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RUNNING HEAD: EFFECTS OF OBESITY IN ELEMENTARY SCHOOL CHILDREN AFTER
NO CHILD LEFT BEHIND (NCLB)

Effects of Obesity in Elementary School Children after No Child Left Behind (NCLB)

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Abstract

Ever since No Child Left Behind (NCLB) legislation became adopted into our school system, students' physical health has suffered. Recently, the number of unhealthy children has grown. One in three children are classified as overweight or obese. This senior capstone project demonstrates the causes and effects of such an issue in regards to both physical education and nutritional education in elementary schools in the tri-county areas of Monterey, Salinas, and Santa Clara counties. The results from twenty seven survey results and one interview suggest that most teachers feel that there is a need for daily physical education and nutritional education should be taught more despite the pressure from testing.

Effects of Obesity in Elementary School Children after No Child Left Behind (NCLB)

In 2012, more than one third of children in the United States qualified as obese or overweight (Ogden & Carroll, 2011). This means that one out of every 3 children did not get proper nutrition and exercise in order to be deemed healthy on a national level. As soon as certain legislation was included in elementary schools, we saw child obesity rates steadily increase. With increased pressure to focus on state testing and the STEM subjects, math, English language arts, science, and technology, they have less time to focus on the students' health and fitness. With this issue, in combination with fast food becoming available in more parts of the United States, it is apparent that we are not doing enough as a nation to keep our children healthy.

This legislation, which was introduced in 2001, is called No Child Left Behind (NCLB). The law mandated that the "core" subjects of math, English language arts, science, and technology (STEM) be a greater priority than children's physical education. With NCLB increasing the focus on STEM subjects, it meant cuts to other subjects, such as physical education, art, and music programs. This also added to the increasing obesity rate by shrinking the amount of physical education resources such as new equipment and specialized physical education teachers.

In addition to the decrease in physical education resources, nutritional education became relatively non-existent. Low socioeconomic, urban, and rural areas are especially vulnerable to obesity. These places are called "food deserts," because while they have food, this food is considered to be calorically dense rather than nutrient dense (American Nutrition Association, 2010). In these urban and rural areas, African-American children and Mexican-American children had the largest increase of childhood obesity at a 10

percent increase. This is in comparison to the white population, which went up by 6 percent (Center for Disease Control [CDC], 2012) since the implementation of NCLB.

Students bring unhealthy foods to school and further complicating their rate of obesity. Even those who receive school lunches choose to throw away their lunches rather than eat it because it is not as appealing to them, compared to the “junk food” they have access to after school. This relates to the first secondary research question of “why are the school lunches not nutritious or satisfying for students? If it’s impacting the curriculum, how does it affect the rate of obesity in elementary school children?” This relates because it explains why the students do not eat their lunches, or simply throw them away. They prefer the junk food rather than the healthier school lunches.

As a future educator, I will encourage students to make healthy choices during their school day, because if they do, they will develop good eating and exercise habits during their school day they will be more likely to bring these practices home and continue them. If we, as the main adult figure a child sees everyday, excluding their parents, do not set a good example of good eating and exercise habits, how do we expect this problem to vanish? It is a problem that is preventable, with education on nutrition and exercise; we can decrease the obesity rate and get our children healthy again. These are my guiding questions because they focus the issue of childhood obesity on elementary schools and what future educators can do to help lower the obesity rate, since they play such a large role in a child’s life. As a Liberal Studies major with an emphasis in science, specifically nutrition and anatomy, I find this area of study compelling. I also am astounded that funding continues to be cut to physical education programs while the obesity rate still

climbs among adolescents when we educators can make such a powerful impact on students.

My paper will be centered on the effects of obesity on elementary school children after the implementation of NCLB. This includes nutritional education and physical education explanations and solutions. Also, I have included surveys of what teachers in modern elementary schools think about nutrition and physical education today. This brings me to my secondary research questions that help support and explain factors included in my primary research question. This includes what No Child Left Behind legislation is and how the legislation came about. Many people, including teachers, do not recognize the difference between before and after NCLB and how physical and nutritional education has declined since then.

Another question I included was what does research say about the impact of No Child Left Behind on school curriculum and the quality of food served at the school district level? Also, why are the school lunches not nutritious or satisfying for students? Even with Mrs. Obama's new food initiative, children still are finding the "healthy" options in schools less preferable to their usual junk food and fast food options. This can be a multi-faceted problem including what parents feed their children outside of schools and how it can train children to crave the sweet and salty content in their candy and burgers.

