

St. Catherine University

**SOPHIA**

---

Master of Social Work Clinical Research Papers

School of Social Work

---

5-2013

## The Experience of Yoga on Children with Anxiety

Lindsay J. Kaplan

*St. Catherine University*

Follow this and additional works at: [https://sophia.stkate.edu/msw\\_papers](https://sophia.stkate.edu/msw_papers)



Part of the [Social Work Commons](#)

---

### Recommended Citation

Kaplan, Lindsay J.. (2013). The Experience of Yoga on Children with Anxiety. Retrieved from Sophia, the St. Catherine University repository website: [https://sophia.stkate.edu/msw\\_papers/205](https://sophia.stkate.edu/msw_papers/205)

This Clinical research paper is brought to you for free and open access by the School of Social Work at SOPHIA. It has been accepted for inclusion in Master of Social Work Clinical Research Papers by an authorized administrator of SOPHIA. For more information, please contact [amshaw@stkate.edu](mailto:amshaw@stkate.edu).

## The Experience of Yoga on Children with Anxiety

by

Lindsay J. Kaplan, B.A.

MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work  
St. Catherine University and the University of St. Thomas  
St. Paul, Minnesota  
in Partial fulfillment of the Requirements for the Degree of  
Master of Social Work

Committee Members  
Lance T. Peterson, Ph. D., LICSW  
Kathy Flaminio, MSW, E-RYT  
Chrissy Mignogna, RYT

The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within in a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation.

### Abstract

This study sought to address how Yoga Calm instructors view yoga as a way to help children who may suffer from anxiety. Four interviews were conducted with trained Yoga Calm instructors to see how their use of Yoga Calm has impacted the children with whom they work. The interviews were then transcribed and analyzed and six themes emerged: the importance of breathing, visualization, community and team building, ability to practice at home or on their own, self-esteem and self-confidence, and normalizing and having a safe environment. There were many similarities between the findings and the reviewed literature. Community and team building was a theme that was only found in the findings of the current study. This finding may lead to more research to be conducted on Yoga Calm or yoga in general and how a sense of community and team building does in fact impact children who may suffer from anxiety.

### **Acknowledgments**

This paper and completion of my graduate work would not have been possible without the unconditional love and support from my amazing husband, Jamie and wonderful family. The encouragement I received from you was all it took for me to get through this.

I am forever grateful for you and love you more than you know.

I would also like to give a huge thank you to my Chair, Lance Peterson. I do not think I would have been able to get through this year without your support and guidance. A nod of appreciation goes out to my two committee members, Kathy Flaminio and Chrissy Mignogna. Your passion for Yoga Calm is fantastic and contagious and I am so thankful to have had your knowledge and wisdom throughout.

I want to remember my vivacious and incredibly supportive mother-in-law, Patrice who I miss every day. She was definitely my loudest cheerleader and would have been so proud to see this day finally come.

**Table of Contents**

Introduction.....Page 5

Literature Review.....Page 9

Methodology.....Page 21

Conceptual Framework.....Page 24

Findings.....Page 25

Discussion and Implications.....Page 36

References.....Page 44

  

Appendix A .....Page 51

Appendix B.....Page 54

### **The Experience of Yoga on Children with Anxiety**

Feeling anxious can range from very low levels to high levels that can have long lasting effects on one's life and is defined as unwarranted fear or nervousness about real or imagined circumstances (National Association of School Psychologists [NASP], 2010). Anxiety often occurs when there is no real threat to a person's safety, but the threat feels real (kidshealth.org, 2010). Levels of anxiety can be great enough to produce an Anxiety disorder, a medical disorder causing one to feel consistently nervous and worried over an extended period of time (School Psychiatry Program & Madi Resource Center, 2010).

Anxiety disorders represent a common mental health condition found in children and adolescents; they are apparent in up to 15% of children, and more often seen in females (NASP, 2010). There are many symptoms of potential anxiety that can vary from child to child. Some of the more common symptoms in children and adolescents are increased heart rate, body sweats, as well as individuals describing a "butterfly" feeling in their stomach (kidshealth.org, 2010). An anxious child will also often seem scared and quiet. It is important to note that each individual may demonstrate different symptoms of anxiety, yet these are the most commonly found.

With these symptoms in mind it makes sense that one's physical and mental health can be greatly affected. Feeling great worry for something that may not warrant these feelings can take a toll on a child's life. For instance, having a constant "butterfly" feeling in the stomach may limit his or her ability to engage in normal child like activities which will in turn affect one's social skills and end up affecting his or her self-esteem and cause social isolation. It is common for children with anxiety to be reluctant to attend

birthday parties or refuse to have sleepovers. When children are not engaging in normal childlike behaviors peer relationships may suffer greatly (kidshealth.org, 2010). Children may not be able to enjoy hobbies they would have otherwise enjoyed had they not been worried or scared to participate. Physically, anxiety is reported to cause stomachaches, headaches and dizziness with children (School Psychiatry Program & Madi Resource Center, 2010).

Besides great social impairment, anxiety may have negative effects in school work and education. Initially, children may be reluctant to attend school if worries are associated with leaving a parent or the comfortable home environment. If this is the case, it is common for children to constantly be late to school or have crying fits at school (School Psychiatry Program & Madi Resource Center, 2010). This high level of anxiety can lead to unwillingness to participate in academic activities which can have negative effects in long-term education, self-esteem, and lead to constant self-criticism (School Psychiatry Program & Madi Resource Center, 2010).

Several types of anxiety disorders exist. Generalized Anxiety Disorder (GAD) is the most general of anxiety disorders in which the anxiety occurs in different settings, happens on most days and affects about three to four percent of children (School Psychiatry Program & Madi Resource Center, 2010). There is also Separation Anxiety Disorder, which is often identified when children feel a great sense of homesickness or constantly cry when they are not with their parents (Anxiety and Depression Association of America [ADAA], 2012). Bullying at school also increases one's potential to develop separation anxiety (NASP, 2010). Separation Anxiety Disorder is most common among children ages seven through nine (ADAA, 2012). Posttraumatic Stress Disorder (PTSD)

is another common type of anxiety among children and adolescents. This type of anxiety is seen in those who have experienced a traumatic event in their life, which may result in their experiencing flashbacks (NASP, 2010). Children with PTSD often are reported to want to avoid certain places and become emotionally numb (ADAA, 2012). Children who live in homes with violence are more likely to develop PTSD after experiencing a traumatic life event (ADAA, 2012). Obsessive-Compulsive Disorder (OCD) is another common type of anxiety in children, and is characterized by a child doing things excessively (Anxietyattack.org, 2009). One with OCD will often uncontrollably repeat habits such as washing hands constantly throughout the day to try to ease anxiety (ADAA, 2012). Boys are more likely to develop OCD before puberty, while girls will often develop OCD during their teen years (ADAA, 2012). Other anxiety disorders include Panic Disorder, which is when a child experiences at least two panic or anxiety attacks that come about for no specific reason and certain phobias, which is extreme fear of a specific object (Diagnostic and Statistical Manual of Mental Disorders [DSM], 2000).

Depression and anxiety often go hand in hand. It is reported that the two occur together up to 60% of the time (NASP, 2010). When a child has both depression and an anxiety disorder, it is likely that his or her cognitive functioning is in danger. Anxiety consists of similar symptoms to attention deficit hyperactivity disorder (ADHD), like difficulty concentrating on tasks and performing school work. Differentiating between these two disorders is crucial, as children who suffer from anxiety left untreated are at a higher risk of developing a substance abuse problem or ultimately suicide (ADAA, 2012).

Treatment for anxiety disorders can vary. Anxiety prescription medications can be useful, such as certain serotonin reuptake inhibitors (SSRIs). However, in 2004 the Food and Drug Administration [FDA] issued a statement warning people that some SSRIs have been found to increase suicidal thoughts and behaviors in some children and adolescents (ADAA, 2012). Medication is also known to have other effects that may interfere with cognitive abilities or other emotions. Other treatments include cognitive behavioral therapy (CBT), dialectical behavioral therapy (DBT) or other mind/body relaxation therapies. Therapies can also vary from place to place; some therapies are more effective while in a home setting, while others are better performed in a school setting.

According to the National Association of Social Workers [NASW] Code of Ethics, the principle of social justice directly speaks to why it is important to find effective ways to alleviate impairments to everyday successful functioning. It is stated that social workers pursue social change particularly with vulnerable groups of people, in this case, with children suffering from anxiety (NASW Code of Ethics, 2008). Because anxiety can affect a child's ability to emotionally and physically function successfully, it is the responsibility of social workers to find intervention methods that will alleviate these types of impairments and promote a more productive and positive standard of living.

