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The Effects of Mindfulness Techniques on Empathy and Emotional Control

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An Ed.S. Thesis submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

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Abstract

Schools' reaction to bullying is often just that; reactive, rather than proactive. Bullying is reported and then the school takes action in one of two ways. The perpetrator is punished or the victim is supported. Sometimes schools do both. What schools are frequently missing from this equation is that no one supports the student who engaged in the bullying behavior. Research tells us that there are negative effects for all students involved in bullying. Yet few work to support the students who engage in bullying behavior. Not only would this help prevent negative effects for the individual student, it may help to prevent future bullying from taking place. The following study is designed to investigate the link between mindfulness practices and common characteristics of students who engage in bullying: lack of empathy and emotional control. A group of five fifth graders in Cleveland County Schools were referred by teachers, counselors, and administrators to participate in a small group using a modified version of the MindUP curriculum. After the intervention group, students indicated more awareness of their own behavior, an increase in empathy, and an increase in emotional control.

The Effects of Mindfulness Techniques on Bullying Behavior

Statement of the Problem

Approximately 3.2 million students in the United States report being the target of bullying behavior several times a week. In addition, 3.7 million American students report engaging in bullying behavior each year (Fight Crime: Invest in Kids, 2003). The negative effects of bullying for both those engaged in the behavior and those on the receiving end are astounding. These consequences include anxiety, depression, and criminal convictions. Due to the large number of students affected and the seriousness of the consequences, bullying has emerged as a topic of interest for schools.

Schools' reaction to bullying is often just that; reactive, rather than proactive. Bullying is reported and then the school takes action in one of two ways. The perpetrator is punished or the victim is supported. Sometimes schools do both. What schools are missing from this equation is that no one supports the student who engaged in the bullying behavior. Research tells us that there are negative effects for all student involved in bullying. Yet no one is working to support the students who engage in bullying behavior. Not only would this help prevent negative effects for the individual student, it may help to prevent future bullying from taking place.

Research on bullying has found that bullying behavior is impulsive and characterized by a lack of empathy for others. Conversely, research on mindfulness has shown that mindfulness practices lower impulsive behavior and increase awareness for others. Currently, very little research has been conducted looking specifically at the

correlation between mindfulness practices and bullying behavior. This thesis aims to look directly at the impact of mindfulness on bullying behaviors.

Literature Review

What is Bullying?

Bullying is a relatively new area of research. The first studies examining bullying took place in Scandinavian countries in the 1970s (Noelle, 2005; Aluede, Adeleke, Omoike, & Afen-Akpaída, 2008). The definition of bullying is vague as reflected in research, laws, and policies. Of the 46 states with bullying laws, there is no consistent definition. In addition, the federal law uses vocabulary interchangeably, such as harassment, bullying, and assault. This results in confusion at schools when staff try to respond effectively to situations. In research, some researchers focus on repetitive occurrences, others focus on the intent of gaining power, and others require that the behavior be severe (Goodemann, Zammitt, & Hagedorn, 2012). For the most part, researchers agree that bullying is intentionally harmful, repeated and pervasive, and involves an imbalance of power. In their 2012 Position Statement, the National Association of School Psychologists defined bullying as “the use of force or coercion to negatively affect others; involving an imbalance of social, physical, and/or emotional power; and involving willful and repeated acts of harm.”

Types of bullying. There have traditionally been three classifications of bullying- verbal, relational, and physical. However with the increase in use and access to the internet, researchers have begun to include a fourth category, cyberbullying. Verbal bullying encompasses psychologically damaging comments including behaviors such as

name-calling, taunting, and threatening harm. Relational bullying focuses on harming someone's feelings by manipulating relationships. This includes giving and revoking friendships, excluding someone, and spreading rumors. Physical bullying is what most people typically think of when bullying is mentioned; hurting a person's body or their possessions. For example, this could be hitting, choking, destroying property, or stealing. Cyberbullying is the use of emails, text messages, or internet comments to send hurtful or threatening messages (Beaty & Alexeyev, 2008; Elger, et. al., 2011; NASP, 2012; US Department of Health & Human Services).

