your breath. Slow down and take a deep breath and focus on how your breath moves. Your breath is always there for you at every moment like your closest friend.

PS: Lessons coordinated with MindfulSchools Curriculum and adapted from Calm app. to suit the participants in this study.

APPENDIX F:

IRB APPROVAL



June 2, 2017

Sujata Norman  
Dept. of SPEMA  
College of Education  
Box 870232

Re: IRB Application #: 16-013  
Application Title: "Improving Self-Regulation and Managing Behavior with Mindfulness Based Training"

Dear Ms. Norman:

The University of Alabama IRB has received the revisions requested by the full board on 5/18/17. The board has reviewed the revisions and your protocol is now approved for a one-year period. Please be advised that your protocol will expire one year from the date of approval, 5/18/17.

If your research will continue beyond this date, complete the IRB Renewal Application by the 15<sup>th</sup> of the month prior to project expiration. If you need to modify the study, please submit the Modification of An Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent/assent forms to provide to your participants.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,



Stuart Osdan, PhD  
Chair, Non-Medical Institutional Review Board

UNIVERSITY OF ALABAMA  
Individual's Consent to be in a Research Study  
Case Worker (Guardian) Form

Your client is being asked to participate in a dissertation research study that Sue Norman, an educator from Albertville High School and a Ph.D. candidate at the University of Alabama, is conducting.

**What is the study about?**

This study will examine a mindfulness intervention used to address self-regulation and behavior of adolescents. Your client is invited to participate because he lives in this group home setting.

**Why is this study Important-What good will the results do?**

This study may help your client. Mindfulness training may help your client improve their self-regulation skills and possibly their behavior.

**Are the researchers making money from this study?**

We are not making money from this study. We are conducting the research as part of our university responsibilities.

**Why have I been asked to take part in this study?**

Your client is invited to participate because he is a resident at this group home.

**How many other people will be in this study?**

3-5 residents from the group home and 3-5 care givers in the group home will take part in the study.

**What will I be asked to do in this study?**

If you agree for your client to be in this study, he will participate in the mindfulness training for 6 weeks (3-5 times per week). He will be asked to complete a self-report form about his behavior and feelings after each training session. He also will participate in focus group interviews at the beginning, middle, and end of the mindfulness training period. He will be asked to complete an individual interview with the investigator (Sue Norman) on three different occasions as well. The group and individual interviews will be audio recorded and should last 30-60 minutes each. The PI will ask all participants in the focus group interview to keep all the discussions private; however, there is no guarantee that they will not discuss it outside the focus group.

Your client does not have to be in this study. If you consent for him to be in this study but change your mind, he has the right to drop out at any time. Other than mindfulness training, your client will not be treated differently in the group home. Data collected during the study will be shared with professors at the university. Interview transcripts will be coded and themes shared with professors.

**What will the study cost me? Will I be paid for participating?**

There is no cost to your client for participating in this study and you will not receive any money for your client's participation.

**What are the risk (problems or dangers) from being in this study?**

There are no foreseeable risks for your client from being in this study. All names and identifying information will be removed from all products and your client's identity will not be revealed or recognizable in any way. Meeting with the investigator should not interrupt your client's daily schedule.

**What are the benefits of being in this study?**

Your client may help to contribute information about effective interventions for individuals in group home settings.

UNIVERSITY OF ALABAMA IRB  
CONSENT FORM APPROVED: 6/2/17  
EXPIRATION DATE: 5/17/2018

**What are the alternatives to being in this study?**

The alternative is not to participate. Not participating means your client will not participate in the mindfulness training or be interviewed about the mindfulness intervention.

**What are my rights as a participant?**

Being in this study is voluntary---it is your free choice. You may choose for your client to start the study, knowing that he can stop at any time. The data in this study will be kept confidential and in locked files. Your client will never be identified by name in any presentation or publication, nor will anyone will be able to recognize your client in any reports or publications that result from this study. The University of Alabama Institutional Review Board (a committee that looks out for the ethical treatment of people in research studies) will study records from this research from time to time. This is to be sure that participants in research studies are being treated fairly and that the study is being carried out as planned.

**Who do I call if I have questions or problems?**

If you have questions about this research study, please contact Sue Norman at 256-744-3430 or her advisor, Dr. Jim Siders at jsiders@ua.edu. If you have questions about your rights as a person taking part in a research study, make suggestions or file complaints and concerns, you may call Ms. Tanta Myles, the Research Compliance Officer of the University at (205)-348-8461 or toll-free at 1-877-820-3066. You may also ask questions, make suggestions, or file complaints and concerns through the IRB Outreach Website at [http://osp.ua.edu/site/PRCO\\_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html). You may email us at [participantoutreach@bama.ua.edu](mailto:participantoutreach@bama.ua.edu).

I have read this consent document. I understand its contents and freely consent to participate in this study under the conditions described. I will receive a copy of this consent form to keep.

Name of Client: \_\_\_\_\_

Name of Guardian: \_\_\_\_\_

Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Investigator Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Sue/ Sujata Norman

I agree for my client to be audio recorded for this study:

Yes            No

UNIVERSITY OF ALABAMA IRB  
CONSENT FORM APPROVED: 6/2/17  
EXPIRATION DATE: 5/17/2018

### Assent Script

Hi,

How are you doing today? I am Sue (Sujata) Norman. I am a special education teacher at Albertville High School. I am here to talk to you about my research study. I am doing this study here in your group home. I want to tell you about my study so you can decide if you would like to be a part of the study. Being a part of my study is completely up to you. Do you want to hear about my study?

My study is about a new intervention called mindfulness training. Have you heard of mindfulness or being mindful? Well, mindfulness means being aware of everything that is happening around you. To be mindful and to increase attention will happen when you pay attention to your breathing process. It will be like a quiet time and you will breathe in and out. This breathing time may help you feel calm and relax in school and in your home. This breathing practice may help you to handle situations like anger and frustration. Do you have any questions so far?

So, my intervention will train you to breathe in and breathe out deeply. I will also teach you how to have a mindful body, mindful listening, mindful eating, etc. These techniques will help you to be aware of your feelings and emotions. I will ask you to record your feelings each day on a form we call the Self-Report Form. I will ask you to be a part of a group discussion or just talk with group of residents here at the group home three times over the next six weeks. We will ask all the residents to keep the discussion or talk with the group to be private, but I cannot guarantee that they will not share what you say. Also, I will ask you to meet me individually for one on one discussion or talk with you on your breathing practice. This talking with you individually or with a group is called *interview*, which will happen three times. The group and individual interviews will be recorded, but the recordings will not be shared with anyone other than me. I will be the only one to listen to them. I will not use your name or personal information in my work. It is your choice to be a part of this study or not and you can drop out of the study at any time. This will not impact how you are treated here in the group home.

If you decide you want to be a part of my study, I will ask you some questions to make sure you know what you will be doing in my study. Please say *yes* if you want to participate, and *yes* if you are o.k. with being recorded. Please say *no* if you wish not to participate in the

UA IRB Approved Document  
Approval date: 6/2/17  
Expiration date: 5/17/2018

Mindfulness Assent document

study or do not want to be recorded. If you do not want to be recorded but still want to be in the study, I can take notes about what you say in the interviews (pause for response).

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Approval date: 6/2/17  
Expiration date: 5/17/2018