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# Effects of Yoga and Mindfulness-Based Practices on Stress and Anxiety in Children and Adolescents

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# **Effects of Yoga and Mindfulness-Based Practices on Stress and Anxiety in Children and Adolescents**

by

Amanda E. Geldert, 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  
Mary C. Nienow, Ph. D. Candidate (Chair)  
Lisa Borneman, LICSW  
Patricia Thurmer, LGSW

This 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 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 focused on yoga, and other mindfulness-based practices and how they impact children and adolescents who are dealing with stress and anxiety. Three interviews were conducted with Yoga Calm certified instructors who work with children and adolescents, and how they view the impacts of Yoga Calm on the population they work with. The interviews were transcribed and analyzed. Once analyzed, nine themes were found: Children use tools they are taught to cope with stress and anxiety, practicing mindfulness allows one to better listen to their bodies, lack of time, resistance from children, children teaching others, adaptation for developmental differences, differences between Yoga Calm and other mindfulness-based practices, the sustainability of Yoga Calm, and professional collaboration. Similar findings were found between this research and the literature review, which include the use of the tools taught to children, and mindfulness helping one better listen to their bodies. Adaptation for developmental differences, differences between Yoga Calm and other mindfulness-based practices, sustainability of Yoga Calm, and professional collaboration were themes that were only found in this current research study. Due to these new findings, future research should focus on the differences found between Yoga Calm and other mindfulness based practices, as well as how to maintain sustainability of these types of programs in schools.

### **Acknowledgements**

I would like to thank the participants for sharing their experiences with me, and I would like to thank them for all of their hard work. I would also like to thank my chair, Mary Nienow and my two committee members, Lisa Borneman, and Patricia Thurmer for helping me and supporting me over the past nine months. You three have been wonderfully patient while working with me throughout this process, and for that, I am grateful.

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### **Yoga and Mindfulness-Based Practices on Stress and Anxiety**

While attaining an undergraduate degree, this writer participated in multiple classes focused on mindfulness-based practices. There are many different mindfulness-based exercises, such as a variety of meditations, and yoga, that teach one how to respond to stress rather than reacting to stress.

Mindful meditation is a concentration on a stimuli, such as breathing, or body sensation, while focusing on one's current state of mind, in order to maintain concentration (Rahl, Lindsay, Pacilio, Brown, Creswell, 2017). While maintaining concentration, one is able to be present, open, and accepting of external experiences. Yoga is a form of meditation incorporating the mind and the body, while promoting physical fitness, relaxation, and increasing health and wellness (Barnett, Shale, Elkins, & Fisher, 2014). According to Barnett et al. (2014), yoga is comprised of eight different practices: Yama, which allows one to engage in moral behavior; Niyama, which helps one practice healthy habits while being tolerant and observant; Asana, which focuses on the postures; Pranayama, which focuses on breathing; Pratyahara, which prepares one for meditation, while practicing sensory detachment; Dharana, the practice of deep concentration and focus on one object; and Dhyana, the practice of contemplation, and Samadhi, which is the achievement of entering supreme bliss, or achieving a higher consciousness. These techniques have been practiced for over 5,000 years and require one to reflect on what is causing the stress rather than reacting immediately to the situation inducing the stress.

Due to the background of this writer, incorporating more mindfulness-based practices has proven to be a significant help when working through the stressors of school, work, and family life. When implementing what was learned during this writer's undergraduate and graduate studies, it was found these skills helped this writer cope with, and manage stress and anxiety

when it would arise. During this writer's previous research on the topic of how mindfulness-based practices alleviate stress and anxiety in school-aged children, there were few articles speaking to the positive outcomes of these practices. Due to the minimal research focusing on children and adolescents practicing yoga and other mindfulness-based practices, this writer specifically wanted to focus on the effectiveness of these practices for younger individuals.

According to Kranner, Minibayeva, Beckett & Seal (2010), when a threat, or stressor, is present, the body will react, create adrenaline and go into a state of alarm. When the threat is present, one will feel the emotion of stress. Anxiety is a worry, imagining the worst possible scenario, or an alarm system within the human body, when they feel there is a threat (kidshealth.org, 2014). According to Kranner et al. (2010), stress and anxiety can be short term or long term, and can become overwhelming, and negatively impact one's life if they spend excessive amounts of time worrying about their environment.

Mindfulness-based practices are well known for alleviating stress, depression and anxiety. They are often considered a complementary or alternative form of medicine when compared to Western medicine (Ciesla, Reilly, Dickson, Emanuel, & Updegraff, 2012). Alternative practices focused on mindfulness are becoming increasingly popular among people. Approximately one-third of patients, adults and children, use these alternative medicines, with upwards of 84% of those being treated with life-long diseases such as ADHD, asthma, and cancer (Vlieger, 2007). Prior research on mindfulness-based approaches has largely focused on adults but at least one study has found it to be beneficial for children and adolescents as well (Kuyken, et al., 2013). According to Barnett et al. (2014), yoga can be used to treat various diseases as well, such as heart disease, hypertension, multiple sclerosis, cancer, and lower back pain. There are a variety

of mindfulness-based therapies that are used to improve psychological and physical health outcomes, including depression, anxiety and chronic pain (Ciesla et al., 2012).