Prevalence. Bullying is a world-wide phenomenon. However, the extent of bullying differs across areas. For example Australia reports that approximately 6.25% of students between the ages of nine and 17 are affected by bullying every week, The United States reports that approximately 30% of 6th-10th grade students are affected regularly, and Johannesburg, South Africa reports that 90% of students report being bullied during the school year (Fight Crime: Invest in Kids, 2003; Aluede, Adeleke, Omoike, & Afen-Akpaide, 2008). Fight Crime: Invest in Kids (2003) reported that 3.2 million U.S. students are the targets of bullying behavior several times a week each year, and 3.7 million students engage in bullying behavior each year.

Negative effects. There are documented negative effects of chronic bullying for both students who are the targets of bullying and students who engage in bullying behaviors. Targets of bullying are more likely to be depressed and to express suicide ideation. Girls who experience frequent bullying are more than three times as likely as their peers to report depression and eight times more likely to express suicide ideation. Boys who experience frequent bullying are more than five times as likely as their peers to

report depression and are four times as likely to express suicide ideation. These students also express difficulty concentrating on school work and have higher rates of school absences. In a U.S. national survey 22% of students who reported frequent bullying also reported academic difficulties because of the bullying. In addition, 16% of boys and 31% of girls report staying home to avoid school bullying. Long term effects of bullying on students targeted include anxiety, depression, insecurity, and low self-esteem (Roth, Coles, & Heimber, 2000; Aluede, Adeleke, Omoike, & Afen-Akpaída, 2008).

Students who engage in bullying behavior are likely to maintain their bullying behavior in adulthood, where it is less accepted by peers. This affects their ability to develop and maintain positive relationships as adults (Aluede, Adeleke, Omoike, & Afen-Akpaída, 2008). Their antisocial behavior often gets them into trouble with the law. By 24 years of age, 60% of boys classified as bullies in middle school were convicted of at least one crime and 40% were convicted of three or more crimes (Fight Crime: Invest in Kids, 2003).

Characteristics of Students Who Engage in Bullying Behavior

Students who engage in bullying behavior are often very popular with their peers and possess strong social skills, allowing them to attract followers. This attraction of support from their peers often becomes a positive reinforcer for the bullying behavior. When these students engage in the behavior and consequently gain approval from their peers, they are likely to repeat the behavior (Bosworth, Espelage, & Simon, 2001; Aluede, Adeleke, Omoike, & Afen-Akpaída, 2008). In addition to strong social skills, students who engage in bullying behavior tend to have a more aggressive attitude about

their environments. These students also are driven by impulse and feel little to no empathy for the victim of their behavior (Aluede, Adeleke, Omoike, & Afen-Akpaída, 2008). When these students are in control, they feel less anxious and more secure (Veenstra, et.al., 2005). Younger students who engage in bullying behavior are also usually bigger in stature and more aggressive than their classmates (Pellegrini, Bartini, & Brooks, 1999).

Bullying in Elementary School

Teachers' views. Teachers report significantly lower incidents of bullying than their students (Beaty & Alexeyev, 2008; Stockdale et. al., 2002). Stockdale et. al. (2002) found that students at a New York middle school reported almost 60 percent of students were victims of bullies while teachers reported that 16 percent of students were bullied. Kochenderfer-Ladd and Pelletier (2007) found that students were aware of this discrepancy. Students targeted by bullying behaviors report that teacher intervention is an effective counter measure, but that teachers are not aware of most bullying that occurs. This results in inconsistent response and does little to decrease the behaviors.

Students' views. Students are hesitant to report bullying to teachers (Stockdale et. al., 2002). This may be due to embarrassment or the fear of further persecution. Beaty and Alexeyev (2008) found that students believed that school officials respond poorly to bullying incidents. The same study found that teachers seldom intervened with bullying incidents in the classroom.

Research shows that bullying is indeed a problem in schools. Not only is bullying currently affecting a good percentage of students, but bullying is also known to have

numerous long-term effects for students both targeted by bullying behavior and those who engage in bullying behavior. It is imperative to find effective solutions that can be sustainable in schools.

What is Mindfulness?

Mindfulness techniques can trace their roots to the Buddhist religion. However, many practices have since been secularized. In the past decade and a half the practice of mindfulness has spread into the health and psychology fields (Meiklejohn et al., 2012). Studies have shown benefits of mindfulness in those with chronic illnesses and mental illness. In addition there appear to be general overall health benefits to practicing mindfulness, such as reducing stress and depression, enhancing the immune system, and improving interpersonal relationship skills (Meiklejohn et al., 2012).