Given the increased rate of obesity and the necessity for a teacher to maintain the child's focus, how can we not afford to have more time for physical and nutritional education? The excess energy of students, if not burned off can lead to further disruptions in the classroom that take away from valuable instruction time. The next essential question is: What are the financial and time implications impacting the curriculum and how do they

affect the rate of obesity in elementary school children? Are the teachers able to have enough supplies to create these exercise breaks, such as rolling ball chairs or boxes to help students occupy their hands in order to concentrate better? Sometimes funding limitations, especially in low socioeconomic areas cannot afford resources such as those.

Lastly, what are the possible solutions that can reduce the rate of obesity for elementary school students? This issue is to be explored further later in the paper, but one possibility could be bringing the funding back for physical and nutritional education in order to educate both the teachers and students on these issues and how to prevent obesity from even occurring. But this and other possible solutions will be discussed in greater detail later in the paper.

The audience for this paper is future Liberal Studies students, their professors, and other elementary school teachers who are in the same position of seeing more and more children in their classroom that are obese. I will be publishing this paper and my entire project in the Liberal Studies Capstone section of the CSUMB Library in order for more teachers and students at CSUMB to have access to my findings and research. Having this easy access to my project will help future teachers become educated on the dangers of childhood obesity and the importance of keeping nutritional and physical education as part of their curriculum.

The background information described above, coupled with my primary and secondary research questions provides a foundation for my capstone topic to be discussed. Each question posed in my introduction and background has related information to my topic and informs the readers more about keywords, phrases, and vocabulary associated

with my project. In order to have strong research backing my information, a review of relevant literature is necessary.

Literature Review

Using journal databases such as Google Scholar, ERIC, and JSTOR, I was able to find a plethora of information related to my topic. In order to find these databases, I went through CSUMB's Library resources, including the Senior Capstone Database. In this section, I synthesize multiple sources from the databases listed above. Many of these sources give different viewpoints on the issue of childhood obesity in elementary school children. In addition, many of these sources attribute different or multiple causes to the effect of childhood obesity.

Obesity can be defined as "too much body fat", according to Harvard School of Public Health (Harvard, n.d.). The quality of being overweight, as opposed to obese is determined by the Body Mass Index level, or BMI. This level is calculated by measuring the person's height and weight. A BMI level of 25-29.9 is considered overweight, and a BMI level of 30 or higher is considered obese. In children, this can put a strain on joints and impact future growth when reaching adulthood. This is how medical professionals can determine if a child is considered overweight or obese and put them on the right track to preventing further weight gain. Teachers and parents can help as well by guiding students toward more nutrient dense foods rather than junk food or fast food. This increase of students qualifying as overweight or obese can be attributed to when No Child Left Behind was introduced.

The No Child Left Behind Act of 2002 made it possible for schools to be held accountable for the successes or failures of students based on a national testing system

(Klein, n.d.). These testing scores were then transmitted on a scale to determine funding for schools, status of teachers' jobs, and international standing among countries worldwide. It made a large push towards STEM subjects and less emphasis on art, physical education, and music. This made it possible for childhood obesity to come into the picture; with less physical education, it meant more students gaining weight sitting in a classroom for 6 hours a day.

This legislation came about by an international study ranking the United States as one of the worst countries academically. President Bush then enacted the NCLB act to try and put the United States ahead of other countries. It also made the federal government more involved in schools nationwide, because a low score meant less funding for the schools (Klein, n.d.).

The Daily Food Guide (1956) was outdated and was divided into 4 food groups: milk, meat, vegetables, and fruit. The Food Pyramid (2005) was divided in a hierarchy of what a person should be eating, and again was outdated. The new MyPlate (2011) food guide was a new interactive guide located on a website on the Internet in order to become more accessible to both young children and adults; it is also the most current food guide the USDA offers.

