FACTORS IMPACTING THE DEVELOPMENT OF TEACHERS' RELATIONSHIPS
WITH STUDENTS WHO ARE OBESE

A Dissertation
by
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Abstract

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WITH STUDENTS WHO ARE OBESE

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This case study explores the first person viewpoints of K-12, public education

teachers on their knowledge about childhood obesity. It also takes a deeper look into the

student/teacher classroom relationship and how the teacher's knowledge of childhood obesity

is a part of that relationship building. The study asks what teachers know about childhood

obesity and the impact, if any, that it has on them (as a teacher) when dealing with their

students. The study also explores the importance that the reciprocal student/teacher

relationship has in the classroom. The findings of the study suggest that while teachers have a

basic knowledge of childhood obesity, this knowledge does not typically come from trainings

received as educators and therefore, it is not as relevant in the classroom. Teachers place

getting to know their students and creating positive relationships in the classroom with higher

importance than they do addressing obesity issues only. Teacher participants identified that

in caring for all students, issues of obesity will be addressed but unless mandated by the

school or district, extra efforts will not be put forth as there are other things given by schools that must take precedence. Teachers identified success with students as not coming from their knowledge of childhood obesity factors but of being able to know their students and tailor instruction and activities based on that knowledge. Equally important, teachers acknowledge, caring for the whole child is paramount in educating students.

Acknowledgments

I cannot begin to thank God, my Lord and Savior, enough for bringing me to the point in my life where I have accomplished this beautiful goal of education. He is who keeps me up and I am a humble servant to Him.

I would like to thank my mother for being everything to me. All my life, she's been my number one cheerleader and a constant reminder that we finish what we start. Here's to you, mama. Look, I did it!

I also have to thank my daughter. I became a different educator, and most importantly, a different person when I became a mom. I truly realized that all students are someone's babies and they need the same care and love that I want my daughter to have. Thank you, darling for opening mom's eyes.

To my family and friends, I thank you for being my support system. Your encouragement and gentle pushes were always on time. You consistently have my back and I hope I made you proud.

Dedication

This paper is dedicated to the teachers and students of the world with the hope that teachers can help affect real change with the students and the students will in turn affect real change with the world!

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Chapter 1: Introduction

Looking out the window, we see a threatening storm—obesity—that will, if unchecked; have a negative effect on life expectancy. Despite widespread knowledge about how to reduce the severity of the problem, observed trends in obesity continue to worsen. These trends threaten to diminish the health and life expectancy of current and future generations. (Olshansky et al., 2005, p. 1139)

Obesity Defined: Causes

In the United States, being classified as overweight or obese is a problem that affects many Americans. To clarify, the Centers for Disease Control and Prevention (CDC) states the difference in being classified as overweight compared to obese is that overweight is defined as having excess body weight for a certain height from either fat, muscle, bone, water, or a combination of all of those factors (CDC, 2016). To be classified as obese is defined as having an excessive amount of body fat (CDC, 2016). Both overweight and obese are the result of a caloric imbalance, which means a person consumes too many calories for what they are able to actively burn in a 24-hour period. However, obesity research shows that the cause of obesity is rooted deeper than consuming more calories than burned in a period of time. There are different genetic, behavioral, social, and environmental factors (CDC, 2016), which can also contribute to a person's obesity level. Causes of obesity have been linked to lower education levels of parental units (Lasserre, Chilero, Paccaud, & Bovet, 2007; Singh, Mulder, Twisk, Van Mechelen, & Chinapaw, 2008; Sundquist & Winkleby, 2000), female gender (Kinra, Nelder, & Lewendon, 2000), belonging to certain racial or ethnic minority groups (Ogden, Carroll, & Flegal, 2010; Olshansky, Passaro, Hershow, Layden, Carnes, Brody, Hayflick, Butler, Allison & Ludwig, 2005), and the physical environments in which people live (Booth, Pinkston, & Poston, 2005). Consistently, socioeconomic status has been linked as a cause of obesity (Lin, Huang, & French, 2004; Wang, Beydoun, Liang, Cabellero,

& Kumanyika, 2008). According to Voight, Nicholls, and Williams (2014), there are over a hundred casual factors that can be directly related as a potential cause of obesity. An extensive list of obesity factors and causes exist. The extensive number of cause and effect situations indicates that a solution to obesity is both complicated and multifaceted. Also, for as many reasons that researchers can point to as a cause for obesity, the list is still not comprehensive and has significant omissions (Voight et al., 2014).

Children and Choices

A child aged 2 to 19 years is considered to be obese when their body mass index (BMI) is at or above the 95th percentile of the sex-specific CDC BMI for age grown charts (CDC, 2012; Ogden, Carroll, Kit, & Flegal, 2014). In the United States, data suggest that approximately 17% of children and adolescents may be obese (CDC, 2012; Ogden et al., 2014). In 2012, the CDC also stated that childhood obesity had more than doubled in children and quadrupled in adolescents within the last 30 years. In the same year, more than one-third of children and adolescents were considered overweight or obese (CDC, 2012). While data shows that childhood obesity is increasing worldwide, in the United States, the epidemic has grown almost double over other industrialized nations (Sassi, Devaux, Cecchini, & Rusticelli, 2009).

Choosing to work with children concerning obesity-related issues is important because children are constantly growing and developing, both physically and emotionally. In the case of a child, there are relative reductions in weight for height, which can be achieved through weight maintenance without drastic behavior changes (Doak, Visscher, Renders, & Seidell, 2006). Most researchers and medical personnel would agree that as far as obesity is concerned, prevention is more desirable than a cure (Voight et al., 2014). Therefore,

addressing childhood obesity is ideal because habits begins to form at a young age and it may

be possible to prevent the formation of poor dietary habits while creating systems and

patterns of healthy eating and physical activity (Doak et al., 2006; Voight et al., 2014).

Disproportionate Numbers

Being overweight is not limited to a particular gender, race or group of people within

a certain socioeconomic bracket. Increases in the number of overweight persons have been

observed in all age brackets, demographic groups, and both genders (Ogden, Carroll, Kit, &

Flegal, 2012). While obesity rates continue to rise across all income levels, children from

minority backgrounds such as Black and Latino, and those who come from low

socioeconomic backgrounds have been disproportionately affected when being identified as

obese (Lin et al., 2004; Saxena, Ambler, Cole, & Majeed, 2004; Wang & Beydoun, 2007).

The CDC (2017) showed that childhood obesity is more common among certain racial and

ethnic groups. Currently, higher obesity rates are seen among children and adolescents who

are Hispanic (22.4%) and non-Hispanic Blacks (20.2%) compared to non-Hispanic Whites

(14.1%) (CDC, 2017). Additionally, childhood obesity is also more prevalent in children

classified with low socioeconomic status (CDC, 2014, 2017; Kuipers, 2010; Voight et al.,

2014). One reason that low socioeconomic status may be linked to obesity centers on dietary

considerations. Unhealthy food, including fast food, is generally less expensive than healthier

alternatives. In addition, some impoverished areas do not have access to healthy fresh food,

which contributes to the consumption of unhealthy processed food in what is becoming

known as food deserts (Black & Macinko, 2007; Budd & Hayman, 2008; Harawa & Ford,

2009). Gender is also an important factor with respect to cases of childhood obesity, as girls

typically have higher levels of obesity than boys (Kinra et al., 2000). Unfortunately, the

literature cannot agree on one definite reason as to why obesity appears more in certain groups than others. Studies that continue to investigate the broad range of factors may discover implications of what could produce such inequalities among different subgroups of people.

Obese Children to Obese Adults

As obesity in childhood rises, there is an added concern about the risks of adult illness and morbidity. The CDC (2013) states that obese children are more likely to have higher risk factors for cardiovascular diseases such as high cholesterol and high blood pressure. Likewise, obese youth are also more susceptible to be pre-diabetic as their blood glucose levels indicate a higher risk to develop actual diabetes. The CDC (2013) also notes that obese children are at greater risk for bone and joint problems and sleep apnea, as well as other health and mental related issues that include social stigmatization and lower self-esteem.

As children get older, researchers note that obese children are more likely to become obese adults (CDC, 2013; Freedman, Dietz, Srinivasan, & Berenson, 2009; Ogden et al., 2012; Serdula et al., 1993; Wang et al., 2008). The long-term health effects conclude there is a higher risk for adult health problems such as heart disease, type 2 diabetes, strokes, different types of cancer, and osteoarthritis (CDC, 2013; Freedman et al., 2005; Ogden et al., 2012). Ogden (2013) finds that the prevalence of obesity, especially in minority communities, can last from childhood into adulthood. Therefore, with obesity remaining high for certain demographics, it is extremely important to continue surveillance on the subject.

There are reports and research that study children from childhood into adulthood with the hope of accurately predicting if an obese child will become an obese adult. In 2007, the *New England Journal of Medicine* shared a study of scientists tracking a group of 7,738

children, some labeled as overweight and obese and others who were of normal weight, from 1998 (when students entered kindergarten) until 2007 (when students entered ninth grade). The discovery was 14.9% of the 5-year-olds who were overweight or obese in kindergarten were four times more likely to still be overweight/obese almost a decade later (Cunningham, Kramer, & Venkat Narayan, 2007). Similarly, Serdula and colleagues (1993), Guo, Roche, Chumlea, Gardner, and Siervogel (1994), and Allcock, Gardner, and Sowers (2009) point to a growing amount of evidence that when tracking students over the course of a set number of years, childhood obesity frequently leads to adult obesity. Guo and colleagues (1994) used data from four longitudinal studies that compared a group of children's BMI levels at age 1-18 years to BMI at the target age of 35. What was found was that a child's BMI at 13 years old was a good predictor of adult BMI (at 35) and that the child's BMI at 18 was an excellent predictor of adult BMI. It can be concluded that obesity prevention efforts should start earlier in a child's life before he or she is committed to habits that are difficult to change as the child matures into adulthood.

Social Stigma towards Obese Children

Previous and current research explains that childhood obesity can profoundly affect children's physical health, social and emotional well-being, as well as self-esteem. Overweight and obesity has been associated with poor academic performance and a lower quality of life experienced by the child (CDC, 2014; Puhl & King, 2012; Schwimmer, Buiwinkle, & Varni, 2003). Childhood obesity may have serious effects on the physical health of a child but the research also shows that obesity could affect children's social and emotional health as well. Schwimmer and colleagues (2003) state that obesity has been described as being "one of the most stigmatizing and least socially acceptable conditions in

childhood" (p. 1818). Overweight and obese children often find themselves teased and bullied for their weight. In addition, the child may face other hardships such as negative stereotypes, discrimination and social marginalization (CDC, 2012; MacLean et al., 2009; Ogden et al., 2014). Discrimination and prejudice against obese individuals have been found in children as young as two years old (Budd & Hayman, 2008; Harriger, Calogero, Witherington, & Smith, 2010). Accepting discrimination based on weight has become common practice as noted in the studies above. As Stunkard and Sorenson (1993) stated, "now that prejudice against most formerly stigmatized groups has become unfashionable, if not illegal, one of the most acceptable forms of prejudice is that against obese persons".

Social Stigma—Teasing

Obese children are often teased with studies saying that approximately 45% of overweight children had experienced weight related teasing (Haines, Neumark-Sztainer, Perry, Hannan, & Levine, 2006) while 63.2% of obese girls and 58.3% of obese boys reported the same (Neumark-Sztainer et al., 2002). R. S. Strauss and Pollack (2003) noted in a study of the treatment of obese children that the subjects faced social isolation and were often excluded from activities, particularly competitive activities that would require physical movement. The negative social problems contributed to low self-esteem, lower self-confidence, and a negative body image in children. While overweight and obese students oftentimes experience teasing from their peers, it has been documented that weight bias may come from adults and educators as well. A study conducted by Duke University in 2017 found that when participants were shown an image of a child, similar in every aspect but weight, the overweight children were often seen as being bad as compared to their peers of normal weight. The study concluded that implicit bias towards overweight individuals is

similar to bias based on race (Skinner, Ravanbakht, Skelton, Perrin, & Armstrong, 2018). A similar, earlier study of physical education teachers found that they too harbor significant weight bias against those viewed as overweight or obese (Greenleaf, Martin, & Rhea, 2008; Greenleaf & Weiller, 2005; O'Brien, Hunter, & Banks, 2007; Pearl 2018). It was found that in teachers with high bias, teasing from students often went unpunished and sometimes the teacher made inappropriate comments themselves that were directed toward the overweight or obese child. As a result, the student who received the teasing missed more physical education class time and was less likely to participate in the physical activities when present (Greenleaf et al., 2008; Greenleaf & Weiller, 2005; O'Brien et al., Hunter, 2007; Pearl, 2018).

Bullying in Schools

As obesity continues to be present in grade school, the prevalence of weight-related teasing and bullying also increases. Current and past literature explains that childhood obesity has negative social, emotional, and psychological effects in addition to the health ramifications mentioned earlier (CDC, 2016; Rankin et al., 2016; Schwimmer et al., 2003; Strauss, 2000). There are several studies on childhood obesity that have shown school-age children classified as overweight or obese often find themselves victims of weight-related bullying and other types of aggressive behavior at the hand of their peers (Griffiths, Wolke, Page, & Horwood, 2006; Lumeng et al., 2010; Sweeting & West, 2001). This indicates that a higher BMI can increase the instances where a child will have encounters with school bullies based solely upon weight. Likewise, it is possible that merely being overweight or obese makes a child more vulnerable to bullying interactions and encounters.

Obesity, Behaviors and Environment

Researchers studying childhood obesity proposed that certain behaviors over others could provide conditions in which obesity would decrease. Using the methods of the National Collaborative on Childhood Obesity Research (NCCOR) for evaluating obesity programs, Epstein and colleagues (2006) suggested that creating environments in which children could decrease sedentary behavior and increase physical activity would play an important role in the comprehensive treatment of obesity in children. In conjunction with Epstein and colleagues (2006), Sahota et al. (2001), B. J. Rolls, Ello-Martin, and Tohill (2004), and Qian, Nayga, Thomsen, and Rouse (2015) also make claim that increasing fruit and vegetable intake while decreasing fat and sugar intake would also decrease the risk for childhood obesity immensely. Additionally, promoting healthy lifestyles and demonstrating movement and healthy eating habits among children have also shown decreases in obesity percentages in multiple studies (Flores, 1995).

Flegal (1999) acknowledges that the environments in which people live are extremely integral in forming a range of health outcomes. Researchers are putting more emphasis on the physical environment as a source of obesity-related illnesses and issues. Swinburn, Egger, and Raza (1999) coined the term 'obesogenic' to explain how a person's physical condition has the power to cause harm. This obesogenic environment is a built environment when the home, school, or workspace is not conducive to healthy and active practices. "Increasingly obesogenic environments are the predominant driving forces behind the escalating obesity epidemic and demand much more attention for research and action" (Swinburn & Egger, 2002, p. 297). Concerns about children constantly engaging in sedentary activities such as watching TV, playing with electronic devices and other inside activities all contribute to the

rise of obesogenic environments (Anderson & Whitaker, 2010; Boone-Heinonen &Gordon-Larsen, 2012; Foster et al., 2008). Research finds that the more people are sedentary, the more they snack, even when they are not hungry (DeBoer, Gurka, Woo, & Morrison, 2015). Practices such as those previously mentioned also lead to weight gain and contribute to the problems that exist within the obesogenic environment.

There are other factors that contribute to the obesogenic environment. Researchers have identified environmental causes of obesity such as areas in cities and towns where parents feel it is unsafe for their children to play outside or walk/cycle to school (CDC, 2002, 2011; Wechsler, McKenna, Lee, & Dietz, 2004; Voight et al., 2014), advertising of unhealthy food (CDC, 2011; Voight et al., 2014) food deserts and limited access to healthy food options (Karpyn et al., 2010; Larson, Story, & Nelson, 2009), easy access to unhealthy food options (John et al., 2008; Vartanian, Schwartz, & Brownell, 2007), and increase of portion size (Lasater, Piernas, & Popkin, 2011; McConahy, Smiciklas-Wright, Mitchell, & Picciano, 2004; Orlet Fisher, Rolls, & Birch, 2003). These factors, either separate or conjoined, result in environments where the chances that children have to be active and make healthy choices daily are extremely limited.

Problem Statement

As an educator, I wish to know if schools are truly a line of defense when it comes to helping students fight childhood obesity. Likewise, I want to know how or if a teacher's knowledge of childhood obesity, and the corresponding risk factors, affect the way the teacher creates relationships in the classroom. I am interested in how speaking with teachers firsthand, and gaining their perspective, aligns or does not align with current literature.

The purpose of Chapter 1 was to provide a landscape of the current state of obesity among school aged children. Because current statistics point to an obesity problem that is steadily rising, it is important that educator are not only aware of the facts and percentages of who is obese, but that they also know the problems that obese children will likely bring with them into the classroom. In strengthening the understanding of obesity and its related issues, teachers may be able to adjust their classroom practices in order for children to experience success in and out of the classroom. Therefore, the central research question that I wished to address was, "What is a teacher's awareness of childhood obesity risk factors and health concerns?" The sub-questions that I addressed are:

- How do teachers perceive students with obesity in their classrooms?

- How do teachers view the role of caring in the work they do with obese students? What behaviors do they exude?

- What are the teachers' perceptions of barriers to solving the obesity epidemic and building meaningful student relationships in the classroom?

Chapter 2. Literature Review

To say you care and not show it means you don't really care at all. —Anonymous

Teaching that impacts is not head to head, but heart to heart. —Howard G. Hendricks

Teachers are called to play many roles in a child's life. I am interested in the value added of teachers who have genuine, caring relationships with the children they teach. This extraordinary phenomenon of genuine care has a profound effect and meaning on a child's emotional, psychological, social, and academic behavior and development. Understanding the foundation of care ethics and its associated factors may enable educators to establish caring relationships with their students as well as growing and fostering the behaviors that not only promote academic achievement but also develop individuals in becoming valued members of society. As I am researching teacher awareness of childhood obesity risk factors and health concerns I am interested in several theories as they relate to the teacher/student dynamics and relationships. Within this chapter I discuss the literature that exists on obesity in schools. I will also examine Care theory and its evolution to Culture of Care and Whole Child Education theory. The purpose of this research is to explore how a teacher's awareness of childhood obesity risk factors and health concerns manifest into classroom practices and behaviors. While teachers are not expected to erase childhood obesity from students, in order to teach children how not to be obese and healthy habits, it is important for teachers to know how to show students they care about them and their situations, whether it pertains to being obese, overweight, or other life occurrences. Likewise, a teacher should be conscious of the fact that when they teach, they are teaching all aspects of a child, not just the academic portion of a child. To understand what a teacher should know, I have examined theories of care and Whole Child education.

Childhood Obesity in Schools

There are negative consequences that overweight and obese children may experience, aside from health concerns. Obesity has been linked to having a negative effect on school performance (Bethell, Simpson, Stumbo, Carle, & Gombojav, 2010; Carey, Singh, Brown, & Wilkinson, 2015; Krukowski et al., 2009). Schwimmer and colleagues (2003) found that overweight and obese children were four times more likely to report having problems at school than their normal weight peers. Overweight and obese children are more likely to miss school on a frequent basis, especially those with chronic health conditions such as diabetes and asthma, which can also affect academic performance in a negative manner (Bethell et al., 2010; Carey et al., 2015; Schwimmer et al., 2003). Researchers have investigated the link between children's health and nutrition as it relates to their academic performance. The results of the research have shown that obese adolescents have lower cognitive performance in school as well as lower levels of cognitive abilities (Yau, Castro, Tagani, Tsui, & Convit, 2012).

While the literature agrees that the control of factors such as physical activity and parent involvement have a significant effect on childhood obesity and therefore the results, the literature also identifies that obesity is a legitimate marker of poor academic performance. Similarly, in the *Journal of School Health* (Taras, 2005), the link between obesity and school performance was further explored. Taras (2005) showed how control factors for some influences of childhood obesity such as family income and parental education may also have a direct effect on childhood obesity and must be acknowledged as such. He felt it was important to acknowledge that social factors can also have an effect on academic success and obesity levels. With those factors considered, every study that was evaluated noted poor

outcomes for children who were overweight or obese (Taras, 2005). As with Datar, Sturm, and Magnabosco's (2004) study, the literature notes that lack of research makes it difficult to say indubitably that the correlation between obesity and poor academic performance is based on any one factor. However, both Datar et al. (2004) and Taras (2005) affirm that obesity is a marker of low academic performance and therefore, more concrete research is needed.

Obesity and Absenteeism

It is important to note the relationship between obesity and absenteeism of children in schools. Schwimmer and colleagues (2003), Ogden (2002), and Geier and colleagues (2007) examined why obese students tend to have higher rates of absenteeism than their non-obese and non-overweight peers. The researchers used quantitative methods to collect data and found that obese students missed upwards of 4 days more per month than their non-obese/overweight peers. This information caused researchers to investigate the reason(s) as to why the students miss days. Questions such as "Do obese students miss school because of embarrassment when it comes participating in physical activities?" and "Do obese students miss school due to health reasons?" are lingering questions and concerns that the authors suggest need further investigation (Geier et al., 2007; Ogden, 2002; Schwimmer et al., 2003).

Researchers from the University of Pennsylvania and Temple University also identified a correlation between obesity and school attendance (Geier et al., 2007). After studying over a thousand fourth to sixth graders in a public Philadelphia school system, researchers found that BMI played a significant role in how many days a student typically missed from school. The researchers selected inner-city schools where the majority of the population was on free or reduced lunch. The study found that overweight and obese children missed an average of 20% more school time than their normal weight classmates (Geier et

al., 2007). Similar to the studies conducted by Schwimmer and colleagues (2003) and Ogden (2002), the researchers also had questions about what parts of weight actually kept the students from attending school. Geier and his team (2007) concluded that in addition to the health issues that come from excessive weight, that stigma and bullying played major parts of the students missing days of school. The studies mentioned above strongly indicate that the consequences of being overweight and obese are not only plentiful but has disadvantages that may impact life in different ways.

Obesity and Self-Esteem

A number of studies have linked childhood obesity to lower levels of self-esteem. Early research conducted by Allon (1979), Sallade (1973) and C. C. Strauss, Smith, Frame, and Forehand (1985) revealed a correlation between decreased levels of self-esteem in obese children as a group. R. S. Strauss conducted additional quantitative research in 2000 to further examine the relationship between obesity and levels of self-esteem and self-worth. He found that during a 4-year study, obese Latina females and obese White females were found to have significantly decreased levels of self-esteem and self-worth as compared to non-obese Latina and White females. Decreases in self-esteem, albeit mild, were also noted in obese boys compared to non-obese boys (R. S. Strauss, 2000). R. S. Strauss (2000) noted that as a result, by the time obese Latina girls, obese White girls, and obese boys began their teenage years (ages 13 and 14), their levels of self-worth and self-esteem were even lower when compared to their non-obese classmates. R. S. Strauss (2000) found that the children who were studied over the time period were more likely to smoke and drink alcohol as a possible result. More recently, Wang, Beydoun, Liang, Cabellero, and Kumanyika (2008) noted that little research has been conducted concerning the mental health problems that may

be related to obesity. Wang and colleagues argued that it is not clear if obesity causes lower levels of self-esteem or if low self-esteem causes obesity. What Wang and colleagues (2008) felt clear on is more research should be devoted to developing a concrete link between the psychological morbidities that are associated with obesity.

School Landscape: School Reform and Childhood Obesity

Over six years ago, 45 states and the District of Columbia adopted the Common Core State Standards. Common Core was designed to close achievement gaps between minority and majority students as well as between rich and poor students (Ravitch, 2010). Prior to the release of the Common Core, No Child Left Behind (NCLB) (2002) was signed into law. The premise of NCLB was to close the achievement gap that exists between minority and majority students as well as between students of means and those who are not. Under both mandates, several pieces of literature point out a fear that the increased pressure of standardized testing would lead to a decrease of physical activity in schools, as courses and activities not deemed academic would be lost (Cook, 2005; Davidson, 2007; Ravitch, 2010; Winter, 2009). However, a CDC study conducted in 2000, prior to the release of both NCLB and Common Core, found that in elementary schools across the country, only 8% of elementary schools provided daily physical activity opportunities for the entire school year for all students in all grades.