Jon Kabat-Zinn, a leading researcher in the field of mindfulness, describes mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2006, p. 145). Mindfulness can also be defined as a “flexible state of mind in which we are actively engaged in the present” (Langer, 2000, p. 220). Being actively engaged in the present involves being aware of both the internal and external world; what is happening around you, as well as your internal reactions to the situation. Another tenet of mindfulness is keeping a non-judgmental mental state (Thompson & Gauntlett-Gilbert, 2008). The aim should be on recognizing your reaction to events, seeing patterns of reactions, and then returning focus to the situation. At no point should

the practitioner pass judgment on whether or not the reaction was positive, negative, right, or wrong. Ideally mindfulness helps people to be aware of their natural tendencies and gives them a pause to change their reaction (Singh et al., 2007).

There are a variety of different mindful practices. All practices focus on drawing attention to a specific internal or external experience. Internal experiences include following your breath, thoughts, or focusing on a specific body part. External experiences include focusing on a certain sound or listening for any sound you hear (Thompson & Gauntlett-Gilbert, 2008).

Currently there are a few different mindfulness programs that were developed to use in schools. Two of the more well-known curriculums are MindUP and Mindful Schools. These were designed to use within the classroom so that students participate in a mindfulness exercise or lesson every day. Each curriculum begins with an introduction to what mindfulness is before delving into the practice. Additionally, each lesson begins with a review of the last technique learned, then teaches a new technique, and ends with practicing the newly learned technique (The Hawn Foundation, 2011; Mindful Schools, 2010).

Effects of Mindfulness

In adults. Klatt, Buckworth, and Malarky (2009) conducted a study looking at the effects of a low-dose Mindfulness Based Stress Reduction (MBSR) on full time faculty and staff at a large university. At the end of a six week intervention, participants reported lower perceived stress and improved subjective sleep quality. Many other studies have found similar positive results (Baer, 2003; Burke, 2010). Burke (2010) reported that

researchers had seen MBSR help manage chronic pain, stress, anxiety, psoriasis, eating disorders, fibromyalgia, and substance abuse. A meta-analysis of empirical data suggested a medium effect size on outcome measures looking at physical and mental health (Burke, 2010). Benefits of mindfulness practice in adults also include increased attention and increased positive emotions (Schonert-Reichl & Lawlor, 2010). An increase in compassion and empathy has also been attributed to mindfulness (Shapiro, Schwartz, & Bonner, 1998; Shapiro, Brown, & Biegel, 2007).

In children and adolescents. Little research has looked into the effects of mindfulness practice in children and adolescents. However, given the effects of mindfulness in adult populations, the practice is becoming more common within school settings. It has not been until recently that mindfulness has made its way into use with the school aged population. A meta-analysis of current findings revealed that mindfulness interventions were acceptable among school-aged children and that there were no adverse effects reported (Burke, 2010). A study of 246 7th-10th graders in a large, urban school system revealed that students improved on teacher rated scales of attention and concentration and social/emotional competence (Schonert-Reichl & Lawlor, 2010). Several other studies have seen benefits such as improvements in internalizing and externalizing behaviors, test anxiety, and emotional reactivity in elementary school students (Burke, 2010).

Smaller scale studies have evaluated the use of mindfulness with children in the clinical population. Researchers found that students diagnosed with ADHD were able to improve their symptoms after an eight week mindfulness based program (Zylowska, et. al. 2008). Singh et. al. (2007) found that mindfulness techniques also helped three

patients diagnosed with Conduct Disorder. They found that all three experienced improvements in aggression or bullying behavior. Cruelty to animals and fire-starting, which were both a concern for only one patient, also decreased after a mindfulness intervention was put into place. All three participants began the interventions on the verge of expulsion and all three were able to successfully complete middle school.

Using Mindfulness to Decrease Bullying Behavior

Given the research on bullying and mindfulness, these appear to be dichotomous variables. Bullying is characterized by impulse and a lack of empathy. Mindfulness works to break the cycle of automatic reaction and has been shown to increase awareness of others. Students who engage in bullying often target classmates who are different. One of the core tenants of mindfulness is a nonjudgmental attitude. Mindfulness appears to build skills that are lacking in students who engage in bullying behavior.