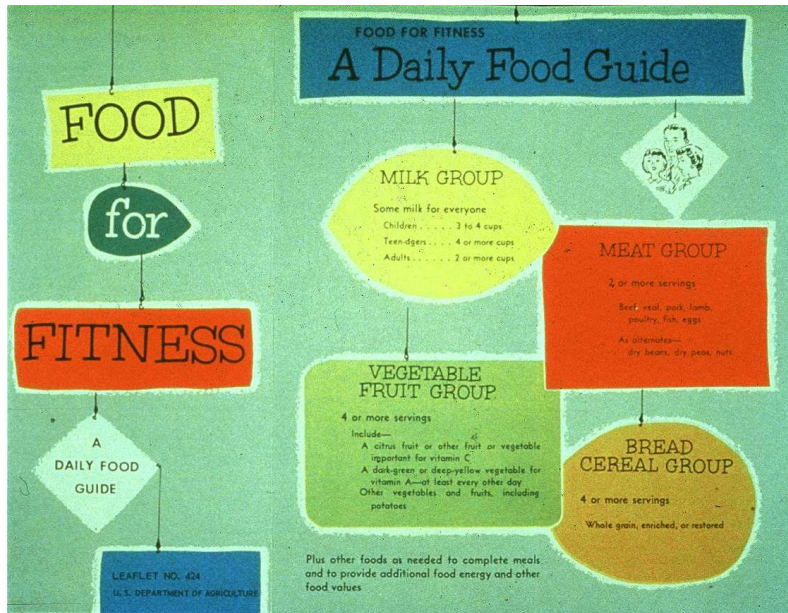


Figure 1

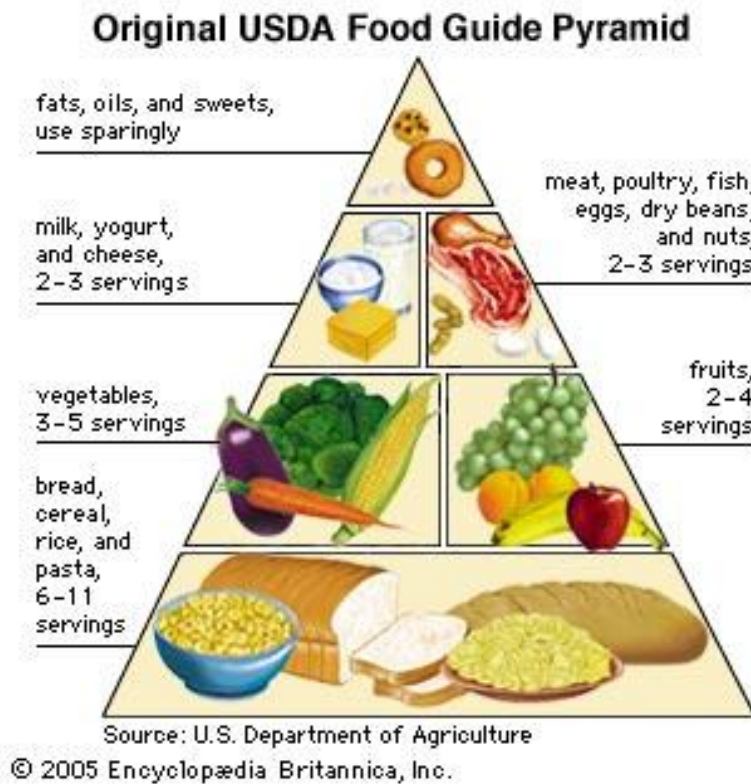


Figure 2

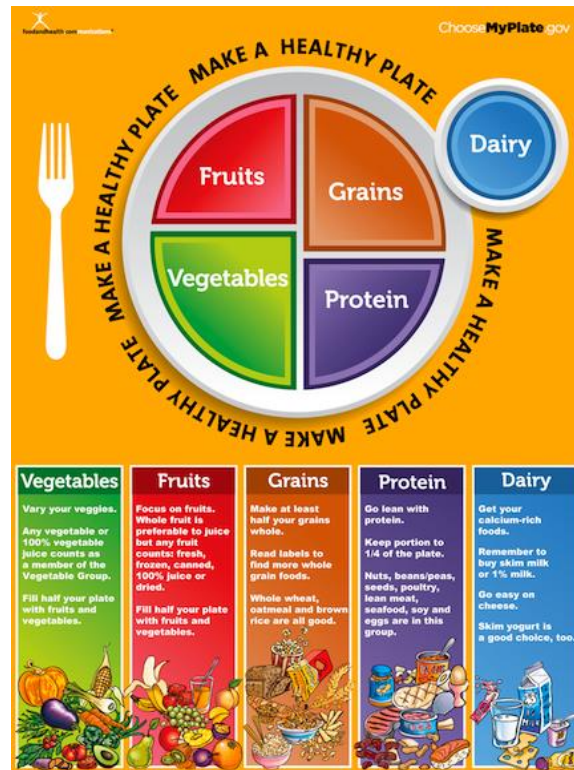


Figure 3

The consensus among many articles is that even though many programs in the past tried to encourage physical activity among elementary school children and failed (Bryan et. al, 2013; De Armit, 2014; Donnelly et. al., 2009; Jackson, 2014; and Katz et. al., 2008). They also agree that with increasing need for test scores to be higher in schools, the more physical education is really needed as a mental break and a focusing agent in order to achieve those increasing test scores. In many schools, a physical education credential is needed to teach physical education, and schools cannot afford to hire those specific teachers and instead leave it up to the teacher's discretion how often physical education is taught. This could lead to teachers improperly teaching students about physical education or even not teaching them it at all (Cooper, 2013). With these challenges, many articles describe the common difficulty factor as the implementation of NCLB (Michelsen, 2008). It gives teachers less time for physical education and more time to prepare for testing and