Despite several interventions that have been developed, more needs to be considered due to the pervasiveness of anxiety in children. The purpose of this paper is to address the experience of yoga on children with anxiety from professionals' point of view.

## Literature Review

### What is Yoga?

There are many aspects and definitions of yoga. The word “yoga” can be translated to “to join”, referring to joining the mind, body and spirit in a synchronized manor (Bowling & Stewart, 2006). Yoga strengthens the bond between the mind, body and spirit (Parnes & Dagan, 2005). The practice of yoga includes breathing exercises, different postures, strengthening techniques and meditation (Ospina et al., 2008).

The practice of yoga was originally started in India and became popular in America around 2004 and has become a 5.7 billion dollar industry (Li, Goldsmith & Goldsmith, 2012). The emergence of yoga was greatly influenced by Buddhist philosophy and its original purpose was to assist in transforming and transcending the self (White, 2009). In fact, stone carvings in the Indus Valley show figures in yoga positions dating back over 3,500 years ago which will put yoga’s emergence before religion formation (Gillen & Gillen, 2007). As stated by Feuerstein (2003), the original goal of yoga was to provide a guide for happiness, wholeness and well-being (White, 2009). According to White (2009), the mind and the breath are closely connected so when one is stimulated, that stimulation will affect the other. Additionally, yoga is considered a type of medicine that affects the mind and body (Bowling & Stewart, 2006). Within the mind and body practice, yoga is conducted in different techniques that include meditation, breathing exercises, body postures and intense concentration (Khalsa et al., 2009).

As noted earlier, mindfulness is an important aspect of yoga. According to Kabat-Zinn (2011) mindfulness is described as purposefully being in a present state with no

self-judgments. Similarly, Hendricks (1975) stated that mindfulness is a state of being able to decipher thoughts and emotions from outside events (as cited in Semple, Reid & Miller, 2005). While one is in a state of mindfulness, the act of meditation often occurs. During the meditation process certain thoughts are noticed and released from the mind and one feels at peace (NurrieStearns & NurrieStearns, 2010). During a regular yoga class, the meditation portion most often occurs after the body postures are completed (White, 2009).

It is also reported that yoga helps maintain the flow of energy throughout the body, and when that flow of energy is free, all systems in the body are able to work correctly and simultaneously (Parnes & Dagan, 2005). Yoga is a form of exercise and exercise in general is known to provide benefits to health and mental health issues (Bowling & Stewart, 2006). When body movements and stretching are combined with deep breathing and concentration the body's circulation is improved (Peck et al., 2005).

A typical yoga class begins with bringing peace and quiet to the mind, practicing postures and breathing techniques, relaxation and allowing the body and mind time to revert back to normal activity (White, 2009). Most yoga classes last between 45 minutes to 90 minutes; classes are often shorter when working with children (Telles, Gaur & Balkrishna, 2009). The slow breathing during the yoga class is intended to reduce the heart rate, respiratory rate and blood pressure which is a direct response to the anxious state (Kaushik, Kaushik, Mahagan & Rajesh, 2006 as cited in Telles et al. 2009). As the participants go through their postures, this should increase their flexibility and strength (White, 2009). In addition to these changes, the bodily functions are also affected by going through the movement of postures. The root of anxiety lies within the central

nervous system (DSM, 2000). Studies have found that the endocrine system improves, that gastrointestinal and immune functioning improves, along with hand-eye coordination, which decreases sleep problems and helps with balance (White, 2009). The final relaxation period takes place after completing the postures. Most often, yoga participants lay on the floor with their eyes closed. The final integration of most yoga classes includes a period of reawakening the mind, body and breath to the present day-to-day activity creating a relaxed and alert state (Telles et al., 2009).

### **Yoga and Mental Health**

Considering the above information regarding how yoga may affect the body and mind, it makes sense to believe that yoga could have some benefits to those who may suffer from mental health concerns. According to the National Institute of Mental Health (NIMH) (2006) the use of physical exercise or yoga may have positive benefits to physical and mental health. Mental health concerns are often difficult for individuals to face; it may be that instead of going to professional counseling to address certain issues, it may be easier to attend a yoga session (Milligan, 2006).

There have been numerous studies conducted on how practicing yoga affects individuals' mental health. A study done by Ulger and Yagli (2010) on breast cancer patients participating in yoga showed that after the four week program the patients had reported an improved view on their quality of life and scored lower on an anxiety test (Li, Goldsmith & Goldsmith, 2012). According to Bang (2001), yoga and relaxation enhanced feelings of joy, love and thankfulness as well as decreased feelings of depression when compared to a control group (Rybak & Deuskar, 2010). Also, depression symptoms from an experimental group during a study done with patients suffering from depression after

participating in a yoga and meditation group was significantly lower compared to the control group who did not participate in yoga and meditation (Butler et al., 2008)

These results may be because yoga allows one to realize a constant state of silence, bliss and oneness (Rybak & Deuskar, 2010). As noted earlier breathing regulation is a major component of yoga; when one relaxes his or her breath, in turn, the body relaxes as well (NurrieStearns & NurrieStearns, 2010). There are different breathing techniques used while practicing yoga; one example is to take deep long breaths intentionally; in doing this one's relaxation responses are triggered held in the parasympathetic nervous system, which calms the body (NurrieStearns & NurrieStearns, 2010). Another way to control the breath is to simply be aware of the frequency of taking breaths and how fast the pace of breaths are; doing this allows the mind to focus on one's breathing and not on any other conflicts in the mind (NurrieStearns & NurrieStearns, 2010). To better understand the whole functioning body within the yoga language, Rybak and Deuskar (2010) explain that there are five layers to human functioning: the physical body, the breath, mind, the unknown and the state of pure consciousness. In order for the body to be in perfect health, there should be no disturbance at any level. Likewise, Parnes and Dagan (2005) agree that when there is not a free flow of energy throughout the body, one's cognitive development is restricted.

It is well known that exercise and physical activity is healthy for the mind and body. Many studies have compared yoga to other general exercise routines such as running and aerobics. Duraiswamy et al. (2007) tested patients diagnosed with schizophrenia comparing the effects of daily yoga to exercise for four months. The exercise involved with this intervention included walking, jogging and relaxation.

Duraiswamy et al. (2007) found both groups showed significantly lower psychotic symptoms; however the yoga group's symptoms decreased a great deal more. All scores for symptoms were lower for the social and occupational functioning as well as the psychological, social, and environmental scales of quality of life, which were measured by the World Health Organization Quality of Life BREF form (Ross & Thomas, 2010).

It is also important to note that those of any physical ability are able to perform relaxation techniques that go along with yoga (Milligan, 2006). In addition, yoga in general is a safe practice and often inexpensive (Bowling & Stewart, 2006). The practice of yoga meets the participant at his or her own level; the needs and ability of the student will dictate the expectations and exercises they perform (White, 2009). For instance, in a study where participants were young professional musicians who suffered from performance anxiety the yoga practice they carried out was focused on intuitive sensations and calming breath which could become a practice that is a constant in daily life, not only in a yoga classroom (Khalsa et al., 2009). This is an example of how yoga trainers can focus on the participant and assist in ways each individual needs. The young musicians showed a significant decrease in anxiety symptoms after participating in a custom yoga practice (Khalsa et al., 2009).

### **Yoga for Children**

Given the overall benefits of yoga in general, it makes sense to consider how yoga affects children specifically. For children, practicing yoga only requires an imagination, energy, comfortable clothes and a soft surface on which to practice (Parnes & Dagan, 2005). Children often face hurdles in development when faced with competition with other children; in yoga there is no winner or loser, which may eliminate these hurdles.

White (2009) suggests that while yoga is non-threatening it is also a gentle approach to improve one's physical fitness in addition to one's well-being, cognitive ability and overall health. Yoga is suitable for children of any age and athletic ability while yoga can assist children in becoming more aware of their body's needs and abilities (Gervais, 2003).

It was noted earlier that yoga meets each individual where they are physically and mentally. Yoga is tailored individually; one participant may choose to take a stretch deeper while another participant in the same class may stay in a more basic position, each person's own nervous system will get what it needs. This is an important fact to note while working with children. The poses used in yoga with children are generally easy to perform and the benefits oftentimes instant (Parnes & Dagan, 2005). Some of the benefits that are seen immediately with children practicing yoga include increased flexibility, muscle strength, balance, relaxation, concentration, as well as improved self-esteem and physical health (Gervais, 2003; Parnes & Dagan, 2005).