Very little research has been conducted looking specifically at the link between mindfulness and bullying. However, much research has been conducted on each subject individually. Inner Explorer has found that their mindfulness program results in a 50% decrease of reactive behaviors. Bullying research has shown that bullying is characterized by impulsivity. Mindfulness programs aim to teach students how to pause and consider how their actions will affect other people, to use self-control, and to generate a sense on inner awareness (The Mindful Society, 2012). Garofolo (2012) conducted a study looking at the relationship between mindfulness and bullying. The study consisted of 66 students at a Canadian High School. Each student was administered the Five Facet Mindfulness Questionnaire and the Adolescent Peer Relations Instrument. Garofolo then looked for

correlations between scores on each instrument. He reported that there is a significant negative correlation between certain facets of mindfulness and the frequency of bullying behaviors; most noticeably mindful awareness and relational bullying (Garofolo, 2012).

Hypotheses

The following study was designed to investigate the link between mindfulness practices and common characteristics of students who engage in bullying: lack of empathy and emotional control. Given the research available regarding the effects of mindfulness techniques, as well as the nature of bullying, it is hypothesized that:

1. Students in the mindfulness intervention group will experience decrease in examiner observed negative behaviors.
2. Students in the mindfulness group will experience an increase in examiner observed pro-social behaviors.
3. Students in the mindfulness intervention group will self-report an increase in empathy.
4. Students in the mindfulness group will self-report an increase in emotional control.
5. Students in the mindfulness intervention group will self-report an increase of mindful awareness.

Method

Materials

Child and Adolescent Mindfulness Measure. The Child and Adolescent Mindfulness Measure (CAMM) is a ten item, single factor, four point Likert scale that asks the child to rate how true each item is for them from 1 (Never True) to 5 (Always True). The CAMM is designed to assess mindfulness in children and adolescents and reports an internal consistency .80 (Greco, Baer, & Smith, 2011). A lower score indicates more mindful behavior with a score of 10 indicating the most mindful behavior and a score of 50 the least amount of mindful behaviors.

Emotion Regulation Index for Children and Adolescents. The Emotion Regulation Index for Children and Adolescents (ERICA) is a self-report measure of emotion regulation designed for the middle childhood to adolescent years. The Emotional Control and Situational Responsiveness (empathy) subscales were administered to participants in this study. These two subscales are comprised of eleven, five point Likert questions. Test-retest reliability was a .76 for the Emotional Control subscale and a .82 for the Situational Responsiveness subscale. In addition, the ERICA was positively correlated with empathy scores (MacDermott, Gullone, Allen, King, & Tonge, 2010). Lower scores indicate the presence of more emotional regulation and situational responsiveness.

MindUP curriculum. The MindUP curriculum is a 15-session, in-class program that aims to teach students how the brain works and how to implement mindfulness practices into their everyday lives. The curriculum for third through fifth graders focuses

on teaching students deep belly breathing and attentive listening. The MindUP curriculum has been proved to improve students' self-control, reduce peer conflict, and strengthen resiliency. The MindUP curriculum has also been associated with increased positive social skills, such as compassion, patience, empathy, and generosity (The Hawa Foundation, 2011). For the purpose of this study, the MindUP curriculum was modified to use as a once a week 30-minute group curriculum spanning the course of 8 weeks.

The researcher modified the curriculum by deleting sessions that would naturally correlate less with bullying behavior, empathy, and impulsivity. The first four introductory sessions were kept, as were the final four sessions which focused on taking someone else's perspective or focusing on someone other than yourself. The sessions deleted focused more on sharpening your own senses rather than relating to other people.

Observation Tool. The observation tool was examined by the researcher using the Perceived Violence Measure (Jiménez-Barbero, Ruiz-Hernández, Llor-Esteban, Llor-Zaragoza, & García, 2013) and studies on mindfulness to pick negative and positive behaviors. The Perceived Violence Measure offers a list of possible bullying behaviors from physical to relational bullying and include laughing at a peer, hitting/shoving/pushing, and isolating/rejecting a peer. Positive behaviors were chosen based on mindfulness research and include teamwork, inviting a peer to play, and comforting a peer. The observations took place over a 30 minute period during physical education class for each student. The school where the study was completed combined two classes during gym resulting in a student to teacher ratio of about 45:1. This allowed for a less supervised environment where students were still contained to one area.