Exposure to stress in life is something that cannot be avoided. Children are said to have at least one exposure to a major life event that causes stress by the time they reach the age of 16, and even more exposure for children who live in impoverished neighborhoods (Ganzel, Kim, Gilmore, Tottenham, Temple, 2013). Even if the level of stress is low, it has been found stress affects task performance and causes an inability to concentrate (Kauts & Sharma, 2009). This stress affects the body in a variety of ways. Studies have shown stress affects the brain, in potentially irreversible ways with cascading effects on other systems, such as chronic pain, academic performance, and psychosocial well-being. (Ganzel et al., 2013; Lupien, McEwen, Gunnar & Heim, 2009). Due to the negative outcomes of stress in children, it is important to look at ways in which these outcomes can be avoided, or reduced, not only with Western medicine, but with alternative medicine as well, such as yoga and other forms of mindfulness-based practices. Mindfulness-based practices can help buffer stressful situations, but it has also been shown to decrease the level of stress in children's lives, along with showing a greater well-being (Kuyken, et al., 2013). These alternative forms of medicine have not been extensively studied in children, and therefore this research was designed to explore how Yoga Calm instructors perceive yoga and mindfulness based practices help to alleviate stress in children and adolescents.



## Literature Review

### Yoga for Stress

Stress not only causes pain in individuals, but can also affect academic performance in young people. An experimental study conducted by Kauts and Sharma (2009) demonstrated adolescents with low levels of stress performed better on tests than adolescents with high levels of stress. This study split the students up between experiencing high-and-low stress, and then randomly split them into an experimental group, receiving yoga, and a control group, who did not receive any treatment. All of the students took the Bisht Battery of Stress Scale and were divided into students with low stress or high stress, based off of their scores on the scale. Half of the students in the low-stress group and half of the students in the high-stress group were put into the experimental group, and the other half from each group were put into the control group. Study results indicated students in the experimental group performed better on the tests after treatment than the control group. This could be due to the yoga helping in managing anxiety and concentration. Students who experienced high amounts of stress and were put in the intervention group tended to manage their stress better, performed better academically than those who did not receive a treatment. Students who were a part of the low-stress group performed better overall, but also showed improvement when in the experimental group. This not only shows that stress affects how you do academically, but it also shows yoga is an effective way to alleviate stress, resulting in better academic performance.

Another study found implementing a mindfulness-based program, including yoga, increased resilience in children ranging in age from 6 to 12 years old, during times of intense stress (Kuyken, et al., 2013). Children were randomly assigned to an intervention group, focused on yoga and breathing exercises, and a control group that went through the traditional curriculum

at school, which included classes such as social studies, religious classes and personal and social health classes. The results of this study showed the intervention was well liked, and taught the participants skills to use when experiencing stressors that occur in everyday life, and promoted mental health and well-being. This study showed that not only is a mindfulness-based program that includes yoga helpful for the individuals to regulate mental health, it is also widely accepted among this population.

Not all of the outcomes for yoga have proven to be beneficial. According to White (2012), practicing yoga helped with coping with stress, but the awareness of stress also increased in these children. This study was conducted on fourth and fifth grade females who either received a mindfulness-based stress reduction class, which included meditation and Hatha yoga, or were put on a wait-list to receive yoga classes at a later date. The results showed an increase in the awareness of stress, an increase in stress, along with an increase in being able to cope with stress for those who received the treatment. Researchers hypothesized the awareness of stress actually created more stress, contrary to previous findings in studies with adult samples. Researchers hypothesized this could be because the children have an increased awareness of the stress in their lives, but do not have the cognitive or emotional ability to manage the increased awareness of stress, creating more stress in the child's life. More research needs to be done on the correlation of acknowledging stress and an increase in coping frequency.

### **Yoga for Depression**

Previous research has found yoga practice can decrease depressive symptoms in young adults (Woolery, Myers, Sternlieb & Zeltzer, 2004). In one study focused on young college students who had mild levels of depression, students attended a one hour Iyengar yoga class twice a week for five weeks (Woolery et al., 2004). The results showed a statistically decreased

level of negative mood and fatigue, and decreases in symptoms of depression. The levels of depression decreased in the middle of the study and were maintained until the study finished. This is one example of how yoga can be used to treat multiple forms of diseases, such as depression.

