ARE SERVICES OFFERED BY HEAD START
POSITIVELY IMPACTING OBESE CHILDREN IN YOLO COUNTY?

A Project

Presented to the faculty of the Division of Social Work
California State University, Sacramento

Submitted in partial satisfaction of
the requirements for the degree of

MASTER OF SOCIAL WORK

by
Maria Eugenia Pimentel Pulido

SPRING
2015
ARE SERVICES OFFERED BY HEAD START
POSITIVELY IMPACTING OBESE CHILDREN IN YOLO COUNTY?

A Project

by

Maria Eugenia Pimentel Pulido

Approved by:

David Nylun, LCSW, PhD., Committee Chair

Date 5/20/11
Student: Maria Eugenia Pimentel Pulido

I certify that this student has met the requirements for format contained in the University format manual, and that this thesis is suitable for shelving in the Library and credit is to be awarded for the thesis.

S. Torres, Jr., Professor

Division of Social Work

Graduate Program Director

Date
Abstract

of

ARE SERVICES OFFERED BY HEAD START

POSITIVELY IMPACTING OBESE CHILDREN IN YOLO COUNTY?

by

Maria Eugenia Pimentel Pulido

Obesity is a serious health problem worldwide. In the United States obesity is considered an epidemic that is linked to other chronic diseases. Obesity is also a concern because a large population of obese adults in the future will make it expensive to treat obesity and other related chronic diseases linked to obesity. According to different studies, CDC, (2014 A) the percentage of adults and children suffering from obesity has doubled in the past 30 years. As a result of this alarming epidemic, government, health and community agencies in the United States are focusing on prevention and intervention to decrease the high rate of obesity. One of the programs that are making efforts to help decrease child obesity is the Head Start Program. This study will focus on determining how effective the Head Start program impacts children and families to better manage or decrease the children’s weight.

David Nylund, LCSW, PhD.

5/1/11

Date
ACKNOWLEDGEMENTS

I would like to thank and dedicate this work to my parents Maria Guadalupe Ramirez and Gabino Pulido for all their love and unconditional support they always provided me. I know dad is so proud of me and that if my mom knew, I'm sure she would be proud of me as well. Thank you, mom and dad, for having taught me the love of education. I also would like to thank my husband Javier Pimentel, for you were there for me the many times that I was unable to be home taking care of our children. I want to thank my son Javi for always supporting me, waking me up when I fell asleep on my elbows to make sure I was studying for finals. To my daughter Marissa for encouraging me and helping me proofread my papers at the beginning of my journey. To my daughter, Pamela, for always believing in me and for your help, you always encouraged me and never stopped pushing me. To my youngest son Cris for being so helpful and understanding, for waiting to seek attention until summers, and for making sure to let me know he was always proud of me. I would never be able to accomplish my goal without all you. I also want to thank all my professors, especially Dr. David Nylund, and Dr. Dale Russell. Thank all my classmates and colleagues for all their support and words of encouragement throughout my journey, especially to Cristina Barajas. Thank you all, I will always have you in my heart.

Maria Eugenia Pimentel Pulido
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgments</th>
<th>v</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>Background of the Problem</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Research Problem</td>
<td>2</td>
</tr>
<tr>
<td>Study Purpose</td>
<td>5</td>
</tr>
<tr>
<td>Theoretical Framework</td>
<td>5</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>7</td>
</tr>
<tr>
<td>Social Work Research Justification</td>
<td>7</td>
</tr>
<tr>
<td>Study Limitations</td>
<td>8</td>
</tr>
<tr>
<td>Statement of Collaboration</td>
<td>8</td>
</tr>
<tr>
<td>2. REVIEW OF THE LITERATURE</td>
<td>9</td>
</tr>
<tr>
<td>Obesity Definition</td>
<td>10</td>
</tr>
<tr>
<td>Causes of Obesity</td>
<td>10</td>
</tr>
<tr>
<td>Measuring Obesity</td>
<td>11</td>
</tr>
<tr>
<td>Obesity Rates</td>
<td>12</td>
</tr>
<tr>
<td>Childhood Obesity</td>
<td>12</td>
</tr>
<tr>
<td>Health Problem of Obesity</td>
<td>14</td>
</tr>
<tr>
<td>What Can be Done to Reduce Childhood Obesity</td>
<td>15</td>
</tr>
</tbody>
</table>
3. METHODOLOGY