School use of yoga programs is increasing for many reasons, most of which are noted above (White, 2009). Many children are physically or mentally unable or do not have the means necessary to participate in organized sports, which makes yoga a potential alternative. Children may be overweight or have special needs that deny them the ability to participate in mainstream athletic practices; yoga may fill that void while providing similar benefits like the more active athletic activities (Gervais, 2003). Parnes and Dagan (2005) note that yoga also encourages children to stay fit and may influence children to stay away from negative influences that often work against their well being. It is important to note that children are aware they are playing a crucial role in their own

therapeutic development; this may enhance children's self-efficacy as they see themselves in charge of their own improvement, which may help them to maintain any progress. Additionally, delivery of school based yoga treatment is more cost effective than a program outside of school (Semple et al., 2005).

Yoga with children is often seen as an adventure. Instructors use interactive stories in which the children learn the different yoga poses by using their imagination (Parnes & Dagan, 2005). The younger children who practice yoga begin with simple postures most often named after animals, such as butterfly pose or flamingo (Gervais, 2003). Gervais (2003) also suggests that classes with children use different games and props to make it a more fun environment. Another way that yoga entertains children is that it may take them on a "fantasy journey", a technique that uses imagery with music that helps with relaxation (Stück et al., 2002). Given the attention span of most children, children's classes are typically shorter in time frame than most adult classes, but can gradually increase in time duration as the practice continues (Semple et al., 2005).

Several studies also support the idea that yoga practiced with children may be beneficial in many ways. In a study conducted by Jensen and Kenny (2004) using 19 boys with an attention deficit hyperactivity disorder (ADHD) compared results from the 11 boys in the intervention group to 8 in the control group. The boys in the yoga intervention group reported a decrease in mood swings, temper outbursts and crying fits compared to the control group (White, 2009). Likewise, in a *Train the Trainer Study* done after a children's relaxation program that involved elements of yoga, the trainers reported the participants showed an increased attention span, a higher sense of motivation and exhibited their ability to transfer their learning skills from the group into other daily

activities (Stück et al., 2002). Overall, the instructors of this program reported that it was easy to motivate the children with the yoga elements (Stück et al., 2002). Berger, Silver and Stein (2009) focused on an after school program for fourth and fifth grade students in Bronx, New York comparing a structured yoga program for one group of students to unstructured physical activities for the other group. Students who participated in the yoga group scored significantly better on the Negative Behaviors subscale compared to the non yoga group (Berger et al., 2009). Along with this test score, qualitative responses were given which support yoga activity as well. One student stated that when feeling mad or upset, he “does yoga”, which suggests that doing yoga may discourage aggressive and violent behavior and is often used as a coping mechanism (Berger et al., 2009).

Additionally, Mehta et al. (2011) conducted a study that incorporated yoga into a school program for children with ADHD; results showed after the completion of the six weeks, more than 50% demonstrated an improvement with both their behavior and academic performance.

As the research shows, yoga appears to be a beneficial exercise for children that can improve functioning in different ways. According to Gervais (2003) pediatricians now recommend children with special needs practice yoga as they will benefit both physically and improve their self-esteem. Children are also drawn to yoga due to the emphasis on individual gain rather than competition (Gervais, 2003). With the calming effect yoga has, children who appear unable to communicate verbally can benefit from the yogic breathing techniques according to Manuel (2010), who is the founder of a yoga center in London that focuses on working with children with special needs (Cooper *Nursing Standard*, 2010).

### **Yoga for Children with Anxiety**

Given the research regarding yoga with children and yoga in general, it may be that yoga is a successful alternative approach to treating children who may suffer some form of anxiety. Children today come face to face with high psychological demands and pressure in their everyday lives (Berger et al., 2009). Yoga offers a calming and quiet approach to their otherwise loud and high energy life. In a children's yoga study done by Gervais (2003), it was reported that after a yoga session with children in a classroom, the children appear to still have high energy, but also relaxed – “not bouncing all over the place”. Given that yoga encourages slower breathing, this may be why yoga is effective for children with anxiety.

There have been several studies suggesting that practicing yoga reduces anxiety. In a study done by Telles, Gaur and Balkrishna (2009), after participants followed a yoga curriculum which included two yoga sessions a week for three months, it was reported that there was a decrease in perceived stress and anxiety. Woolery, Myers, Sternlieb, and Zeltzer (2004), studied young adults who suffered from mild depression and anxiety and found a significant decrease in negative symptoms when compared to a control group who did not complete the yoga program. In a case study, a student who attended a high-risk public school in California reported that yoga helped her cope with her anger; specifically, she was able to release her anger in the different yoga poses and after she was done with her yoga exercises, she felt more calm (Labi, 2001). Likewise, Berger et al. (2009) found that students reported feelings of stress before completing a school yoga program; and after completing the yoga the students reported being able to calm

themselves down. In 1988, Kalayil stated that yoga has been shown to reduce symptoms of anxiety, tension and stress in middle school aged children (White, 2009).

Another factor that may influence yoga impacting anxiety levels is  $\gamma$ -aminobutyric acid (GABA) levels in the brain. Streeter et al. (2010) states that a decrease GABA level is found in adults and children with mood and anxiety disorders. After comparing GABA levels in a yoga and control group Streeter et al. (2007) found a 27% increase in GABA levels for the yoga group compared to the control group (White, 2009). Streeter et al. (2010) also compared GABA levels to a group who completed a 60-minute yoga session which resulted in an increase in GABA levels to the same group after completing a 60-minute reading session with no increase. Additionally, body movements in yoga will increase blood and oxygen levels throughout the body, which will then affect both the central and autonomic nervous systems (Brosnan, 1982; Lalvani, 1999 as cited in Peck et al., 2005)

As stated earlier, a sign of anxiety can often be an increase in heart rate and breathing pattern. A mother reported that her son adapted to yoga immediately and she experienced a significantly more relaxed boy; she saw her son was able to better understand how his body worked and that he learned how to use his own breathing to calm himself (Cooper, 2010). Students in a school in a Chicago suburb who engaged in a yoga practice illustrated how they were able to use yoga to decrease their heart rate and stress levels. The teachers reported that yoga allowed the students' body a time out from chaos; the students move into shavasana, the final pose of yoga often referred to as "corpse pose" where they lie on their backs with their eyes closed, ending the exercise in

this pose allows for the decrease in heart rate. They are instructed to imagine themselves in a place where they feel only happiness (Labi, 2001).

It was discussed earlier that yoga focuses a lot on breathing. In her book, *Yoga for Anxiety*, NurrieStearns and NurrieStearns (2010) believes the most obvious and immediate way to feel less anxious is to change breathing patterns. Telles et al. (2009) agree that when one practices slow breathing for ten minutes it will significantly reduce one's heart and respiratory rate, which makes sense as anxiety is directly related to high heart rate. The state of deep breathing is most ideal because that is how one breathes when he or she is most relaxed (NurrieStearns, 2010).

In addition to yoga being beneficial to children who suffer from anxiety, it also appears to be fun and enjoyable for the children. After a yoga program was completed at a school, the children came back to say that they continued to practice the yoga techniques at home and taught their family members some yoga exercises (Stuck et al., 2002). Additionally, in another study, four out of five children had enthusiastic responses from a yoga program in which they participated through school (Semple et al., 2005). Berger et al., (2009) recorded comments made by students after completing a school yoga program, which included, "yoga rocks" and "It is fun, it is cool, it is relaxing".

Risk is inherent in most interventions, and yoga is no exception. It is important to look into these risk factors and keep them in mind when preparing a children's yoga curriculum. Some believe yoga is directly related to Hinduism and may be a way to spread Eastern mysticism (White, 2009). It is important that children and parents are comfortable in their practice. One way yoga has become more children friendly is through changed terminology; for instance pranayama, which is the common yogic term

for breathing exercise, is changed to “bunny breathing” (White, 2009). Some children also do not take pleasure in practicing yoga, some children had negative statements about their yoga program like, “yoga is boring” and “sometimes there are hard stuff” (Berger et al., 2009). It is also important to note that along with other physical exercise, children who are sick with the cold or flu or have migraines should avoid the more strenuous poses (White, 2009).