After the passage of NCLB and the release of Common Core, K-12 academic researchers begin to look at the exact effects that the mandates had on physical education and daily movement in schools. In 2006, researchers chose selected schools in Arkansas to observe and analyze if and how academic accountability under legislation affected children's weight. What was noticed was that some of the schools in the study would curtail recess and

physical education classes in order for students to spend more time in classes where the subjects would be tested (Anderson & Butcher, 2006). It was concluded that accountability pressures for these schools in Arkansas had an effect on the percentage of students who were overweight or obese (Anderson & Butcher, 2006).

Similarly, a team of researchers at the University of Illinois at Chicago further studied surveys sent to every state except Hawaii, Alaska, and Wyoming (Turner et al., 2012). These surveys were sent to administrators in 1,761 schools and 690 school districts to gauge how physical education policies and practices affected elementary school students and their level of physical activity during school (Slater, Nicholson, Chriqui, Turner, & Chaloupka, 2012; Turner et al., 2012). In this quantitative study, the researchers found that the most physical activity took place in areas where laws or policy actually required PE and daily recess an average of 20 minutes more. However, Slater and colleagues (2012) found that the policies set by district did not necessarily meet nor match what was dictated to happen on the school level. The study suggested that schools tend to substitute one form of physical activity for another; therefore, students do not receive the recommended amount of daily movement as they should (Slater et al., 2012). Because of studies that associate increased daily physical activity with academic achievement, Slater and colleagues was quoted in Time magazine (2011) saying, "increasing the amount of physical activity that kids have during the day is not necessarily going to hurt overall academic achievement" (Time, December, 2011). Anderson (2012) and Slater and colleagues (2012) concluded that the increase of testing pressure has meant that most schools have decided physical activity is not as important as seat time for core academic subjects.

Benefits of Physical Activity in School

In 2015, the CDC stated that school-aged children need at least 60 minutes of daily physical activity and movement. The movement should be aerobic activity combined with muscle- and bone-strengthening movements (American Heart Association [AHA], 2016; CDC, 2015). However, most children do not get the recommended levels of physical activity needed (AHA, 2016; CDC, 2015). Acknowledging that schools are under the challenge to find time for physical education and physical activity during the school day under the time constraints of testing pressure, the CDC (2015) advocates for schools to meet the activity recommendations for children to help decrease obesity levels.

Academic research focused on the association between children's physical activity and their performance in schools continues to grow. The CDC (2010) and Trudeau and Shephard (2008) conducted separate studies to further understand and advocate for physical education and active movement in schools. As Trudeau noted when studying elementary age students, at this time, investigators were looking to determine if there was an association between forms of physical activity and academic performance. The purpose of each individual study was to examine all physical activity that could and did take place in schools and synthesize the existing literature that examined the relationship of physical movement and academic achievement. Within the CDC study of all K-12 students, which measured cognitive skills and attitudes, academic achievement and behavior coupled with physical activity, it was found that slightly more than half (50.5%) of results were positive. This showed that students who participated in physical activity during the day had slightly higher academic achievement. Approximately 48% of results showed little to no change and 1.5% of results had negative results (CDC, 2010). Similarly, Trudeau and Shephard (2010) also

found that in the case of primary school students, an increase in daily physical activity during the school day did not translate into a decrease in academic performance. Both studies concluded that physical activity could have a significant impact on the cognitive skills and attitudes that positively affect academic behavior and performance. In addition, other benefits were noted from students such as improved concentration, attention, and overall classroom behavior (CDC, 2010). Likewise, the literature also showed that dedicating time to physical movement and activity did not appear to adversely impact academic performance (CDC, 2010; Trudeau & Shephard, 2008). Trudeau and Shephard (2008) stated they believed that from the practical point of view, the physical activity needed for healthy child development could easily be incorporated into the current school curriculum without detriment to overall academic achievement.

School Lunch and Childhood Obesity

Childhood obesity researchers have identified associations between the food that children can access at school and levels of childhood obesity. It is important to note that literature states children consume almost half of their total daily calories at school (Haynes-Maslow & O'Hara, 2015; Woo Baidal & Taveras, 2014). Therefore, having access to healthy food is important for all children, and according to the literature, is even more important for children from lower-income families and those of ethnic minorities (Haynes-Maslow & O'Hara, 2015). Children in these situations, such as identifying as an ethnic minority or live in a lower socioeconomic situation, are often the children who lack proper access to healthy foods and may live in food deserts. Also, the children typically find that unhealthy foods are readily available and easily accessible. The translation can be higher obesity rates for children who belong to these different groups. Fox, Gordon, Nogales, and Wilson (2009)

note that such situations have schools in "a unique position to influence children's food choices on a daily basis and potentially contribute to development of healthy dietary habits and preferences. No other institution has as much continuous and intensive contact with children" (p. S57).

Literature points to the fact that much research has been devoted to interventions that occur on the school level aimed towards educating students on making healthy eating decisions (Finkelstein, French, Variyam, & Haines, 2004; Haynes-Maslow & O'Hara, 2015; Te Velde et al., 2008), introducing or removing vending machines in schools (Anderson & Butcher, 2006; Veugelers & Fitzgerald, 2005), and providing children with the access to healthier food options (Haynes-Maslow & O'Hara, 2015). A number of quantitative studies show that when children are offered larger quantities of fruits and vegetables at school, they tend to increase their consumption of fruits and vegetables outside of school (Forestell & Mennella, 2007; Haynes-Maslow & O'Hara, 2015; Te Velde et al., 2008).

In contradiction to the above, a 2012 study led by Taber in conjunction with the University of Illinois at Chicago, the National Institutes of Health, and the Robert Wood Johnson Foundation tracked 6,900 fifth graders in public schools across 40 states through the eighth grade. The purpose of the study was to determine whether policies instated by the state that regulated the sales and consumption of sweetened beverages sold in schools were associated with any reduction of access, purchase or consumption among the students. What was found that regardless of whether their school banned unhealthy food and drink (particularly high sugar beverages), 85% of the students reported choosing the unhealthy option at least once a week with approximately 30% making those unhealthy choices daily (Taber, Chriqui, Powell, & Chaloupka, 2012). The study noted that in states where laws

banned soda (arguably a factor in childhood obesity) in schools but did not ban other sweetened beverages, these laws have virtually no impact on the sugary drinks and buying habits of students, whether at school or home. In fact, Taber and colleagues (2012) note that when a state banned soda from schools as the basic means of curbing student sugary beverage intake, these students actually bought and consumed just as many drinks as their peers in states where no bans exist at all.

Gaps in the Literature

The topic of childhood obesity is complex. Pediatric physicians, research conducted by universities such as University of North Carolina at Chapel Hill and Duke University, revealed a plethora of inquiries on the many different theories of which entity is most responsible, the cause and effect of childhood obesity, and the most effective ways to conquer the obesity epidemic. Many childhood obesity scholars seek to determine how obese children fair in their daily lives. Scholars also seek to determine what causes children to become obese and what can be done that is most effective to help children become healthier. Presently, these same researchers have put their efforts into heavily investigating the different subgroups of students who are obese, why they are obese, and what can be done to help these children in their daily lives and within their surroundings. It is necessary to notice that childhood obesity literature also discusses a correlation between academic success and obesity-related illnesses. Recent and past data alike show that students of color and low socioeconomic status tend to have higher rates of obesity than other students. To help mitigate this, research provided by the CDC (2017) stated that in order for programs to be the most effective in decreasing obesity, parental, community, and schools must be involved. Likewise, there is obesity-related education that must take place within all sectors. With

consideration of the age of children in question, it is essential that the adults in children's lives play an active part to contribute to the well-being and health of the children (World Health Organization, 2016).

In recent years, *Obesity*, the official journal of The Obesity Society, also revealed an association between academic success and childhood obesity in grades as early as kindergarten. As the *Obesity* journal provides groundbreaking scientific information and research in every issue, many research articles were devoted to examining the correlation. In 2012, the association between children's overweight status in kindergarten and their academic achievement until first grade was analyzed. The conclusion was that overweight children scored significantly lower in math and reading when compared with non-overweight children. The scores continued to be lower at the end of first grade was well (Datar, Sturm & Magnabosco, 2012). The studied continued the importance of acknowledging that observing overweightness is easier than observing other socioeconomic characteristics and therefore, associating lower academic performance with weight may also be a contributing factor of the negative stigma associated with weight as early as the first years of primary school. In concurrence, literature also points out that students of color and low socioeconomic status tend to have higher rates of obesity than other students (CDC, 2012). Data from the Stanford Center for Education Policy Analysis (2016) suggest that students of color and low socioeconomic status also tend to have rates of lower academic success than their peers. In 2012, a study published in the *Journal of Child Development* followed 6,250 children from grades kindergarten through the fifth grade. At the conclusion of this time period, it was found that the children classified as obese scored lower on math tests than their non-obese classmates (Gable, Krull, & Chang, 2012). As students grow older, research from North

Carolina State University found that the level of physical activity exhibited by a student has a positive correlation with school grade point average (GPA). This translates to increases in GPA for students who increase their amount of physical activity (Sanderson, DeRousie, Guistwite, 2018). Conversely, as students decrease their level of physical activity, their GPA also decreases (Kantomaa et al., 2013; CDC, 2010). In conjunction, studies also noted that obese students were more likely to have school absences and exhibit problems such as repeating grades and lower engagement in school activities than their non-obese peers (CDC, 2011; Carey et al., 2015). The literature suggests that further studies are needed to determine which exact factors are the root causes for the relationship between childhood obesity and academic success.

The National Association of State Boards of Education (NASBE, 2000) has declared that their belief that students' health and their success rate in school are interrelated. They further explained that schools would not be able to achieve their primary mission of education unless the students and staff were healthy and fit physically, mentally, and socially. However, several studies conducted by the CDC had also indicated that more information is needed as to exactly the role schools should have in the obesity epidemic to utilize their position and be the most effective (CDC, 1996, 2004, 2012).

Researching Sustainable Factors that Reduce Obesity in Children

The fact can be argued that the cause of obesity is easy to pinpoint and that ending obesity is simple. Typically, one gains weight when they consume more calories than expended. In conjunction, one can lose weight when that relationship is reversed. However, the cause and effect nature of obesity is complex due to the many different theories and solutions that accompany the problem. When researchers speak about childhood obesity and

the number of children who are overweight, there are many theories of what can be done to help decrease the prevalence of obesity. In order to mitigate and narrow the focus, in 2012, the National Collaborative on Childhood Obesity Research (NCCOR), created a group whose intentions were to become more familiar with the possible and different causes that could claim responsibility for the modest declines that were reported in childhood obesity rates (NCCOR, 2012). NCCOR's main goal is to accelerate progress in reducing childhood obesity.

The work of NCCOR is used to accelerate progress in reducing childhood obesity by having a framework in which to evaluate programs already in place order to gauge true effectiveness and change as it relates to the decrease of childhood obesity. In order to ensure that programs designed to eradicate obesity are truly effective, NCCOR created a framework of understanding that looks at collaboration between various stakeholders, the support of researchers to maximize outcomes and evaluations, being innovative in thought in order to keep current on the different facets of obesity, and being proactive to build community with those who have a vested interest in reducing childhood obesity (NCCOR, 2012). NCCOR suggested that increasing studies using the framework of evaluation might provide more significant long-range benefits to consistently reducing obesity rates in children than other methods that do not have long-range benefits.

On this trajectory, a Philadelphia study conducted by NCCOR was able to identify significant declines in obesity among students in grades K-8 between the 2006–2007 and 2009–2010 school years. The researchers noted that measured obesity rates declined from 21.5% to 20.5% over this time period, representing a 4.8% relative decrease in overweight and obese persons and a 7.7% decrease for students noted as morbidly obese. While the study

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acknowledges the rates of obesity are still very high and there were no obvious trends found that directly contributed to the decline, researchers deemed that some of the rationale for the decline was based on the fact that many initiatives occurred at school where students would spend a fast percentage of their time. NCCOR deems it important to note that the decline in overweight, obese and morbidly obese were significant for Hispanic girls and for African-American, non-Hispanic White and Asian (obesity only) boys, leading to a decline in disparities for children from the higher risk and minority groups (NCCOR, 2013). In a follow up study published in August 2015, Philadelphia NCCOR researchers examined trends in the 2006–2007 and the 2012–2013 school years. What they found of importance was the decline in rates of overweight, obese and morbidly obese for African-American, non-Hispanic White and Asian boys still existed. Using an inventory, the NCCOR researchers identified different strategies that were implemented in four settings: (a) preschool or early care education, (b) schools, (c) community, and (d) health care, which addressed physical activity, healthy eating, or both in some instances (NCCOR, 2013). The strategies in the inventory evaluated a broad range of activities such as programs, policies, initiatives, campaigns, and regulations. The methods proved to be effective because the researchers were able to evaluate, gauge, and measure what types of interventions worked and to what effect the different interventions had in being responsible for the decreases (NCCOR, 2013). As obesity is viewed as both a health concern and a serious issue for children, it is important for educators to have this awareness as it is likely for interactions with obese students to occur.

Defining Care

There are many definitions of the word care. According to Webster's Dictionary (2017), care, in the noun form, can be described as painstaking or watchful attention. Care is

also explained as a cause for anxiety or suffering of mind. Care is also defined as regard that comes from desire or esteem. As a verb, the dictionary dictates that care is present once someone can attach importance to something, feel affection or liking, be willing to do or have something, and look after and provide for the needs of. In the active sense, care also means a feeling of trouble or anxiety. One can give care or have an inclination as a form of care. The word care has its origins from the 1400s but the way that care is used has evolved depending on the context in which it is used. For instance, in conversational vernacular, people often interchange care and love. The dictionary also discusses care as it may look for students, legal contexts, and medical contexts as well. Care is multi-faceted by definition. Knowing the context of 'care' is important as it may look many different ways depending upon who gives and who receives the care. Care can be interpreted in many ways, not only in definition but also in context.

Feminist scholars such as Maureen Sander-Staudt have viewed care ethics as the normative term that holds relationships of care central to positive action between individuals. Care ethics was also the term that influenced care theory. The word care implies there is a moral significance in the fundamental elements of human relationships and dependencies on one another in life (Sander-Staudt, 2006). Sander-Staudt continues that care looks at the relationship between those giving care and those receiving care. By this view, care affirms the importance of being motivated to care and the reasons why care is present.

In care ethics, it is difficult to put a single definition on care. According to Sander-Staudt (2006), this is because care may look differently depending on how it is used within context. Feminist care theorist, Carol Gilligan, is noted as having one of the most used definitions of care among other feminist care theorists. As an originator of Care Theory,

Gilligan's work in the early 1980s could be argued that it influenced other, later feminist theorists such as Nel Noddings, Joan Tronto, Berenice Fisher, and Virginia Held. According to Gilligan, care had traits that include honesty, fairness, and respect. Within her definition of care, Gilligan introduced the term in a way that sought to capture the gender differences of moral development (1982).

Joan Tronto and Berenice Fisher, influenced by Carol Gilligan, also added to the definition of care. Together, they explained that care was a series of activity that included everything done to maintain, contain, and repair the world for all to live in it as well as possible. Care started from the reality that all human beings needed and received care while also providing care to others. They further explained that the world included both the physical body and outside environment (Tronto & Fisher, 1990). As Tronto continued to explore care, without co-author Fischer, she supported the fact that an ethic of care was ambiguous with many definitions and argued that care should also have an association with naturalness (Tronto, 2005). Tronto's definition of care was curated based on the principles of other feminist theorists such as Carol Gillian, Virginia Held and co-author, Berenice Fisher. While Tronto acknowledged that she had fundamental differences from Nel Noddings, she concluded that her own work did draw inspiration from Noddings (2009).

Tronto felt that care, in the natural sense, referred to the social and culture construct of gender roles, whereas care was deemed the work of the woman. Associating care in that sense, care began to lose its power as being important in other theories. Tronto (2005) continued in her definition that there were four major elements involved in care. They were attentiveness, responsibility, competence, and responsiveness. Tronto believed the four elements were important and also raised questions as care moved into the action sense.

Attentiveness, Tronto believed, was key to care ethics because care requires recognition of needs in order for those needs to be responded to (Tronto, 2005). Responsibility was integral to care and is the second element, according to Tronto, because in order to care, someone must make it his or her responsibility. As she felt there was a question between responsibility and obligation, Tronto explained for the point of differentiation as it related to care. She stated that responsibility may be ambiguous but obligation is where action or reaction must be due. Tronto appreciated the ambiguous nature of responsibility as she felt this allowed for care, not be bound to socially constructed roles that would normally only be looked at to exhibit care (Tronto, 2005). Within care, Tronto felt that competence was a key role. To provide care would also mean to have a sense of competency. After acknowledging care, accepting the responsibility to provide the care, one must have the competence to follow through on the action with adequacy in order for the initial request of care to be met. Tronto continued that responsiveness was also included in care. As Tronto argued that responsiveness does not equal reciprocity she explained it is more of a method to understand both the vulnerability and inequality by understanding the feelings expressed by those in a vulnerable position and not as the one giving care attempting to imagine oneself in a similar situation (Tronto, 2005). Sander-Staudt (2006) shared that Tronto's broad definition of care is praised among care theorists for the variations she offered. However, Tronto's definition of care was also criticized because it can be seen as too broad, therefore classifying every activity as one of care (Engster, 2007; Slote, 2007).

History of Care Ethics from a Feminist Perspective

Early strands of care ethics can be traced back to the writings of feminist philosophers such as Mary Wollstonecraft, Catherine and Harriet Beecher, and Charlotte Perkins.

However, care was clearly articulated from a feminist point of view by Carol Gilligan in the early 1980s. Gilligan began by evaluating a path of moral development as she saw it as both feminine and masculine. Gilligan (1982) found that while men and women both articulated facets of care, care was a form of moral reasoning that was masked by masculine traditions, which focused on autonomy and independence. Gilligan's (1982) argument was that when gender was involved in elements of care, women approached ethical dilemmas in different ways than men. In Gilligan's argument, women's moral compass was centered on both responsibilities and interpersonal relationships while men's moral thoughts were centered on what is fair according to rights and rules and appears as both logical and individualistic. She continued that women tended to view issues of morals as a problem that had conflicting responsibilities and not rights. Therefore, the focus should be on an individual in order to make an ethical decision. Gilligan continued that women internalize a situation within context and men may see the same situation as formalized and abstract. On those notes, Gilligan (1982) defines the different moral approaches as ethics of care and deem they are fundamentally incompatible as it relates to different genders because men and women will handle matters of care very differently.

Care Theory—Nel Noddings. Like Gilligan in the 1980s, Nel Noddings, an educator and feminist philosopher, began to cultivate a definition of care ethics but through the lens of the teacher/student relationship and what the correlation was to education. In 1984, Noddings wrote *Caring,* and further developed the notion that care is a feminine ethic and should be applied in points of moral education. She continues that while she writes care to be feminine, this does not mean all women will accept care and all men will reject it. Instead, Noddings says care has roots in feminism because it shows receptivity, relatedness and responsiveness.

As Noddings dictates, feminine ethics would prefer moral decisions to be made in real time while appreciating the uniqueness of each caring relationship in question (Noddings, 1984). As Noddings writes from what she referred to as a maternal perspective or the voice of mother, Noddings (1984) declared that caring relationships are basic to human existence and consciousness. In defining caring relationships, Noddings (1984) identified the two parties as the one who cares and the one who is being cared for. As Noddings sees caring, she dictates that in order for care to happen, both parties are obligated to care reciprocally while meeting the other morally, but it does not have to be in the same aspect. Noddings first introduces the term engrossment, as it deals with caring and explains this is when the carer shows the action for the cared-for on their own terms, while not projecting their own self onto the cared-for and also displacing any selfish motives for the betterment of the cared-for (Noddings, 1984). She continued that the correlation to care could be deemed as feminist traits because a woman commonly fell into maternal roles simply based on the roles they played in their own lives.

Within *Caring,* Noddings continued to discuss care ethics while discussing how it looks in schools. She stated that the one-caring, as it relates to children, must have a perspective that includes the needs of the cared-for (Noddings, 1984). Referencing the works of John Dewey, she continued that educational strategy should be built on the purposes of the child. What this meant to Noddings is that an educator must arrange the school world so that the significance of what is being delivered has the child's interest in mind. If this behavior is constructed by the educator, or the one providing care, the child (the cared-for), would respond with interest simply because they feel they are being cared for in this instance. Furthermore, Noddings (1984) specifically says that "teachers are, with students, the heart of

the educational process. We know, also, that all sorts of changes and innovations have been effectively blocked, ended, or distorted behind the classroom door" (p. 197).

As Noddings's thinking on care evolves, in *The Challenge to Care in Schools*, Noddings (1992) describes care as an alternative approach to education. She begins by critiquing the current educational climate by saying typically when there is deep social change that education and educators respond in a shallow manner. In Noddings's opinion, as the world's pattern changes in ways such as technology, music, language, entertainment, and family, schools do not respond in an effective way to change. She refers to a survey sponsored by the Girl Scouts of America in 1989 where one child in 100 claimed that in their life, no adult showed actual care for their well-being. Similarly, a study conducted in 2014 by Pearson, the educational company, found that only 39% of the 400,000 students surveyed respected their teachers while 48% of the students believed that their teacher cared for them. As Noddings continued, schools have a way of creating curriculum while never truly addressing what a student actually needs (Noddings, 1992).

Noddings (1984) begins to paint a picture of how she was deeply influenced by her own experiences of being taught as a young child and how she experienced elements of care within her own educational background. She explained how schooling had always played a central role in her life and how her own early experiences with caring teachers contributed to a life-long interest of the student-teacher relationship and its corresponding effects on students' educational outcomes. Noddings shared that her desire to become a mathematics educator and later, a philosopher, originated because she first admired the teachers who taught the subject before she became interested in the subject matter itself (Noddings, 1992). Admittedly, Noddings stated that her teachers were not very strong in academia, but she

thoroughly explained that the reason school was a positive experience for her was that she was confident there were teachers in the building who cared about her as a person beyond academics. However, as Noddings continued to work and develop her view of care, she felt that the current generation of students was unable to have the same experiences that she had based on the lack of care students felt from teachers while at school (Noddings, 1992).

After giving a critical view of how school practices do little to nothing in order to reform based on the social changes that occur in the world, Noddings (1984) began to perceive a teacher/student relationship that was similar to the concerns Dewey had in the early 1900s where teachers felt pressure to have students perform academically. Unlike in Dewey's time, teachers were not pushing students to learn skills for a future job, but instead, for a final, year-end examination. In *The Challenge to Care in Schools,* Noddings (1992) describes what she saw as both errors and concern. She noted that teachers ignored the possibility that students might have pressing cares and interests that were not addressed by the curriculum that was being taught in school and therefore, teachers and students would drift further apart as people without a positive relationship (Noddings, 1992).