increasing test scores to boost the district and school's funding. The bottom line among all the articles was that there was an increasing need for physical education lessons in order to decrease the obesity epidemic.

Other articles saw the common denominator for obesity was the nutritional value of food served in the schools and in the homes of their students (Katz et. al., 2010; "USDA Defines Food Deserts", n.d.). One article gave a great solution for combating the low nutritional quality of their students' meals. This program was called "Nutrition Detectives Program" and encouraged parents to get involved along with their children. The program has 5 simple rules to follow, "The program had 5 rules to stick by: "1 Don't be fooled by THE BIG LETTERS in the front of the package—Look for the itty-bitty letters on the food label instead! 2 The FIRST ingredient is always the biggest! 3 Avoid partially hydrogenated oil and high fructose corn syrup! 4 Avoid foods with a LONG INGREDIENT LIST! 5 Fiber is your friend, so look out for whole grain imposters!" (Katz, et al., 2010). This wording is simple enough for children to understand and easy to pass on to parents as well. If the child starts participating in the program, the parents will be motivated, too. The consensus of the articles also cited the vending machines at schools as part of the problem, offering unhealthy and cheap snacks makes it too easy for the students to want them (Sternberg, 2005). Food deserts were also a factor when it relates to the geographical location of the community. This includes low socioeconomic, urban, and rural areas that have the convenience and low cost opportunities that accompany fast food and junk food.

In some articles, nutrition and physical education were both factors when discussing the obesity rate (Buchanan, 2005; Fryar et. al., 2012; and "Multi-Caused Obesity", 2006). As stated previously, the opportunity for low nutrient value foods

accompanied with the reduction in physical education in schools has helped cause the obesity rate to rise. Many of these articles delved into the history of how these causes shaped obesity today, and offered solutions as to how to fix them. Solutions included including parents, similar to the Nutrition Detectives program, and teaching more nutritional values such as how to read a food label and check quality of foods. Also included in these articles were ways to keep children active. For example, enrolling children in sports programs and having more frequent “brain breaks” during the class day would benefit them both physically and mentally.

Lastly, many articles gave statistics that left impressions upon the readers (Cawley et. al., 2012; Jarrett et. al., 2009). Statistics such as “one in three children in the United States are overweight or obese” (Ogden & Carroll 2011) and “test scores increased along with decreasing the number of unhealthy students” (Chomitz et al, 2009) have left impressions among readers. These statistics lead a rallying call to increase physical and nutritional education among parents and teachers in communities. These quotes are especially powerful to make readers and community members realize how choices made as children can affect them later in life.

In summary, all of these authors have research backing their theories and also support my research on the issue of childhood obesity in elementary schools as well. Some of the articles I found were so similar to my topic that it seemed as if they had taken my project and made it into a full-length scientific project (Donnelly et. al., 2009). I did not, however, find any opposition to my subject, as it is so widespread and well known today. Also, much of the literature that I came in contact with had comparable findings to my research, as mentioned below.

Method

Participants

I conducted an anonymous survey with responses from the tri-county area. There were 27 teachers who participated in this study who were not given access to each other's responses. The participants varied in age and experience from newly credentialed teachers to more experienced and tenured teachers. Participants varied also in geographical location and socioeconomic status, from Santa Clara County, Monterey County, and Salinas County. The anonymous participants were chosen based on willingness to participate in the short survey and were not compensated in any way (See Appendix B for anonymous survey with teachers).

I also conducted one interview with an elementary school teacher who has retired but recalled teaching styles both before and after the implementation of NCLB (See Appendix A for interview questions with the teacher). This person has chosen to remain anonymous but will let me provide details of our interview and their background. I chose the interview participant based on a presentation in a previous class they made and decided to probe further into their thought on the capstone topic. He or she was not compensated for the interview conducted.

Design and Procedure

The procedure for this research project was brief. I constructed the survey using the aforementioned Google Forms, crafted an email to teacher contacts from the tri-county area, and they filled out the questionnaire at their discretion. After a period of 5 days, I ended the survey, and gathered the results.