Despite these risks, given the benefits with respect to increased calmness, reduced heart rate and improved sense of self, it may be that yoga does have a positive impact on children with anxiety. There are many different curricula that have been developed to practice yoga with children specifically in the schools. Yoga Calm is specific for children starting at the kindergarten level up to twelfth grade. It was developed by Jim and Lynea Gillen after Lynea saw a rapid increase in behavioral issues in the public schools where she worked as a counselor. Lynea saw first hand the extreme pain some of these children were in and wanted to help them find inner peace. Lynea had her own yoga practice and felt that she could transfer a modified version to work with her troubled children. She felt strongly that if these children could find something that provided both physical and emotional support these children could have great benefits. After time practicing yoga with children, Jim and Lynea began to see the positive change in students in that they were able to be still, and show compassion and support for one another. While most school yoga programs put great emphasis on physical and emotional elements, Yoga Calm emphasizes the integration of physical, social and emotional skill development. Yoga Calm’s approach includes teachers supporting students in lowering the stress factors in their lives and managing their emotional lives. In addressing these two areas in

children's lives, they are able to use the techniques to help with situations and feelings that occur outside of school. Another aspect that makes Yoga Calm's technique effective is that it can be completed in as little time as a three minute session. The tools used in Yoga Calm's program were intentionally developed to help the lifelong pressures and the developers of the program stress that it can positively affect people's health (Gillen & Gillen, 2007).

Little research exists on yoga with children with anxiety. Considering the above literature about yoga and how it impacts mental health in particular children with anxiety it is likely that yoga can be a successful intervention. With Yoga Calm's unique approach in focusing on social and emotional well being, in addition to direct benefits to psychological and physiological symptoms common to anxiety, it makes sense to research this approach with children with anxiety. Therefore, the purpose of this paper is to look at how yoga, specifically Yoga Calm impacts children with anxiety by interviewing clinicians that teach this program to children.

## **Methodology**

### **Research Design and Sample**

For the purpose of this study, qualitative research was conducted. Clinicians who are trained in Yoga Calm were interviewed. These clinicians work directly with children in schools. Snowball and convenience sampling was used for this research. Three interview subjects were found through a website that lists clinicians and teachers that are certified to teach Yoga Calm in schools. One subject was found through word of mouth from instructors already known by the researcher. The website that lists certified Yoga

Calm instructors is [www.YogaCalm.org](http://www.YogaCalm.org). Instructors' email and phone numbers are listed on this website that was used to contact potential participants.

A qualitative method of research was selected in order to acquire more in depth and descriptive answers as to how clinicians perceive the impact of yoga on children who suffer from anxiety. Snowball sampling is a non-probability method, meaning that these subjects were not selected randomly and the subjects chosen to participate were based on their own availability (Berg, 2011). Interviews were conducted with Yoga Calm instructors. The place of the interviews were based on what was convenient for the subject and took no more than one hour.

### **Protection of Human Subjects**

The interviews were audio recorded for transcription purposes. After the transcription, the recorded interviews were deleted immediately. The transcriptions were kept on a password-protected computer with access only from the interviewer. The names and personal information of the subjects were not used in the paper. The participants were asked to sign a consent form to which they agreed that any information said in the interview can be used in the final paper. The consent also stated that they were able to stop the interview at any time and refuse to answer any question that they feel uncomfortable answering.

### **Measurement and Analysis Plan**

The interviews consisted of approximately ten questions. These questions were mostly open ended. The Research Committee Chair and members reviewed and approved the interview questions before beginning the interview process. The questions for the

interview began with more broad questions and become more specific. After completing the interviews, the interviewer transcribed the recorded interviews for analysis purposes.

Content analysis was used in order to find common codes and themes among the qualitative research. Content analysis consists of interpreting the written data from the interviews and transferring that data in a way to analyze and systematically measure it (Berg, 2011). Codes are found in the data and then formed into themes after which at least three of the same or very similar codes have been identified in the data (Berg, 2011). To generate codes and themes, an inductive grounding theory method was used. The data found from this study began from the actual words in the interview transcript on to more general information, themes. The themes from the data were found from a process called open coding. Open coding includes closely looking at each transcription line by line and finding the general idea of each line. Coding is an important and necessary process in order to organize and analyze qualitative data (Berg, 2011). After identifying all codes within the transcription, themes were formed after three or more codes were found with the same or similar meaning.

### **Strengths and Limitations**

Considering the proposal for this study there are strengths and limitations. Interviewing social workers and certified yoga instructors who have experience conducting yoga in schools with children may mean that they have more knowledge than those who do not have hands on experience. It may also be beneficial that the information received from the interviews will contribute to improve curricula in other school programs to enhance the services they offer.

Snowball sampling is an effective way to find subjects for research; however it may hinder the ability to generalize for a larger population. Only using subjects that the researcher finds conveniently limits the representation of subjects that may use other curricula or instruct students in a different population than the sample in this study.

### **Conceptual Framework**

In order to understand how yoga affects people it is beneficial to look through the mindfulness lens. The idea of mindfulness theory is based on the idea of consciousness (Brown, Ryan & Creswell, 2007). While paying attention to one's conscious state the activities of attention and awareness are also very important (Brown et al., 2007). How this applies to yoga is simple: yoga puts great emphasis on paying *attention* and being *aware* of the breath. In doing this, one is being mindful of what their body and mind are doing in their conscious state.

Mindfulness theory began over 2500 years ago and is rooted in Buddhist traditions (Sipe & Eisendrath, 2012). Jon Kabat-Zinn is a founder and leader in Mindfulness Based Stress Reduction Therapy (MBSR). Besides using yoga in his practice, other techniques are meditation and deep breathing which are also used in the Yoga Calm curriculum.

In a mindfulness program with children attending an elementary school in Harlem, New York the exercises were kept simple (Semple et al., 2005). The beginning and ending of each session there were three minute breathing exercises. Children were then directed to write down their most important worry for the day. After that worry was written down, they then threw away that piece of paper in the trash. At the end of the session, the children had the opportunity to regain their worries from the trash if they felt

necessary. No children chose to reclaim their worry that they had thrown away. Each session the children participated in mindful walking exercises and short body movements that are similar to yoga poses which can enhance one's ability to relate the world to his or her physical self (Semple et al., 2005).

Considering the general idea of mindfulness, it makes sense to believe this plays a role in why yoga may be a beneficial exercise for youth who may suffer from anxiety. Children often have busy and chaotic lives juggling between school, peer relationships and family time, having a sense of being aware of one's self may be just what is needed to calm everything down and live in the moment.

### **Findings**

The following section illustrates the themes identified through the data analysis. The themes include importance of breathing, visualization, community and team building, ability to do practice at home or on their own, self-esteem and self-confidence, and normalizing and safe environment. Themes are derived from codes in which three of the same codes are found in the data.

#### **Importance of Breathing**

This first theme was found in all four of the interviews. Breathing is an important part of the Yoga Calm program and it was emphasized by all the respondents. Something that is an important aspect of the breathing is an object called the Hoberman's Sphere. This object expands and contracts, and children use it to help monitor their breath. This object allows for the demonstration of the expansion and contraction of the lungs. Participant one stated the way in which she uses the Hoberman's Sphere along with breathing to help with anxiety.

*We have, Yoga Calm has the Hoberman's Sphere and what that is it's a ball that expands and contracts and what I do is when I know there is someone that has anxiety and is an anxious person, I have them hold it so I calm their breath down and count to ten, and I have them inhale and exhale time times. And you'll notice that their heart rate comes way down.*

Because increased heart rate is associated with anxiety, this quote illustrates the importance of using breathing. Moreover, breathing is a crucial aspect of mindfulness. The importance of mindfulness is especially apparent in the next participant's quote, who also stated that she uses the Hoberman's Sphere with children who show signs of anxiety.

*If they are showing signs of anxiety, we would be much more into breathing and use the breathing ball, using grounding poses.*

The next example is from participant three who is discussing a specific situation in which someone who has not had any Yoga Calm training helped with a particular student.

*...we have a kindergartener who at this stage of the year, second semester, still has occasional separation anxiety from his mother. And so when his older sister, who has been going here for a few years, she will get dropped off and go right into her class, he gets a little weepy and wants to get back in the car. So we will sometimes just keep him in the office until mom has left, and he's crying, and one day just a few weeks ago I saw our secretary grab the sphere and give it to him and said "honey, just do this" and she hasn't had any training in this, but I thought it was so cute and thoughtful, and even saying what she did slowed down his breathing.*

Participant four does not reference using the Hoberman's Sphere, but does emphasize the importance of paying attention to one's breath.