Procedure

Teachers and Counselors were asked for referrals the first week of January 2015. Parent consent forms were sent out the first week of February. When no forms were returned, the researcher attempted to contact all parents via phone. A second consent form was sent home 2/23/15. There were enough forms returned to start the group on 3/17/15. The curriculum implemented is listed below. It is important to note that spring break occurred during our time together resulting in a week without mindfulness intervention.

Week	Lesson
Week 1	How Our Brains Work
Week 2	Mindful Awareness
Week 3	Focused Awareness
Week 4	Mindful Listening
Week 5	Perspective Taking
Week 6	Expressing Gratitude
Week 7	Performing Acts of Kindness
Week 8	Taking Mindful Action in the World

Participants

Participants were a group of five fifth grade students at an elementary school in Cleveland County, North Carolina. This school has implemented PBIS practices, but does not have a specific anti-bullying program in place. As is custom in most schools,

participants were referred to participate in the mindfulness group by school staff. Since research shows that teachers are not always fully aware of the bullying occurring in schools, referrals were also received from the School Counselor and Administrators.

Prior to starting the mindfulness group, the examiner observed each selected student to gauge each student's negative and positive social behaviors prior to the intervention. During the first meeting, students completed a mindful awareness scale as well as an empathy/emotional control scale. Each of these measures (observations, student mindful awareness rating scale, and student empathy/emotional control rating scale) were conducted at the conclusion of the group as well. Descriptive information of each participant follows. All names have been changed to protect each student's confidentiality.

Student 1

Leonardo is a 10 year old, Hispanic, male. He currently receives services through the Exceptional Children's Program as a student with a hearing impairment. Leonardo wears a hearing aid and is able to keep up with discussions. Only one activity had to be slightly modified to account for Leonardo's hearing difficulty. Leonardo presents as a bully-victim. Most of the behaviors he was referred for and the behaviors noted during observation were him lashing out in response to being teased or to prevent others from laughing at him. He was the main target of teasing within our intervention group. Leonardo is a B/C student, but did not pass either his third or fourth grade End of Grade tests. Cleveland County Schools conducts a group, nonverbal cognitive test with all third grade students using the Naglieri Nonverbal Ability Test (NNAT). Leonardo's score on

the NNAT indicates cognitive ability within the average range. Leonardo has a history of multiple unexcused absences.

Student 2

Cameron is a 10 year old, African-American, female. Cameron is known as a class clown. Based on reports and observations, she does not intend to hurt someone else. However, her attempts to get a laugh out of the class often come at the expense of another student. Cameron is a C/D student. Her records show that she did not pass either third or fourth grade standardized End of Grade tests. Cameron had seven unexcused absences last year. Cameron did not attend Cleveland County Schools in third grade and thus does not have a reported cognitive ability score.

Student 3

Nikki is an 11 year old, African-American female. Nikki was referred to this group due to several confrontations she had with teachers and staff. During observation, she was confrontational with teachers, but was not as confrontational with peers. Nikki is a student who likes to be in control and when teachers take away some of that power, she becomes hostile. She also exhibited some of this with peers in the group. Nikki is a B/C student. Nikki did not pass her third or fourth grade End of Grade tests. her NNAT score indicates cognitive skills within the borderline range. She missed six days of school last year.

Student 4

Kyree is a 10 year old, African-American male. He is very quiet, and does not like to show interest in school or group activities. Kyree will choose not to participate if given the option. When he does participate, he gives the minimal effort required. Kyree is currently receiving Tier III services to address math skills. Kyree is a C/D student who has never passed an End of Grade test. The NNAT administered in third grade indicates cognitive ability within the borderline range. Kyree has a history of multiple unexcused absences. He was absent a total of 12 days last year.

Student 5

Tom is an 11 year old, African-American male. He is a natural leader and is very charismatic. Other students want to be liked by him and teachers report that he has a lot of influence over other students in their classrooms. He is often found leading or instigating bullying. Tom is a B/C student and has passed both the third and fourth grade math End of Grade tests. However, he has never passed a reading End of Grade test. Tom has a history of multiple unexcused absences and was absent a total of 14 days last year.