Noddings provided a critical review of the relationships between students and teachers that she witnessed in school as a teacher, administrator, professor and scholar. She explained that while curriculum writers were writing objectives of what "students will be able to" (Noddings, 1984, p. 4), educators were showing an increase in standardized achievement scores and experiencing district personnel treating teachers as a moral enterprise and more as an end that justifies the means. Additionally, Noddings felt that the school day did not allow time for positive student/teacher relationships to be established and there was not time for the relationships to be cultivated, Noddings also stated the schools' policies and

procedures were not responding effectively in how students were changing with the time. Similar to the educational landscape in the early 1900s that John Dewey observed, Noddings also took fault that she often observed that there were children in school who said adults did not care for them and that there were no respectful relations from student to teacher (Eaker-Rich & Van Galen, 1996; Institute for Education in Transformation, 1992; Lyman, 2000; Noddings, 1992; Valenzuela, 1999). Noddings (1992) found that the number of students who felt this way about their teachers only increased as students got older. She observed that educators were swept into an intellectual frenzy of testing and top-down policy while students were being reduced to subjects as part of a concerted drive of an educational system whose end goal was not that of stronger teacher/student relationships but for year-end examination and test scores (Noddings, 1992). Literature showed that in the research which followed Noddings's views of care ethics and theory in the early 1990s, supportive teacher/student relationships played an important role in the way a student felt connected to their school and also to their academic and social outcomes (Abbott et al., 1998; Gambone, Klem, & Connell, 2002; McNeely, Nonnemaker, & Blum, 2002; Osher et al., 2007). As teachers construct relationships backed with positive attitudes towards their students, a culture begins to build where care is established. As a result, problem behaviors decline and on-task behaviors increase, which can all lead to varying degrees of academic success (Battistich, Schaps, Watson, & Solomon, 1997; Solomon, Battistich, Watson, Schaps, & Lewis, 2000).

Nel Noddings (2002), anchored in feminist theory, began to formulate thoughts and theorize information to make way for educators to deepen their understanding of not only what caring relationships were but what effect these relationships could have in the

educational setting. In order to change directions of current educational thought, which was becoming centered on a test-driven society as noted by the national legislation of No Child Left Behind, Noddings (2002) challenged school testing and traditional academic rigor against building relationships, knowing students as individuals, and moral engrossment. When positive teacher and student relationships are in place, academic research recognizes that there is a positive effect on academic outcomes, as teachers that support students in learning environments can positively impact the student on social and academic outcomes alike as this is important for the trajectory of school continuation and eventual employment (Baker, Grant, & Morlock, 2008; Noddings, 1992, 2002; O'Connor, Dearing, & Collins, 2011; Silver, Measelle, Armstrong, & Essex, 2005). As teachers begin to learn who their students are as individuals, complete with the awareness of a student's likes, dislikes, and what occurs with the student outside of school, researchers find that students are less likely to reject one another (Donohue, Perry, & Weinstein, 2003) and that overall classroom behavior and achievement increases (Hughes, Cavell, & Willson, 2001; Noddings, 1992, 1996; Zins, Elias, Greenberg, & Weissberg, 2000). Likewise, the more a teacher was able to exhibit moral engrossment—which Noddings defined as when a person attempts to think of someone else in order to gain a greater understanding of that person—students become more adjusted to school while improving their social skills, growth in academic performance, and increased resiliency with academic and other school tasks (Battistich, Schaps, & Wilson, 2004; Birch & Ladd, 1998; Curby, Rimm-Kaufman, & Ponitz, 2009; Ewing & Taylor, 2009; Hamre & Pianta, 2001; Noddings, 1984, 1992, 1998; Rudasill, Reio, Stipanovic, & Taylor, 2010).

Noddings (2002) felt that caring behaviors and relationships between teachers and students should be less focused on achievement scores on standardized tests and more

concerned with students gaining knowledge about themselves and life skills under the direction of a caring teacher. Noddings's (1992) theory of care outlined and provided the framework of how the relationship between teachers and students would function in order to obtain maximum achievement results for students. The focus should become teachers making curriculum adaptable and applicable to the students' lives by truly getting to know students as people, not just pupils. While Noddings did not attempt to discredit academic thought or tests, she did stress the need that teachers first need to be aware of their students as individuals before addressing any type of curriculum if the intent is for students to realize academic success (Noddings, 1984, 1992, 2002).

Key principles and assumptions of Care Theory. The phenomenological analysis of authentic care as stated by Noddings outlined that in order for the caring relationship to be present, each party has a role. The one caring (the carer) is first of all attentive to another person's needs. This attention is defined as "engrossment" in *Caring* (Noddings, 1984). As Noddings defined engrossment, she referred to the act of thinking about another individual in order to gain a better understanding of him or her as a person. In conjunction, the student, or the one who is being cared for, must be receptive to the care and acknowledge that care is being given. When the action of care and the response of acknowledging said care is present, Noddings (1984) described the caring as "completed in the other" (p. 4). This is important to care as the action has to be both given and received for care to truly happen. In *The Challenge to Care in Schools*, Noddings (1992, 2005) stated care as not being diagnostic in order to measure the cared-for against some pre-established ideal. Instead, the caring relationship is intended for the carer to be open to motivational displacement. Motivational displacement occurred when the one who cares behavior is largely set forth in accordance by

the needs of the person for whom they are caring (Noddings, 1984). She further explained

that notwithstanding, motivational displacement would be insufficient in terms of care ethics.

Motivational displacement allows for the carer to be open to the needs and wants of the

cared-for and therefore, the cared-for feelings and desires will have a large part into decisions

that are made (Noddings, 1984). As Noddings further details,

> In a caring relation or encounter, the cared-for recognizes the caring and responds in some detectable manner. A student may acknowledge her teacher's caring directly, with verbal gratitude, or simply pursue her own project more confidently. The receptive teacher can see that her caring has been received by monitoring her students' responses. Without an affirmative response from the cared-for, an encounter or relationship cannot be deemed as caring. (Noddings, 1984, p. 69)

In schools, Noddings expressed care should be less concerned with achievement

scores on standardized tests and more concerned with students gaining knowledge and skills

for life all while knowing that some adult cares for them. In *The Challenge to Care in*

Schools, Noddings (1992) shows that the focus of importance should be on teachers making

the curriculum adaptable and applicable to the students' lives. Noddings also makes clear that

she is against traditional curriculum and scholarly ideas. Her focus is for the need of teachers

to be aware of their students personally in order for the student to succeed. Care would focus

on relationships and mutual understanding between teachers and students.

Four dimensions of Care Theory research in education. Noddings (1984, 1992)

argued that care should be at the core of education and educational practices. Care would

then serve as the foundation for the theoretical framework of the ethics of care in education.

From this point forward, I refer to care ethics as care theory, as Noddings began to shift the

ethics of care into a theory of care as it related to schools and education. When Noddings

discussed the morality of education, she emphasized the focus should be on the care and

caring relationships between students and teachers. Noddings concluded that moral

education, as it dealt with care theory, has four major parts. The four parts are modeling, dialogue, practice and confirmation (Noddings, 1984).

   Modeling. Care theory has argued that in education, care is comprised of four dimensions. The primary levels are modeling, dialogue, practice and confirmation (Held, 2006; Noddings, 1998; Tronto & Fisher, 1990). Care research is concerned with learning better ways for teachers to establish positive relationships with students in order for the student to achieve success. Therefore, within a care perspective, educators are concerned with the growth of the cared-fors (students). Researchers believe that the carers (teachers) have to show in their daily behaviors and actions with students exactly what it means to care (Flinders, 2001; Noddings, 1998). Modeling provides teachers the chance to show care to the students and for students to learn what authentic care looks like. The carer (teacher) is able to create opportunities where they do not tell the cared-for (students) that the carer is invested but consistently demonstrates this behavior.

   Dialogue. Dialogue in care theory consists of talking, listening, sharing, and responding (Noddings, 1992). The intent of dialogue in care is to engage the teacher and the student in consistent conversation with the goal of learning about the student and his/her needs. Noddings noted that dialogue is an important factor in care because it allows the carer and the cared-for to be in understanding with ideas that are not originally their own as the carer learns about the cared-for. Dialogue is where carers can express their needs (Noddings, 2002). Active dialogue between the carer and cared-for is reflective of the search for understanding and empathy between the two to create and arrive at agreed upon decisions that strive to create student success (Noddings, 1992). Dialogue should be used by caring teachers as a means to gather genuine information about the cared-for student and use that

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information to make decisions. Research also says that dialogue used in care theory is able to contribute to the developing and maintaining of the teacher/student relationship as it allows a connection based upon shared experiences (Noddings, 1992; Sevenhuijsen, 1998; Slote, 2007). With effective dialogue, the carer is able to shift the focus of curriculum and learning as students' needs arise (Noddings, 1992). The carer would be able to use dialogue to enhance the relationship with the cared-for. Literature contends that modeling caring cannot occur without engaging in the care and that engagement stems from dialogue (Noddings, 1992; Sevenhuijsen, 1998; Slote, 2007). Furthermore, Noddings (1992) credits dialogue with contributing to the continued growth of the cared-for as the dialogue aids in strengthening of the relationships.

Practice. Researchers of care argue that teacher and student relationships that exist in school shape experiences that produce a mentality of what it means to care and what care looks like (Noddings, 1998; Weissbourd & Jones, 2014). The literature concludes that if care and relationships are important between teachers and students, the caring relationship is to be practiced in situations such as looping, which is when a teacher educates a student for multiple years with the purpose of establishing a relationship and trust (Burke, 1996; Checkley, 1995; Hanson, 1995). Likewise, a body of literature exists in support of how the caring relationship in the classroom is practiced. Collison et al. (1998) expressed that care has to be practiced in even the smallest of tasks such as using words of encouragement and positive affirmations. As the caring relationship builds, care would be practiced intentionally and purposefully.

Confirmation. Research dictates that confirmation is what sets caring apart from other approaches to moral education (Buber, 1970; Noddings, 1992). Confirmation is described as

the act of affirmation while encouraging the best in others (Buber, 1970). In care, confirmation is used to support someone becoming better and consistently encouraging his or her growth and development. In order to confirm someone, the carer (teacher) must know the cared-for (student) well. Without the relationship in place, the carer does not know the cared-for's goals or what he or she is working toward. The carer is also unable to provide genuine confirmation in the act (Noddings, 1992). Confirmation should also be positive and individualized within care ethics. According to Noddings (1998), the carer would not have a single ideal on curriculum, behavior, on human processes that applies to all students. Rather, within care, the carer should be able to recognize something admirable within the cared-for and provide confirmation based upon that measure. Because confirmation requires trust and continuity (Buber 1970; Noddings 1992, 1998), the relationship must stay intact between the carer and the cared-for.

   Acts of Care Theory. In education, the general theory of care speaks to the moral obligation by an individual of doing something for another while also acknowledging the sense of doing what is right (Noddings, 1984). Teachers (as the carer) should respond and act in accordance with the needs of their students and in doing so, may see the opportunity to design a differentiated classroom, adjusted curriculum and specialize learning based on the individual. As teachers learn and work with students, the carer would be moved by the different needs that the cared-for might have (Noddings, 1999). In doing so, care moves from being a one-time act to an ongoing, constant interest in a student's well-being.

   Needs within Ethics of Care. As Noddings (2003) more deeply explores the aspects of care, she differentiates between the inferred needs, expressed needs, and outstanding needs that students carry and of which teachers should be aware. In an effort to advance the

understanding of care, researchers developed levels of needs to show how the carer can respond to different students and are able to relate as necessary (Noddings, 2003; Nucci, Narvaez, & Krettenauer, 2014).

Inferred needs. Traditional curriculum in school is designed to meet the inferred needs of students (Noddings, 2005). Inferred needs are those that arise externally and then are imposed upon students such as ideas and curriculum designed to improve the classroom environment. The traditional subject-based curriculum was designed and identified by teachers or other individuals to improve the school and classroom for all students based on their inferred needs to learn subject matter while increasing educational knowledge (Bonstingl, 1992; Noddings, 2005; Nucci et al., 2014). According to Noddings (2005), the inferred needs that are identified typically come from those not directly affected, such as those who write curriculum, law-makers and other outside stakeholders. Traditionally, inferred needs are not derived from students.

Students' inferred needs may be relatively obvious to ascertain by their classroom teachers during daily teacher/student interactions (Noddings, 2005). Therefore, care is not necessarily present within inferred needs. A teacher who delivers curriculum and a student who receives it through daily classroom interaction sees the inferred needs within the traditional teacher/student relationship. The teacher delivers lessons and the student receives them, therefore inferring that by delivering content, the teacher is giving the student all that they may need educationally to achieve and exhibit success (Noddings, 2005). When a teacher delivers only the state dictated curriculum and objectives without creating a relationship with the student and attempting to know that student as a person, that teacher is

attending to a student's inferred needs of knowledge. The genuine care that Noddings speaks of may not be present.

   Expressed needs. The belief is held by care theorists that most of the traditional school curriculum is supported by the assumption that educators and those who write policy know what children need to learn and obtain. Therefore, the curriculum is designed to meet and satisfy inferred needs (Noddings, 2005; Norris, 2014). The challenge is presented when those who teach try to meet the inferred needs of students, the students' expressed needs may be neglected. Expressed needs are more difficult for the carer to identify and attend to in the classroom because these needs are demonstrated by the cared-for through their actions, behaviors, or words (Burton & Merrill, 1991; Grant, 2002; Noddings, 2005). Noddings also stated that expressed needs might be seen as fleeting desires that students have in the moment while inferred needs are more concrete as they are rooted in curriculum and academia (Noddings, 1992). It is held that expressed needs may be difficult to address by the carer due to the fact that the cared-for has to show that a need is present. However, the educator should still treat the need in a positive manner to maintain the consistent, caring relationship with the students (Grant, 2002; Noddings, 2005). As expressed needs stem from the student personally, as an expression of what the student feels that he/she may need in that moment, if/when those needs are not treated and addressed, the student may not feel cared for at all and the relationship is either not created or it falters (Grant, 2002, Noddings, 1996, 2005). Therefore, the challenge for the educator is to make a consistent and constant effort to respond to a learner's expressed needs through the levels of modeling, dialogue, practice and confirmation (Noddings, 1996, 2005). Opponents to Noddings who support putting more time and effort into addressing inferred needs feel that in some cases, the expressed needs of

learners are fleeting thoughts that may be emotionally driven, and therefore do not always have to be recognized. However, in ignoring the expressed needs of learners, Noddings (2005) states that opportunities are lost to develop genuine teacher/student relationships that are based on individual talents, intrinsic motivation, and the joys of learning that the student shares with the teacher.

Noddings (2005) believed that educators should treat the expressed needs in a positive and proactive manner in order to facilitate and maintain the caring relationship with students. If expressed needs are not treated carefully, meticulously, and consciously, then the one being cared for (student) might not feel the care (Noddings, 1996, 2005, 2008). Therefore, educators should make a consistent and good faith effort to respond to a student's expressed needs through relationship building, planning activities around knowing the students and discussions of the different issues that may cause those particular needs (Noddings, 1996). Care has more of an opportunity to be present in expressed needs over inferred needs because in expressed needs, students communicate with their teacher exactly what is needed for their personal success. Likewise, teachers who are attentive to those needs expressed by their students begin to act in a manner where those needs are acknowledged (Noddings, 1996, 2005, 2008). Noddings summarizes that when inferred needs—what others assume a student needs to know, are given priority over expressed needs—what students actually need, there will be a disconnect in the teacher/student relationship. For example, Noddings says that an inferred need may be that a student needs to go to college and all actions for that child are geared towards that. However, the child's expressed needs may dictate that the child needs to learn a trade and live their life following that route. When the

inferred needs do not meet the expressed needs, the relationship can neither be built, nor can a relationship be sustained (Noddings, 2005).

Overwhelming needs. A student's overwhelming needs may not be met by the traditional, state mandated academic curriculum. In some cases, students cannot even express their overwhelming needs. Overwhelming needs can include extreme situations such as abuse, neglect and serious health illnesses (Noddings, 1996; Shonkoff & Phillips, 2000). A student's socioeconomic status, home environment, and physical and mental health may cause the student to come to school with needs that may neither be physically seen nor able to be met by teachers. Mirroring Dewey's theory on children and their needs, Noddings felt that students might not be able to correctly voice what these needs are and how they are adversely affected when those needs are not met (Noddings, 2002; Rothstein, 2002). When attempting to meet the overwhelming needs of students, especially those students in poor circumstances such as poverty, homelessness, sickness, or suffering from food insecurity, care theory dictates that schools should become full-service institutions in which teachers act in loco parentis, making parental types of decisions when the legal guardians are unavailable or unable (Noddings, 2003, 2005; Norris 2014). Care, in the case of overwhelming needs, dictates that schools may need to serve as medical and dental institutions, providing social services to both students and their families when appropriate and applicable (Jensen, 2009; Noddings, 1996, 2002; Payne, 2003; Rothstein, 2002). If teachers are not trained to handle overwhelming needs, care dictates that they should be able to facilitate the student in helping to ensure those needs will be met (Jensen, 2009; Payne, 2003). Care theorists felt that when students are not able to have their overwhelming needs met, the students are often put into academic courses where they may begin to engage in activities and situations that are

difficult to focus on and master, based merely upon their circumstances (Jensen, 2009; Noddings, 1996, 2002; Payne, 2003; Rothstein 2002). If overwhelming needs cannot be met, Noddings surmises it would be quite difficult for a student to realize any benefit from education (Noddings, 2005).

Debates and limitations in Care Theory. As the theory of care evolves, there have been a number of enduring controversies and skepticisms related to the theory and its limitations. Noddings (2002) admits that with the increased pressure that educators experience in preparing their students for tests, coupled with being faced with other societal pressures that are in schools, establishing caring relationships with students may not be the highest priority. While most researchers agree that schools should be more responsive to the expressed needs of parents and students (Sizer, 2004; Troen & Boles, 2003), there are other issues that may be deemed more pertinent such as test scores, fear among students, drop in graduation rates, and demoralization of teachers, as well as the growing corruption of administrators who use questionable strategies to keep their schools off the failing list (Kohn, 2000; Troen & Boles, 2003). There is not a consensus on care and what it contains. Consequently, the debates from those who critique care theory include concerns that are related to its context and criteria.

Care in different contexts. Noddings (1984, 2002, 2005) address care as relational. This is one person showing care for another and the person recognizes that care is being shown (Noddings, 2005). However, Noddings also acknowledges that most people consider relational care to be a virtue of a person, such as he or she is considered to be a caring individual (Noddings, 2002, 2005). Referring to care as a virtue may misconstrue what authentic care is (Noddings, 2002). To care only in the virtuous sense, educators may create

and pursue goals for their students and even coerce students into achieving those goals (Skinner & Belmont, 1993; Thomas & Oldfather, 1995). However, Davis (2001) explains that when a teacher cares in the relational sense for a student, the student begins to behave in responsible ways and tends to engage more with curriculum and others all while persevering in the face of failure. As Sanders and Horn (1994) state, the most important factor of student achievement is the classroom teacher. For instance, if a child has a caring teacher, that child is more likely to have positive experiences with school, curriculum, and other people. A negative teacher/student experience cannot only hinder a school's growth but can also hinder the academic and personal growth of a student for years after the initial classroom experience (Chetty, Friedman, & Rockoff, 2011). In an effort to resolve the debate, Baker and colleagues (2008), O'Connor and colleagues (2011), and Silver and colleagues (2005) recommended that educators continually show support for their students in order to impact students' social and academic outcomes in a positive manner for their long-term trajectory in schools.

Criteria for care. In the early 2000s, Noddings (2002) outlined the criteria for care as a reciprocal relationship in which Person A cares for Person B in accordance with attempting to meet the needs that Person B has. Person B recognizes that Person A cares for Person B, and this is the beginning of the caring relationship (Noddings, 2002). Flinders (2001), however, pointed out that in the case of unequal relationships such as the teacher-student relationship, issues of care are complex because time, intensity, and situational variations all have to be worked out within relationships. In addition to internal relationship issues, Noddings (2002) states that the relational view of care is difficult for critics to accept because of the rationale of the adult (teacher) in the relationship is that the adult knows best and will

therefore determine and do what is ultimately best for the student without direct student input. Those who criticize care, both feminists and those who prefer more traditional approaches to ethics and education, do so because as Noddings explains care, it is seen as an unequal relationship that can lead to favoritism depending upon the viewpoint that instead of cared and cared-for, it becomes one of giver and taker (Hoagland, 1990). Hoagland concludes in her critique of care that the unequal relationships will never be morally good.

Relevance of Care Theory to education. Care research shows that schools serve as an excellent arena to impart change initiatives for students (Bulach, Lunenburg, & Potter, 2008; Haynes & Comer, 1996). A large body of literature exists that confirms positive school experiences with teachers yielding successful outcomes for students (Baker et al., 2008; Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998; McCormick, O'Connor, Cappella, & McClowry, 2013; Sanders & Horn, 1994; Wright, Horn, & Sanders, 1997). Care of students by teachers can promote student success by encouraging moral education or nurturing children with virtues and values that are designed to make them good people (Noddings, 2002), increase a student's cultural knowledge of people that may differ from oneself (Noddings, 2002), become more socially productive with the thought, ability and desire to give back (Hamre & Pianta, 2001), and show an increase in academic knowledge and future goal setting (Hamre & Pianta, 2001; Midgley, Feldlaufer, & Eccles, 1989; Murray & Malmgren, 2005; Noddings, 2002; Pianta & Steinberg, 1992).

Noddings's theory of care stresses that the establishment of caring relationships will not accomplish all of the goals of education. However, subsequent research on care is confident that caring relationships will provide the foundation for successful pedagogical activity in the classroom and student success later in life. Care theory contends that when

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teachers are able to establish relationships and show authentic care for their students, the

educator is able to gain trust with their students and make inroads that helps the students'

growth and development (Hamre & Pianta, 2001; Midgley et al., 1989; Noddings, 1999).

Caring teachers are able to show students how to care, engage them in dialogue about life,

supervise their practice in caring, and confirm them in developing their best selves

(Noddings, 1999). Noddings (2002) warns that the act of caring is empty if it does not

culminate in caring relations. Noddings (2005) stated,

> we will not find the solution to problems of violence, alienation, ignorance and
> unhappiness in increasing our security, imposing more tests, punishing schools for
> their failure to produce 100 percent proficiency, or demanding that teachers be
> knowledgeable in the subjects they teach. Instead, we must allow teachers and
> students to interact as whole persons, and we must develop policies that treat the
> school as a whole community. (p. 8)

Care theory is appealing because children spend many moments in schools with teachers.

These adults have a large and lasting impact on the life of students whether the impact be

positive or negative. It is observable that authentic relationships and care are not consistent

between every student and teacher.

Evolution of Culture of Care. While Noddings's (1984, 1992, 1995, 2002) original

works focused on teacher/student relationships and the dynamic of such, her later works

stayed true to the definition of care while branching into other areas. Transitioning from the

20th to the 21st century, Noddings (2003) began to look at care as it was embedded, or not,

in the culture of schools and educational institutions. As Noddings's research lens of care

expanded, another theorist, Tom Cavanagh, began to add to the argument that schools and

systems needed to establish and a create culture of care for students to be successful

(Cavanagh, 2008). Shortly after the passage of No Child Left Behind (NCLB), Noddings

(2003) penned *Happiness and Education*. In her review of the current educational climate of

high stakes testing that she felt NCLB had created, Noddings began to point to the need that

schools needed to change both its focus and the culture from that of high stakes testing to

more student-centered and focused. As an alternate viewpoint to NCLB and testing,

Noddings says that in creating classrooms that would be considered happy places, Noddings

noted that students would become enriched with qualities beyond academic knowledge

(Noddings, 2003). In *Peace Education,* Noddings (2011) reaffirmed how care theory is at the

heart of what should happen in schools for student success beyond academics:

> Care theory describes caring encounters and caring relations, and gives us some
> guidance on how to establish, maintain and enhance such relations. To teach for
> caring relations is to teach for peace in communities, in individual lives and in the
> world. (p. 87)

Creating classrooms and spaces that exude care began to create a culture of where

care is first and a primary concern. As school seek to teach tolerance, empathy, and a

movement from a 'Generation of Me,' institutions such as Communities in Schools, a

subsidiary of the Institute for Educational Leadership, have noted that many school districts

and postsecondary schools within the United States have adopted a culture of care for their

schools. Prior to NCLB, public opinion noted that a quality education should enhance not

only a student's academic achievement but should also positively affect their character,

socioemotional competence, and civic mindfulness (MetLife, 2002; Public Agenda, 2002;

Rose & Gallup, 2000). In a 2016 survey conducted by the World Education Forum, it still

shows that a quality education should prepare a child for their future by allowing that child to

know how to be both healthy and happy, understand peace, and have an idea of how to

positively share the future. If a school institutes a culture of care, they pledge the stance for

student-driven and staff-supported initiatives (Cavanagh, Macfarlane, Glynn, & Macfarlane,

2012). As schools in the United States continue to research with the attempt to find ways to

close the many different gaps that exist (e.g., achievement, accessibility, and experience) between majority and minority students, culture of care is becoming more researched by higher education institutions such as University of Michigan and Harvard. Many top-down initiatives such as NCLB have either failed to become sustainable or the influence was not able to make enough of an impact within different groups. In order to take Noddings's original theory of care and create a culture that is consistent throughout an educational institution, schools and teachers have to create a dynamic where values, beliefs, and practices are safe and respected so that all students feel a sense of belonging (Cavanagh et al., 2012).