*Well during a typical yoga class we start off, we do a lot of breathing. It's just a good way of calming yourself, a lot of kids, we do chest breathing especially with the kids being excited and that doesn't oxygenate the body very well, so when the kids come to class they start off taking off their shoes, lay on the ground and they put these sand bags on their belly and they breathe, and as they breathe in, they watch the sand bag rise and as they breathe out they watch it fall and that helps them focus on their breathing.*

She goes on to say:

*I am big into breathing, stretching. When someone is stressed, often times their intake will be shallow and then their exhale will be longer, stretched out, so we try to even out the breath by focusing on it and watching their belly...So having them calm their body down...*

With all four participants fully supporting that breathing is a critical aspect to one's ability to be calm, it makes sense that this would be greatly beneficial for kids who may suffer from anxiety.

### **Visualization**

Another theme seen through the data analysis interviews was visualization. The Yoga Calm instructors often make their session fun and incorporate games and encourage the use of imagination. Participant one explains how she does this with the younger kids.

*Especially with the younger ones, we call it an adventure or we call it a journey that they're going to go along with some of our friends. Like we have different*

*characters, so we'll name the mouse pose or we'll name the snake. With the animal poses, like for the snake, we'll have them hiss. So when they become that animal, they become that kind of physical being. With the cat – cow, when they lift their heads up they will moo and when they curl their head into their chest, they'll give a meow.*

Participant one goes on to explain how she teaches visualization to the kids.

*...or thinking of a color, there are different colors that bring different pictures in our minds. Like yellow, when I see or imagine yellow, I talk to them about imagine the warm sun shining on their faces. If they're having a bad day and all they are thinking about is how crappy of a day they are having, I talk them back to "think of waves crashing" what color is that, can you think of the sound.*

In the quote above, the participant is not asking the children to completely change their thoughts, but rather to transform their thoughts into sounds or colors, which will reflect their mood. As mentioned above, mindfulness is about being nonjudgmental; visualization is large part of the nonjudgmental aspect of mindfulness and the quote above is a great reflection of being nonjudgmental through this process. Participant two describes a game she incorporates with her kids in which they use their imagination.

*They love a particular game...they squat and then I say ok when you rise to the count of four, walk around the room like a princess or someone who's content or act like you're a trickster. And then I ask them to notice how it feels: did you walk*

*around the room feeling sneaky? And we all have that part; we all have to notice how it feels.<sup>1</sup>*

Additionally, she goes on to discuss how she incorporates visualization with the older kids.

*The 5<sup>th</sup> graders, when they get older, they are so stressed with academics...I lay them down on their backs and I read them a story about relaxing like we are on the beach or we changed channels from the snow to the beach.*

She finally ends the interview with the following quote.

*...and part of this Yoga Calm is positive self talk, you know "I'm ok, I'm ok" visualization. Visualizing a peaceful place to calm their minds down, thinking of looking forward to something they can visualize.*

The two quotes above are examples of how yoga instructors use visualization to visualize a more peaceful reality rather than a possibly disruptive state children may currently be thinking. Although it was mentioned that mindfulness is nonjudgmental, visualization also assists with bringing a more calm reality to the children who may be heading in a chaotic and harmful mindset.

### **Community and Team Building**

Community and team building was another theme that came up with three of the participants. It appears that having a sense of community is a crucial aspect that goes hand in hand with Yoga Calm and is one of the five principles of Yoga Calm. Participant one discusses how Yoga Calm is a positive approach to keep children healthy.

---

<sup>1</sup> This game is called the Archetype Game in which the students distinguish different roles and when it is appropriate to use them in life. After children choose and portray a particular archetype, they are then asked to distinguish when that role is safe to portray and when it might be dangerous. (Gillen & Gillen, 2007)

*...this is a good approach, it's also about what you eat, social connections and being in the community and being a part of a physical community, being with people who are doing the same things, feeling connected.*

Participant two discusses how incorporating a sense of community is discussed along with discussing self-confidence and awareness. She also continues to describe how she incorporates partner exercises that help build positive feelings.

*What we do with the teens is talk about self confidence, awareness, sense of community, um how to make them feel like they are apart of their community...but just to make them feel welcome and everyone's space is their own space on their mat. We do partner poses though; partner poses are a good way to kind of break the ice, because a lot of people um, especially with the touch of a hand, or their hand on each others' back, sometimes like that can be a little weird. But we just kind of break down those barriers in the beginning and just say that we're all here together and we're a community in this room.*

Although participant three does not expand in her explanation, when asked about the difference between adult yoga and children's yoga, working together was a big part of her explanation.

*As far as adult yoga goes, I don't see a lot of social skills. It's much more individual, you are on your own mat. Whereas Yoga Calm incorporates a lot of activities, partner activities, group.*

Finally, participant four discusses team building exercises she incorporates with her instruction and how it gives the kids a sense of support from one another.

*Some are more of team building, like we would all get in a circle and do tree, and feel the support we are getting from one another when we do tree.*

She continues on when asked what the difference she sees between yoga with children and yoga with adults.

*I think what they say with dealing with Yoga Calm is they're dealing with the social emotional aspect and community building. So some of the exercises help with community building, another example is the compliment game. This is different than adult yoga, a child will center the group and the group gives the child a compliment and the child has to say "thank you", so that's one example.*

#### **Ability to do practice at home or on their own**

Practicing yoga at school or in a studio is beneficial, but it really is wonderful when children are able to learn the skills they need to help them feel better and do them at home or anywhere they may feel necessary. Participant one discusses how she tries to leave the kids with tools they can use on their own.

*I would say the biggest thing for kids is just to teach them things that they can do at home too, because we are not always with them. So leaving them with the tools, especially the kids with severe anxiety: letting them know that there are techniques they can do, even just the breathing exercises and counting in their own mind.*

Participant three explains how he gives the children examples of how they can take yoga home and basically do it anywhere.

*I even tell the kids, sometimes when I'm sleeping I find myself you know, my leg tucked under my calf muscle, feel like I'm grounding. And just how to be mindful.*

*...And put your hands behind your back and I try to remember to do that when I'm on the phone and have my headset on, it's a way to just stay open in the conversation, because sometimes you tend to close up. And it's really a metaphor for life.*

He continues later in the interview discussing how Yoga Calm helps with a wide variety of activities.

*And again, this approach in life can hit a broad range of needs. They have this technique and now they can practice this at home.*

Considering anxiety as a consistent feeling in many, it can be greatly beneficial to be able to do yoga techniques away from the classroom or studio, which allows children to practice being mindful everywhere and not limit their abilities.

### **Self-Esteem and Self Confidence**

Children today often struggle with their self-esteem and self-confidence. The theme of improving self-esteem and self-confidence came up in a few of the interviews. This is one more advantage yoga seems to have on children. Participant two discusses what they strive to teach the children in her Yoga Calm sessions.

*...the basis behind [the five wellness principles] is that we just want the kids to relax, we want to teach them to regulate emotion; we feel that the exercises we teach them throughout the 50 minutes or hour that we're given increases physical fitness, self-confidence and self-esteem.*

She continues later...

*Well, the kindergarteners – we don't really address problems because they're just so young, what we do with the teens is talk about self-confidence, awareness, sense of community...*

Participant three gives an example of how the exercises used builds the self-confidence with their students when other kids may try to hurt their feelings.

*Or like wow, I heard there were some not nice things being said on the playground today, when someone doesn't say something that we don't appreciate how do we stand to that, whether we say it verbally or not, maybe we need to get into mountain pose and realize when people say things like that we don't have to accept that. Stay confident and know that we don't have to accept that. So just the different ways we can be spontaneous about it.*

Participant three continues later about empowering the kids, which goes hand in hand with self-confidence.

*Well whether it's breathing or the postures, different ways to calm their bodies. Know that there's different ways to self care, and ways to empower them to do.*

Lastly, participant four gave an example of how she helps with self-confidence in her yoga groups.

*Especially this little circle we do at the end, we have a mantra we do that says "I'm calm, I'm strong, I love myself" and then we go into their favorite things...*

When asked how she see's children with anxiety benefitting from yoga, she responded:

*I have seen it in their self-esteem; I think that children that are anxious tend to have low self-esteem and they are not living in the present moment, they are thinking about something else that is going to happen or something else that has*

*happened, so I do see it as potential greatness if every teacher were trained, if they used it consistently. I think it could really turn this whole school system around.*

Self-confidence and self-esteem is crucial to build up in children as they grow up; it seems like the respondents take that seriously and try their best to incorporate their own ways of doing so.