One side effect of depression is pain. A study currently being conducted at the University of California is studying Iyengar yoga, a traditional form of yoga which uses props to help people with limiting disabilities to participate, and its ability to help alleviate chronic pain in children (Evans, Moieni, Sternlieb, Tsao & Zeltzer, 2012). This study is in progress, therefore no results are available, but the researchers for this study predict many hospitals will be incorporating Iyengar yoga into their practices with children who experience chronic pain once the results from the study are composed. This could potentially be beneficial for insurance companies as well as the families who experience this pain because yoga is relatively inexpensive, can be practiced at home, and can also be utilized as a prevention for pain.

Yoga has also been found to have an effect on psychosocial well-being. This means yoga can influence attitude and overall outlook on life. One study found practicing simple and adaptable yoga two or three times a week improved mood, reduced tension and anxiety, and increased mindfulness (Noggle, Steiner, Minami & Khalsa, 2012). This study focused on eleventh and twelfth graders who either participated in yoga two or three times a week for ten weeks, or who participated in regular physical education classes. The yoga focused on physical postures, breathing exercises, relaxation and meditation through yoga. The control group participated in traditional and non-traditional activities such as volleyball, hockey and a ropes course. The results showed the treatment group had better outcomes in reducing negative affect, and a general increase in psychosocial well-being.

### **Mindfulness-Based Practices for Stress**

Other ways to help young people cope with stress are through a mindfulness-based practices. These practices are similar to yoga in that it allows the individual to focus on present experiences like thoughts, feelings, or sensations. One study found that students who were put into a mindfulness-based program allowed students to act with awareness of their thoughts and feelings, and this provided a buffer to everyday life stressors (Ciesla et al., 2012).

A study by Mendelson et al. (2010), supported the findings of Ciesla et al. (2012). This study focused on fourth and fifth grade elementary students from the Baltimore area. The researchers studied children's responses to stress, both voluntary and involuntary, relationships with peers, positive and negative emotions and depressive symptoms. Half of the children were randomly placed into the school-based mindfulness and yoga intervention, and the other half did not receive any intervention. The intervention consisted of children attending a consultation with school administrators four days a week, for twelve weeks. Each session lasted forty-five minutes, and was conducted during a non-academic resource time. In particular, they studied the effect of a mindfulness-based program on cognitive and emotional regulation with the elementary students. When the youth were introduced to a mindfulness program along with yoga, the program had a positive impact on intrusive thoughts and emotional arousal in the students. The results of this study showed students in the intervention had positive changes in self-regulatory capacities which is correlated to heart-rate reactivity. It also lowered intrusive thoughts, emotional arousal and impulsive actions. These findings suggest implementing mindfulness based approaches and yoga help combat the negative effects of stress in children.

In conclusion, while research on the effects of yoga in children is relatively new, studies have been rapidly expanding. The results of the previous studies show yoga can be beneficial in

reducing depression, stress, anxiety and helps children academically. Mindfulness-based practices also include yoga and meditation and have also been linked to decreasing stress in young individuals as well. This is beneficial because yoga and meditation are relatively inexpensive, and can be practiced at home. Also, with a reduction in stress, there is less chance of the cascading effects on psychosocial well-being, academic performance, and chronic pain in children. Based on the studies reviewed, showing the benefits of yoga and mindfulness-based practices, the researcher interviewed three Yoga Calm instructors to learn more about their experiences working with children and young adults who are exposed to mindfulness-based practices.

### **Yoga Calm Training**

Yoga Calm certification is comprised of three wellness courses, a practicum course, and a capstone course (Yoga Calm, 2017). The introductory wellness course includes a workshop that helps teachers, therapists, or parents incorporate Yoga Calm into the work that they do with children and adolescents. This course is hands on and teaches one how to use breathing exercises, simple yoga movements, and social and emotional skills development. The second wellness course is more in-depth with yoga, physical activities, and teaches the participant how to teach others to safely develop their emotional and physical strength, as well as, flexibility through the mindfulness and yoga. The third wellness course focuses on mind-body counseling techniques, as well as gives more instruction on how to use Yoga Calm to teach others to further develop their social and emotional skills.

The practicum course focuses more on the reflection of what the participant has learned. This course includes an exam, and requires the participant to start teaching children Yoga Calm and logging a total of twenty hours. There is also a requirement of the participant creating a

thirty-minute video of themselves teaching Yoga Calm, and the development of five lesson plans based on the five Yoga Calm principles. The Capstone course requires the participant to lead a thirty-minute lesson plan based on the five Yoga Calm Principles, as well as feedback and reflection on what they learned in the previous courses on how to create a safe and powerful learning environment. Once a participant completes all of the courses, they become certified as a Yoga Calm instructor.