Results

Due to the small number of participants in the study, data was examined individually rather than as a whole. Therefore, no inferential statistics were analyzed. Instead, each student was compared to their own scores on the ERICA and the CAMM and their observed behaviors before and after the group intervention.

Student	CAMM pre	CAMM post	Situational Responsiveness pre	Situational Responsiveness post	Emotional Control pre	Emotional Control post	Positive Behaviors pre	Positive Behaviors post	Negative Behaviors pre	Negative Behaviors post
Leonaro	21	29	11	11	15	18	0	1	8	6
Cameron	16	22	12	9	17	15	1	4	5	3
Nikki	19	19	16	10	15	14	1	2	4	3
Kyree	12	30	12	14	24	12	0	2	5	3
Tom	24	21	13	12	21	20	2	4	10	8

Figure 1- Pre- and Post- Intervention data for participants

For all rating scales- a lower score indicates a higher level of that trait. The CAMM's score range is 10-50, with 10 being the most mindful and 50 the least mindful. The Situational Responsiveness subscale has a range of 5-25, with a score of five indicating the highest level of empathy. The Emotional Control subscale has a range of 6-30, with a score of six indicating the best Emotional Control. The observations of behavior were conducted as a frequency count. The score earned is the number of behaviors observed.

Student 1

Leonardo's CAMM score increased from pre to post group going from 21 out of 50 to 29, indicating a decrease in mindful behavior. Leonardo did not self-report any changes in empathy or emotional control. Leonardo's empathy score stayed the same (11 out of 25), while his emotional control score increased three points suggesting a decrease in emotional control. During observations Leonardo showed slight improvements. Whereas he did not exhibit any positive behaviors prior to the mindfulness group, he did engage in one positive behavior (helping a peer without prompt) after the intervention. Leonardo did not exhibit as many negative behaviors after the group; going from 8 to 6 negative behaviors. The negative behaviors that Leonardo chooses to engage in appears

not to have changed with hitting/shoving/pushing and laughing at others being the most frequent.

Student 2

Cameron's mindfulness measure score also increased from pre (16/50) to post (22/50) group, suggesting less mindful awareness at school. However she self-reported an increase in both situational responsiveness (empathy) and emotional control showing a lower score on both rating scales. Her empathy score went from 12 out of 25 to nine out of 25. Her emotional control score also decreased, though to a lesser degree, going from 17 out of 30 to a 15 out 30. Cameron exhibited less negative behaviors and more positive behaviors post intervention. Prior to the mindfulness group Cameron engaged in five negative behaviors and one positive behavior. After the group she demonstrated three negative behaviors and four positive behaviors during observation. In addition, she did not insult or tease anyone during the post intervention observation, something that she often engaged in prior to the group.

Student 3

Nikki's mindfulness measure score remained the same post intervention group. On self-reports, Nikki indicated an increase in empathy with her score going from 16/25 pre group to 10/25 post group. She also reported a slight increase in emotional control. Nikki's observed behaviors also indicated a slight change. Prior to the intervention Nikki engaged in four negative and one positive behaviors. During the post intervention observation, the researcher noted three negative and two positive behaviors. While Nikki

did not laugh at classmates or engage in physical bullying post intervention, she still engaged in insulting/teasing and rejecting or isolating peers.

Student 4

Kyree's CAMM score increased after the mindfulness group indicating lowered mindful awareness. In addition he self-reported a slightly lower level of empathy after the group. However Kyree's emotional control score significantly improved. Prior to the start of the mindfulness group, Kyree's emotional control score was 25 out of 30. At the end of the group, Kyree's score was a 12 out of 25. In addition, Kyre demonstrated a significant change in behavior during his post group observation. Prior to participating in the mindfulness group Kyree exhibited five negative and zero positive behaviors. During his first observation Kyree engaged in insulting/teasing, laughing at others, and rejecting/isolating peers. During the post intervention observation, Kyree did not engage in insulting/teasing or laughing at others. His observed positive behaviors included helping a peer without prompt and inviting a peer to play.