### **Normalizing and Safe Environment**

Having a safe environment to practice yoga in is key to making the kids feel comfortable and truly benefitting from their Yoga Calm experience. Having anxiety or any kind of “disorder” can be difficult to handle, especially while being a child.

Normalizing feelings of anxiety can make children feel much more comfortable and therefore willing to take steps to improve these feelings. The respondents make statements in regards to both practicing in a safe environment and normalizing these feelings as important aspects of making the Yoga Calm experience make improvements in the children’s’ lives.

Participant one discusses the importance of creating a safe environment for the children right when they begin their session.

*We, in the yoga room, we create an environment that’s safe for them. And that’s not judgmental and that’s really theirs, so when I say the words, “Lay on your own mat and this is your time”, like just the guiding of the inhale, guiding of the meditation or taking their mind away from what’s outside the door. The key phrase I use with every single class is “whatever happened before you walked in those doors, let it go at those doors” and I let them know that it’s just, hit the*

*reset button, this is your house and at the end of this I ask them how they feel. And some of them, I don't even need words, I just look at them, at their expression and it's pretty cool.*

Participant three gives some examples of how it is important that the children do not feel alone in their feelings of anxiety.

*It can be the piece for the teachers that say "wow, I'm feeling really stressed or anxious because of all of the movement so far that we've had to do today, or because we had such a busy day yesterday. For I need to do the calming, so lets do it together" so the kids can see, oh wow as I'm feeling anxious my teacher does too and that's normal, but how does he or she respond to that in healthy ways. It's good modeling.*

In the example above, it shows how modeling being mindful and co-regulating will help guide the children in their own experience and process of being mindful themselves.

He continues:

*Our quiet room paraprofessional who helps when a child needs space away from the classroom and that person is skilled in this to use these techniques with them. So again normalizing, normaling. You have to breathe and care for yourself.*

And goes on:

*For them to know that anxiety and stress is normal and to know that it's not abnormal what they're feeling and to be talking about it. Here's way to do it for yourself, normalizing, stress is normal. I have stress.*

Finally, participant four gives an example of how she gives the children a safe environment so they can feel comfortable and not excluded from the rest of the children.

*Well we had one particular student when I first started teaching yoga that had more of an ADD personality, but to me that is wrapped up in a lot of anxiety. So to me he would, we would give him a little special space and the ball [hoberman's sphere] almost in a time out way but still in a relaxing, good time out. Rather than a shaming, punishing time out. And that settled him down, it really did.*

### **Discussion and Implications**

In regards to the research topic *the experience of Yoga on children with anxiety*, the themes that came from the interviews gave good information with an overall positive outlook on the experiences. The themes include the importance of breathing, visualization, community and team building, ability to do practice at home, self-esteem and self-confidence, and normalizing and safe environment, and they all seem to be aspects of life that are important while growing up. For all of these themes to come out of a discussion of yoga exercises with children it appears that it would be greatly beneficial. Having anxiety can be lonely and scary when growing up; being able to practice Yoga Calm's principles and tools with other children that may or may not have similar issues looks as if it can be vastly helpful.

As yoga was described early in this study, yoga generally includes breathing, postures, strengthening techniques and meditation (Ospina et al., 2008). Yoga Calm puts great emphasis on breathing; all four respondents made statements that spoke to the importance in influence of doing breathing exercises with kids. Additionally, White (2009) stated that the mind and breath are deeply connected, so it makes sense why mindful breathing exercises help kids with anxiety and contribute to them being able to calm down. As only one respondent spoke to the desire to reduce the kids' heart rate,

slow breathing does in fact do this as well as reduce respiratory rate and blood pressure which was said to be a direct to response to the anxious state (Kaushik, Kaushik, Mahagan & Rajesh, 2006 as cited in Telles et al. 2009).

Many of the respondents spoke about using the Hoberman's Sphere, which is an object the kids can use that expands and contracts along with their breath. This object allows them to actually see how fast they are breathing, and they are taught to pay attention to their breath while doing this. According to NurrieStearns and NurrieStearns (2010) a way to control one's breath is to simply be aware of the frequency and pace of each breath taken.

Breathing techniques are also something that can be done by anyone. As stated in the review of literature, Manuel (2010) works with children with special needs and is able to do special breathing exercises with these children who may not be physically able to do any other aspect of yoga. The importance of breathing exercises is critical in a successful yoga group with children. NurrieStearns and NurrieStearns (2010) believe the most obvious and immediate way to feel less anxious is to change breathing patterns. Although not stated explicitly, all respondents spoke about understanding and working on breathing patterns as critical.

The second theme of visualization was common among the respondents. The respondents who discussed visualization spoke about how they helped the kids use their imagination or things they can picture in their own minds. Matching with the literature review, instructors use interactive stories which allow the children to use their imagination (Parnes & Dagan, 2005). One respondent seemed to follow very similarly

what was discussed in the literature in using animal names and sounds to go along with different poses (Gervais, 2003).

Community and team building was another theme that most of the respondents spoke about. Jim and Lynea, founders of Yoga Calm, believe that working together is a good skill to incorporate in their yoga curriculum. As stated before, after yoga classes they were able to see positive changes in the children and children were also able to show support and compassion for one another. There was not much literature discussing the importance of community and team building to support this theme. However, working together as a team and community seem to be an important part of life so it makes sense the children will only benefit from these specific activities.

The next theme that came up was the children being able to practice yoga at home or on their own. The two respondents who mentioned this theme stressed the importance of being able to use the skills they teach when the children really feel they may need it, which is often not when they are in their yoga class, but rather at home. According to the literature, one student was able to take the skills he learned in his yoga class and apply them to whenever he feels mad or upset (Berger et al., 2009). This student learned skills that he was able to take away from the studio or classroom and use them to avoid his behavior that comes from when he feels mad or upset. Likewise, another child was reported by his mother to being able to learn how to calm himself down by using breathing techniques he learned in his yoga class. The mother stated that she saw her son a much more relaxed and calm child after his yoga experience (Cooper, 2010). Stuck et al. (2002) found that after completing a yoga program at school, the children came back and said that they had been practicing yoga at home and teaching family members

different poses. The quotes from the participants in this study seem to go right along with what was found in the literature. As mental health difficulties are common among people of all ages, it seems important that yoga be practiced in all settings, not just where one's practice has begun, which is usually a studio or in Yoga Calm's case, schools.

Building children's self-esteem and self-confidence was a theme found in three of the interviews. Those three respondents stressed the importance of building self-esteem and self-confidence and spoke about it more than once in their interviews. Self-Esteem and self-confidence levels can contribute greatly to mental health issues in many people. As stated in the literature, yoga is a form of physical exercise, and physical exercise has been shown to help with mental health issues (NIMH, 2006). In fact, yoga has been shown to reduce symptoms significantly more than more rigorous physical exercise routines such as walking and jogging (Duraiswamy et al., 2007). Respondent two discusses how in her 50 minute yoga class she strives to improve both physical fitness along with the self-confidence and self-esteem of the children she instructs. Respondent three gives an example of how he teaches the children how to stand up for themselves and build their self-confidence by not having to accept not nice words spoken to them. According to White (2009), yoga is a good way to not only improve physical health; it also can improve one's cognitive abilities, just like the respondent discussed. The literature also refers to allowing the children to realize they are in the driver's seat for their own well being and with this allows them to feel a greater sense of self-efficacy (Semple et al., 2005).. It was also noted above that pediatricians found that practicing yoga can help children with special needs' self-esteem (Gervais, 2003). Finally, one

respondent discussed immediate benefits to children's self-esteem, which is corroborated in the literature (Gervais, 2003; Parnes & Dagan, 2005).

Lastly, the theme of normalizing and having a safe environment was discussed by three of the four participants. Participant one discussed how she uses her words to make the children feel safe while in her yoga class, telling them that "this is your time" and "anything that happened before you entered the door, leave at the door". As Bowling & Stewart (2006) stated earlier, yoga meets individuals at their own level and a yoga class is a safe environment. Yoga is practiced as a non-competitive activity where there is no winner and no loser, which again speaks to how children who practice yoga feel as though they are in a safe environment. Likewise, Gervais (2003) stated that children are drawn to yoga due to individual gain rather than competition, which would make one think that the children feel safe while practicing yoga. When describing Yoga Calm earlier, it was stated that the teachers try to lower the stress in their students' lives and manage their emotional well-being. This seems to go hand in hand with having the children see that having anxiety or life stresses is normal just like participant three discussed.