### **Conceptual Framework**

#### **Systems Theory**

Systems theory (Forder, 1976) applies to this research because it allows for the variety of complex systems in a child's life to be impacted by what they learn while being taught yoga, or other mindfulness-based practices. According to Forder, (1976), systems theory is the interrelated systems that influence a person, or their behaviors. Systems theory focuses on the reciprocal relationships of a person, and how these relationships create a whole environment of a person. These relationships are between individuals, groups, organizations, or communities, and are what influence a person.

Due to the complexity of the systems in one's life, the system might cause a lot of stress and anxiety in a young child. These systems can be in the home, at school, in any specific extra-curricular group they may be in, as well as in their peer system. Teaching young people how to handle stress and a variety of simple steps to alleviate stress could potentially help the child deal with all of the stress from the many complex systems that they are a part of.

By teaching a child ways in which to cope with their stress and anxiety, the child is able to change the systems within themselves. While avoiding situations that cause stress and anxiety is nearly impossible, the child can lower their levels of stress within themselves, which is

changing their inner systems. Instead of avoiding the situations which cause stress, a child will be better equipped to work through the situations that cause the stress and anxiety.

### **Methods**

This study was designed to explore how Yoga Calm instructors perceive yoga and mindfulness based practices. It also explores how these practices help to alleviate stress and anxiety in children and adolescents. In order to do this, qualitative interviews were conducted. Qualitative data focuses more on personal narratives and lived experiences, rather than numbers and counting. It also focuses on complete, idiographic explanations (Monette, Sullivan, & DeJong, 2008). Qualitative research is advantageous for this study because it allows the researcher to learn directly from practitioners how their Yoga Calm practice is working, based on their observations. The reason for conducting qualitative research is because this writer would like to understand why mindfulness based practices are utilized, and the different outcomes these practices have. This writer would like to better understand the meaning behind yoga and mindfulness-based practices and what it is about these practices that help children work through their stress.

### **Sample**

Participants were recruited through Yoga Calm, via their on-line certified instructor directory. All instructors who live in a large Metropolitan area were contacted and asked to participate in this study. The recruitment email used the attached recruitment form (see Appendix A). While recruiting, this writer asked if participants knew of other people who work with children who are yoga certified, and might be willing to participate. Recruitment forms were made available to qualified candidates. Participants were recruited purposively and via snowball sampling (Monette, Sullivan, & DeJong, 2008).

Three Yoga Calm instructors participated in this study. One instructor works at an elementary school and teaches children in Kindergarten. This instructor was trained through 1,000 Petals, and integrates Yoga Calm into the classroom throughout the year. The second instructor was trained through 1,000 Petals, and works throughout the Twin Cities at various schools, and Community Education, and also teaches yoga through a private Twin Cities organization. This instructor provides residencies in schools that trains teachers and children to use mindfulness movement, breathing, social emotional games, and writing in journals to help them find ways to have more self-regulation and a calmer classroom. This instructor works with children as young as preschoolers, through adolescents in eighth grade, as well as families through classes at a private studio. The third instructor works as a therapist, and integrates Yoga Calm throughout their practice with children and adolescents, as well as, teaching Yoga Calm through other mental health services, and worked with children from kindergarten through high school. This instructor was also trained through 1,000 Petals.

### **Protection of Human Subjects**

In order to keep participants' privacy protected, this writer kept all information from the interview, as well as from the final paper, on a password protected computer and phone. Notes taken while conducting the interview were kept in a locked filing cabinet, as well as printed versions of the final research paper. Participants also signed a consent form (see Appendix B), stating they understood they could stop the interview at any time or not answer any questions. This writer transcribed all of the interviews in order to further maintain privacy of the participant. All data will be deleted after three years from the completion of the study, and no names will be included in the final report. The final report was also offered to the participants, so they knew how their participation benefited this research.



This writer also completed the CITI training before beginning the research process to ensure the research was conducted ethically. After completing the CITI training, this writer submitted, and was approved by the University of St. Thomas IRB to conduct this research.

### **Data Collection**

In-depth interview questions were created and the interviews were recorded, then transcribed. The questions utilized for this research were developed after conducting a pilot test in early 2016, from the literature review, and from the writer's MSW research committee. Questions were also developed from this writer's previous experience in the field of yoga and other mindfulness-based practices. The interview utilized the attached interview protocol (see Appendix C).

### **Data Analysis**

Analytic induction was used to analyze the interview data. Analytic induction is defined as observing something about a group of people, or creating a theory, creating a hypotheses based on this theory, and testing the hypotheses to either be valid or invalid (Monette, Sullivan, & DeJong, 2008) based on the data collected.