The survey was 7 questions long and responses were recorded using Google Forms. By using Google forms, it kept the responses anonymous, gave charts based on responses, and gave graphs to use in the study. The survey included one yes/no question, 3 five-point scale questions, 2 three-point scale questions, and one question that used a three-point scale plus two answers that either were “I don’t know” or “other”. The survey questions used are located in Appendix B. Interview questions were thought of before the interview was conducted. We discussed how they would like to be included in my capstone project and decided that remaining anonymous was the best plan. Many questions were open-ended and Interview questions were recorded and are located in Appendix A.

Results

Findings

The first question of the survey asked if the teachers had noticed a change before and after the implementation of NCLB. According to their responses, 63 percent of them had not noticed a change (See Figure 4). The other 37 percent stated there was a change from before and after NCLB implementation. The first secondary research question of “what does research say about the impact of No Child Left Behind on school curriculum,” describes the perfect basis for my data. Unfortunately the outcome of the survey was not as expected, and will be included in my discussion later in the paper.

1. Have you experienced a difference between before and after the implementation of No Child Left Behind in physical education and nutritional standards in elementary schools?

(27 responses)

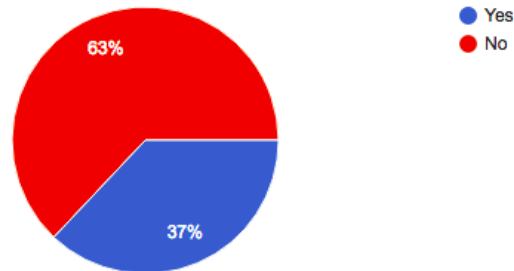


Figure 4

85.2 percent of the teachers surveyed still found that it was very important to have children exercising every day (See Figure 5). This supports the hypothesis that teachers feel it is important for children to exercise every day, but in the time constraints of the classroom and NCLB testing, the task is hard to accomplish. This ties in to the second secondary research question of “what does research say about the impact of No Child Left Behind on school curriculum,” where teachers believe their students should be exercising 5 days a week, but because of time constraints due to testing, they are not able to complete that goal.

2. How important do you think it is for children to exercise every day?

(27 responses)

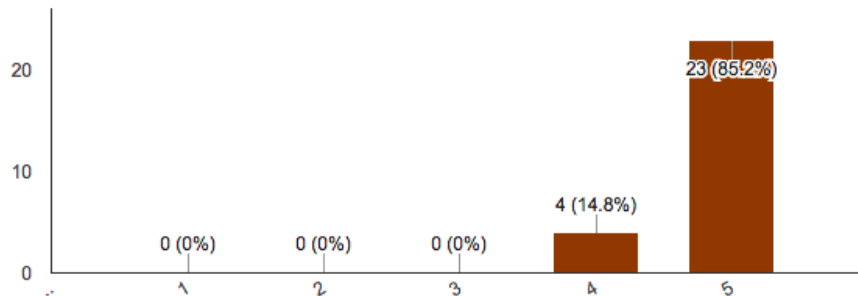


Figure 5

Out of teachers surveyed, 74.1 percent of them said that their students do not have a nutritional lesson often. Following that, the other 25.9 percent reported having nutritional lessons somewhat often, with no teachers reporting having nutritional lessons very often (See Figure 6). The third secondary research question of “what can be done to reduce the rate of obesity for elementary school students,” relates to the research because it shows that teachers do not have the time or knowledge of nutritional education in order to be able to teach it to their students. In order to reduce the rate of obesity in their students, teachers would need to teach them good eating habits and have nutritional posters as constant reminders to their students to be healthy. This supports the hypothesis that nutritional guidelines being taught in classrooms are not seen as important as the state testing and NCLB standards.

3. How often do your students have a nutritional education lesson?

(27 responses)

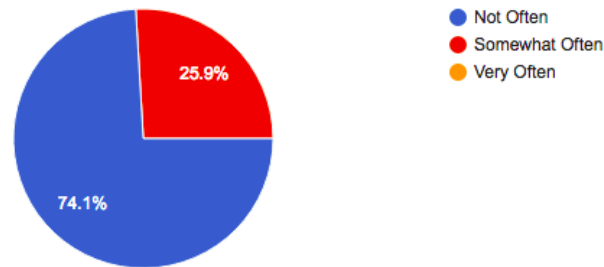
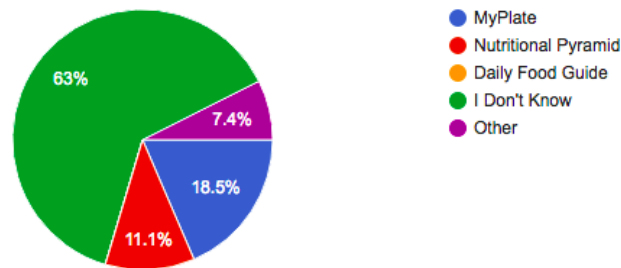