Overall, it appears that the review of past literature as well as the current research does have many connections. The literature review highlighted the positive impact of yoga on mental and physical health, while the present study emphasized actual practices used to help children with anxiety. The literature reviewed strongly supports the benefits cited by participants.

### **Strengths and Limitations**

The participants used in this study are all experienced and trained Yoga Calm instructors. All but one participant has gone through the whole training to become a certified Yoga Calm instructor. All of the participants have experience working with children in schools, which makes the information in this study relevant to draw conclusions from and use for future reference. The interview questions were based on the information found in the literature review and were reviewed by professionals working with children using Yoga Calm. The information provided should provide knowledge base for practitioners who would like to practice yoga with children who suffer from anxiety. From the themes that emerged from this study, one may get a good outline for what a Yoga Calm class would look like as well as what one hopes to allow children to experience as a result of Yoga Calm.

This study only investigated how Yoga Calm impacts children with anxiety. There were only four participants and they were not selected randomly which makes generalization difficult. The information provided can act as a base for knowledge and further research. It also important to note that this study is not equipped to measure outcomes, but rather the experience of yoga instructors attempting to help children with anxiety.

### **Implications for Research**

Before the qualitative interviews were conducted, it was believed that there would be some strong similarities with the literature review. The four participants have experience only working with yoga with children, and thus, can only speak to how they see yoga impacting children rather than adults. Additionally, the four participants are

trained in the program of Yoga Calm, a specific curriculum that may differ from other yoga practices with children. It was interesting to see the emphasis on breathing patterns in the responses, because when many think of yoga they initially think of poses and stretches.

Something else to consider researching more closely is how Yoga Calm affects children's ability to connect with others. The research for how Yoga Calm impacts children's own thoughts and feelings is one thing, but when looking at the theme of Community and Team Building, it may be that Yoga Calm helps improve relations with others. Communicating with adults more effectively and openly is one thing that Yoga Calm may help improve for children. The topic of community and team building is something that this research study found, but is not common in past yoga literature. It seems important to continue to find settings that Yoga Calm can help build a sense of community and team building besides schools, which could help nourish a calmer atmosphere at different settings. Considering the strong support for yoga with children who may suffer from anxiety, it appears that more training and research should be done to further support this idea. A possibility would be to explore other children's yoga programs other than Yoga Calm.

### **Implications for Social Work Practice**

The information provided reveals information about yoga and how children with anxiety may experience yoga as helpful with anxiety. More research is necessary to further support that yoga improves anxiety among children. Social work can support this by conducting more studies that incorporate children with specific mental health issues and different yoga programs. There are different children's yoga programs, and it would

be beneficial to see how they each impact children as well as looking into what their different curricula look like.

The effort of social work research can only contribute to more knowledge and a more successful outcome in treating mental health in children. Education and knowledge about mindfulness based treatments in addition to more knowledge about children's mental health can only contribute to the benefits of treating individuals in the future.

## References

- Anxiety and Depression Association of America. (2012). *Children and Teen & Treatment*. Retrieved from <http://www.adaa.org/living-with-anxiety/children>
- AnxietyAttack.org. (2009). *Types of Anxiety disorder In Children*. Retrieved from <http://www.anxietyattack.org/anxiety-children-teenagers/children-anxiety-disorder/>
- Berg, B. L. (2011). *Qualitative research methods for the social sciences*. Boston, MA: Allyn and Bacon, 7<sup>th</sup> ed., (ISBN 0-205-31847-9).
- Berger, D. L., Silver, E. J., & Stein, R. E. K. (2009). Effects of yoga on inner-city children's well-being: A pilot study. *Alternative Therapies in Health & Medicine*, 15(5), 36-42. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=44383816&site=ehost-live>
- Bowling, A. C., & Stewart, T. (2006). Mind over yoga. *Inside MS*, 24(4), 54-55. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=21879267&site=ehost-live>
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). TARGET ARTICLE: Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry*, 18(4), 211-237. doi: 10.1080/10478400701598298

- Butler, L. D., Waelde, L. C., Hastings, T. A., Xin-Hua Chen, Symons, B., Marshall, J., . . . Spiegel, D. (2008). Meditation with yoga, group therapy with hypnosis, and psychoeducation for long-term depressed mood: A randomized pilot trial. *Journal of Clinical Psychology, 64*(7), 806-820. doi: 10.1002/jclp.20496
- Cooper, C. (2010). A calming influence. *Nursing Standard, 24*(50), 24-25. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=53473050&site=ehost-live>
- Diagnostic and Statistical Manual of Mental Disorders, DSM IV - TR* by American Psychiatric Association, (4th Ed.), 2000.
- Duraiswamy, G., Thirthalli, J., Nagendra, H. R., & Gangadhar, B. N. (2007). Yoga therapy as an add-on treatment in the management of patients with schizophrenia – a randomized controlled trial. *Acta Psychiatrica Scandinavica, 116*(3), 226-232. doi: 10.1111/j.1600-0447.2007.01032.x
- Gervais, K. (2003). Young yogis. *American Fitness, 21*(1), 31. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=8907763&site=ehost-live>
- Gillen, L., Gillen, J., (2007). *Yoga Calm for Children*. Three Pebble Press, LLC
- Jensen, P., & Kenny, D. (2004). The effects of yoga on the attention and behavior of boys with attention-deficit/hyperactivity disorder (ADHD). *Journal of Attention Disorders, 7*(4), 205-216.

- Khalsa, S. B. S., Shorter, S. M., Cope, S., Wyshak, G., & Sklar, E. (2009). Yoga ameliorates performance anxiety and mood disturbance in young professional musicians. *Applied Psychophysiology & Biofeedback*, *34*(4), 279-289. doi: 10.1007/s10484-009-9103-4
- Kids Health. (2010). *Anxiety, Fears, and Phobias*. Retrieved from <http://kidshealth.org/parent/emotions/feelings/anxiety.html>
- Labi, N., Cole, W., & Stukin, S. (2001). 'Om a little teapot...'. *Time*, *157*(7), 61. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=4070273&site=ehost-live>
- Li, A. W., & Goldsmith, C. W. (2012). The effects of yoga on anxiety and stress. *Alternative Medicine Review*, *17*(1), 21-35. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=75210880&site=ehost-live>
- Massachusetts General Hospital, School of Psychiatry Program & Madi Resource Center (2010) *Anxiety*. Retrieved from [http://www2.massgeneral.org/schoolpsychiatry/info\\_anxiety.asp](http://www2.massgeneral.org/schoolpsychiatry/info_anxiety.asp)
- Mehta, S., Mehta, V., Mehta, S., Shah, D., Motiwala, A., Vardhan, J., . . . Mehta, D. (2011). Multimodal behavior program for ADHD incorporating yoga and implemented by high school volunteers: A pilot study. *ISRN Pediatrics*, *1*, 1-5. doi: 10.5402/2011/780745

- Milligan, C. K. (2006). Yoga for stress management program as a complementary alternative counseling resource in a university counseling center. *Journal of College Counseling, 9*(2), 181-187. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=23124397&site=ehost-live>
- National Association of School Psychologists (2010) *Anxiety and Anxiety Disorders in Children: Information for Parents*. Retrieved from [http://www.nasponline.org/resources/intonline/anxiety\\_huberty.pdf](http://www.nasponline.org/resources/intonline/anxiety_huberty.pdf)
- National Association of Social Workers. (2008). *Code of ethics*. Washington DC: NASW.
- National Institute of Mental Health. (2006). *How to avoid stress*. Retrieved from <http://www.nimh.nih.gov/health>
- NurrieStearns, M., & NurrieStearns, R., (2010). *Yoga for Anxiety* New Harbinger Publications, Inc.
- Ospina, M. B., Bond, K., Karkhaneh, M., Buscemi, N., Dryden, D. M., Barnes, V., . . . Shannahoff-Khalsa, D. (2008). Clinical trials of meditation practices in health care: Characteristics and quality. *Journal of Alternative & Complementary Medicine, 14*(10), 1199-1213. doi: 10.1089/acm.2008.0307
- Parnes, K., & Dagan, D. (2005). Yoga as an adventure. *Scholastic Parent & Child, 12*(5), 54-57. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=16649081&site=ehost-live>

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.