Whole Child theory

In order to meet the demands of the 21st century, one educational organization began to examine and focus on whole child education as a means to combat the rigors and demands of standardized testing. Based on the tenets of Emilia (n.d.) Froebel (1837) Montessori (1897) and Holistic education theories, which involve actively knowing and engaging students in their own learning, the Association for Supervision and Curriculum Development (ASCD), coupled with the CDC, created a model aimed to better align policies, processes, and practices of education, public health, and school health, all while improving learning and health (The Commission on the Whole Child, 2007). In creating this model, the goal was to turn the focus away from massive amounts of high stakes/pressure testing to growing students to be viable parts of society. In order to shift the mindset of current educational thought of testing and performance basis to include Whole Child education, school systems and the teachers that they employ will have to change and shift current practices.

According to ASCD, an organization dedicated to the training and development of teachers, the Whole Child approach to education is defined by policies, practices, and

relationships that ensure every child, in each school, in each community, is healthy, safe, engaged, supported, and challenged (The Commission on the Whole Child, 2007). Along the same trajectory of caring relationships between teachers and students, ASCD adopted many of the same principles to create Whole Child educational theory. Within the premise of Whole Child education, the key is to truly treat children as individual and unique persons and not group them together without first learning who they are as individuals. By learning what makes a child an individual, complete with knowledge of that child as a person, Whole Child theory dictates a child will have more opportunities to experience success as they will feel the support from their teachers and school staff (The Commission on the Whole Child, 2007). As teachers and students began to interact as persons, not as parts, Whole Child dictates that policies must develop that remove high stakes pressure testing and focus on treating the schools (The Commission on the Whole Child, 2007). Teachers are at the heart of Whole Child education (Adelman & Taylor, 2000). As a teacher knows more about the students they teach, there is evidence that learning is impacted and achievement levels increase (Hamre & Pianta, 2005; Hughes, 2012; Ladd & Burgess, 2001; Ray, 2007). Hughes (2012) further explains that positive student-teacher relationships, similar to the basis of care theory, are important because the engagement that occurs forms part of a dynamic that puts students on a positive, educational path.

Within the parameters of educating the Whole Child, all stakeholders are engaged to ensure that school reform has its true focus on each child. This means that within a school, stakeholders follow the Whole Child tenets of ensuring students enter a school healthy and learn about a healthy lifestyle, engage in environments that are physically and emotionally safe, engage students in learning that is connected to both the school and the broad

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community, create personalized learning activities, and are challenged academically to be prepared for life in college, the workplace, and the global environment (The Commission on the Whole Child, 2007). Accountability goes beyond strategies designed for short-term improvement to factors that will allow every child to experience long-term success. ASCD continues that within a Whole Child approach to education, schools must begin to change culture and curriculum, instructional strategies of teachers and ideas concerning social-emotional wellness. In the absence of Whole Child education, the ASCD feels that students have been only partially prepared for their adult life. Children can neither be healthy nor safe, cannot be engaged or supported, and will not be challenged to reach their full potential in the absence of Whole Child education (The Commission on the Whole Child, 2007, 2017).

While there are not many studies on comprehensive student engagement, recent Whole Child literature points to the benefits that exist. Also known as comprehensive, school-based student support initiatives, more schools are beginning to look at how their institutions can address outside, environmental factors that may interfere with a student being able to learn and be successful at school (Sibley et al., 2017). Most educators would agree that good instruction is the key to student learning. However, a 2015 Scholastic sponsor survey involving recent Teachers of the Year, asked these educators about barriers that exist which hinder student success. Effective instruction was not listed. The items that teachers wished they could help students with were family stress, poverty, learning, and psychological problems that students may have (Worrell, 2015). In addition, other literature that involved teacher input recognized that related barriers (to stress, poverty and learning and psychological problems) also majorly affected students' academic success. Some included poor academic achievement (Hair, Hanson, Wolfe, & Pollak, 2015), family chaos (Evans,

Gonnella, Marcynyszyn, Gentile, & Salpekar, 2005), parents' mental health challenges (Engle, 2009), food insecurity (Winicki & Jemison, 2003), homelessness (Herbers et al., 2012), obesity (Taras & Potts-Datema, 2005), and a lack of after-school supervision (Mahoney, Lord, & Carryl, 2005). Students' non-academic needs, which may or may not be associated with stress, poverty, or other problems, may often appear as negative behaviors and classroom disengagement which all hinder academic achievement (Berliner, 2013).

Within the last 27 years, schools have given more attention to the needs that children have beyond academics. Social, mental and physical needs are being recognized as pieces of student life that must be attended to in order for learning to take place (Basch, 2011; Bond & Compas, 1989; Dryfoos, 1994; Sibley et al., 2017). Basch (2011) further asserts that a teacher can be extremely prepared to teach curriculum and lessons. However, unless that same teacher can reach a child, any other attempts will be futile. Whole Child states that academic learning and social emotional learning are not separate when it comes to educating students. Since both operate together, efforts of promotion should be designed to promote both simultaneously with students, in the classroom and with academic curriculum (Jonas & Bouffard, 2012). As ASCD explains, the student-teacher relationship is the foundation of Whole Child education. Within the Whole Child framework, a teacher is not only conscientious of a student's needs beyond academics but also works towards addressing those needs (ASCD, 2007). To educate a student, the big picture must be considered. This includes life outside of the school building.

The purpose of this dissertation was to examine how a teacher's knowledge of childhood obesity and the corresponding health factors had an effect on forming relationships in the classroom. Using a framework of Care and Whole Child theory, it was evident in the

literature presented that in order for teachers to reach their students, the student should know they have a teacher who cares for them. Likewise, under the tenets of Whole Child theory, that care has to be beyond just classroom behaviors and academics. In Chapter 3, a rationale is presented for using the case study methodology to gain clarity and understanding of how a teacher's knowledge of childhood obesity and the corresponding health factors have an effect on the way teachers create relationships in the classroom. The details and summary of the study are also thoroughly outlined and discussed.

Chapter 3: Methodology

Introduction

Childhood obesity can affect anyone. Likewise, as childhood obesity affects all areas of a child's development (Davis & Cooper, 2011), it is very important to understand how school personnel interact with obese students and how they understand the effects of obesity. This information is needed so the school personnel will be able to identify the issues and address intervention that may be needed. The guiding question for this study was, "What is a teacher's awareness of childhood obesity risk factors and health concerns?" Specifically, the questions below were utilized in this case study to attempt to solicit and amplify teacher voice by addressing:

- How do teachers perceive students with obesity in their classrooms?
- How do teachers view the role of caring in the work they do with obese students? What behaviors do they exude?
- What are teachers' perceptions of barriers to solving the obesity epidemic and building meaningful student relationships in the classroom?

Research Design: Case Study

Within this study, qualitative research design methods were used. Qualitative research was useful in this study since the topic has not been addressed with a selected sample, existing theories have not been applied to the group under study, and the important variables to examine are clear (Creswell, 2009). Qualitative research was also preferred for this study because it can help to uncover patterns of thought on a certain issue, infer results that can be used to predict the answers of a larger population, identify evidence of a cause/effect relationship, identify and describe attributes of relevant groups, test specific hypotheses, and

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to examine specific relationships (Creswell & Plano-Clark, 2007; Miller & Fredericks, 2006; Morse, 2010; Teddlie & Tashakkori, 2009). Having qualitative data also provided insight into the problem to help provide and develop ideas for later research (Punch, 2000). Qualitative research helps to explore and gain a deeper understanding of an issue while uncovering trends, thoughts, underlying reasons, opinions, and motivations (Creswell, 2002, 2013; Judd, McClelland, & Ryan, 2009; Neuman, 2006; Robson, 2002).

Within this work, I took a social constructivist worldview. Creswell (2009) says that social constructivists hold assumptions that individuals seek understanding of the world in which they live and work. Social constructs center on the notions that humans will rationalize their experience(s) by creating models of the world to share these models through language (Leeds-Hurwitz, 2009). Individuals then begin to develop subjective meanings of their experiences and those meanings are directed toward certain objects or things. Therefore, as the individual differs, the meanings are also varied and multiple. The researcher is able to look for the complexity of the difference of views as opposed to using pre-determined, already established, categories.

Through this study, I planned to add to a knowledge base concerning teachers, student/teacher classroom behaviors, dynamics, and relationships, as well as childhood obesity issues, that are incomplete. The purpose of this study is to understand how educators' understanding of childhood obesity and the health concerns/risk factors affect their classroom practices and relationships with obese students. Within this section, I define the research design, sampling procedures and data collection methods. I used a qualitative research design that encompassed case study methods to answer the following research question: "What are teachers' awareness of childhood obesity risk factors and health concerns?"

In the educational arena which concerns teachers, student/teacher classroom behaviors, dynamics, and relationships, as well as childhood obesity issues, there are studies that discuss how the way a teacher builds a relationship and knows their students, had a direct effect on the type of classroom dynamic that is created with the students in the classroom (ASCD, 2005). I planned to add a first-person teacher viewpoint to the conversation. The questions are designed to show the extent to which a teacher is conscious and aware of childhood obesity and health concerns, how that teacher manages his/her daily classroom practices, and approaches relationships with the students in class. There is a need to have a better understanding of teacher voice in first person as that voice takes away the need to assume when those not in the classroom are making decisions that will have a direct impact on both teachers and students. Case study methods utilizing first-person voice are useful when the research question of study seeks to address a descriptive 'what' question (Shavelson & Towne, 2002). For this case study, the what that the study hopes to answer is to what extent teachers are aware of childhood obesity and the risk factors associated. Case study is also favorable when emphasizing the study of a phenomenon (in this case building and creating relationships in the classroom when childhood obesity is a factor) within a real-world context using first-person voice. When data are collected naturally and not derived from previous sources, case study provides a sound method of understanding about the phenomenon (Bromley, 1986). Case study is also useful when the researcher looks to provide the how and why to issues in exploratory, descriptive or explanatory research in an area of which they have little to no control (Yin, 1994).

Within this study, I worked with eight teachers as my population. Case selection must be decided by the purpose of the research, questions, and theory. I chose my participants as I

needed subjects with experience in teaching multiple years, over three. This was purposeful as I desired to speak with teachers who would have experienced changes in education simply based on their years of experience. In contrast to surveying many participants to gain data, the number of participants studied in a case study is much less than the number that would respond to a survey. However, the data given from participants and the details gathered should be more in depth and provide richer information (Yin, 1994). Survey data from multiple participants can lead to generalization, but utilizing case study methods has an objective to compare or replicate the different cases studied in a systematic way, in order to further explore different research issues (Yin, 1994).

Participants of the Study

In case study research, the demographic that is being studied may be an individual, organization, event, or action that exists in a specific place and time (Rolls, 2005; Stake, 1995). In this study, the participants studied were public education schoolteachers and other school personnel such as principals (in the K-12 range) who work with students.

My goal was to have a maximum eight individuals participate in this study. Stake (1995) emphasized the number of subjects in a case study should be strictly dependent upon the purpose of the inquiry, and the level of understanding that the researcher hopes to achieve. I chose eight participants because I felt that I could conduct quality interviews with this many participants and gain a deeper level understanding from their point of view. Eight participants provided me with eight different first-person accounts that created a rich description of the case being studied. Engaging with this number of people also allowed me the time needed to hear thorough accounts of their stories, while asking open-ended, non-leading questions (as found in Appendix A). Stake (1995) states that when an individual(s) is

the unit of analysis in a case, the researcher becomes the biographer who focuses on the phase or segment that the person shares. In doing so, when individuals are single or part of a multiple unit of analysis, the researcher should be able to gain and develop rich and comprehensive understandings about people (Stake, 1995). In order to gather and develop these understandings, at a minimum I wanted five participants for the study. I wanted at least five different viewpoints and stories for this research project so the points of view offered would provide depth. Critics of small case study methods state that smaller numbers may limit data and cause the researcher to make more generalizations. Yin (2003) and Stake (1993, 2003) counter by highlighting that singular and smaller case study can both expand and generate theory when used as an exploratory tool.

The educators and school personnel that I recruited were individuals that I knew personally and were located throughout the United States. My only requirements of the participants were that they were currently employed in a K-12 school setting and that they interacted with students on a daily basis. I also asked that participants be willing to candidly and honestly respond to the interview questions during their participation. Finally, participants were asked to have at least 3 years of teaching experience. As a new teacher, there are many things to learn and focus on that may confuse the study. Also, the experience of teachers contributed to the richness of data collected as they bring a different viewpoint based on years of being in the classroom.

In keeping the requirements of participants broad and diverse, the study was able to gather depth of information. As this information and the topic being discussed were personal and private, a pseudonym was assigned to each participant. Chosen participants were asked a specific set of demographic and geographic questions (which appears in Appendix B) for

classification purposes. This short, preliminary questionnaire was designed to determine the background of the participants prior to the interview questions.

As the researcher, I want to note and be aware of how the participants' personal experience of working with obese students allows me to investigate the topic from a first-person account. Willig (2001) states that it is beneficial to using small numbers as opposed to dealing with a large number of research participants and averaging what is observed. The small amount of study participants allows me to gain very distinct answers without trying to put people in a group based on similar answers.

Setting

I selected participants from across the United States with whom I had a personal relationship. In order to keep phone interviews to a minimum, I first selected participants who lived in close proximity to Charlotte, North Carolina. Participants were allowed to choose where they felt most comfortable to meet for the actual interview setting. If participants were not within driving range, phone interviews were necessary.

Data Collection

Creswell (2003) defined case study as when "the researcher explores in depth a program, an event, an activity, a process, of one or more individuals" (p. 15). The case in this study is educators and school personnel. From the participants, I wished to gain an in-depth, first-person understanding of how educators in a school create caring student/teacher relationships with their pupils and what behaviors occur in class. According to Yin (2014), the case study methodology is appropriate because as the researcher, I relied on multiple sources of evidence with the logic of design incorporating specific approaches to data collection and data analysis. Case study methodology was used to provide a clearer

understanding and viewpoint of how the participants address relationships in the classroom with students and if any sensitivity towards health, nutrition, and/or obesity was noted. Creswell (1998) suggests the structure of a case study should be the problem, the context, the issues, and the lessons learned. The data collection for a case study is extensive and can draw from different sources such as observations, interviews, physical artifacts, and audiovisual materials. For this study, interviews were the primary choice to gather information. The conclusion of the case study includes lessons learned or patterns found that connect with theories.

"Much of what we know today about the empirical world has been produced by case study research, and many of the most treasured classics in each discipline are case studies" (Flyvbjerg, 2011, p. 302). Likewise, case studies methods have largely been used in the social sciences and have been found to be especially valuable in practice-oriented fields such as education. This study utilized a case study method. According to Stake (1995), case studies are good for describing and expanding the understanding of a phenomenon. Case studies are expected to capture the complexity of a single case and are often used to study people and programs, particularly as it relates to education. Case study may offer a clearer picture of understanding a topic as that topic relates to the existing body of research (Stake, 1995). "We take a particular case and come to know it well, not primarily as to how it is different from others but what it is, what it does" (Stake, 1995, p. 8). Case study is done in part to create a thorough and vivid description of a particular case in order to show the reader what they would have experienced had they been present in the research (Stake, 1995). Case study is very appropriate in this study, as opposed to other forms of research, because case study allowed me to record "objectively what is happening but simultaneously examining its

meaning and redirects observations to refine or substantiate those meanings" (Stake, 1995, p.

9). This was done in part to be able to create thick descriptions of a case in order to convey

what the reader would have experienced if he or she had been present (Stake, 1995). The

interpretation of what the researcher gathers is fundamental and exists based on data analysis

coupled with the researcher's understanding of the experience and existing literature (Stake,

1995). Multiple case studies may be used to provide multiple viewpoints of the subject.

I sent a request to teachers and school personnel. As an educator with years of

experience, I was able to contact individuals serving in different roles within various school

districts. As I decided upon my participants, I used criterion sampling to select the

participants who closely matched the criteria of what was needed in the study (Bailey, 1994;

Patton, 2001). With criterion sampling, individuals are selected based on the assumption that

they possess knowledge and experience with the phenomenon of interest, which is creating

relationships in the classroom with students, as childhood obesity may or may not be a factor.

Based on that assumption, participants should be able to provide a viewpoint that is detailed

and generalizable for both depth and breadth (Patton, 2001). Criterion sampling notes that

potential participants are assumed to be a representative of the criteria/role of the study

because they meet the criteria that was deemed important for the research. Patton (2001) goes

on to state that from the perspective of qualitative research, participants who meet or exceed

the criteria specified in the call possess greater, if not intimate, knowledge of the

phenomenon of interest by virtue of their experience, qualifying them to be information-rich

cases (Patton, 2001).

Interviews as data collection. According to Creswell (2009), the researcher develops

an interview protocol for participants in order to answer the question, "Who should I turn to,

to learn more about this topic?" (p. 130). To collect firsthand interview data about obesity and relationships, I turned to those who know and work with students. In order to see information from school personnel, I utilized open-ended research questions (Appendix A) that I asked participants to seek clarification in order to better understand the subject. Likert and open-ended questions relating to relationships and childhood obesity were given to each case. A Likert scale is a measurement device that is used to gauge attitudes, values, and opinions. In this study, a Likert scale was used to ask participants their preliminary views and opinions concerning care between the teacher and students, relationships and childhood obesity. The questions were given a scale of 1 to 5, where 1 was the lowest possible and 5 was the highest possible. The questions were asked before starting the research questions and are shown in Appendix B. This information was used in this qualitative study as a starting point, as after giving their numeric answer participants were asked to further elaborate their rating.

Creswell (2012) stated that when selected responses are included in a survey it is practical because the ones participating will answer the questions using the response options provided. "This enables a researcher to conveniently compare responses" (p. 386). The responses from each participant were reviewed with the purpose of analyzing in order to find themes related to childhood obesity and teacher/student relationships.

The interviews were in-depth, semi-structured, and conducted on a one-on-one basis. As this topic is personal, the personalized approach of one-on-one in-depth conversation was the most feasible to solicit detailed accounts of the participants' viewpoint (Creswell, 2002).

I conducted one, individual interview with each participant. To accurately use the participant data, an audio recorder was utilized. From those recordings, transcripts were created, read and analyzed to create codes for themes that were presented.

The interview was determined and given after the participants had agreed to participate in the study. After the interview was completed and transcribed, I utilized the technique of member checking. After the participants' interviews were transcribed, each case was asked to review, verify and note their transcripts. Within member checking, participants were asked about their revisions and if how the transcripts read, were indeed accurate. Krefting (1991) stated that when member checking is utilized as part of the interview process, participants give feedback and each participant has the opportunity to clarify if their responses were heard, and interpreted correctly.

I chose to engage in one interview with different sets of questions because I wanted to hear from the participant in order to get both their initial and later more thoughtful, reflective answers. Initially, I wanted to be able to ask the participants semi-structured and predetermined questions concerning previous experiences they may have or had with students. As semi-structured interviews are used to gather qualitative and focused textual data, I was able to engage study participants with the purpose of uncovering rich, descriptive data on the personal experiences of each case (Adams, 2015). The second set of interview questions (Appendix B) were to ask clarifying questions and to get, when needed, participants to further explain their answers. The interview was semi-structured only because the secondary and primary questions may have given way to other questions that naturally arise by way of the conversation between the researcher and the participant (Glesne, 2011). I also took notes during the personal interviews (Creswell, 2009) and audio recorded the

interviews so that I had accurate accounts of what the participants said as I continue to collect data. After the interviews I transcribed the recordings into words for later member checking (Creswell, 2002).

As a part of this qualitative study, the interviews went through the process of member checking. Member checking is used to help improve the accuracy and credibility of a study. Member checking involves given the raw data, or portions of it, to members of the study in order for them to check the authenticity of the work (Creswell & Miller, 2000). The feedback given by participants also served as a validity check of the way I interpreted the data. As member checking can be done during and after the interview process, and as I had a prior rapport with the participants, I was able to member check during the interviews for some participants but all participants went through member checks after the transcripts were complete. During the interview, I would, when necessary, restate or summarize the information I had just received and then question the case to make sure I was accurate with the information. After the findings were transcribed and the data analyzed and written, I used member checking again to affirm that my findings accurately reflected the viewpoints, feelings, and experienced voiced were correctly interpreted. By the participants affirming my work, I can say my study now has credibility with each case.

Data Analysis

Data analysis began with me reading and notating the raw, interview transcripts. I read the transcripts, made notes, and highlighted what the participants said that were both prevalent and common with each other. I also pulled statements and phrases that were relevant to the topic.

Codes. Initially organizing participant data, I looked for words, phrases and insights, which were consistent throughout each interview. After that activity, the codes that emerged formulated the categories that lead to the themes. I used codes derived from data to see how they related to one another and the stories they told to get a general sense of what is occurring in the field. Therefore, since participant data drove the process, I could feel certain the codes which lead to the subsequent themes, were correct.

The words and phrases given by participants were color coded in order to stand out on the physical transcripts, as the transcripts were reviewed multiple times. Open coding proved to be the best technique to organize the data from the analysis of the participant interviews. Glesne tells us that coding is a progressive process of sorting and defining and defining and sorting those scraps of collected data that are applicable to your research purpose (2006).

A Priori and Emergent Codes. Keeping in mind the research questions while coding helps keeps the researcher focused on relevant codes. Coding, in qualitative research, is often in the form of a combination of both predetermined (a priori) and emergent coding (Boyatzis, 1998; Crabtree & Miller, 1999; Stuckey, 2015). For this case study, the combination of using both coding techniques were preferable because they are extremes of one another. Where a priori codes purposefully utilize a developed framework to draw out meaning, in opposition, emergent codes attempt to identify the meaning from data without preconception from the researcher. In using both, it created a compare-contrast as to how what the literature expressed was either consistent or inconsistent with the data that each case interview provided. Also, since the methods of formulating the codes are opposite, in this study, the a

priori codes were formed directly from theory. The emergent codes allowed the data to speak based on the firsthand account from the participants.

I created pre-set or a priori codes based on the theories of Care and Whole Child that were discussed in the literature review. These predetermined codes were derived from the interview questions and ideas from the conceptual framework involving both care and the whole child mindset. The three a priori codes used were 'role model', 'academic testing', and 'relationships'. These three codes were key concepts and integral in my questioning of participants to accurately gauge how their knowledge of childhood obesity and the health factors have an effect on the way classroom relationships are formed. The a priori codes were utilized in the open-ended questioning to teachers directly within the interviews.

After the interview was complete, I read the individual transcripts to look for any statements, words, or phrases that connected to the topic. This was completed for each interview. After all statements and phrases were collected from the interviews, I grouped them into similar categories to see what was similar, different and to gauge the emerging patterns. The emergent codes were different from the a priori codes, as they evolved directly from the data. Within this analysis, I was able to make meaning of the answers that each case shared. The meanings from the data I gathered became the themes, which appear as categories to organize how the participants answered the questions. The actual set of codes, which became the themes used, emerged from the participant data. These overarching themes give us the insight on how what a teacher knows about childhood obesity and the corresponding health effects, actually affect the student/teacher classroom relationship.