Based on the literature review and previous experience, this writer hypothesized Yoga Calm instructors would provide examples of ways their practice reduced stress in the children and adolescents they engaged. The writer read through the transcripts to reject or accept this hypothesis, while also remaining open to other themes which emerged from the interview data. Based on the research conducted, and the data found, the hypothesis was supported. With their experiences working with children and young adults who are exposed to mindfulness-based practices, Yoga Calm instructors validated that these practices alleviate stress, as well as teach children ways in which to cope with the stress and anxiety that happens in their lives. In addition

to the support of the hypothesis, there were a variety of other themes found throughout the research.

### **Findings**

All of the subjects interviewed were trained by the same Yoga Calm instructor. All three participants were trained through the same program at 1,000 Petals and work with children as young as pre-school, through high school students. One instructor works at an elementary school and teaches children in Kindergarten. This participant integrates Yoga Calm into the classroom throughout the year. The reason for using Yoga Calm is because it felt accessible to the participant, who had no previous yoga training. This participant uses Yoga Calm to help teach children character development, while uniting minds and body.

The second participant works throughout the twin cities at various schools, and community Education, and also teaches yoga through a yoga company. This participant teaches residencies at different schools throughout the Metro area. This participant uses Yoga Calm because they find it to be effective at addressing kids in a moving, breathing, and emotional way, rather than addressing kids in a logical, head-space way.

The third participant works as a therapist, and integrates Yoga Calm throughout their practice with children and adolescents. This participant has also taught Yoga Calm through other mental health services, and worked with children from kindergarten, through high school. The reason this participant finds Yoga Calm effective is because it uses a curriculum in skills that incorporates movement, and this movement allows children to be more aware of the mind and body.

This research was designed to explore how Yoga Calm instructors perceive yoga and mindfulness based practices help to alleviate stress in children and adolescents. Based on the

research conducted, and the data found, the hypothesis was supported. The Yoga Calm instructors validated the hypothesis, based on their experiences working with children and adolescents who are exposed to yoga and other mindfulness-based practices. These practices alleviate stress, as well as teach children ways in which to cope with the stress and anxiety that happens in their lives.

### **Alleviating and coping with stress**

The first part of this finding showed children use the tools they are given to manage the stress and anxiety they experience in life. One participant described an activity using guided meditation, having children picture their safe space, and describe the details of their safe space. This participant then described some of the children's safe places,

One is, 'I'm in my mom's bedroom, the TV isn't on, I'm just in bed with my mom and we're just lying and snuggling together'. Another is, 'I'm sitting on the beach and I can hear the waves coming', or 'I love the sound of the wind rustling by'.

I'm like, what? I mean, I'm looking at them, and most of them are pretty deep.

This participant then described that she uses these safe places that the children described as a way of calming a child down when they are feeling big emotions of anger or sadness, and the children calm down when picturing their safe place.

It was found that when children and adolescents listen to their bodies, their bodies will let them know what they need. One participant described a group of adolescent boys that were very resistant to Yoga Calm, but over time began to really enjoy the classes. One of the mindfulness pieces incorporated was bringing essential oils into the room and having each of the boys smell the oils. This participant stated,

It was really interesting because one of our most hyper-active boys was like, ‘I really like that rose oil’. So we talked about rose oil and how it’s considered a calming, relaxing smell, and uplifting. And then two of the boys that we had in there who had pretty significant depression and anxiety, and often times had a hard time getting activated and moving, or who would shut down when they got anxious or depressed, were like, ‘I really like the peppermint, or peppermint and orange combined’. So we talked about how peppermint and orange are energizing.

The implementation of Yoga Calm taught the group of boys to become aware of their body, which is important because your body is very intelligent and will let you know what it needs.

Two of the participants discussed that the children use different breathing techniques when they are experiencing anxiety. One participant described how the children they teach can take three deep breaths, and it completely changes how they are handling their emotions. Another described how the children take what they learn in Yoga Calm and they teach their families at home how to use different breathing techniques. One participant stated, “During parent-teacher conferences, one parent told me, ‘then my child said, ‘I’m going to go to my room and take some breaths, or I’m going to go do volcano breaths’”. All three participants reported that they believe teaching children yoga and other mindfulness-based practices have helped the children to use these techniques when they are experiencing stress, anxiety, and have difficulty managing big emotions of anger or sadness. In addition to these finding, there were other themes which emerged from the data. These themes include: lack of time, resistance, sharing the practice, adapting the course for developmental differences, how Yoga Calm is different from other mindfulness-based practices, how sustainable practicing Yoga Calm is over time, as well as professional collaboration.

**Lack of Time**

The main difficulty found for teaching Yoga Calm with children and adolescents, was time being a contributing factor in how they implement Yoga Calm in the classrooms. One stated, “It’s mostly a matter of committing to doing it. Finding time in your day when you’re going to do it”. Another stated, “And you know, the kids show up differently on different days too. It depends on the group and how much time I have to work with them...”. In order to make sure there was time, some instructors would base their entire skills group around Yoga calm. An example of this was given from one participant stating, “...Like with the EBD classroom that we did a full hour Yoga Calm session because it was a part of our skills group”. Or, if it was not focused on an Emotional Behavior Disordered classroom, the instructors would find time to fit the Yoga Calm in when they could. This was evident when one said, “They’re doing it in larger classrooms, where you’re not going to have mats, so instead they will do a fifteen-minute chair flow, or they might do a five-minute chair flow in between transitions”.