Figure 6

Along with this lack of time, 63 percent of teachers surveyed did not know what nutritional guidelines their school used (See Figure 7). This was given alongside the options for 3 nutritional guidance systems that dated from the 1950's through present day options; including the Daily Food Guide (1956) (See Figure 1), the Food Pyramid (2005) (See Figure 2), and MyPlate (2011) (See Figure 3). These three food guides have been the basis of nutritional guidelines since the first food guide came out in 1956. In the survey, there was also an option for other types of food guides (less common ones), but only 7.4 percent of the survey group reported this. Eighteen and a half percent of teachers knew their school used the MyPlate option and 11.1 percent knew their school system used the outdated Food Pyramid method of nutritional standards. The third secondary research question of "what can be done to reduce the rate of obesity for elementary school students," ties into this survey question. It ties in because if teachers knew what the accurate nutrition guide is for their students and also had the ability to teach them healthy eating habits, the students would be better set up for a healthier life in the future.

4. Which nutritional guidelines does your school use? (27 responses)**Figure 7**

In addition, when asked how often they see nutritional information hanging around their classroom, 74.1% of teachers responded with not often, out of the choices: Not often, somewhat often, and very often (See Figure 8). This is shocking because so often teachers have motivational or educational posters hanging on their classroom walls. Therefore, why should nutritional education be left out? It is understandable that they most likely have posters in their cafeteria, but the students should be exposed to healthy choices as often as possible. Again, the third research question of “what can be done to reduce the rate of obesity for elementary school students,” ties into this survey question as well, because if the knowledge on the teacher side is there, they are better prepared to instruct the students on how to live a healthy life.

5. How often do your students see nutritional information/posters around your classroom?

(27 responses)

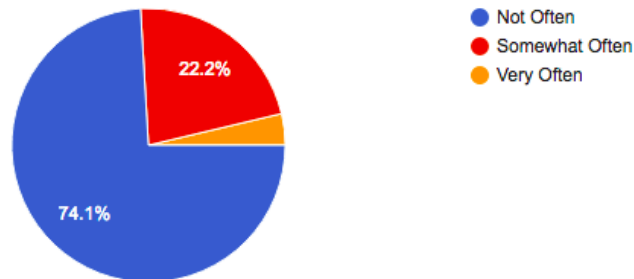


Figure 8

The last 2 survey questions went hand-in-hand with one another. They asked the teachers how often students had physical education lessons before and after NCLB was introduced in national curriculum (See Figures 9 and 10). The first secondary research question of “what does research say about the impact of No Child Left Behind on school curriculum,” influences these questions best because the teachers themselves compared their own experiences before and after NCLB. To my surprise, there was not much of a difference between before and after NCLB was introduced. One factor that could have affected the results was that the teachers who were interviewed could have been newer teachers without much experience of the education system before NCLB. This factor will be examined later in the discussion section. Following the results from this survey, there was a need for a deeper knowledge about these questions with someone more experienced in this issue.