Student 5

Tom is the only participant whose mindfulness measure score decreased after the intervention group suggesting an increase in mindful awareness Tom reported minor increases in empathy and emotional control. Each score improved by one point post mindfulness group. It was discovered by the researcher that about a week after completing the intervention group, Tom was suspended for fighting. His post intervention observation was completed after the suspension was served. His observations do show a slight increase in positive behaviors and a slight decrease in negative behaviors.

Discussion

Findings from this current study indicate a variable response from participants. The increase in empathy and emotional control supports past research looking into the effects of mindfulness (Shapiro, Schwartz, & Bonner, 1998; Shapiro, Brown, & Biegel, 2007) and adds to the growing literature of the positive effects of mindfulness on children (Burke, 2010; Schonert-Reichl & Lawlor, 2010). In addition, the results seem to support Garafolo's 2012 study which found a negative correlation between mindfulness and bullying in high school students. Empathy and impulsivity have been found to be lacking in students who engage in bullying behaviors (Aluede, Adeleke, Omoike, & Afen-Akpaída, 2008). As the students who participated in this study are reporting more empathy (situational responsiveness) and less impulsivity (more emotional control), this would suggest that they are less likely to engage in bullying behaviors post group, than they were prior to the intervention group. The observations conducted before and after the group would also indicate an inverse relationship between mindfulness and bullying behaviors, although correlations were not obtained.

Impact on Students

As Figure 1 shows, most students' CAMM scores increased post intervention. This would seem to indicate a decrease in mindfulness. However, the first rating scale was given before the participants knew anything about mindfulness. The higher scores might also be a result of the students being more aware, or more mindful, of their own behavior. It was also noted by the researcher that the students were unclear about items on the pre-test. The group worked together and discussed most items and what they

meant. On the post-test, the students did not have questions about what the items were asking. Social desirability may have also played a role in student's scores. After spending time discussing items on the pre-test, the students may have noted them as 'bad' behaviors and not identified with them.

An indicator of students becoming more aware of their mindful and unmindful behavior is the results of the Situational Responsiveness and Emotional Control subscales. Cameron, Nikki, and Tom reported more empathy and emotional control post intervention group. Kyree indicated less empathy, but significantly more emotional control. Kyree's emotional control score prior to the mindfulness group was 24 out of 30. Post intervention group Kyree reported an emotional control score of 12. Leonardo was the only participant to not self-report any response to the mindfulness intervention group. The students self-reported less mindful behavior despite reporting an increase in empathy and emotional-control.

The pre and post observation data may also indicate that students became more aware of their behavior. All five students who participated in the intervention group experienced at least a slight decrease in negative and slight increase in positive behaviors observed. Even when students self-reported a decrease in mindfulness based on the CAMM scores, their positive behaviors increased and their negative behaviors decreased during classroom observations. Confirmation bias, may have affected observation data.

Future Research and Limitations

In future research, it may be beneficial to give a follow-up CAMM a few weeks after the intervention group in order to capture any changes in mindful behavior. The

mindfulness scores indicate that students did not increase their mindful behaviors during the course of the group. This may be due to several factors. One being confusion about the items on the scale. Another may be that the intervention was not intense or long enough. This group met only once a week for eight weeks. Meeting twice a week or integrating mindfulness into the classroom may work to better increase mindful behaviors.

Future research may also want to look directly at the link between bullying and mindfulness. While this intervention has demonstrated the positive effects of mindfulness on empathy and emotional control via self-report and researcher observed behavior, social desirability may have been a factor at play. Teacher and peer rating scales may provide a more direct and holistic picture of effects on bullying behavior. While the researcher tried to maintain an unbiased stance and record observations accurately and consistently there is always a chance that bias did occur. Having teachers fill out observation forms and gathering teacher input may help counteract this bias in future research.