**Resistance from Children**

It was also found the children who had a lot of difficulty regulating their emotions, or their behaviors, tended to be the most difficult to get on board when being taught yoga and other mindfulness based practices. According to one interviewee, “And the child who most needs it is often the one that is most non-compliant”. Another reported,

I would say it is tricky sometimes to get the kids who need it the most to actually do the yoga. The kids who are having a really hard time regulating themselves, when I go into a classroom, sometimes it’s really hard to get them on board, but if I can get them....

However, it was found children who refuse to participate, can still be reached,

It's really risk-taking and uncomfortable for kids to connect with themselves, and their bodies, so he just kind of looked and smirked at me the entire time, but in the last class, I did notice him doing maybe two, or three poses. So hopefully, it was helpful for him to have that time to connect with himself.

Another interviewee reported similar findings,

In our kindergarten to second grade classroom a lot of those kids had trouble with controlling their body, and calming themselves. Sometimes it was because they were angry, sometimes is because of anxiety. This is one of the things that we teach them, is how to do some of those calming activities. There was one little kid that I had and he said 'Oh this is so stupid, this isn't going to work', and I finally talked him into doing it. He put his head on the desk and took a deep breath, and he looked back up and was like 'That actually worked'.

### **Children Teaching Others**

Despite finding it difficult to reach some children, two of the interviewees talked about being surprised by instances where the children take what they are learning in Yoga Calm, and teach it to others in their lives. One of the interviewees shared how parents will tell her at parent-teacher conferences,

'Every day she comes home and shows us a yoga pose, has us do the yoga'. And sometimes you'll think, is this going anywhere, and they [the parents] will say, "And then my child said, 'I'm going to go to my room and take some breaths, or I'm going to go do volcano breaths'. The children are taking their skills they are learning and implementing it in other parts of their lives to help them regulate themselves when they become heightened.

Another interviewee reported, “Anecdotally, what I’ve seen is kids who will mention that they use breathing to calm themselves down and the kids will say, ‘I did this, I taught my brother how to do this’.

### **Adapting for Developmental Differences**

All three of the interviewees talked about having to adapt their Yoga Calm practice, in order to be developmentally appropriate for the child’s ages or diagnoses. One interviewee discussed that the pattern of Yoga Calm as a calm, active, calm sequence that they follow, however this sequence sometimes needs to be changed based on the children’s needs. One interviewee stated, “It’s meeting the kids where they’re at. If they have a lot of energy, you start with an energetic pose or two before you get to that calm, centering place”. This interviewee went on to say the differences in Yoga Calm practice depends on the ages of the kids as well, saying,

When I do work in schools, we do a chair flow, and kids typically hang with that pretty well, but maybe in kindergarten I would go through it one time, and then first grade, second grade and up, you can go through it two to three times.

Another reported, “If they seem really scattered, and I can go to my book and see good poses to build attention, or some mindfulness pieces I can do”. The third interviewee discussed changing the Yoga Calm practice based on the children she was working with and what needs they had as well, stating,

I’m working with a group of middle school boys that have all been diagnosed with ADHD. So, I do a lot more active poses and challenge poses with them. Kids with anxiety, I’m probably going to do more grounding, and probably a little bit of a slower flow for them.

### **Differences from Other Mindfulness-Based Practices**

There were several differences given in which Yoga Calm was unlike other mindfulness-based practices. One of the interviewees described working with Mind Op, which focuses on brain development and how this was different from Yoga Calm. When describing the differences, this interviewee stated,

Yoga Calm has a mindfulness component but it also has yoga poses. So, it incorporates some movement along with some mindfulness. Yoga Calm does not get into the brain research. In Mind Op, you do a lot of talking about the different parts of your brain. We talk about the prefrontal cortex being the wise leader, the amygdala is the security guard, and then it incorporates sitting mindfulness practices. I like doing both. I think kids can benefit from both, I think there are pros and cons to both.

Another difference described by an interviewee is that Yoga Calm follows a curriculum that focuses social skills for the children and adolescents. When describing the differences, this interviewee stated,

There's an emphasis on the physical aspect and at the same time it's really more about that mindfulness and the skills piece, while following the curriculum of calm, then you go to the active, and then you come back to the calm.

This was supported by the third interviewee stating, "It's using yoga movements but it's trying really hard to steer clear of the spirituality sort of aspect of yoga".