6. How often did your students have a Physical Education lesson before NCLB? (Times per week)
 (27 responses)

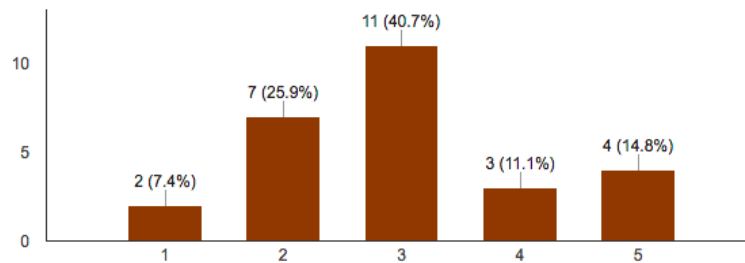


Figure 9

7. How often did your students have a Physical Education lesson after NCLB? (Times per week)
 (27 responses)

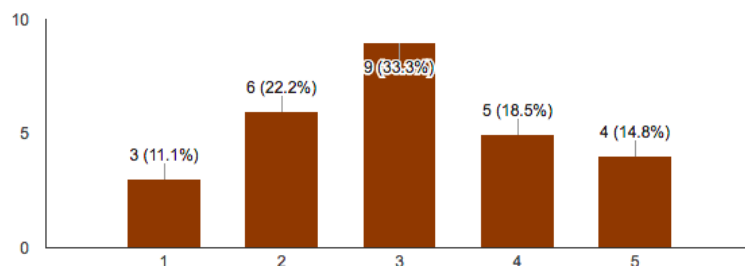


Figure 10

After the survey was administered in the surrounding areas, an interview with a retired teacher from Salinas County was conducted. The background of this teacher was that they graduated from college with a degree in business management, which is what they wanted to do until their mid-thirties. They then decided to join the Peace Corps and taught English and Business at a university in China. Their first teaching opportunity came in 1983, before NCLB was established in schools. They said pre-NCLB, there was more “wiggle room” for lessons and there was a more generalized education. There was also

opportunity for a variety of texts; whichever books met certain criteria could be taught, there was not a standardized textbook for all grades across districts.

The teacher also said that before their recent retirement, they saw many teachers were getting older and more tired, which attributed to the occasional use of physical education rather than a continuous use. They stated that it is also common to have limited time as a teacher, especially when preparing for standardized testing, which affects both the school's funding and reflects the teacher's competency in which they teach their students. Also, the reason schools are starting earlier in the calendar year is in order to have more days before testing to prepare the class, according to this teacher. They noticed that it seemed more often that teachers were held accountable to their principals in regards to their curriculum choices. Specifically, the teachers at this particular school needed to show the lesson plans to their principal every week and discuss why they chose the curriculum they did. In addition to this, they saw that the nutritional education was a hit or miss in school. To combat this problem, they suggested instituting nutritional education in preschool or kindergarten and add onto it every year to properly educate students on nutrition and their health.

This teacher saw all of this occurring in their school and decided to implement their own exercise program to help students concentrate better. Every day before the students started their day, they would go play on a playground for 20 minutes. The only rules were to stay in the boundaries and keep moving for all 20 minutes. They did this and saw a visible improvement in the student's ability to focus and concentrate in the classroom. The teacher also did this throughout the day whenever students seemed extra energized and

unfocused. The only obstacle they faced during this activity was trying to keep everyone involved the entire time.

In the next 5-10 years the teacher said nothing in the standardized curriculum would change except through legislature. They brought up the Berkeley soda tax and how the city has noticed a drop in obesity rates since implementing the tax. It becomes difficult, they said, because food manufacturers lobby against these types of laws and these large corporations often fund politicians, which makes it hard for anything to get accomplished. The teacher said in a perfect world, there would be structured physical education once per day and restricted unstructured physical education, not recess, twice per day. The distinction between restricted unstructured and recess is restricted unstructured is still led by the teacher in an orderly manner, while recess is most often free play without interference by teachers.

Discussion

In my survey, the data reflects many teachers thought they should be doing more physical education lessons and nutritional lessons than they were. This is because of increased focus on testing and STEM studies since NCLB was passed. A large quantity of their time is taken up by prepping for the state testing that comes in the spring, the time they could be using to focus on the health of their students. I also saw that over three quarters of teachers surveyed did not know what nutritional guidelines their school used. This came as a surprise to me, since I always knew about the Food Pyramid when I was a student. How can we expect teachers to instruct students on nutritional health if they are unaware of the new studies and guidelines put into place?

One of my first questions, regarding if they saw a change from before and after NCLB was implemented, 63 percent of teachers said they did not. The expectation was to have a stronger result from this question about a definite change between before and after NCLB was introduced, but my findings could be a reflection of the fact that some of the teachers surveyed did not have experience teaching before NCLB and therefore could not compare the two reference points.

The second question asked how often they thought children should be exercising, with an astounding 85 percent of teachers saying that they should be exercising 5 days per week. The literature says that children should be exercising at least 30 minutes every day so their energy can be expended, allowing them to focus better in school. Over three quarters of teachers thought they should be exercising 5 days a week, yet later in the survey, most of them said physical education was taught only 3 times per week. This could be because of the new emphasis in STEM subjects and preparing the students for testing, which is what has been occurring more frequently today.

In regards to nutritional guidelines, 63 percent of teachers said they did not know which nutritional guidelines their school used. This surprised me, because I thought the schools would have some form of nutritional graphic or poster hanging near the cafeteria, or in the classroom at least. Teachers should know how important nutritional education is for their students. This includes a new branch of thought: that teachers possibly do not have the proper education about nutritional guidelines and physical education standards. These teachers who do not know could benefit from a refresher course about childhood obesity and how it impacts the school day.