While some of the emergent codes were different than the a priori codes, others were similar and therefore collapsed to create a larger, more cohesive theme, for example, as

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participants discussed more than academic testing behind a hindrance to other objectives,

barriers became the theme. As this case study had a focus on the first person voice of

teachers, it was very important to use emergent codes as part of the data analysis in addition

to the pre-determined codes.

Potential Risks

Participants were informed at the beginning of the study that the interviews were

designed to gather "rich data that gets below the surface of social and subjective life"

(Charmaz, 2006, p. 13). The raw data that are collected will be treated as indicators of a

phenomenon (Corbin & Strauss, 2008). However, I am aware that the study I conducted is

personal. The study could lend itself to uncomfortable moments among participants as they

reflected on their experiences with students and obesity. While I did not anticipate the study

would trigger negative psychological and mental effects, I made sure that participants were

aware they may cease participation at any time during the research.

Researcher's Role and Subjectivity

Qualitative research recognizes that the subjectivity of the researcher is intimately

involved in the actual research (Ratner, 2002). Likewise, subjectivity guides everything from

the choice of topic that one studies, to formulating hypotheses, to selecting methodologies,

and interpreting data (Ratner, 2002). I am very interested in this research because as an

educator, I see children in schools everyday who are obese, unhealthy, and unhappy. What I

have observed as a teacher and in other duties within the school is children who are at a

disadvantage due to their obesity. I have also observed teachers and administrators who serve

as role models for students exhibiting unhealthy habits involving food choices and physical

activity. I have been a teacher who celebrated success with my students by providing them

donuts. I have also been the teacher who takes the stairs and challenged students to do the same. Within my educational scope, I have seen conflicting messages, silent and aloud, from teachers to students concerning obesity.

As a researcher, I know literature exists which states there is a negative relationship where obese children often perform worse in school than their non-obese classmates (Rasberry et al., 2011; Story, 2009; Viadero, 2008), and there are not many sustainable actions against obesity that take place and stay in schools. As schools and teachers can be seen as opportune to help eradicate obesity (CDC, 2004; McKenzie & Lounsberry, 2009; Odum, McKyer, Tisone, & Outley, 2013; Vail, 2006; Wu, 2011), there are not many sustaining activities that occur. As I feel obese children are a population of students not recognized and helped in schools, this research is a timely subject that will add to the existing body of research. I am also a strong teacher advocate. It is my opinion that the teacher is at the heart of education and therefore should be at the forefront of any and all educational initiatives. Being able to present the power of firsthand accounts of teacher voice provides insights from a different point of view.

Validity of Study/Trustworthiness of Researcher

In order to maintain the rich validity of research findings, Glaser and Strauss (1967) state that a qualitative researcher must wallow in the data they find. This level of data analysis allows the researcher to remain open to possible alterations, avoid potential overlaps, and consider what was thought to be unavailable or unobservable categories dependent on the researcher's understanding of the data. In order to improve validity, the researcher must doggedly record the criteria on which category decisions are to be taken (Dey, 1993). In doing so, the researcher allows more credibility into the study as records are being kept and

used. I verified the findings by working with participants to collect the rich data and performing the necessary validity checks to examine any biases and information that may be discrepant (Creswell, 2009). I followed up with the participants to ensure I had their words correctly transcribed. This means I shared with participants the transcriptions and my interpretation of what I gathered from their words. I also contacted participants after the interview in order to ensure I had interpreted their thoughts the way they truly meant for their words to be interpreted.

Member checking (Creswell, 2009) was used to determine the accuracy of the findings as part of the interview process. Member checking means that I provided interview data to participants to verify accuracy and allow the opportunity for each to provide feedback (Creswell, 2009). Member checking, in this case, did not deem it necessary for a follow up interview with any of the participants to allow them to comment on the findings presented.

To ensure the accurate gathering of data, participants were recorded and their interviews were transcribed. According to Maxwell (2005), when interviewing participants, recording and transcribing give less reliance on inference of what the participant says or means as the data is actually in front of you. Transcripts give blatant data where nothing can be inferred or thoughts can be assumed as the words are transcribed verbatim. As the words are transcribed word for word, I did not have to try and remember what participants said or guess what they meant. Transcriptions, member checking and the design of questions were all picked to eliminate as much researcher error/surmising as possible. These intensive interviews allowed the researcher to discover the data for the study (Creswell, 2009). The transcription, coupled with the interview, begins to create a picture and allow the researcher

to provide different perspectives concerning themes that may occur (Creswell, 2009; Maxwell, 2005).

Conclusion

In this research, I utilized a qualitative case study because case study approach is defined by the case and not by the methods of inquiry used (Stake, 1995). With case study, I was able to have insight of a case that I would not otherwise. Qualitative case study research helped me as a researcher to develop a clearer understanding of the way a teacher's knowledge of childhood obesity, and the health effects thereof, approaches the student/teacher relationship.

I examined what school teachers do in their classroom practices as it relates to the teacher/student relationship. Teachers and schools are perceived as both key preventive and intervention stakeholders who have immense potential in changing childhood obesity. However, Adamick (2012) and Wilson, Brewer, and Rieg (2013) feel that teachers are neither properly trained nor equipped to work with obese students and implement change of health and nutrition based on not receiving adequate, relevant, or timely training. Teachers find it difficult to add 'one more thing' to already full roles. Some teachers do not feel it is their role to address sensitive subjects such as obesity with their students (Blaine et al., 2017; Morgan & Hanson, 2008; Yager & O'Dea, 2005). While the roles that teachers and schools have in childhood obesity have been researched in education, the literature on teacher identity and classroom relationships is omitted. Necessary teacher and staff training, as well as subsequent implementation is lacking (Wilson et al., 2013). In discussing the problem and defining the study, the framework, the literature that exists, and the methods for collecting

data, I hope to provide rich data in a case study format that shows how teachers relate to students in the classroom.

The findings of this case study can provide important insight for teacher education programs and school districts. With this information, the specific personnel can address the effects of obesity and identify areas in which more can be done to address the effects of childhood obesity on students in the school. Teacher education programs can use the information to help educate teacher candidates on the importance of the way identity affects the relationships that a teacher creates in the classroom with students. Results of this study, guided by the insight from teachers, can advise policy makers and school districts to create or enhance a childhood obesity program.

Chapter 4: Results and Findings

Introduction

As childhood obesity continues to be an issue in America, it is important that schools are aware of its implications. It is also important that classroom educators are aware that when they are teaching students, obesity-related issues and complications may come up in the classroom as well. As teachers work to educate students, in spite of the variety of needs that each child has, it is crucial to gather the thoughts of educators and hear their voice, in the first person, to understand what it is like for a teacher to be successful in establishing, creating, and maintaining meaningful relationships in the classroom with students. Current research literature about obesity in schools as well as the impact caring teachers has with students, is missing one critical piece and that is the teacher's voice. In speaking with participants, I wanted to answer my central research question, "What is a teacher's awareness of childhood obesity risk factors and health concerns?" The following research questions in this case study attempt to solicit and amplify the teacher voice by addressing:

- How do teachers perceive students with obesity in their classrooms?
- How do teachers view the role of caring in the work they do with obese students? What behaviors do they exude?
- What are teachers' perceptions of barriers to solving the obesity epidemic and building meaningful student relationships in the classroom?

In this chapter, I first introduce the participants and their teaching background in education. I then discuss the way that the teachers answered questions concerning their perceptions of the educator's role in childhood obesity as it relates to learning and also what it means to care and be a caring teacher when students are involved. To have an

understanding of the teacher voice as it relates to any school initiative, it is imperative to consult with educators to glean their insight about different topics and trends. Thus, I examined the answers of all participants to help clarify the driving forces behind what happens in classrooms between teachers and students. To fully understand the raw data provided by the teachers, I pulled out emerging codes extracted from interview notes as well as poignant points that participants shared. I conclude that the teachers in this study are the voice of authority, and able to speak from a first-person experience, involving classroom practices in education, as they are the direct contact with students on a daily basis. To amplify and highlight the teacher's voice, I will use direct quotes from the interview to illustrate my findings.

The data collected are all first-person voices of teacher participants. The interview questions (Appendix A and B) for the educators were constructed with the intent to discover the perspective of K-12 school personnel as it relates to care and childhood obesity. The range of perspectives was intended to provide a multifaceted view of the issues and topics. Likewise, each participant provided additional insight from his or her own personal perspective and experience in a K-12 setting.

This case study took place in multiple school districts, as the participants represented different school districts across several Southern states (North Carolina, Virginia, and Florida). Eight teachers and school administrators (all of whom had multiple years of classroom teaching experiences as well) were interviewed on a one-on-one basis. This chapter presents data derived from how participants answered the questions they were asked in their interviews. The results of the interviews were analyzed to uncover initial codes to form categories of answers, which are organized and appear as subheadings. Finally, the

summary concludes the thoughts, ideas, and viewpoints of the participants as they relate to both care and childhood obesity.

Participant Profiles

All participants in this study had at least 3 years of teaching experience. Each participant has taught in the Southern region of the United States in an urban, suburban, or rural school and school district. The teachers represent three types of schools: public, private, and charter schools. Similarly, the participants also had experience teaching both males and females, of different races, ages, and socioeconomic and demographic makeups. Within the study, three of the participants had elementary school experience, four participants had middle school experience, and five participants had high school experience. Of the eight participants, two were males. Also, of the eight participants, four identified as Black, two identified as multi-racial, and two identified as White. None of the participants had taught at the same school so none of their viewpoints would have students in common. Likewise, with the exception of two of the participants, none of the educators knew one another. Interestingly, half of the participants entered into education through a traditional college teacher-prep program. The other half of the participants represented lateral entry teachers. This means they did not attend college to study education. Their majors were academic subjects that were not designed to equip them to go into a school and teach children. These teachers had training from their school districts that included topics on pedagogy, curriculum, and classroom behavior. Table 1 gives a brief, visual demographic summary of the eight participants.

Table 1:

Participant Demographics:

Participant	Gender	Race	Years of Teaching/ Educational Experience
Case 1	Male	Black	14
Case 2	Male	Black	11
Case 3	Female	Black	8
Case 4	Female	Multi	3
Case 5	Female	Multi	11
Case 6	Female	Black	19
Case 7	Female	White	11
Case 8	Female	White	25

The following section introduces a brief background of each of the participants studied and a more solid picture of each individual's background. From this point in the paper, each participant will labeled as Case 1 – Case 8 to maintain anonymity.

Case 1. Case 1 is a male educator who has taught primarily Physical Education (PE) classes, but based on job duties at school, has also served as an 'advisor.' Advisors on this campus are individuals who work with students on social-emotional activities, homework, and general advice. Case 1 came into education to be an athletic coach first, and teacher second. He has 14 years of experience working with students. He has worked in two Southern states, with male and female students in middle grades to high school (grades 6-12). Case 1 has all of his experience in the private education sector and currently works at a private all-boys boarding school where *in loco parentis*, or acting as a parent when the parent is not available, is key at the institution (U.S. Educational Law, 2007).

Case 2. Case 2 is a male educator. He taught high school elective courses in the business and marketing pathway. He entered into education as a second career. The educator only has 3 years of teaching experience in one urban district and at one school. However, he has worked with students, in total, for 11 years in different roles such as mentor and coach. Case 2 educator has worked in one (Southern) state with male and female students in high school (grades 9-12).

Case 3. Case 3 is a female educator. She has taught both middle and high school (grades 6-12). Case 3 came into education directly from college through a traditional pathway. She is an educator with 8 years of experience. Case 3 has taught in urban and rural districts with various demographics of students in one state. One of the teacher's primary roles was to teach health and nutrition to students as a Family and Consumer Science teacher. Her school embodied an initiative where nutrition and health were covered in each classroom.

Case 4. Case 4 is a female educator. This educator has the least experience in schools at 3 years. Prior to education, participant was in the banking industry for over 20 years. She was adamant that education was very different than the financial industry and stressed how being in schools has influenced what she does with her own children, including modeling health and wellness. This educator has elementary experience in an urban, charter school setting. Her primary role is the financial officer at school and is not to teach health/wellness. However, in this charter school, it is everyone's job to teach all aspects of the child as a school initiative. The school where she works seeks to have diversity among student population. Case 4 has experience with male and female students.

Case 5. Case 5 is a female educator. This educator has taught in two Southern states. She has worked in urban school settings while being an educator for 12 years. As a dance teacher, Case 5 was a part of the health/PE department but shared her role was not to teach health or nutrition and was not expected or required at the school. Case 5 has only high school teaching experience (grades 9-12) and teaching mostly female students. Case 5 shared in her introduction that she was a vegetarian.

Case 6. Case 6 is a female educator. She has taught in one Southern state but in multiple counties. All schools have been located in rural areas. This educator has 19 years of experience. Case 6 taught Teen Living (to middle school students in grades 6-8) and Early Childhood and Parenting to high school students (grades 9-12). In both courses, the educator did have a role to teach health and nutrition in class (expectation from school).

Case 7. Case 7 is a female educator. She has taught in one state, one district, and one school for the entirety of her career, with 11 years of teaching experience. Case 7 has only taught in elementary school with second-grade students. Case 7's school is located in a very affluent (public school) but is economically and racially diverse based upon the way students are bused into the schools. This respondent gave the most detail on health and wellness as it relates to her position as a classroom teacher and also spoke about her personal journey in health and wellness.

Case 8. Case 8 is a female educator. She has taught in one state but in multiple districts, and schools, both public and private. Case 8 has experience in K-12 settings with over 20 years of experience as a music teacher. This educator was the one with the least experience or interaction with obesity in schools. She noticed but offered the fewest instances

dealing with obesity. Case 8 also has experience as a middle school assistant principal and as a high school principal.

Findings

In addition to Likert scale items to begin the interviews, participants were asked open-ended questions to expand on the answers they provided within the scale. Participants were given the opportunity to expand their thoughts as well as clarify their answers. The themes that emerged from their answers serve as the qualitative data. The themes are reported below.

Themes from the Research

The following themes emerged from the analysis of the case study interviews. From both the a priori and emergent codes came themes of working knowledge of childhood obesity; teachers as role models; limited viewpoint of obesity in schools; obesity impacting instruction; teachers create teacher/student classroom relationships; building relationships; perceptions of successful care are student driven; barriers; and lasting impressions of care.

Working knowledge of childhood obesity. According to the data collected, when each participant was asked his or her thoughts about childhood obesity as their initial question, they were able to agree that childhood obesity is a definite issue in society. When asked directly, "What do you know about childhood obesity" seven of the eight participants indicated they were well aware that childhood obesity was an issue in America and that it was a problem that continues to grow as children get older. Interestingly, female participants gave more detailed responses to the question. Case 8 commented that "obesity is a problem and I see it more in my Title 1 schools." Case 7 shared, "I feel it is a big problem, especially for the girls without strong parent relationships." Case 4 felt, "it's horrible and out of control.

Kids aren't getting the proper nutrition, they're not getting the necessary time to play and exercise. It's just really out of control." On the other hand, the two male participants did not provide as many specifics. Case 2 gave a more general comment such as "kids are much more inactive now" to justify his knowledge of the childhood obesity epidemic. Case 1 acknowledged that even though he did not know much at all concerning childhood obesity, he did state that from what he knows, he sees that children who are obese are slowed down, hindered from doing things quickly, and lack energy. The responses showed that three of the female educators not only acknowledged obesity as a problem but they also gave their first-person viewpoints with examples to support their reasoning. The responses from both of the male cases showed their acknowledgment of childhood obesity as being problematic but when asked to expand, they provided more general responses.

The responses also showed that even though most participants were able to speak strongly about childhood obesity being an issue, only Case 3 shared how her knowledge of childhood obesity increased based on her teaching assignment. For Case 3, part of her job was to teach nutrition and health. Daily, she was expected to make sure she taught the content to students. With the exception of Case 3, the other participants agreed that they saw childhood obesity as a national problem, and definitely saw it in their schools, but they felt their extension of knowledge on the subject was limited. Case 3 stated,

> I taught childhood nutrition to students. I taught food and nutrition in Teen Living. We talked about meal planning. I invited Miss Black North Carolina into my class to exercise with the kids to help them complete their food and nutrition unit. We promoted positive habits for students so they would be healthy.

The other cases stated that what they knew about childhood obesity was based on what they saw in and out of school. They did not teach with obesity in mind and, for the most part, it was not a part of their job to teach about health and nutrition. Participants felt that while they

had instances of childhood obesity in their schools, it was not an issue where much importance was placed. As Case 8 shared, "issues involving academics and testing are my school's main focus."

To support the central research question of identifying a teacher's awareness of childhood obesity risk factors and health concerns, participants were asked to use a Likert-type scale in responding to a survey to identify the way they felt about childhood obesity and a teacher's role in helping to remedy the problem. The purpose of asking these questions verbally was to gauge teacher perceptions of childhood obesity, teachers as role models, and the role that care plays in their job role. After asking the questions, teachers were asked to elaborate on the rating they gave each question. The Likert questions served as a starting point for further, in depth conversation.

Teachers as role models. A consistent theme among all participants was that teachers were role models for their students. Using the Likert-type scale, participants were asked to rank their thoughts from 1 to 5. If they answered at a 1, participants felt that it was not the teacher's role to help remedy the problem of childhood obesity. If participants answered a 5, participants felt it was most definitely the role of the teacher to help remedy the obesity problem. Answering 2-4 gave participants the chance to say it was somewhat the teachers' responsibility, it was the teachers' responsibility with restrictions, and it was definitely the teachers' responsibility but not of the utmost importance, respectively. When asked if they felt it was the responsibility of a teacher to teach a student about health and nutrition, every participant agreed a '4' or '5' with these numbers ranging from 'yes, it is the responsibility of teachers when at all possible' to 'it is most important that teachers take on this duty.' The Likert-type scale was used after participants introduced themselves for the

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purpose of gauging their initial opinions on obesity, health, and wellness as it related to their students. In conjunction, when the participants were asked if they felt it was the responsibility of a teacher to be a role model in the way of healthy practices, all participants agreed a '5' with a '5' being 'yes, most important.' Case 6 explained her answer of 5 by stating that she believed teachers should practice being a role model because health and wellness is universal, not just in schools. She felt being a role model for health and fitness could not be left solely to the PE teachers. As a Family and Consumer Science teacher, she felt she should teach the nutrition part. She further explained, "being a role model can't strictly be all on one person." Case 1 also answered with a 5 and shared that being at a boarding school and coaching a sport makes being a role model all the more important. He further explained, "I have to have that thought in the back of my head when teaching them, because not only am I teaching them a subject, but also a sport and wanting them to be their best in that sport." All eight participants were adamant that being a role model to students was very important. Some of the participants were very eager to explain how being a role model looked with their students. Case 5 was very excited to speak about her experiences being a vegetarian and how she loved to share this information with her students. In her opinion,

> I'm not with them (students) outside of 90 minutes every other day when I see them. They do know that I'm a full veggie (vegetarian) and also not, like a stick, they know this is something that isn't hard to do. You can live a healthier lifestyle and still have curves. They always ask me don't you just miss a hamburger and I say no, not at all. My kids think I'm an alien from another planet! I don't know if that makes me a role model but I do feel like it could be important.

Case 2 also contributed that being a role model to students was most important because he felt that:

students model what they see so it is essential that we practice role model behavior. When they see you doing healthy habits, when they see you accomplishing things . . . if you're running marathons and they hear, it inspires them to ask questions . . . telling more of your story, relating it to an active lifestyle, I think is an incentive to kids.

Case 7 noted that she taught in a system in which most of the students come from extremely wealthy families. She wanted to clarify that even though she had students that came from very advantaged households, many of them had nannies so the parental role model relationship was not always there. Therefore, as their teacher, especially in elementary school, it was even more important for her to be a role model. She stated, "I feel like they (parents) feel like they can just pay for their kids to be happy and so therefore, kids seek other things."

As Case 3 had a large role in her school model with health and nutrition, she shared a story of how the school set a precedent for all teachers to be a role model in health and wellness and the effect it had on students:

> When Michelle Obama had a big campaign about healthy eating in school, our school changed. The cafeteria had to provide fresh vegetables and fruit and a lot had to be changed that could be served with lunch. In Town (Case 3 mentioned her school district) our superintendent really took on this campaign and because the school was Title I, and a city school (not a county one) there was a lot of funding from the government. So, they took on the whole campaign for teachers and I think it was to enforce a modeling type behavior with teachers to promote healthy eating for students. It was so serious, if you bought a soda from the teachers' lounge, you had to take off the label. Fast food was no longer allowed to be delivered to the school. And, if parents brought food for their child to eat at school, they would have to eat in the front office, 'cause they couldn't sit in the cafeteria with bags that said Chick-Fil-A, or Domino's, or McDonald's, etc. You had to take those labels off because they felt like those labels were promoting those bad eating habits.

Case 3 concluded that neither teachers nor students complained, as it was the expectation and everyone adapted to it.

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Limited viewpoints of obesity in the school. In addition to the introductory ranking using the Likert-type scale questions, participants were allowed to extend their thoughts when ranking questions using their opinion and to clarify any thoughts. One of the follow-up questions concerning childhood obesity perceptions asked the participants to discuss if obesity was an issue in their school and if they had witnessed any incidents that they perceived to be caused by a student being obese such as bullying, academic achievement, and the general behaviors of students at school. Collectively, the participants noted that they had neither witnessed obese students being the object of teasing, nor had they seen obese students suffer socially. Case 1 stated that obesity was not a real issue at his current school but there was one student that he would classify as morbidly obese. In speaking about the student, he noted the student's race (Black) and age (a 15-year-old rising junior). What Case 1 said about the student is that when he came as freshman to the school he wanted to play football. Due to health issues, he was unable but worked to get healthy. I asked how the other students treated the obese student. Case 1 asserted that the kids were the main cause of support and would rally around the student to lose weight, be active. and make different choices when they would eat. At the end of the school year, the student had lost what Case 1 assumed was at least 60 lbs. However, Case 1 shared that when the student came back to start sophomore year, he had gained all the weight back. I asked Case 1 to elaborate. Case 1 followed that the student said that when he goes back home to Baltimore, he sits inside an apartment, eats his mother's cooking, and plays video games. There is not a support system at home that encouraged him to keep up the habits as his friends did at school. Therefore, he gained back the weight. I asked Case 1 how the student felt. Case 1 paused and said, "you can tell he feels bad and didn't like coming back with all the weight. The other kids don't talk about him

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behind his back. That's nice." He continued, "for the kids to support each other and for me to be involved in that support, it's nice. Especially at a boarding school, when someone turns their child over to you, it's very significant for that parent to feel there is a support system in place."

When asked the same question concerning if the participant had witnessed any issues arise at her school with studies that could be related to a student being obese, Case 5 spoke of having experience with obese students in her school and in her classroom as well. When asked about the behaviors and interactions between obese and non-obese students at school, Care 5 noted,

> Well, I can say that 99.3% of my students are all female. They are all shapes and sizes and they're all really accepting of one another. I really never noticed anyone shy away from doing things because of her weight or size. They pick their own costumes too. I'm the most body conscious one but I have to be very careful of what I say and how I say it because I don't want to make anybody feel bad, uncomfortable. I know in the South, curves are accepted. I wonder if this would be different if I taught in another part of the country. Like this could be totally different in Iowa.

When asked if there were obese students in their classrooms and in their schools, all of the participants stated they had obese students in their classroom and schools. What all participants had in common was that no one had witnessed obese students suffering adversely at the hands of his/her peers. In fact, like Case 1 and Case 5, Case 8 was adamant in her many years of education that she had witnessed bullying, but none of the cases ever involved a child's weight or health.