### **Sustainability of Yoga Calm**



One interviewee is a part of a residency program, which goes into schools to show teachers how they can implement Yoga Calm with their children, with the hopes of the program being sustainable throughout the year. This interviewee stated, “I help train teachers and kids to use mindfulness movement, breathing, social-emotional games, and writing in journals to help them find ways to have more self-regulation and a calmer classroom”.

While sustainability is a goal for the instructors, one of the interviewees describes her trouble with maintaining the Yoga Calm program throughout the year. This interviewee described a difficulty being due to their mood, for trying to find time to fit Yoga Calm in, stating,

Some of it is my mood, quite honestly. This year, I haven't done so much of the Yoga Calm, I've done the mindfulness, now I'm trying to put more of the yoga back in. It's mostly a matter of committing to doing it, finding time in your day, then not giving yourself an excuse not to do it.

### **Professional Collaboration**

All three interviewees stated that they work in collaboration with teachers, social workers, school administrators, parents, and other professionals within their work communities. Each describe their professional collaboration as supportive, however there are professionals two of the interviewees have come in contact with, who do not support Yoga Calm. One discussed a time in which they were collaborating with another teacher stating, “I will do yoga with them, for at least the first part, so that way I can have the room, and you can have the room, but he just freaked”. This interviewee went on to state the cause for the previous teacher's reaction, “I think there are some teachers that just won't go there, they don't have the time, or think they cannot do it”.

Another reported, while collaborating with other professionals, two teachers that dismissed Yoga Calm as being something they would try. This interviewee stated, “I did a staff development workshop, and I asked, ‘Think about one thing they can take away from this workshop that you would like to incorporate’, and two teachers mouthed to each other, ‘nothing’”. This interviewee described the reason for this being similar to the other interviewee, saying, “It was at the beginning of the school year and people felt stressed, but that’s the biggest hurdle, is that people feel like they don’t have time for this”.

### **Discussion**

In the three interviews conducted, it was found that children were not only implementing what they had learned when they became dysregulated, they are teaching others how to do the same thing. One of the main contributing factors in how Yoga Calm is presented to children and adolescents is time. This means that if the teacher feels they do not have the time to implement a Yoga Calm curriculum in their class, they are not likely to teach it. It also means that if there is a large or a small amount of time, it impacts what aspects of the program are being taught.

Another finding is that the children who have the biggest difficulty regulating themselves when feeling stress or anxiety, tend to be the most difficult to reach or to participate in the program. However, there are times when these children start to participate, not every time, but when they do, they are learning ways in which they can help regulate themselves.

It was also found that each of the interviewees tend to adapt their Yoga Calm practice to meet the developmental differences in the children and adolescents they are working with. These changes range from the amount of time spent practicing Yoga Calm, to the sequences they follow in the program, or the speed or activities implemented.

There were several differences found between Yoga Calm and other mindfulness-based practices. These differences include, staying away from the spiritual aspect of yoga, or having a focus on brain development and how mindfulness helps with the brain. The main difference found is that Yoga Calm follows a curriculum, and while there might be adaptations due to the development of the children, there is always a curriculum followed.

Two of the interviews described the sustainability of Yoga Calm throughout the year. While sustainability is an aim for Yoga Calm, it is not always possible. One interviewee described a lack of time as their reason for Yoga Calm not being sustainable for them. This reason is also why there tends to be a dismissiveness towards Yoga Calm. Teachers or other professionals feel they do not have the time to implement the program, therefore shy away from the program.

However, the most significant finding was the children who were given the time and resources to help calm themselves through Yoga Calm, implemented these practices when they felt stress, anxiety and large amounts of anger or sadness. Yoga Calm helps the children and adolescents listen to their bodies, which is helpful because a body is good at telling one what it needs. The needs might include; slowing down, taking breaths, and shifting mood through essential oil use. By listening to these needs, children and adolescents are better able to regulate their emotions and feelings, especially when they become big emotions or feelings such as stress, anxiety, anger, or sadness.

### **Implications for Social Work Practice, Policy and Research**

Yoga calm has been shown to help children and adolescents gain a connection through their mind and body, and allows for a child to help re-regulate themselves when they are feeling stress and anxiety. Yoga Calm has also been shown to be useful in a variety of settings and time

limits, making it versatile and accessible for instructors to implement. These findings can help shape policies on what children are being taught, in addition to standard academics. A programs, such as the residencies in schools, can be utilized to help teachers and their students learn how to cope with stress and anxiety. One of the research participants is an active educator in this group.

The findings have also shown that not only are the practices of Yoga Calm beneficial for children and adolescents, they are beneficial for the Yoga Calm instructor as well. This was particularly evident in one participant who uses the breathing techniques they teach to the children when they are feeling overwhelmed or stressed. This can have a beneficial impact on social workers and their practice. One participant currently works as a therapist, and teaches Yoga Calm to their clients. Not only is this participant doing traditional therapy, they are also helping the clients learn centering, and being mindful of what they are thinking and feeling in their bodies.