Retrieved from

<http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=19476878&site=ehost-live>

Powell, L., Gilchrist, M., & Stapley, J. (2008). A journey of self-discovery: An intervention involving massage, yoga and relaxation for children with emotional and behavioural difficulties attending primary schools. *European Journal of Special Needs Education, 23*(4), 403-412. doi: 10.1080/08856250802387398

Roemer, L., Lee, J. K., Salters-Pedneault, K., Erisman, S. M., Orsillo, S. M., & Mennin, D. S. (2009). Mindfulness and emotion regulation difficulties in generalized anxiety disorder: Preliminary evidence for independent and overlapping contributions.

*Behavior Therapy, 40*(2), 142-154. Retrieved from

<http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=41025058&site=ehost-live>

Ross, A., & Thomas, S. (2010). The health benefits of yoga and exercise: A review of comparison studies. *Journal of Alternative & Complementary Medicine, 16*(1), 3-12.

doi: 10.1089/acm.2009.0044

Rybak, C., & Deuskar, M. (2010). Enriching group counseling through integrating yoga concepts and practices. *Journal of Creativity in Mental Health, 5*(1), 3-14. doi:

10.1080/15401381003626782

- Semple, R. J., Reid, E. F. G., & Miller, L. (2005). Treating anxiety with mindfulness: An open trial of mindfulness training for anxious children. *Journal of Cognitive Psychotherapy, 19*(4), 379-392. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=19732715&site=ehost-live>
- Sipe, W. E. B., & Eisendrath, S. J. (2012). Mindfulness-based cognitive therapy: Theory and practice. *Canadian Journal of Psychiatry, 57*(2), 63-69. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=73791897&site=ehost-live>
- Streeter, C. C., Whitfield, T. H., Owen, L., Rein, T., Karri, S. K., Yakhkind, A., . . . Jensen, J. E. (2010). Effects of yoga versus walking on mood, anxiety, and brain GABA levels: A randomized controlled MRS study. *Journal of Alternative & Complementary Medicine, 16*(11), 1145-1152. doi: 10.1089/acm.2010.0007
- Telles, S., Gaur, V., & Balkrishna, A. (2009). Effect of a yoga practice session and a yoga theory session on state anxiety. *Perceptual & Motor Skills, 109*(3), 924-930. doi: 10.2466/PMS.109.3.924-930
- White, L. S. (2009). Yoga for children. *Pediatric Nursing, 35*(5), 277-295. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=48491373&site=ehost-live>

Woolery, A., Myers, H., Stemliebm, B., & Zeltzer, L. (2004). A yoga intervention for young adults with elevated symptoms of depression. *Alternative Therapies in Health & Medicine*, 10(2), 60-63. Retrieved from <http://ezproxy.stthomas.edu/login?url=http://search.ebscohost.com.ezproxy.stthomas.edu/login.aspx?direct=true&db=aph&AN=12662687&site=ehost-live>

**Appendix A**



**CONSENT FORM**

Please read this form and ask any questions you may have before agreeing to participate in the study. Please keep a copy of this form for your records.

<b>Project Name</b>	The Experience of Yoga on Children with Anxiety	<b>IRB Tracking Number</b>	
<b>General Information Statement about the study:</b>			
This study will research how yoga, particularly Yoga Calm impacts children with anxiety. Trained yoga clinicians will be interviewed to gain knowledge about their experiences on how they see yoga has impacted the children they work with or have worked with.			
You are invited to participate in this research. You were selected as a possible participant for this study because:			
Your name was listed on the public website <a href="http://www.YogaCalm.org">www.YogaCalm.org</a> as a certified Yoga Calm instructor. Or, your name was given to me by a contact who is also a certified Yoga Calm instructor (will provide the name).			
Study is being conducted by:	Lindsay Kaplan		
Research Advisor (if applicable):	Lance Peterson		
Department Affiliation:	School of Social Work		
<b>Background Information</b>			
The purpose of the study is:			
The purpose of this project is to address the experience of yoga on children with anxiety from professionals' point of view. Despite several interventions that have been developed, more needs to be considered due to the pervasiveness of anxiety in children and lack of understanding about how yoga may benefit children with anxiety.			
<b>Procedures</b>			
If you agree to be in the study, you will be asked to do the following: <i>State specifically what the subjects will be doing, including if they will be performing any tasks. Include any information about assignment to study groups, length of time for participation, frequency of procedures, audio taping, etc.</i>			
You will be interviewed for approximately one hour. I will ask approximately 14 interview questions that have been approved by the IRB. The interview will be a one time only commitment. The interview will be audio taped and then transcribed.			
<b>Risks and Benefits of being in the study</b>			
The risks involved for participating in the study are:			

No known risks.	
The direct benefits you will receive from participating in the study are:	
None	
<b>Compensation</b>	
Details of compensation (if and when disbursement will occur and conditions of compensation) include: <i>Note:</i> In the event that this research activity results in an injury, treatment will be available, including first aid, emergency treatment and follow-up care as needed. Payment for any such treatment must be provided by you or your third party payer if any (such as health insurance, Medicare, etc.).	
None	
<b>Confidentiality</b>	
The records of this study will be kept confidential. In any sort of report published, information will not be provided that will make it possible to identify you in any way. The types of records, who will have access to records and when they will be destroyed as a result of this study include:	
Only I will have direct access to any records. All records (audio recording, transcription, consent form, written notes) will be destroyed on June 1, 2013. The consent forms and written notes will be kept in a binder and stored in a locked drawer. The audio recordings will be contained on a personal audio recording device, which will also be stored in a locked drawer. The transcripts will be typed on a password-protected personal computer.	
<b>Voluntary Nature of the Study</b>	
Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with any cooperating agencies or institutions or the University of St. Thomas. If you decide to participate, you are free to withdraw at any time up to and until the date\time specified in the study.	
You are also free to skip any questions that may be asked unless there is an exception(s) to this rule listed below with its rationale for the exception(s).	
No exceptions.	
Should you decide to withdraw, data collected about you	will be used in the study
<b>Contacts and Questions</b>	
You may contact any of the resources listed below with questions or concerns about the study.	
Researcher name	Lindsay Kaplan
Researcher email	
Researcher phone	
Research Advisor name	Lance Peterson
Research Advisor email	
Research Advisor phone	
UST IRB Office	651.962.5341
<b>Statement of Consent</b>	
I have read the above information. My questions have been answered to my satisfaction and I am at least 18 years old. I consent to participate in the study. By checking the electronic signature box, I am	

stating that I understand what is being asked of me and I give my full consent to participate in the study.			
Signature of Study Participant <input type="checkbox"/> <i>Electronic signature</i>		Date	
Print Name of Study Participant			
<hr/>			
Signature of Parent or Guardian (if applicable) <input type="checkbox"/> <i>Electronic Signature</i>		Date	
Print Name of Parent or Guardian (if applicable)			
<hr/>			
Signature of Researcher <input type="checkbox"/> <i>Electronic signature*</i>		Date	
Print Name of Researcher			

\*Electronic signatures certify that:

The signatory agrees that he or she is aware of the polities on research involving participants of the University of St. Thomas and will safeguard the rights, dignity and privacy of all participants.

- The information provided in this form is true and accurate.
- The principal investigator will seek and obtain prior approval from the UST IRB office for any substantive modification in the proposal, including but not limited to changes in cooperating investigators/agencies as well as changes in procedures.
- Unexpected or otherwise significant adverse events in the course of this study which may affect the risks and benefits to participation will be reported in writing to the UST IRB office and to the subjects.
- The research will not be initiated and subjects cannot be recruited until final approval is granted.

## Appendix B

### Interview Questions

How long have you been using yoga in practice?

How long have you been using yoga in your practice with children?

Describe your profession and yoga training.

How long have you been a certified yoga calm instructor?

Who participates in the children's programs? Do you/staff suggest children to participate if you believe it would be beneficial to them? If so, what characteristics do you look for?

Describe how you use yoga with children.

What are some differences and similarities with yoga with adults and yoga with children?

How do your yoga instructions vary by the presenting problem of the children?

How do you introduce yoga with children with anxiety?

How do you see children respond to yoga?

In what ways do you see that yoga calms children?

How common do you see anxiety among the children you work with?

Do you see any risks yoga may have on children?

How do you see children with anxiety benefitting from yoga?