Study Objective ................................................................. 30
Study Design ........................................................................ 30
Variables ................................................................. 31
Study Subjects .................................................................... 31
Sample Population ............................................................ 32
Instrumentation ................................................................. 33
Data Gathering Procedures .................................................. 33
Data Analysis ................................................................. 34
Protection of Human Subjects .............................................. 34
Summary ......................................................................... 33

4. STUDY FINDINGS AND DISCUSSION

Overall Findings ................................................................. 37
Specific Findings ............................................................... 40
Interpretations of the Findings ............................................. 40
Summary ......................................................................... 41

5. CONCLUSION, SUMMARY, AND RECOMMENDATIONS

Summary of Study .............................................................. 42
Recommendations .............................................................. 42
Limitations ...................................................................... 42
Implications for Micro Social Work ................................. 44
Implications for Macro Social Work ................................. 44
Conclusion ........................................................................................................... 45

Appendix A. Letter of Authorization ................................................................. 46

Appendix B. Protocol for the Protection of Human Subjects Approval letter ...... 47

References ............................................................................................................. 49
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Tables</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age of Subjects when they First Began Program</td>
<td>37</td>
</tr>
<tr>
<td>2. Gender of Subjects</td>
<td>37</td>
</tr>
<tr>
<td>3. Ethnicity of Subjects</td>
<td>37</td>
</tr>
<tr>
<td>4. Body Mass Index (BMI) After Services</td>
<td>38</td>
</tr>
<tr>
<td>5. Change in Age Percentile After Services</td>
<td>38</td>
</tr>
<tr>
<td>6. Number of Food Items Consumed in Each Food Group</td>
<td>40</td>
</tr>
<tr>
<td>7. Change in Frequency of Daily Physical Activity After Services</td>
<td>39</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction

In chapter one I will present why childhood obesity in the United States has been an alarming health problem and how childhood obesity has also been a community concern in Yolo County. According to the article (Why Obesity is a Health Problem, February 13, 2013). In the United States 69% of Adults are overweight and 78% of adults of American are considered obese. Child obesity also became a health concern in Yolo County; based on the community needs assessment results report in 2004, which compared Yolo County to the national data on child obesity. It was found that the Yolo county percentage rate was higher than other large counties in California and nationwide. After these findings, the Yolo County Health Department, in collaboration with other community agencies, has been focusing on obesity prevention and intervention. Next I will discuss my own experiences and an observation growing up in a culture where being heavy was a sign of being healthy. What motivated me to research the effectiveness of the services Head Start provides to help reduce childhood obesity will be also discussed. The services that Yolo County Head Start offers children and their families to reduce obesity will be described, as well as how children and their families benefit from the services offered by the Head Start Program.

I grew up in Mexico with my parents and grandparents. I remember being encouraged by my mother and grandmothers to eat in order to be able to better learn in school, to be healthy and strong, to eat if I was sick, sad and also to celebrate happiness or any small event in my life. I remember that many times I heard that being overweight
or not skinny was a sign of being healthy and many times it was related to beauty. I grew up listening to the expression “you look healthy and full of life” if the person was full figured. Babies who were overweight or obese were especially considered beautiful babies. I grew up hearing that if a baby or child was skinny it was a sign of not having enough food to eat and therefore looked sick and undernourished.

My rationale for studying this topic was having to work with mostly Latino families and observing how food was an important part in Head Start for them, how interested families were about the nutrition services in the Head Start program. I also observed that every year there was more than one child diagnosed as overweight or obese after they were enrolled in the program. Many of the Latino families involved in the Head Start program had a lack of food in their families’ homes and yet food was culturally important for these Latino families, and this made me be curious to know more about how the culture might be possibly affecting child obesity. Becoming aware of how important nutrition education can be in decreasing the prevalence of childhood obesity among the children and families participating in the Head Start Program in Yolo County was also part of my motivation to do this research.

It is important to understand the services that the Head Start program offers to the children and families in Yolo County, and why it should be expected that Head Start services could help children control or reduce childhood obesity. The Head Start program, one of the largest preschool programs is federally funded, and, in order to continue to be funded, the Head Start program has to show program outcomes in order to continue being funded. One of the major components of the Head Start program is the
nutrition component. According to the National Head Start performance standards, the services that must be provided to children and families by Head Start are nutritional and balanced meals served to children enrolled in the program. Children must have more than one hour of outdoor activities that include large motor physical activities. Children must also be exposed to nutritional education on a daily basis. For example in Yolo County the “Juicy” program was implemented into the daily lesson plan to make sure there was an emphasis on children’s nutrition education. The Juicy program requires children to move and learn through the use of real foods, while teachers implement the nutrition curriculum in the class activities.