Problems and Limitations

The limitations of this study were that it was so anonymous that few characteristics could not be calculated into the findings. These characteristics include: socioeconomic factors, geographical limitations, gender, and experience level of participants as well. For example, if there were more female than male participants or more participants from one county, it could skew the results.

My collection of data was sufficient in regards to the point of view of teachers. Information that would have been useful was mentioned above, as statistics about the participants' backgrounds. My data was reliable because the teacher contacts I emailed only passed them on to their colleagues who were also teachers.

Also, a problem that occurred was that I was only able to interview 1 former elementary school teacher, when my goal was 3. I was not able to complete the 3 interviews because of time constraints and unforeseen personal circumstances. Although I was not able to get all 3 interviews, I was able to survey more teachers than expected. I predicted getting 5 teachers to participate in the survey, when I ended up with 27 teachers responding to my survey email. I emailed all of my teacher contacts who then forwarded it to their teacher colleagues, which is how I ended up with more participants than expected.

Recommendations

For my recommendation to the student and teacher population, I find that if children are taught proper nutrition, they are set up for a healthier lifestyle in the future. Simply having a nutritional lesson once a month from kindergarten to high school would be beneficial in reducing the childhood obesity rate. In combination with that, if physical education lessons were every day instead of a couple times a week, we would also see a reduction of the childhood obesity rate as well. This, in my opinion, is the best

recommendation possible with the current legislation and policies put in place today. If we could change legislation and repeal NCLB so teachers had more flexibility with lesson plans and portioning out their day, it would only help, not hurt the students. Unfortunately this is not a feasible recommendation because of the legislative process in this country.

Conclusion

With the prevalence of childhood obesity steadily increasing, it has become much more of an issue than we ever thought. Through NCLB being ratified as law, the emphasis on STEM subjects and state testing, and decreasing funding towards physical and nutritional education, it is no surprise we are at this point in the childhood obesity epidemic. If more resources were allocated back to making sure children not only performed well academically but healthfully as well, we could potentially slow the rate of childhood obesity.

The consensus of my literature review was that ever since the federal government became involved through NCLB, attempts to keep children in shape and healthy have come second place to the importance of test score levels. They found that if we put less effort and resources into testing and more into a child's healthy well being, we would have a more healthy generation and would see the rate of obesity shrink dramatically.

Using contacts that are teachers within the tri-county area and weighing in on their thoughts about the rate of obesity among children brought to light very interesting points. Most teachers in fact did not see a difference between before and after NCLB was introduced, but other factors such as experience level and age could easily affect their decisions in the survey process.

In all, until the legislation comes through with putting an importance on children's health, we are going to continue to see the rate of obesity rise among our children. This coupled with educating teachers on the dangers of bad nutritional habits and low physical fitness would yield an increase in both mental focus and produce higher test scores, according to many sources. The only way to achieve our goal as one of the most well educated countries is to first tackle the issue of students' health and then work on achieving academic success.

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Appendix A

Interview Questions

1. How long have you been teaching in the classroom?
2. Which grades have you taught?
3. How often did your classes have Physical Education?
4. How have you seen school curriculum change since NCLB was in place?
5. What do you think of the nutrition education within schools?
 - A. Have you seen it?
 - B. Can it be improved?
 - C. Do you think it would be helpful?
2. Did you see an attentiveness of students since implementing Physical Education in your daily routine?
3. What did you find most difficult as a teacher in regards to physical education?
4. How do you think Physical Education and nutritional standards will change in the next 5-10 years?
5. In a perfect scenario, how many times a week would you be doing Physical Education lessons?

Appendix B

Teacher NCLB Survey Questions

1. Have you experienced a difference between before and after the implementation of No Child Left Behind in physical education and nutritional standards in elementary schools?

- a. Yes
- b. No

2. How important do you think it is for children to exercise every day?

Not Important 1 2 3 4 5 Very Important

3. How often do your students have a nutritional education lesson?

Not often Somewhat often Very often

4. Which nutritional guidelines does your school use?

- a. MyPlate
- b. Nutritional Pyramid
- c. Daily Food Guide
- d. Other: _____
- e. I don't know

5. How often do your students see nutritional information/posters around your classroom?

Not often Somewhat often Very often

6. How often did your students have a Physical Education lesson before NCLB?

Times per week: 1 2 3 4 5

7. How often did your students have a Physical Education lesson after NCLB?

Times per week: 1 2 3 4 5