MindUp Curriculum and Modifications

The MindUp curriculum was easy to follow. However it lacked concrete examples or hands on activities for students. The researcher pulled in activities to help make the lessons less abstract and involve the students in more than just discussion or writing. Overall, the students not only enjoyed the group and learned a significant amount about their brain and mindfulness, they indicated a positive response to the intervention. The sessions used in this study flowed well together and for the most part the students

were able to grasp each concept. They particularly enjoyed mindful breathing and the core practice. Mindful listening was one technique that they did not enjoy the practice of but were able to identify how and why it would be useful in ever day life. The only concept that the group struggled with and never fully grasped was perspective taking. When using story book examples as suggested in the curriculum, they struggled to take a classic story and tell the villain's side. They were able to identify recent books and movies that they enjoyed and that had retold a story from a different perspective, but struggled to take a different perspective on their own. When using real life examples, the students were better able to use perspective, but still required guidance in doing so. The final lesson, Taking Mindful Action into the World, required the most modification. The curriculum, which is set up for a classroom, suggested undertaking a volunteer project. As this was our last session there would be no guidance to help the students or follow up to ensure it took place. Instead of designing a big volunteer project, the group talked about little ways they could use mindfulness every day to help people.

Group Structure

Working as a lunch group worked well for this school's schedule. The researcher was allotted the whole fifth grade lunch block, a 45 minute period, to work with the students. This resulted in students only missing 10 minutes of class time each. The first 15 minutes were spent eating and talking which allowed the students to form a bond while the last 30 minutes were devoted to the curriculum and extra activities. Setting a strict time limit and letting students know the schedule of events helps to ensure that there is time to complete each part of the lesson.

Recommendations for Future Mindfulness Intervention

Given the positive results seen from this eight week study, integrating mindfulness teachings into the classroom would be beneficial in helping to increase positive behaviors. In addition this may help decrease instances of bullying in the classroom. Having other staff be aware of mindfulness techniques may help cue students to use the techniques in real life situations. Starting the year by teaching the main tenets of mindfulness (being present and non-judgmental) would set the expectation for student behavior. Exploring more ways of practicing mindfulness would also be beneficial in the classroom. There are several ways to practice and introducing students to a variety of techniques would encourage individual and independent practice. It is imperative to practice being present and nonjudgmental yourself, especially when working with student who are typically seen as bullies. Being able to have an open discussion and making a connection is dependent on it.

The current study seems to support the use of mindfulness in schools. While students' mindfulness scores did not show improvements there were noted improvements in most of the participant's empathy and impulsivity; both of which are directly related to bullying behaviors. There was also improvement in student's observed positive and negative behaviors. Integrating mindfulness into the classroom may help increase mindful behaviors and would allow staff to act as a cue to use mindfulness techniques in everyday situations. Future research may want to explore a more direct link between mindfulness and bullying.

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Child and Adolescent Mindfulness Measure (CAMM)

Please rate yourself on how true each statement is for you. There are no wrong or right answers.

1=Never True

2= Rarely True

3= Neither True, Nor Untrue

4= Sometimes True

5= Always True

If you need help with an item, you can raise your hand to ask Ms. Courtney.

1. I get upset with myself for having feelings that don't make sense.
2. At school, I walk from class to class without noticing what I'm doing.
3. I keep myself busy so I don't notice my thoughts or feelings.
4. I tell myself that I shouldn't feel the way I'm feeling.
5. I push away thoughts that I don't like.
6. It's hard for me to pay attention to only one thing at a time.
7. I think about things that happened in the past instead of thinking about things that are happening right now.
8. I get upset with myself for having certain thoughts.
9. I think that some of my feelings are bad and that I shouldn't have them.
10. I stop myself from having feelings that I don't like.

The ERICA

Below are a number of statements. Please read each statement, and then circle the choice that seems most true for you.

Do not spend too much time on any one item. Remember, this is not a test. There are no right or wrong answers. We really want to know what you think.

If you need help with an item, you can raise your hand to ask Ms. Courtney.

When adults are friendly to me, I am friendly to them.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
When things don't go my way, I get upset easily.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
When other kids are friendly to me, I am friendly to them.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I have angry outbursts.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I enjoy seeing others get hurt or upset.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I can be disruptive at the wrong times.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I get angry when adults tell me what I can and cannot do.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I have trouble waiting for something I want.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I do things without thinking about them first.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
When others are upset I become sad or concerned for them.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree
I annoy others by not minding my own business.	Strongly Disagree	Disagree	Half and Half	Agree	Strongly Agree

Observation Chart

Behavior	Frequency
Insulting/Teasing	
Laughing at others	
Hitting/Shoving/Pushing	
Rejecting/Isolating peers	
Helping a peer without prompt	
Inviting a peer to play	
Teamwork	
Comforting a peer	