Obesity impacting instruction. The participants were also asked if having knowledge of childhood obesity would impact their everyday practice of teaching. As Case 1 thoughtfully explained, "I would think so. Having teachers that are knowledgeable about the effects that this can have on some students would change the way they teach and how they

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approach those kids knowing the information ahead of time." Case 8 added that having

knowledge brings awareness to issues and that should impact teaching practices. Case 7

summarized that having knowledge made her want to be even more of a role model for her

elementary-aged children. She stated, "I've gained weight and I'm trying to get it off.

Because if I don't show them (my students) what healthy looks like, then they don't really

have a role model. Likewise, anytime that I have an opportunity to talk about food with them,

I do." Case 7 further explained that it was very important to her to serve as a role model for

her students because in elementary school, "they are extremely impressionable and watch

everything that you do." Case 4 has the least amount of educational experience in the

classroom. However, she still was able to garner that she knew there is a stigma when

someone is obese and no matter how old the children are, that stigma would have an effect.

She stated,

> obesity is one of those things that affects people in all aspects of their lives. In an
> education setting the students would be affected too. That's why its important the
> school models the behaviors that they want the children that attend the school to do.

When asked to speak about childhood obesity in education, participants agreed that

childhood obesity is an issue and that schools are the appropriate place for intervention to

take place. Case 4 stated, "our kids have in indoctrinated into the belief system and the

practices of the school. The students (that were obese) have far less of a weight problem

today than they did when they started." Case 6 believes that all teachers should be involved

in teaching health, nutrition, and wellness because that is a part of creating a well-rounded

student. Case 3 asserted that as mandates were passed down from the top and funding was a

part of the initiative, there was a definite shift down to the vending machines that students

and teachers were able to access. She shared, "the chips and cookies in the vending machines

were gone. There were only healthy options. And the students didn't really complain." Along the same lines, Case 8 also contented that children do not and are not responsible for buying their own food, and therefore, "it is our job to impart knowledge so they can make better choices when they actually have to make their choices and purchase their own food." Case 4 outlined her school model as it related to schools and childhood obesity:

> Yes, the school has to model the behaviors that they want the children that attend the school to do. Our school has mindfulness and PE physical fitness daily because we believe in a Whole Child education. And, in addition to our snack practices, our meal practices are in alignment with what we teach and that is healthy eating. The kids are supposed to bring water bottles to school every day. When we have snack time, we encourage families to bring in health snacks, and our school provided meals that are healthy. We make it a point to teach that not just in science, and health, and PE, but it's just a whole . . . it's part of the whole curriculum . . . it's interwoven in the whole curriculum at the school. I can think of five kids and they were far heavy when they started at the school, and as they've been indoctrinated into the belief system and the practices of the school, they have far less of a weight problem today than they did when they started.

Participants' direct answers showed that educators held certain beliefs about childhood obesity which were characterized as "it is a definite problem in today's society" and that they had "witnessed obesity in their schools." Likewise, their respective schools and school systems also had different practices and policies as it relates to childhood obesity. As Case 3 and Case 4 both shared, health, nutrition, exercise, and wellness were all initiatives promoted and supported at the school level. Each had borne witness to students showing health improvement as well. Case 8, who happened to have the most educational experience, also had experience with obesity in the classroom and in school, but said that the schools she worked with had more of a priority on academics.

Building relationships. Participants were asked open-ended questions about their classroom, care, and relationships cultivated between students. All cases had in common their belief that building student relationships and showing care to students had to begin with

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the initial student/ teacher meeting in order to achieve any goals or initiatives for the school year. Case 2 stated that relationships begin at the door on the first day of school. Likewise, Case 5 said that she has her students from freshman to senior year so they have the chance to get to know each other differently and create sustaining relationships. When asked about their belief of the importance of caring in their work, Case 4 said that she makes sure her interaction with students are always positive. Regardless of the child, she believes that the interactions with students directly model the philosophy of the school where she works. In her school setting that philosophy is "whole-child, strengthening the character, and preparing students to be resilient, happy and well adjusted." Case 4 stressed it to be very important that all interaction from adults to the children support the mission of the school. She furthered that the adults in her building have to look beyond academics to make sure those goals are achieved. Case 7, also an elementary school educator, noted that inclusion was important to building relationships and showing care in her classroom. To start the week, she has her students go around and discuss what they did over the weekend and to share one good thing that happened. Case 7 said that she also participates because she wants everyone to feel they are a part of the conversation.

Like the elementary educators, the educators with middle and high school experience also believed that relationships were of utmost importance and had to begin early. Case 8 discussed that she built the student/teacher relationship based on high expectations, and this started on day one with all of her students. "It didn't matter what they look like, what size they were, what language they spoke. When they came into my classroom, the expectations are very clear. No matter who they were, wasn't gonna make a difference [with me]." Case 1 declared that care and relationships were really important when working with students. He

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said, "it's hard to really teach anyone if they don't trust you. Forging the relationship first opens them [students] up to knowing that you care about them, and you just want what's best for them. It becomes easier to teach them along those lines." While Case 1 also acknowledged that it is easier to build relationships in his boarding school setting because the adults live among the students, the other participants did not say that it was more difficult to create relationships within their settings. Case 6 spoke about the relationships she has with her students, saying,

> to be a good educator, because we have been entrusted with other people's children, we have to be cognizant of that and treat those children as if they were our own children. Best practice is to develop a working relationship with your students, making sure you nurture your students and never harm your students.

Case 5 also spoke about creating an atmosphere and classroom culture of care from the very beginning. She stressed that she shared with her students that her room is one free of judgment and everyone is human. Case 5 also noted a difference from the other participants when she noted that she can grow her relationships with her students due to the fact that she teaches in the Arts which allows her the opportunity to have students for multiple years. Case 5 stressed that giving and expecting respect was also imperative in creating that culture and growing relationships. She continued, "I find that when students know you care about them and you care about them more than just the time you see them in your class, I think that facilitates a mutual respect there."

Teachers create the classroom relationship. All participants were asked to give me an idea of what it looks like to see them interact with students—both obese and non-obese—in their class. The second part of the question was, "What do you do to create and facilitate the teacher-student relationship with all students?" For example, what would the teacher hope for the student to experience while in that teacher's classroom and what would they

want the student to take with them once they leave? A consistent theme among all eight participants was the words, "family, community, conversation [lots of talking], movement, hugs and high fives, and respect." Having not been able to physically observe the classes, participants were asked to elaborate and provide examples of what they meant. Both Case 6 and Case 8 stated that in their case, you would see the teacher face-to-face with students so they know the teacher is on their level and not trying to assert authority over them. Similarly, Case 7 stated that she even arranges her classroom so that students are seated in a way such that she can walk through her class and stop to have an actual conversation with each student. Case 3 also described her classroom as physically designed to foster collaboration and conversation between students and the teacher. In describing her classroom, Case 5 declared her classroom to be non-traditional without desks, books, and music being played. In addition to the physical layout of her classroom, she also stated, "you would see teamwork. You would see confidence building. You would see them [students] having fun. You would see me doing a lot of personalized learning. I don't sit at all. You would see organized chaos." The participants explained the visual of what a caring classroom looks like to them and the way they represent that environment to their students. Case 5 also included a point that

> You may not be able to actually see this, but I make sure my classroom is a judgment free zone. I let my students know that I am here to listen to them and that I'm human, just like you. I find that when students know that you care about them, more than just the time that you see them in your class, I think that facilitates a mutual respect there.

A final quote from Case 1 ties up the common themes: "You would see that you're doing things to look out for their best interest." From the data provided by teachers, this is how participants perceive themselves to express care in their classroom setting with all students.

Perceptions of Successful Care are Student Driven. Participants were asked, "How do you know if the actions you utilize to create and show care are truly effective and have

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reached students?" Each participant spoke specifically about actions from the students that let the teacher know the care was received and was now being reciprocated. Case 3 surmised that she is aware she has fostered a caring environment when her students consistently speak to her and share information about their lives in and out of school. Case 7 had similar thoughts as she shared that she knows her students know she cares when they share their life with her. Case 7, along with Case 5, also described a "certain look in their [students'] eyes and on their face" when they see the teachers. Case 5 also spoke about her students thanking her for teaching them a new skill or to something as small as "saying good morning and smiling at me in the hallway between classes. I feel like I've reached them then." Case 5 and Case 4 also discussed when care is received by the students they can tell the care is being returned when students seek them out for hugs and conversation. Case 1 said that the care relationship has been established when he notices students' trust begins to deepen. He continued, "when they talk to you about life problems . . . any of those things, when they talk to you more than just about what subject you teach, I think you've made an impression on them." The common theme which emerged on care was that when care was received by the students, the students' attitudes and behaviors changed. They sought out their teacher more and made it a point to be in their presence, talk with them and form a connection. The teachers knew their students received the care, and returned it, in actions.

Barriers. During the school day with the duties teachers are called on to perform, participants were asked to speak on any barriers they felt, witnessed, or perceived that may hinder the caring environment they try to establish in the classroom with their students. The themes that emerged were convenience/easy access of food, time during the school day to fit everything in, outside influences (parents and peer groups), and limited opportunity. Upon

deeper analysis of transcripts, it became apparent that respondents felt very strongly the limitations they encountered were due to their roles as teachers. For example, Case 5, in speaking of perceived barriers, noted that when students leave her classroom, the barriers to what she is building in her class begins and she feels as if,

> What can I do about it? You know, I don't make the rules as far as how often kids get outside or how often they take PE, or even what they do in PE. I can't control what they do when they leave school. It's not like elementary school.

Case 3 contributed that she noticed most barriers to creating care and sustaining classroom practices in health and nutrition were also from factors outside the school. In her opinion, she would do everything she could to build relationships; teach health, nutrition, and wellness; and hope that her intent would be felt and trickle down into the home lives of her students. Case 7 also felt as if most barriers to her classroom practice were from outside as well. She stated,

> I had one student, in particular, and was overweight when she was in my class. The family dynamic is very, very strange. She was very shy but she wanted to talk to me all the time. We had a good relationship. Once she (the student) left my class, her weight got worse. She just graduated from fifth grade and she's pretty large, and I feel like she's doing that, because, again, there's got to be something, issue, with her relationships at home.

Case 8 shared that within her experience she has seen how children are no longer able to go outside like they used to. Referencing her Title I experience, serving in a school that has a high population of economically disadvantaged students, the children lived in neighborhoods that were not conducive to going outside because the neighborhoods they could afford to live in were not the best for children to go outside and play due to crime rates. She noted that she had parents share with her that they did not feel it was safe for their students to be outside, or even walk from the bus stop in some instances due to the neighborhood in which they lived. She further shared that parents had told her, ". . . we live

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in neighborhoods where our children can't go out. But, it's where we have to live because it's all we can afford." In Case 8's opinion, that was a barrier to what was being constructed during school hours because once school was over, she could no longer help the student. Case 8 also contributed that she had witnessed students and their families choosing unhealthy versus healthy food based on convenience. Again, based on some of her students' economic circumstances, Case 8 felt as if this was a barrier as the problem was larger than herself.

Other barrier themes that were discussed by participants were those of time in the school day. Case 8 also noted that schools do not make teaching children about health and nutrition and training teachers to create relationships with their students a priority. She stated,

> They're trying to get so much curriculums in a day. And the bottom line it's just for reading and math, and that's what they want us to do. They just do reading and math all day. We need to revamp our schedule, Teachers can revamp their schedules, give them a block of time and here's what you got to get accomplished but you still need to get 30 minutes (of activity) as well. But they don't make that a priority because they are pushed by the curriculum they have to teach. I think that we're not thinking about the Whole Child. We're thinking about what the state requires. And we're only focusing on the data.

Case 7 spoke about time as a barrier as well. She said that nutrition used to be discussed in the classroom between teachers and guidance counselors. With the new school year, she clarified this dynamic would change and it would be the responsibility of the teacher only. She felt this would be a disservice to the students because curriculum is not focused on nutrition and nutrition should play a bigger role in schools. Like Case 8, Case 7 feels pressure to focus on reading and math, "just teaching to the test all the time." In doing so, Case 7 felt schools have lost focus on making students well-rounded individuals, aside from performing well in reading and math.

Case 7 also commented that within her school schedule there is a place in the schedule for recess. However, she said that on days that students have PE, they are not

allowed to take the time for recess but she does because she believes in giving children a "brain break." Case 7 stated that the recess time period is very strict. For example, "you get 30 minutes. If you are out for 35 minutes, it's a problem."

Lasting Impressions of Care. In accordance with teachers' perceptions of nutrition and exercise as well as caring relationships they hoped to create in the classroom, participants were asked what lasting effect they hoped to have with their students and how they wanted their students to remember them, as the caring teacher, once their time with them was over. The codes created were knowledge, options, and genuine care and confidence.

Knowledge. When discussing knowledge, Cases 1, 2, 3, and 6 mentioned they wanted their students to know curriculum knowledge, but they also wanted their students to feel they have knowledge of life lessons as well. As Case 1 expanded,

> what we do (in class) in much bigger than it seems on the surface, whether it's a math class, practice, or English, it ties into life. Life lessons and life skills. I want them to take away that it isn't the subject, but how it can have an impact on their lives.

Case 2's response echoed the importance of content knowledge but he also wanted his students to have learned something that his behavior had demonstrated as well. Case 3, whose primary teaching job was nutrition and health, stated one of her sole purposes was to teach students healthy cooking alternatives. She shared that she wanted her students to master not only the curriculum of healthy cooking but to apply it to their everyday lives. Case 6 also shared that when she was responsible for teaching nutrition and health, she wanted the curriculum she taught to become a mainstay in the students' lives, even after the class was over.

Options. Another theme that appeared in common was that of wanting the students to witness care and for that care to appear as having options. Case 5 summarized that for her students, she wanted them to know something new than from their previous circumstance. She stated, "I want them to not be afraid to try something new. It won't kill you and you may even succeed a little bit. Do not be afraid of the unknown and try new things." Case 3 also talked of students having options as a lasting impression. She contributed,

> I wanted them (to know) that they had options outside of where they lived. So for students who lived in the rural area, it was just a thing (for) students to graduate, get their diploma, and then work in the area. They work in the area where they grew up. They didn't really see any opportunities outside of those walls. So I just wanted to provide students with opportunities, and to let them know they have those opportunities.

Genuine care and confidence. The last theme that was presented among the participants was that of genuine care and confidence. Case 8 elaborated on this theme by saying she would like for her students to remember to follow their heart and to be confident in their decisions. To do that, Case 8 felt that is teaching students to be genuine to themselves. She continued,

> Kids gotta know you care first. They gonna see that in the way you look at them, the way you interact with them. That's part of humanity in my opinion. That's part of the human element we have kind of lost in schools. We should be the constant. We should be the consistent factor. So, I want them (my students) to know how to reach out to others, and to truly be guided by what is right in their hearts.

Case 5 expressed that no matter how much a student loved the subject she taught, if the student leaves without the feeling of care, confidence, and buy-in to what she as the teacher has created, the experience can be lost. She concluded, "if I cannot create the buy in, they are not going to enjoy anything and their brain is now shut off. Everything that I did, or tried to do, is now for nothing." Case 7, in her response, agreed by saying if her students did not think she cared, then she would have really taught them nothing. Case 6 also contributed

by stating her one takeaway to all of the students that she had taught would be for them to remember that she genuinely cared about, not only their (the students) education, but also about them as people. Case 4 also elaborated that she would want her students to think of her like a parent. "I would want them to remember the interactions. It's not all business, it's more like a family. I hug my parents, hug my students, greet them, very warm with them, and that's what I would want them to remember." From what the participants shared, they would like for their students to remember and carry with them a feeling of care.

Member Checking

Each case participant went through the process of member checking. This is to give validity to the study by offering participants a chance to clarify their initials answers as well as provide feedback on new thoughts and ideas, which may have surfaced after the initial interview, had concluded. For Cases 3, 5, 6, 7 and 8, the first round of member checking occurred during the initial interview. After the interviews were given, these participants wanted to hear back the original recording. In doing so, the five participants thought up other things they wanted to add. According to Case 3, she had forgotten about some of her district initiatives and subsequent classroom activities. She asserted, "I can't believe I forgot these important details. Like teaching Teen Living and teaching nutrition was so important." Similarly, the other Cases had moments after listening to their audio recordings in which they provided extra information to their initial thoughts. None of the five cases, in those moments, clarified nor changed what they initially provided.

After the recordings were transcribed, each case was given their copy to continue to the member checking efforts. In those individual conversations, participations were asked to make any notations with the intent to clarify, add or even subtract thoughts based on the

relevancy of what they read. Case 5 shared that she did not know she was so intense. When I asked her to clarify, she noted that she felt strongly that the students knew the staff cared but she was not aware that it came across so strongly that the families knew the care was present as well. When I asked was that her intent, she noted, "of course. It's actually good that I feel so strongly. That means no one can miss what I'm giving out [care]."

Case 1, 2 and 4 were the three subjects who did not wish to listen to their audio after the first interview. However, they did agree to review transcripts afterwards, which was the member checking process to determine accuracy and validity of the answers provide. Case 1 agreed with his answers. He did become thoughtful when asked about the student he spoke about during his initial interview. He shared that again, the student did come back overweight, but this time not as much. When asked if this changed anything from the first interview, Case 1 was silent a moment and shared, "no, not really. I guess we just have to support a little more and a little harder." Both Case 2 and 4 also confirmed their initial interview information. Case 2 summarized that he was happy with the way his answers were transcribed. Case 4 shared that even though her transcript was short, there was not an abundance of elaboration provided, she felt strongly that a teacher would be successful if they had true, meaningful relationships with students, even the ones "that they teacher doesn't want to show up to class".

From the member checking follow up, the interview weas verified and validated. In some cases, information to reinforce initial ideas was provided to strengthen the thoughts and feelings presented originally. What this shows me is that each case was confident in their experiences and subsequent thoughts and reflections on those experiences. This also alerts the researcher that the themes found were accurate according to the data.

Summary of Findings

This chapter clearly supports the rationale of care and Whole Child education as it relates to the teacher and student relationship in the classroom. The CDC also provides literature that shows obesity is a true problem in children (1996, 2004, 2011, 2013 & 2014). This research supports care and Whole Child while acknowledging the problem of obesity in schools. Specifically, the participants discussed the importance of building strong relationships in the classroom from the very beginning in order to achieve success or 'buy in' with different classroom initiatives. The participants were able to identify the role that caring relationships played in their own individual, professional practice with students. The educators were also able to speak about barriers they encountered when trying to build relationships with their students in the classroom. From the participants' voices, they care about all students and do not show more or less care because a student is obese. What the participants of this study do is create an opportunity for their students to be successful, whether it is finding out student needs through classroom conservation or following school initiatives designed to help students become better in making decisions. As teachers are aware of the obesity problem in childhood, they are more likely to become role models for their students in health and wellness; however, it is a reactionary measure, instead of a proactive one. The teacher participants are also going to create physical environments that will help obese and non-obese students feel better in their classrooms. They are more likely to do this once they know a student is obese than to do it in general or just 'because'.

Conclusion

The purpose of this study was to assess how teachers' awareness of the risk factors of childhood obesity affected the relationships that educators created with students. This chapter

provided results from the data as presented from first-person individual interviews with eight

diverse educators. Based on data collected by answers from the educators, there is strong

evidence to support the power of relationship building with teachers and students as well as

equipping teachers with more childhood obesity awareness. A deeper analysis of the data

findings, their corresponding implications, and suggestions for further research are presented

in Chapter 5.

Chapter 5: Discussion and Conclusions

As discussed in Chapter 2, the current literature provides a great deal of information concerning both childhood obesity and care as it relates to the student-teacher relationship in school. The Centers for Disease Control and Prevention (CDC) has given us data that in the United States, the percentage of children and adolescents affected by obesity has more than tripled since the 1970s. The CDC also tells us that in its most recent data (CDC, 2018), nearly 1-in 5 school-age children in this country are obese. The role of a teacher is unique as it provides an opportunity to have a huge impact on students. As children often look up to their teachers, they also watch and observe how the teacher handles and manages their own lifestyle choices (CDC, 2004). Dr. Jarrett Patton, a pediatric physician working with Rasmussen College, suggests that teachers can, "use [their] expertise as [educators] to reinforce healthy habits in the curriculum regardless of subject matter. Teaching health and nutrition throughout the day can help children to live healthier lives at home" (Patton, personal communication, September 29, 2018).

Nel Noddings, regarded as one of the founders of Care Theory, tells us that when teachers are able to create caring relationships with the students in their class, they are able to achieve much more than when those relationships are not there (Noddings, 1984, 1988, 1992). Cavanaugh (2012) expands on Noddings' theory of care and explained when school systems are able to create a culture of care where values, beliefs, and practices are in place, students feel safe and begin to both engage and contribute to learning practices that help them become better overall, far beyond academic standards.

However, there is little to no current research on the teacher's role in helping to eradicate childhood obesity or how the teacher's knowledge of the risk factors of childhood

obesity affects what occurs in the classroom. The purpose of this study was to investigate how teachers' knowledge of childhood obesity and the corresponding health factors could have an effect on the relationships they create in the classroom with obese students, as well as their classroom practices. In order to provide focus and structure for the research, the following primary question and sub-questions were developed and utilized:

- Primary Research Question: What is a teacher's awareness of childhood obesity risk factors and health concerns?
- Sub-question 1: How do teachers perceive students with obesity in their classrooms?
- Sub-question 2: How do teachers view the role of caring in the work they do with obese students? What behaviors do they exude?
- Sub-question 3: What are the teacher's perceptions of the barriers to solving the obesity epidemic and building meaningful student relationships in the classroom?

This chapter analyzes the findings of this study that came from first-person interviews with eight educators. Finally, this chapter makes recommendations for future research on the subject as well as provides recommendations to different stakeholders such as school districts or higher educational institutes, which provide teacher training. I acknowledge limitations that existed for this study. I also provide implications for future work in the field. At the conclusion of this chapter, I reflect on my final thoughts as it relates to this qualitative case study.

What is a teacher's awareness of childhood obesity risk factors and health concerns?

Awareness of Childhood Obesity. Responses given provided a strong indication that participants were aware that childhood obesity is a problem in society. When asked what the participants knew about childhood obesity, seven of the eight respondents acknowledged that they knew childhood obesity was an issue and a problem of high importance. Even the one educator who did not respond as confidently about his knowledge of childhood obesity stated that he knew it was a problem and that it was of a serious nature. As the CDC states that childhood obesity continues to increase in the United States (CDC, 2018), teachers are correct in their thoughts that childhood obesity continues to be an issue. The participants felt childhood obesity was a problem as they spoke about children's sizes becoming larger as the students became more sedentary, with poorer eating habits. Case 8 directly acknowledged that the convenience of fast food was something her students and their families dealt with. Working in a Title 1 school (a school that has a higher percentage of students on free and reduced lunch than not) Case 8 was very concerned about her students and their families not getting proper nutrition based on the ease and cost of accessing fast food.

Educators were also able to discuss their knowledge of the health concerns that students may have who are obese. For example, they were able to speak on students having trouble participating in activity if they were obese. Likewise, participants spoke about how they were aware that obese students might be unhealthier than their non-obese classmates. From the answers provided, it is safe to say that teachers are aware of childhood obesity and the health concerns. However, only two participants spoke extensively about having knowledge concerning the actual risk factors of childhood obesity. Both acknowledged and agreed that childhood obesity has many different risk factors. The two participants spoke about sedentary behaviors, not having a safe place to play and fast food as a primary source

of nutrition as being some of the risk factors they were aware of. The other participants noted issues about students not having enough time to move and play during their school day. It is important to note that overall, the study participants did not mention their being confident in the area of the risk factors that cause obesity. Research literature provided by the University of North Carolina at Chapel Hill (2014) and Temple University (2010) have pointed to teachers having a powerful role in the fight against childhood obesity as the more they (teachers) are educated in practices of obesity prevention, they more can then model those behaviors for children and educate them as well. In January 2018, the CDC explained that schools are a priority setting for preventing childhood obesity, as students spend 6-7 hours a day in school. Hence, if the teachers have knowledge of childhood obesity, risk factors, and wellness, their role as well as being involved is of critical importance. Being in the position of an educator and having the proximity to reach students, as teachers become more aware of the various risk factors, they are in a place where their classroom practices and activities can help students work against those factors.