Future research should focus on children and their thoughts on how Yoga Calm influences them. However, this research has shown that the Yoga Calm instructors validated, based on their experiences working with children and young adults who are exposed to mindfulness-based practices, that these practices alleviate stress, as well as teach children ways in which to cope with the stress and anxiety that happens in their lives.

### **Strengths and Limitations**

Limitations of this study are that there were only three participants. By having so few participants, it is difficult to draw conclusions on the effectiveness of Yoga Calm in helping to reduce anxiety and stress in children. Additionally, due to the time constraints of the research, this writer was unable to triangulate the data (Monette, Sullivan, & DeJong, 2008), and had to rely on only the one interview conversation with the Yoga Calm Instructor. Additional

interviews with parents, other professionals or the children themselves would have provided richer detail and information about Yoga Calm as an intervention.

A strength of this research was that it contributed to a knowledge base, which is fairly new in the research community. By conducting qualitative research, it allowed this writer to gain a more in depth understanding on what specifically is effective about Yoga Calm and other mindfulness-based practices, and how they work for children and adolescents.

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## Appendix A

Mr./Ms.,

My name is Amanda and I am writing to you as a student at St. Catherine University and University of St. Thomas in their MSW program. I am currently in a research class that requires all students to participate in their own research. My area of interest is yoga, and other mindfulness based practices, and how they alleviate stress and anxiety in children and adolescents. I am reaching out to you because of your certification in Yoga Calm and your work with children. I was wondering if you could meet with me for an interview that will last between 45-60 minutes at a place of your choosing. If you have any other people in mind that you think would like to participate in this study, feel free to forward this email on to them. Thank you for your time, and I look forward to hearing from you.

Amanda Geldert

## Appendix B

**Consent Form****Yoga with Children**

You are invited to participate in a research study about the effects of yoga on children. I invite you to participate in this research. You were selected as a possible participant because of your work with children and young adults through Yoga Calm. You are eligible to participate in this study because of the following information is provided in order to help you make an informed decision whether or not you would like to participate. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Amanda Geldert, a student at St. Catherine University and University of St. Thomas, under advisement of Professor Kendra Garrett.

**Background Information**

The purpose of this study is to find out more information about how yoga directly impacts children, in specific children who have learning difficulties. The research questions will address specific outcomes you have witnessed in order to gain more knowledge about specific outcomes.

**Procedures**

If you agree to participate in this study, I will ask you to do the following things: Take 30-45 minutes of time to answer questions. These questions will be audiotaped. You are the only person in this study.

**Risks and Benefits of Being in the Study**

The study has no known risks or benefits.

**Compensation**

There is no compensation for this study.

**Privacy**

Your privacy will be protected while you participate in this study. You may choose where and when to do the interview.

**Confidentiality**

The records of this study will be kept confidential. In any sort of report I publish, I will not include information that will make it possible to identify you. The types of records I will create include a recording of the interview, transcripts of the interview, consent forms, notes and a final research paper. All records will be kept on my laptop that has no access by other people. A research partner will review the transcripts and recording as part of the data analysis. My professor will also be receiving a copy of my paper at the end of the semester. Your name will not be on the recording or any documents. I will destroy the recording in May and will keep notes, transcripts, consent form for a minimum of three years.

**Voluntary Nature of the Study**

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with me or the University of St. Thomas. There are no penalties or consequences if you choose not to participate. If you decide to participate, you are free to withdraw up to one week following the interview. Should you decide to withdraw, data collected about you will still be used. You can withdraw by stating you would like to end the interview. You are also free to skip any questions I may ask.

**Contacts and Questions**

My name is Amanda Geldert. You may ask any questions you have now and any time during or after the research procedures. If you have questions later, you may contact me at 612-695-8013 or geld6581@stthomas.edu. You may also contact Professor Kendra Garrett at kjarrett@stthomas.edu with any questions or concerns.

**Statement of Consent**

I have had a conversation with the researcher about this study and have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I am at least 18 years of age. I give permission to be audio recorded during this study.

**You will be given a copy of this form to keep for your records.**

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**Signature of Study Participant****Date**

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**Print Name of Study Participant**

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**Signature of Researcher****Date**

## APPENDIX C

What is it about Yoga Calm that you find effective? What type of yoga with children do you do? Who are the kids that you work with? How do you decide what type to use in different groups? Can you describe a typical yoga program? What are some of the process outcomes you have seen personally? How do you tailor your work to the kid's needs? Are there other aspects to your program that you use with the kids? Tell me about a specific success story that you have witnessed? Have you encountered any children that have not responded with success? Tell me about that, and why do you think that is?