Knowledge of obesity as it relates to their job. The participants believe it may be the case that educators are aware of obesity not only due to their position in a school system and working with students, but also based on other experiences that they have encountered. Knowledge of childhood obesity is not restricted to being learned in schools or by communicating with students. Teachers can gain this knowledge by observing the world around them. Teacher training/professional development could increase not only their knowledge, but allow the teacher to grow in the understanding of childhood obesity and the effects that it has on children. Teachers basic knowledge, however obtained, could expand and become more focused on what this looks like in students and how they can actively serve

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as both a proactive and reactive change agent when they have obese children in their classroom.

Obesity related concerns. The case could also be made that the educators' knowledge neither grows nor deepens based on their limited experience and interactions with obese students in their school. While all participants acknowledged obesity, none had borne witness to any traumatic experiences with obese students such as bullying, teasing, or excessive absences. Schwimmer et al. (2003), Ogden (2004), and Geier et al. (2007) speak about obese students experiencing more days missed from school than their non-obese peers. It is important to note the study participants did not speak of these problems being an issue they had witnessed with obese students in their classroom and school communities. Of the eight cases studied, none of the participants spoke about noticing any trauma related to bullying or teasing experienced by students. Also, in opposition to the literature presented in Chapter 2 by Schwimmer et al. (2003), Ogden (2004), and Geier et al. (2007) teachers did not confirm negative effects that obese students experienced in schools. Case 1 pointed to support, not teasing, of his obese student's peers. Case 6 acknowledged that her obese students had a positive body image but did admit the perception could be different if her school was not in a southern, urban area. All of the teachers had an awareness of childhood obesity and the corresponding health factors. However, none of the teachers, when asked, shared that the negative effects of being obese had manifested with students in their classrooms. This point leads the researcher to believe that as the literature dictates, there are many cause and effect factors of obesity. Similarly, not every student that is obese will experience the negative effects. While the literature in Chapter 2 points to a prevalence of negativity (Bethell, Simpson, Stumbo, Carle, & Gombojav, 2010; Carey, Singh, Brown, &

Wilkinson, 2015; Krukowski et al., 2009), within the confines of this study, that data does not. It may be that participants are more focused on other school and educational initiatives that unless the effects are such that it demands attention, teachers have chosen to put their focus elsewhere.

How do teachers view the role of caring in the work they do with obese students? What behaviors do they exude?

Teachers as role models. Within this study, the participants believed it to be the teachers' role to serve as a role model concerning nutrition and exercise for their students. The teachers, who represented grade levels elementary through high school, felt that as a teacher, they should model the behaviors they wanted their students to exhibit. It is important to note that teachers felt if they wanted students to be more active during the day and make healthier food choices while at school, the participants felt they should do the same.

As Fox et al. (2009) shared, teachers and schools have the power to become a strong influence on students' food choices and habits merely based on the time that children spend at school; the participants of this study felt the same. As Case 3 noted, once teachers had to promote healthy eating and vending machines were refreshed with healthy options, the overall culture of the school shifted and obvious changes were noted among the students. Being able to promote healthy lifestyles and demonstrating movement and healthy eating habits among children have also shown decreases in obesity percentages in multiple studies (Flores, 2005). Interventions that occur on the school level with the goal of promoting health and wellness to students as demonstrated by teachers are successful (Finkelstein et al., 2004; Haynes-Maslow & O'Hara, 2015; Te Velde et al., 2008). In addition, promoting healthy

lifestyles and demonstrating movement and healthy eating habits among children have also shown decreases in obesity percentages in multiple studies (Flores, 2005).

According to the Action for Healthy Kids initiative, in order to have healthy schools, healthy role models are an integral part.

> When students see staff practicing what they preach, they are more likely to want to practice those healthy behaviors themselves. It is important to for all school staff, whether or not they are members of the school health team, to practice healthy role modeling to support and encourage healthy habits among students. (Action for Healthy Kids, 2015)

Similarly, Esquivel (2016) found that even at the preschool, Head Start level, when teachers modeled healthy behaviors such as eating fruit, moving more, and being active during the day, the students would follow suit. Likewise, research conducted by Dudley, Cotton and Pelatra (2015) emphasize that when teachers are actively involved in school-based health interventions, healthy habits are established among the students. Case 4 spoke about health and wellness being an entire school initiative. Once it was interwoven in the culture of school, she noticed that students who had weight problems tended to progress and weight became less of an issue.

As Held (2006), Noddings (1998) and Tronto & Fisher (1990) explained, modeling is one of the primary dimensions of caring. As educators are concerned with the growth of their students, it is important they model the behavior they want to see in their students. As an educator, and a role model, it is important for teachers to know how to set the tone of the classroom and model behaviors they wish their students to mimic. Researchers are adamant that teachers have to show in their daily behaviors and actions with students exactly what it means to care (Flinders, 2001; Noddings, 1998). In being a role model, that practice would allow teachers the chance to show care to the students and for students to learn what

authentic care looks like. The teacher should be able to create opportunities where they do not tell students they are invested but consistently model those behaviors. As dialogue is also a part of care (Noddings, 1984), teachers should stay in conversation with students in order to get pertinent, first person information that they then use to make student-drive decisions in the classroom.

As teachers act in loco parentis, teachers are often the caregiver to students. One way a teacher can show they care for their students is to model the behaviors they wish their students to emulate (ASCD, 2008; Martino, 2009; Lumpkin, 2008). The implications of modeling behaviors being equated to a teacher's level of care is immense as the teacher, first, has to be aware of what this means. If a teacher wishes to be perceived as one that cares for their students, they must have a frame of consciousness in where their actions show their students how to make the best, healthiest and effective, decisions for themselves.

Case 3 acknowledged that when her school had all faculty and staff on board with health and wellness, it was obvious the importance of the initiative throughout the school. She also shared the positive differences she witnessed with her students once the school began to implement positive practices. The literature supports the participants' outlook that when schools model positive behaviors in health and wellness, the effect is filtered down to the students (Bassett et al., 2013; Chriqui et al., 2014; CDC, 2018).

All participants agreed strongly (4 or 5 on the Likert scale) that they believed it was a teacher's role to model health and nutrition for the benefit of their students. Findholt et al. (2016) stress that teachers are important role models for their students and can have a positive influence over children's eating behaviors within their own behaviors and belief about nutrition, health, and wellness. As Case 3 and 7 noted, once they implemented healthy

practices, they could see their students begin to do the same. Case 5 believed that teachers are important role models. However, she also noted that sometimes, "I know I'm not a good role model because when my kids come to school with donuts and they offer one to me, I always say, 'yeah.'" This is interesting because while participants feel strongly about the importance of modeling health for their students, they acknowledge they do not always serve in that position.

Showing care in the classroom. Establishing a culture of care in the school and in the classroom was a prominent theme for each participant. Every educator spoke on the extreme importance that care played in creating the classroom atmosphere as well as the ability to relate to their students. As Noddings (1984) expressed, care is an effective classroom practice when teachers are able to show care to their students and students know the care is being given and show it back—an act called engrossment. When the participants were asked what they would want the students they taught to remember after leaving their class, in addition to two of the participants saying content knowledge, overwhelming the consensus was the educators wanted their students to know they cared about them. In order to exhibit engrossment, Noddings (1984) stated that the care has to be received by the student and reciprocated. When asked how participants knew the care was successful and the relationship was established, participants gave several responses. Mentioned were instances such as it, 'was an act performed by the students', 'increase in communication and sharing', or you just "know." Noddings also shared that when the care is present in a reciprocal relationship, the teacher has made a lasting impact with students. As Noddings detailed the reciprocal relationship of care, she also explained how engrossment, or the act of getting to know someone on such a level that the care presented is genuine and stemmed from that

process (1984). Noddings continued that engrossment was necessary for 'caring because an individual's personal and physical situation must be understood before the one-caring can determine the appropriateness of any action' (1984, 4). As Noddings detailed that engrossment in caring shows that someone cares enough for to take the time to learn about the other person, the cases in this study strongly emphasized that this begins on day one. As Case 2 shared, he felt his students had to know he cared from the day they came into his classroom and even after they left. Based on the teachers' responses when asked how they know the care was complete, successful and received by students, Noddings' definition of motivational displacement was described. Motivational displacement becomes apparent when the carers' behavior is determined by the needs of the person that is being cared for (Noddings, 1984). The cases shared that not only do they treat their students as individuals and make a day one effort to know them as such, but they also know the care is successful by the students taking the initiative to make an effort to give acts of care back. Noddings would describe this relationship as the care now being completed in the other (1984). When speaking to each educator, it was recognized that building, having, and maintaining caring relationships with the students was very important. Teven (2004) tells us that when students perceive the care from their teachers, teacher creditability increases from the student's viewpoint. Therefore, it could be surmised that if teachers show care to their students, the students are more likely to follow their lead when teachers are a positive influence regarding health and wellness. As teachers show their care through modeling positive behaviors, the result would be students acknowledging and receiving the care and begin to pick up the behaviors that their teachers are presenting. As reported by accounts from participants, teachers believed that they are in a position to be role models for health and wellness.

Participants discussed that being a caring teacher was very important as it helped them to be on the level and gain trust with their students. In accordance with Teven, teachers should leverage that trust. By doing so, they could help students achieve goals associated with healthy lifestyles and wellness. As Noddings' (1984, 1992) demonstrated, caring should be a goal of education as well as a fundamental aspect of education. Within the teacher's answers, it was evident that teachers supported this notion as all participants stressed the importance that showing care to their students had in their roles as educators. However, what was missing from the responses of the educators was the mention that their care was contingent upon students returning the care. The stress was on children knowing the teacher cared for them, but it was not necessary that students returned the act of care. In the context of Care Theory and Whole Child theory, this viewpoint of the teachers support that it is necessary to know their students beyond academics but it is not necessary for students to show the teacher that they, in turn, care for the teacher. The implication is that teachers will show care to their students because the teacher feels that is an important part of the educational process. While participants acknowledged they knew when the care they gave students were successful based on the action of the students, Noddings' care theory was contradicted because teachers did not say their care was successful based on actions of the students. Care Theory can help us understand the importance and need of care in the classroom. It can also help explain the way a classroom dynamic may look between teacher and students. While many of the answers given by participants in this study are prime examples of Care Theory, there are points such as the reciprocal care being necessary that do not appear to be an important factor to teachers.

Undoubtedly, some of the most important findings came from teachers when they were asked about the role that care had in their job position and tasks. Again, teachers were very specific when discussing care and being a teacher who showed care to students. While the participants did not specifically mention students with obesity as individuals for whom ' they needed to show care, they said as teachers it was their duty to show care in every aspect of their teaching process. Once the teachers were able to establish relationships in the classroom with their students, none of the participants said they had issues or problems with their students. Case 6 best summed up when she said, "students have to know you care".

How do teachers perceive students with obesity in their classrooms?

Obesity in the classroom as a minor issue. The majority of teacher participants were able to acknowledge that childhood obesity is a serious problem in our society. All participants acknowledged that there were obese students in their respective schools and classrooms. Teachers had self-perception as being able to understand that the issue is not only serious but there are many factors that influence and cause obesity. However, the participants did not describe showing or seeing bias given towards obese students. Participants demonstrated more concern of showing care towards their students and being able to address their various needs than to have a focus on obesity. In concurrence with the existing research that a fear of the increased pressure of standardized testing would lead to a decrease of physical activity in schools as courses and activities not deemed academic would be loss (Cook, 2005; Davidson, 2007; Ravitch, 2010; Winter, 2009), participants noted and agreed that not only had they noticed this in their school and classroom but they also contributed it as a cause of childhood obesity. Case 6 and 8 specifically noted that they had to give more attention to the standardized tests their students would have to take then to the

obesity that some of their students had. As stakeholders process this part of the research, it is important to ask what is important in schools and where is the value added when addressing the needs of the students.

Academic success of obese students. In contrast to literature which states that obese children are not as successful academically or socially in school as their non-obese peers (Griffiths et al., 2006; Lumeng et al., 2010; Sweeting et al., 2001) participants of this study had not witnessed many of the ill effects that childhood obesity may cause. For example, the literature tells us that children who are obese suffer from frequent absenteeism, bullying, and low levels of self-esteem. In contrast, as Case 5 shared, low self-esteem and body consciousness was not apparent in her obese students. She shared that her students were very accepting of one another in her dance class when choosing costumes for recitals and in general, in class. She did reflect that this might be different in a geographic area, which was neither the South nor a heavier minority population. In fact, the participant noted that her obese students were actually less body conscious than she was as the teacher of the class. Case 1 also had a viewpoint different than that of the existing literature which states that obese students who are teased at higher rates are less likely to participate in organized activities than their non-obese peers (Greenleaf et al., 2008; Greenleaf & Weiller, 2005; Moore, 2009; O'Brien & Hunter, 2007). Case 1 discussed how the obese student on his campus had major support from his peers when he wanted to play football for the school. Case 1 also explained that when the obese student gained weight, it was his peers who cheered him along to lose weight as opposed to teasing or bullying for the gain. One participant did have observations that coincided with the research concerning underperformance of obese students compared to their non-obese peers (CDC, 2014; Puhl &

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King, 2012; Schwimmer et al., 2003). Case 3 shared that when her school passed down mandates designed to increase health and wellness, her students tended to be less sluggish, more alert, and performed better in class.

While different researchers have given us many different ways that obese students may be at a deficit in school, the findings from the participants did not demonstrate the negative effects of obesity that the literature describes. While participants acknowledged that obesity was bad for students and may have negative consequences, participants did not acknowledge they had ever witnessed obesity-related incidents with students. Based on participant data, the perception of obese students in their schools and classroom is that students are obese, but they do not have the issues of bullying, excessive absenteeism, or other problems the literature has discussed.

Many of the studies quoted in the literature had a strong voice to the fact that obese students faired much worse in schools than their non-obese peers. Participants' interview responses were quite contradictory. While their responses, again, noted familiarity with obese students and the health effects associated, teachers had not experienced the negative effects as it related to the classroom. While research addresses the negative physical and mental effects of obesity, the case participants in this study did not provide agreeable data. This can be interpreted as what the obese student experiences does not manifest in the classroom under teacher supervision. It can also be interpreted as the students in the schools noted do not experience negativity or that the negative experiences did not happen in higher grades. Another interpretation could be that teachers may note obese related bullying but sees it only as light 'teasing'. Further research and observation would be needed to make a solid conclusion on the reason between the discrepancy of literature and this study.

Reactionary measures from teachers. The participants of this research study did not differentiate their caring behaviors between obese students and non-obese students. While each participant mentioned they built relationships with all of their students, Case 4 and 8 spoke of the importance of educating the Whole Child and not just focusing on showing care to select individuals. The Association for Supervision and Curriculum Development (ASCD) tells us that within the Whole Child framework, a teacher is not only conscientious of a student's needs beyond academics, but also works toward addressing those needs (ASCD, 2007). From the participants' viewpoint, it is important to show care for all students and to make sure student needs is addressed. The teachers noted that one determines those needs by building relationships. If a student were obese, the participants would exude care by creating physical classroom environments that promote movement. Case 3 stated that she would make sure she kept apples, and not candy, on her desk. However, just because a student was obese did not mean that they would receive a different level of care than the other students. It can be inferred that teacher practices are often reactionary and not proactive. As Case 3 fully explained the policies in her school system, teacher practices had to change (based on mandates). Teacher practices involving modeling of healthy practices were reactive based on what they were told to do. As initiatives were priority and became mandatory from the district level, teacher and school behavior changed to reflect so. Therefore, this analysis points to what is cared for is nurtured and implemented by stakeholders. Case 6 discussed the setup of her classroom for students, which was in a proactive manner, designed for students to move about. However, as Case 6 discussed other activities in her classroom, she described more situations, which could be viewed as reactionary. For example, she expanded her thoughts and shared how when the school decided only physical education teachers would

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teach health and nutrition, she began to implement parts in her class. It is noted that this was done in response to an initiative.

Participants were very adamant that they showed care to individuals and had the goal of meeting students where they were based on the needs of the students. The behaviors that teachers model for their students are based on the needs they know their students have. As Case 3 shared, when health and wellness was an initiative at their school, all teachers modeled health and wellness. Case 1 did not have health as a priority at his school. He stressed that as a coach, it was more important to act as a parent and make sure that he was a role model in all aspects of his students' needs.

Understanding of Whole Child. As the ASCD (2007) discusses Whole Child education, they not only stress knowing students but they dictate an education of taking all aspects of the student into consideration as their teacher. This translates into teachers being involved in a student's life inside and outside of the classroom. While two participants did speak and name Whole Child theory by name, none of the eight participants provided responses that defined actually what Whole Child is as ASCD (2007) dictates. The participants did not discuss ways to partner with parents, the community, and anyone considered to have a stake in a child's success as viable partners to create long lasting change. Similarly, Case 6 spoke that while she believes in the importance of being a role model, she knows 'there isn't anything I can do once they leave my class.' Likewise, Case 8 shared her concerns of where her students lived and how it was not conducive for outdoor play. In opposition to Whole Child theory, teachers were strong in their beliefs of educating the child beyond academics and paying attention to more what is going on in their life, while

expressing the limits of what they could do to help students once the student was out of their classroom.

Importance of knowing students. From the literature, each participant had in common with Noddings (2003) ideas, the importance of treating students as individuals and making the effort to know their students from the very beginning. Noddings (2003) speaks of allowing care to evolve from a one-on-one act to a culture of care. While shifting from the 20th to the 21st century, Noddings (2003) began to evaluate care from a different lens and focus on the culture of care in schools. Cavanaugh (2007) argued that in order for students to be successful and learn behaviors of success, care should be the culture of schools and not only relationships created by teachers. Within a culture of care, the focus would no longer be on high stakes testing, but on learning being student-centered and student-focused (Cavanaugh, 2007; Noddings, 2003). Case 8 agreed that testing was such a priority in her educational career that many things suffered because of that. She felt that if the pressure of testing could be taken away, there would be more time for teachers to reach out and connect with their schools.

The participants discussed their caring behaviors and how it extended into the classroom. When asked if observed what would be captured, participants spoke about the movement in the classroom by teachers and students, teachers being on the level of students, not talking down to them and showing respect, and as expounded on by Case 7, much teamwork and working together. The teachers painted a picture of not only relationship building but also having their physical classroom and activity reflect the caring relationships that teachers desired to build.

The participants for this study did not exude caring behaviors based on a child's weight alone. Each case spoke about the importance of caring for all students, helping them to be successful after they left the classroom, getting to know each student on a personal level, and creating an environment in which students could be successful. The findings derived from the data show that caring behaviors are not limited but are created and cultivated for all students.

What are the teachers' perceptions of the barriers to solving the obesity epidemic and building meaningful student relationships in the classroom?

Multiple barriers to enacting effective and long-standing change. Teachers recognized that there were many barriers when it came to implementing initiatives designed to help children become more active and healthier, as well as barriers to achieving other classroom and school goals. Worrell (2015) acknowledged that teachers note barriers to education include stress, poverty, and psychological problems. Other factors included poor academic achievement (Hair, Hanson, Wolfe, & Pollak, 2015), family chaos (Evans, Gonnella, Marcynyszyn, Gentile, & Salpekar, 2005), parents' mental health challenges (Engle, 2009), food insecurity (Winicki & Jemison, 2003), homelessness (Herbers et al., 2012), obesity (Taras & Potts-Datema, 2005), and a lack of afterschool supervision (Mahoney, Lord, & Carryl, 2005). The data showed that the issues teachers faced when building relationships and addressing the issue of obesity were the same. Teachers felt they were doing all they could to create the culture of care in the classroom, but as Case 6 stated, "I do not have control of situations when a student leaves me." Outside factors remain a concern as the participants shared that they were able to create relationships, model behaviors, and provide opportunities for movement and nutrition, but once students left them

(in the sense of leaving their class and/or leaving school) there was not much they could do to influence the students. This information suggests that while a teacher can have positive influence on students' lives, there are other factors that must be considered related to their lives outside of school. In accordance with Evans, Gonnella, Marcynyszyn, Gentile, and Salpekar (2005), participants noted that the obese students with whom they worked had difficult family, living, or monetary situations. As Case 8 noted, she saw more cases of obesity in her Title I schools (schools where the percentage of students on free or reduced lunch is high), but these situations were not unique to just the obese students. No matter the influence that teachers were able to exude in the classroom and school, the worry was about what happened outside of school. In order to enact effective and lasting change, stakeholders with a vested interest in children must be a part of solution. The responsibility cannot rest solely with teachers. The CDC (2017) refers to this as a community effort. As the ASCD tells us about Whole Child Theory, we know that the efforts and responsibility belonging to everyone, is a main and important component.

Testing and Academic Pressure. Several of the cases discussed the fear that obesity would continue to be a problem as schools increase the pressure of preparing for end of year, high-stakes testing. Case 7, an elementary educator, noted that recess time would be discontinued to prepare for tests. Case 8, an educator with teaching and administrative experience, noted that she had seen obesity levels increase in schools as levels of time to play decreased. Epstein et al. (2000) suggested that creating environments in which children could decrease sedentary behavior and increase physical activity would play an important role in a comprehensive treatment of obesity in children and help childhood obesity to decrease immensely. However, the research participants noted that while they strived to create a

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culture of movement in their class, they noticed that movement and deliberate activity

stopped in other areas of the school due to an increase of testing and other practices, which

prohibited students being active many times throughout the school day.

Lake and Townshend (2006) describe the obesogenicity of an environment as "the

sum of influences that the surroundings, opportunities, or conditions of life have on

promoting obesity in individuals or populations" (p. 262). Case 8 described situations where

students cannot go outside and play after school as well as situations during the day when

students were confined to certain areas without movement. Swinburn and Egger (1999) state

these environments are not conducive to healthy and active practices for children. The

participants of this study agreed by voicing that they felt students needed to move and be

active. Each case spoke on the fact they felt students were too sedentary during the day.

Health and Nutrition. Another theme in this study that surfaced was the barrier of

the lack of teaching health and nutrition in the school. Case 3 and Case 4 noted that teaching

health and wellness were woven into the thread and culture of the schools in which they

worked. However, Case 7 and Case 8 both noted that they felt health and nutrition

knowledge was lacking as part of the curriculum. In fact, Case 7 noted that in the new school

year, students would receive less education on health and nutrition. The responsibility would

be placed back on the teachers. The challenge would be finding ways to add this to an

already full schedule of teaching and other responsibilities. The fear would be the subject

would not be taught and the duty would fall to PE and Health teachers only.

School day. As educators, two of the participants acknowledged that within the

school day, there was other factors they needed to focus on with students rather than weight,

health, nutrition, and other issues associated with obesity. Teachers tended to focus and

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concentrate on daily teaching activities and other school, district, and state mandates. However, as one of the participants stated in Chapter 4, the interventions were more effective when mandates were passed from the top down and there were funds associated with it. As districts, schools and teachers decide what is important to them, those practices will take place more often.

The participants acknowledged they faced different barriers when it comes to different aspects of building and sustaining relationships with their students. The factors were things deemed out of the teacher's direct control such as the environments in which students live, top-down testing mandates, and not enough time in the day for activities outside of academia.

Revisiting the Theoretical Framework

Both Care and Whole Child theory allows us to understand how educators can build relationships and show positive behaviors with the intent to educate students far past that of merely learning academic subject matter. The conceptual framework for this study helped to frame the interview questions and choose the participants for the study. For example, it was important to choose participants who were different from one another to any consistencies or differences based on the demographic of the teacher. However, it was quite evident from all of the participants of this study that building relationships are paramount to any type of classroom success with students. Nel Noddings, a chief Care theorist has been noted as saying that care is at the cornerstone of educating students for their future (2005). The cases interviewed for this study voiced without doubt that having students know they cared for them was a main focus, must be established at the beginning and must happen constantly. Additionally, Care stresses the importance of being a role model as a part of its' dynamic.

From that perspective, the teacher cases noted they felt strongly about being a role model for students in health and wellness. However, unlike Noddings (2005) who believed these behaviors of modeling should extend past teaching curriculum and making what is important applicable to real life, the educators in this study took a more reactive stance in their modeling of health and wellness. Once students were in the class and the teacher noted they were obese, then they would change classroom practices as such. Noddings tells us that modeling should be innate and a part of the teacher's planning. The cases shared that their practices would begin after the students were in the classroom and a problem was noted.

Whole Child theory is useful in establishing the framework of this study as well. From this perspective, the ASCD (2007) teaches us that in order to really educate a child, the job goes beyond the teachers and the school. The community must be involved. However, this happens once the school is committed to teaching a student beyond academics. In order to make the practices long lasting, parents and the community must be involved as it relates to the student (ASCD, 2007). However, from this study, the cases did not share they felt it was important to involve others when creating potential student outcomes. Each participant noted getting to know students beyond academics and making sure they educated students about things other than curriculum, however, Case 1, Case 5 and Case 8 specifically noted their worries and fears about what happens when students leave their classroom and watch. Within our interviews, it was evident that teachers felt very strongly their role was to not just teach a lesson, and let students leave the classroom. However, teachers acknowledged they felt they could only have an effect with students in their class (and to an extent within the school day) but most situations were out of their control.

Both Care and Whole Child theory are important in establishing the framework for this study because it allows for the analysis of teacher perceptions and thoughts as it relates to building relationships with students that may be obese. Both theories has its' basis in building and maintaining relationships with students. Each case pointed to that importance within their individual interviews as well. In allowing each case to share their perspective, it was clear that knowing students on a personal level was extremely important to that teacher. Case 1 noted that relationships were very important in what he did as a teacher. Similarly, Case 8 pointed that classroom initiatives could only be achieved once those relationships were established. Using Care and Whole Child theories as a framework allows works, such as these, to better understand where the teacher puts values when it comes to knowing students beyond academics. Likewise, the framework was also effective to shed a light on how much teachers are able to do for students beyond academics as well.

This study was useful as to where the gaps are between theoretical frameworks and teacher classroom practice. As Care and Whole Child literature is available, there is little to no research about teachers and obese students interacting in a practical way. This study investigated how teachers can care about their obese students with the purpose of evoking positive change. Additionally, the study can help the participants to develop a better understanding of how when Care and Whole Child theory are used beyond the classroom and utilizing the student's community, positive changes and circumstances concerning student growth can begin to be implemented.

Implications

Research is important in order to provide knowledge that can be used to improve the lives and situations of others. With the results of this study, first hand viewpoints from K-12

educators were gathered and the data analyzed. The implications of this research are centered on the topics of care, modeling, and knowledge acquisition. The analysis is beneficial for other teachers, administrators and those in charge of providing education and training to classroom teachers. Likewise, as Whole Child theory dictates, the data from this study would also be a benefit to community organizations as they are a part of a child's life outside of school. In short, teachers can learn the importance of showing care to obese students and providing interventions for them in the same manner they have the awareness and training for students with learning issues. Teachers could also learn how students who are obese also need the care they provide to students with disadvantaged backgrounds. Awareness that teachers can evoke powerful change in a student's life can create dialogue between the school and community to create programs in where the skills students gather in schools about healthy living can be extended to that student's outside surroundings as well. Teacher preparation and training programs would benefit from the analysis of this case to create professional development and educational platforms. Within these, teacher candidates would receive training on how to learn about their students and implement their various needs into the curriculum planning, while working with other stakeholders to make the initiatives long lasting.

Teachers. When drawing themes from participant data, it is very obvious that for teachers to have success in reaching their students, they must first build relationships designed to show students that they care about them beyond academics. The cases studied attributed their classroom success to being able to know their students and meet them where they are. Participants also noted they felt it important to be role models of health and nutrition if they wanted students to mimic those actions. It is important for teachers entering

the profession to realize the magnitude of influence they have on students. Participant data also pointed out the value added of having awareness of students not only as it related to childhood obesity but also having awareness of all that is going on in a student's life. Data from this study also showed teachers felt their reach did not extend far beyond their classroom doors. As a teacher dealing with many different students, the most common theme was no matter what top-down initiatives and barriers that must be deal with, everything in the class has to be student-centered in order to achieve student success. Teachers need to be able to combine knowing students outside of the classroom with being able to work with parents and the community to create an outcome of sustainable practice so what the students obtain in the class, they have the opportunity to practice outside of the classroom as well. Best practices, such as those given to teachers on dealing with students with academic disabilities, physical disabilities, and other issues, could benefit teachers as well. Knowing how to set up a classroom for movement and activity, incorporating more movement into the day, or even learning how to give non-verbal signals of being a healthy role model is information teachers could benefit from before entering a classroom.

Administrators. For school level administrators, it is important to know that teachers and students are at the heart of education. Therefore, administrators should make it a priority to create a culture of care from the top down. This means that administrators would benefit from giving teachers the proper training on what it means to create a culture of care in their classrooms. Likewise, administrators could also offer training to teachers on what it means to care for students beyond academics. Teachers stress how important it is to create relationships in the classroom. Teachers also acknowledge that initiatives from the top down are the ones to which staff must adhere. If creating a culture of care was a focus priority from

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administrators, it would be mandatory for teachers to work on building relationships with their students.

For district level administrators, they could also create a district culture of care designed to be implemented in all areas and down to schools. Following the same trend of top-down initiatives, as districts require training and expectations that all schools and their teachers create caring relationships and situations in their schools, training would be given to ensure the practice throughout districts. Showing that creating a culture of care is important at the district level will let teachers know it is a priority that time is made to learn about students and tailor instruction to meet the students where they are.

Limitations

This study was not without limitations. The purpose of this case study was to examine teachers and how their knowledge of childhood obesity affected the relationships they built with students. There is always a risk of participants not being completely honest with their thoughts, especially on subjects deemed sensitive such as weight. Being able to interview more than eight teachers would have given additional confidence to the findings reported. Additional data could strengthen the study by way of classroom observations of teachers and school observations as well. Being able to see the teachers and their classroom in practice would add merit to the study because behaviors and practices could be observed and noticed. Creswell (2000) noted this as the triangulation of data as multiple methods are used to validate the study. While teachers did not come from the same school and represented three different states, the study shows strength by interviewing teachers across the United States. As Case 7 noted, her views could possibly be different if she was from a different community. Time was also a limit with this study. To refer back to Case 1 at different points

in one school year would prove powerful to this study. Through member checking, it was found that the student did return to school with the some of the same issues. The strength in continuous follow would be to see what other methods were tried to help the student and how partnering with the school community would impact and affect change.

Future Research

Additional research should be conducted to find out what teachers know concerning obesity and the related health issues. According to this study, teachers know what it means to be obese and that childhood obesity is a problem. However, one cannot assume this knowledge is enough to carry into the classroom work with students and create methods of real and lasting change. Likewise, it is important to research if teachers are trained to know that obesity is beyond being 'fat' and there are serious health detriments as obesity is concerned. It is unfair to both teachers and students to expect teachers to intervene on an issue where their knowledge on the subject matter is lacking or not present at all. The fact that teachers did not mention the serious health consequences or that they felt confident in addressing obesity in their classrooms show that there is room for this type of further research.

From this study, additional research is needed on teachers' understanding of Whole Child theory. The case participants mentioned knowing students beyond academics and two even mentioned Whole Child by name. What was lacking in all responses was working with parents, the school board, neighborhood communities, and other potential stakeholders to help students that were obese. Research exploring Whole Child education in schools would prove helpful in establishing what Whole Child should look like as it relates to obesity. While school systems such as Charlotte Mecklenburg have adopted Whole Child practices,

as a school employee, I notice there is no mention of working with obese students and subsequent practices acknowledged. Additional research on this topic would denote where the gaps are between what teacher understanding and teacher practice.

New research is needed on what the actual role of a teacher is. While there are many roles that teachers are called to perform, it is important to have a clear idea of exactly what a teacher should do outside of teaching a student subject matter. This would be a complex question, as it would need to be answered on national, state, regional and local levels. If acknowledging childhood obesity and the risk factors associated are important to school districts, and the consensus with literature (ASCD, 2007) are schools are the ideal places to implement change to help, the teacher role should reflect as such. As teachers are asked to more, and often with less, it would prove extremely beneficial to research what role a teacher can and should have to promote positive change for a student.

There is insufficient research on teacher perception and knowledge about childhood obesity and how that corresponds to help students. Compared with the information teachers get on how to work with low-income students or students with disabilities, the amount of information they get about childhood obesity and health issues are little to none. Research is needed to see how a teacher is able to work with obese students once they are equipped with proper knowledge and training. Future research could explore how when teachers' perceptions are known and proper training is given, what outcomes are delivered. For purposes to compare, this could be compared with what a teacher receives to work with other demographics of students (English as a Second Language as an example) and how the change outcomes compare.

To impact teacher training and student learning, more research needs to be conducted with data gathered from multiple teachers in different geographic areas. There is a serious gap in literature as it relates to teachers and obese students, from the teacher viewpoint. This case study gave the viewpoints of eight educators in Southern regions of the United States. From their voice they see relationship building and showing genuine care in the classroom as paramount. As Noddings (1992, 2003) states, schools have to be responsible for what they produce, and for the sake of student, they must produce more than academic subjects. The goal for teachers and schools should be for a culture to be created where these caring relationships, and students, may flourish. In order for the culture to be both created and sustained, future research could seek to determine what practices are needed for schools to train teachers to be able create a culture of care in their classrooms in order to reach students.

It is quite possible that care is more important in different areas and within different cultures than others. Research different areas of the country can also show that if/when care is present, exactly what the care looks like and what/who is being cared for.

Teachers exhibited concern about childhood obesity and the barriers they face when trying to help students conquer any obstacles. Additional research in the areas of student care and what it looks like when creating physical environments should be studied. As the CDC (2017) recommends both recess and PE classes for students, future research should include studying the balance between academic classes and physical movement. Researchers should look at desired student outcomes such as performance academic tests and health/wellness in all courses to determine how they can combine academic studies with the other parts of students that need to be tended too, with the purpose of students receiving both.

Recommendations

In order for teachers to deepen their knowledge of childhood obesity and the corresponding risk factors, I recommend that individual schools and school systems offer specific training. As Case 3 explained, when the initiative and stress of importance comes from the district or state level, teachers follow the mandates given. Teachers receive much different training as it relates to dealing with various student objectives such as curriculum differentiation or how to help students that learn differently. Knowing what to recognize as signs of obesity and how to arrange the physical arrangement of the class, implement classroom activity and movement into the lessons, and how to work with students outside of the classroom, would create opportunity to reach children that does not currently exist.

In addition, I recommend partnership with university teacher training programs. While a program cannot teach a person to care, a program can provide the opportunity for teacher candidates to learn how to create a culture where care is present, and students feel like their instructor makes an effort to get to know them. In conjunction, a teacher preparation program also has the opportunity to provide more training on how to deal with obese students. The training a teacher would receive in their course work better prepares them to receive the continuous training provided by the respective school districts. As teachers feel prepared to work with different students in their class, they can become proactive instead of reactive because they are prepared with initial strategies designed to help their students. Colleges of teacher education and entities, which provide teacher professional development should join to find ways in which teachers learn what, Whole Child education truly is. As proven by this study, teachers do not have a full grasp of the complete tenants of Whole Child. In order to know that in addition to educating students beyond the curriculum,

teachers know what it means to partner with stakeholders to impact change in children's lives.

From the data provided, teachers continue to understand that childhood obesity and the corresponding health effects are negative as far as students effect are concerned. While the teachers were able to formulate theories based on their knowledge of obesity, they could benefit from more training about the causes of obesity and how to help students. While obesity literature given to use by the CDC (2013) in Chapter 2 acknowledges that obesity has many causes, in the spirit of meeting students where they are, if teachers recognize the cause of their students' obesity, they can help them based on that knowledge. In the same fashion, school and district leaders can make this a priority from administrators to the schools. Teachers then recognize the importance and begin to create ways to both support and implement.

I also recommend the creation of a task force specifically designed and developed to help obese children learn healthy practices so they are able to grow into healthy adults. As Voight et al. (2014) stated that prevention in childhood is much more desirable than a cure in adulthood. Ogden (2014) echoed that when obesity is not eradicated in childhood, it likely follows that child into adulthood. In keeping with the premise of Whole Child theory, teachers, schools, parents, community, higher education, and anyone deemed a stakeholder in the life of a child (Boys and Girls Club, YMCA, Girl and Boy Scouts) would be members of this committee. In creating such a union, the precedent is set that teaching children how to be healthy and fighting obesity is important to all. It also sets a precedence that the community is committed to supporting all efforts in a child being physically healthy in terms of nutrition and physical activity. By having all entities on board, what a teacher is trained to do from

their courses or professional development about working with obese youth, it is then supported in the other areas that a child is in. For example, if a task force were to be created in the scenario Case 1 shared about the obese student he worked with, once the student left school for home during the summer, there would be continued support in the way of family, recreation centers, etc. for the student to continue to implement the positive habits picked up while in school. Creating a task force is the beginning of creating a support system for students to learn healthy habits and have the care of others to maintain.

As budget cuts have plagued many districts around the nation, programs such as P.E., health and nutrition education have seen their funding cut or eliminated (CDC, 2004). As P.E. programs diminish, we see childhood obesity numbers increase (CDC, 2004). According to No Child Left Behind (2001), these programs would be cut in order for academic achievement to boost. However, as Trudeau and Shephard (2008) found in their research is that students that are more active during their day do not suffer academically. As what is policy becomes priority, I would recommend the reinstatement of funding for those programs and positions beginning at Pre-K. As Esquivel (2016) stated the benefits of health and obesity related education begin as early as Head Start programs. As both students and their parents are trained earlier on what it means to be healthy, incorporate movement into the day and make healthier food options, those thoughts, ideas and habits become embedded into the student. Therefore, as the student grows older, they are more likely to carry those habits with them and make them practice (Esquivel, 2016).

As school districts seek to add positions which can create effective change in the communities and lives of students, I would also recommend hiring a dietician and nutritionist on staff. Adamick (2012) shared the burdens that schools have in creating healthy meals.

Likewise, Case 5 was the only subject interviewed that spoke about school lunch. Her commentary was, "they now post the calories for the food in the cafeteria. I don't see it making a difference though. Kids still eat the fries and grab a water." Having dieticians and nutritionists on staff allow for the dedicated and intentional planning of meals that are both good and good for students. It is also important for these positions to be on staff in order to help students fully understand what obesity is and how the negative effects it can have on health. Parents and the community would also benefit from dieticians and nutritionists being on staff and they can both educate on preventative and reactive practices as food and nutrition are concerned. As Case 8 stated some of her students live in food deserts, a place where healthy food is not abundant. These are the positions needed to help individuals learn how to make the healthiest decisions based on circumstances. As students are exposed to and trained on making better decisions, again, these habits now become patterns of improved health and nutrition.

Conclusion

Teachers stand to make great strides with students if for no other reason than the amount of time that students spend in schools and with teachers. Research shows that there is value added to students when they have caring teachers (Grossman, Loeb, Cohen & Wyckoff, 2013; Noddings, 2003). Current literature from the CDC (2018) also tells us when teachers are role models for health and wellness, students also see an extreme benefit as their lifestyles change to emulate their instructors. Findings from this study tell us that teachers value building relationships in the classroom with their students to help ensure student success. Data from this case study also indicate that while teachers have knowledge of childhood obesity issues, what they do to help those students are rooted in the fact that they

prioritize creating caring relationships with all students and cater more towards that (the relationships) and not the issue itself.

Teachers in this study recognized that they know obesity is a problem and research shows us it continues to be such. If a child has an issue or problem, it stands to manifest in the classroom. The negative health effects of childhood obesity should not be treated any differently. The solutions and activities that teachers performed for their obese students were conducted on what they thought to be correct. It is the researcher's hope that teachers will be able to take their ability to care, couple it with research based practices, and apply it to meeting the needs of obese students to help decrease the numbers that continue to rise. As Noddings (2003) stresses, teachers and students are the cornerstone of education. It is extremely logical and would be prudent to invest the time and resources into adequate teacher training and continuous professional development. As teachers stand in a place to become a major player to affect major change in influencing a student's current and future habits and decision making, university teacher programs as well as school system professional development have an opportunity to train teachers to help students succeed.

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Appendix A

Demographic Questionnaire

School:
Teacher's subject:
Date:
Demographics:
Geographics:

- What do you do to create and facilitate the teacher-student relationships in the classroom?

- How do you know when you are successful in developing relationships in the classroom?

- What do you know about the obesity crisis in children?

- Do you feel having knowledge of childhood obesity impacts how you approach the everyday practice of teaching? If so, how?

- Do you feel it is important to be a role model for your students in terms of health? Why or why not?

- What importance does being a caring teacher take on in your work?

- Explain to me what I would see if I observed your classroom?

- When your students leave your class, what is one take away you would want them to have?

- Is there anything else I should know?

- Would you be willing to answer any follow up questions I have after reviewing transcripts?

- Would you be willing to review my summary of the information I gathered? (member checking)

Appendix B

Questionnaire/Demographics:

- How many years of has participant been a teacher?
- What geographic area is your school located?
- Are there obese students in your class? In your school?
- How old is the participant?
- Which race do you typically choose on a form?
- What other roles does the teacher serve in? Coach? Academic or athletic?
- Using a Likert scale (1-5), how important do you believe exercise is for students? **(1-Not important 2- Somewhat important 3- Important but not at the sake of curriculum 4- Very important 5- Extremely important)**
- Using a Likert scale (1-5) do you think teachers should teach nutrition to students? **(1-Not at all 2- PE teachers only 3- If applicable, not at the sake of curriculum 4- Yes, when at all possible 5- Yes, as often as possible. Very important)**
- Using a Likert scale (1-5), what role should teachers have in teaching students nutrition and exercise? **(1-Not at all- it belongs at home 2- PE teachers only 3- If applicable, not at the sake of curriculum 4- Yes, when at all possible 5- Yes, as often as possible. Very important)**
- Have you experienced (at your school) bullying, adverse reactions, bias, or discrimination based on weight? To a child? An adult? In your job?
- Based on the question above, how did you handle that experience?

Appendix C
Codes and Themes

A Priori Codes	Emergent Codes
Role Model	Role Model
Academic Testing	Knowing Students
Relationships	Barriers/What's Important
	Academics (classroom)
	Obesity Awareness
	Care and Relationships

Themes

Working knowledge of Childhood Obesity	Teachers as Role Models	Viewpoints of Obesity in Schools	Obesity Impacting Instruction	Creating Teacher/Student Classroom Relationships	Building Relationships
Perceptions of Successful Care	Barriers	Role of Care and Lasting Impressions			

Appendix D

Initial call for participants (email)

Hello,

I am Nakesha Dawson, a Doctoral student from Appalachian State University in the School of Education. I am conducting a research study designed to ascertain how the knowledge that a teacher has about childhood obesity and the health factors impacts the relationship that is built in the classroom. As an educator, you are in an ideal position to give valuable, first-hand information regarding this research topic.

The research process will consist of you having interactions in the form of questionnaire, classroom observation, personal interview, and journal keeping. All information will be kept confidential and sent electronically from your *personal email account* to my Appalachian State email account. The total time commitment is a minimum of 4 weeks and a maximum of 6 weeks.

While there is no compensation for this study, please note that your input may be a valuable addition to the continued research of obesity in schools, and whole child education. If you are willing to take part in this study, please reply to this email so that we can schedule a time and date for us to connect and discuss more about the project. Thank you in advance for your support with this research study.

How does a teacher's knowledge of childhood obesity and the health factors have an effect building relationships in the classroom?
Principal Investigator: Nakesha Dawson
Department: Leadership & Educational Studies
Contact Information: dawsonnm@appstate.edu, 3364035310

Consent to Participate in Research
Information to Consider About this Research

I agree to participate as an interviewee in this research project, which concerns the student/teacher relationship in the classroom. The interview(s) will take place at the participant's choice of location. At least two interviews of an approximate duration of 45 minutes will be conducted with each participant (before observation and after). I understand the interview will be about how you identifying as obese impacts the approach you have when developing relationships with students in the classroom. I understand that I may be asked to journal about the process or my thoughts on obesity. I understand that I will be observed in my classroom as it relates to the research project. I understand I will be one of 8 participants in this study. Likewise, I understand that participation is not expected nor will it have any impact on my employment with a school system or my relationship with the researcher.

I understand that there are no foreseeable risks associated with my participation. I also know that this study may benefit research about student/teacher relationships in the classroom while giving a perspective from teachers.

I understand that the interview(s) will be audio recorded and may be published. I understand that the audio recording of my interview may be stored by the principle investigator for up to three years if I sign the authorization below.

I give Nakesha Dawson ownership of the tapes, transcripts, and/or recordings from the interview she conducts with me and understand that tapes and transcripts will be kept in the researcher's possession. I understand that information or quotations from tapes and/or transcripts will not be published unless the researcher contacts me for my written permission. Also, no participant will be identified by name or by other identifying information. I understand I will not receive compensation for the interview.

I understand that the interview is voluntary and there are no consequences if I choose not to participate. I also understand that I do not have to answer any questions and can end the interview at any time with no consequences.

If I have questions about this research project, I can call Nakesha Dawson at (336) 403-5310 or the Appalachian Institutional Review Board Administrator at 828-262-2692(days),

through email at irb@appstate.edu or at Appalachian State University, Office of Research Protections, IRB Administrator, Boone, NC 28608.

   I request that my name **<u>not</u>** be used in any connection with tapes, transcripts, or publications resulting from this interview.

  I request that my name **<u>be used</u>** in connection with tapes, transcripts, or publications resulting from this interview.

By signing this form, I acknowledge that I have read this form, had the opportunity to ask questions about the research and received satisfactory answers, and want to participate. I understand I can keep a copy for my records.

_____

Participant's Name (PRINT)   Signature   Date

This research project has been approved on _____ (date) by the Institutional Review Board (IRB) at Appalachian State University. This approval will expire on _____ unless the IRB renews the approval of this research.

Vita

Nakesha Andreana Merritt Dawson was born in Lynchburg, Virginia. She grew up in a one stoplight town in nearby Gretna, Virginia. As her parents divorced when she was ten years old, her mother instilled in Nakesha and her older brother that people are never their circumstances and education would always be key in their future success.

After graduating from Gretna High School in 1998, Nakesha attended Wake Forest University on an academic scholarship. Under no coincidence, her older brother also attended Wake Forest on both an academic and athletic scholarship. With a degree in Economics, Nakesha entered into an economy that was still recovering from the tragic events of September 11th. Deciding to stray away from her degree, Nakesha took a job in Stokes County at Southeastern Middle School and Meadowbrook Alternative School to begin her career as a Career and Technical Education, Business/Marketing teacher. The rest, was history.

Nakesha continued in education and moved to Reagan High School in Pfafftown, NC as a Marketing Education teacher. In 2007, she was awarded her Masters in Education from North Carolina State University. Deciding that education was her true life's passion, Nakesha moved to Wiley Middle School as a specialist and magnet coordinator while working on her administrative degree from Appalachian State University. In 2009, she entered into the

doctoral program with Appalachian State. In 2011, she earned her Educational Specialist degree. In 2018, Nakesha successfully completed her doctoral degree with Appalachian.

Currently, Nakesha is a Pathway Lead for Marketing, Digital Media, Agriculture programs in Charlotte-Mecklenburg County schools. She lives in Charlotte with her husband and daughter.