Besides educating children about nutrition, parental involvement is another important expectation from the program services. The Yolo County Head Start has Family Support Services Assistants, (FSSA) which are also involved with parent involvement and educating parents about the importance of nutrition. FSSAs are responsible for working closely with parents, by helping to understand and interpret the height, weight and BMI chart results for parents. FSSA are also the staff responsible to discuss with parents the overweight or obese is diagnose. Most of the FSSA find it difficult to talk to parents about obesity, since it is a very sensitive topic, especially during the first year of participation in the Head Start Program. This is especially true when parents are not open to discussing their children’s weight with FSSA when the partnership relationship is still developing. Parents often change their attitude towards openly discussing obesity with FSSA on the second year that children are participating in the program.
Head Start gets funded every year when Head Start programs meet the requirements and follow the performance standards. In order to receive reimbursement for food services, the program has to meet and follow the nutrition standards. If for some reason the nutrition policies and procedures are not followed than the program can’t receive any food cost reimbursement, so it is expected for the program follow the guidelines and provide the expected services to children and parents in order to continue the funding.

**Statement of the Research Problem**

The prevalence of child obesity has been considered an alarming public health epidemic in the United States. Based on an updated report from the Center for Disease Control and prevention (CDC) on September 2014 reported on the Child Obesity Facts Prevalence of Child Obesity in the United States, 2011-2012 that childhood obesity prevalence remains still high and that obesity among ages 2 to 19 years has not significantly changed since 2003-2004 since people age 2 to 19 years old still reminds to be about 17 percent. As cited in CDC, 2014B that childhood obesity in the United States is the main focus for Public Health entities. Therefore the Center for disease Control and Prevention (CDC) has funded State and Community levels in which Medical and governmental institutions are implementing strategies to reduce obesity by implementing educational programs.
**Study purpose.** My Hypothesis for this study is to proof that Head Start program effectively and positively impacts children who are identified as obese or overweight to control or reduce children's weight with the different types of nutrition and health services that are offered to children and families served by Yolo County Head Start Program.

**Theoretical framework.** This study focused on the system theory because according to Beder, (2000) the system theory explains why societies got into difficulties. According to the system theory, the systems are integrated parts and each system impacts all of the whole Systems. The system theory is used in social work practice to solve conflicts in society at the micro, macro, and mezzo levels. This theory states that different practices in the systems, affects and impacts groups, organizations, and individuals. (Beder, 2000). According to the CDC, (2014B) low-income and education levels have been identified as significant factors causing high rates of obesity. The System theory applies to solve the problem of childhood obesity. The literature review in Chapter 2 discusses how poverty, and low education levels have been found to be significant factors in childhood obesity. Therefore, the system theory applies to the problem of child obesity in Head Start program as well. (2013-2014 Head Start Program Information Report (PIR) reports that the Yolo County Head Start program serves 328 children ages 3-5 years old and 52 children 15. 85% of those children are obese. 59 children 17.99 %. Children are overweight. The Head Start program serves only low-income children, and 10% of the total serve children are over income.
Comparing the percentage rates of child obesity with the national and State levels. The (PIR) shows how the Yolo County Head Start program obesity rate is almost at the same high rate as it is of the National and State Head Start levels. It is important to consider that we are comparing two different program sizes. The National Head Start has a large sample, compared with the small sample number of Yolo County Head Start program. It is also good to consider that the National and local Yolo County Head Start program serve low-income children. Low-income levels have been identified as one of the factors that are contributed to child obesity CDC, (2014B) according to the report education levels is another factor that contribute to Childhood obesity. Most of the parents of the children in the Head Start are minimum wage working parents who also have not higher levels of education. Childhood obesity is cause for different factors that are caused by other systems, but poverty and low levels of education are problems existing for decades. Solving these two problems implies a lot more than a simple solution in the United States. Therefore, the System Theory applies to the question problem in this study.

**Definition of terms.** Obesity: Is defined as a body mass index at or above the 95\(^{\text{th}}\) percentile for children of the same age and sex.

Overweight: Is defined as a body mass index at or above the 85\(^{\text{th}}\) percentile and lower than the 95\(^{\text{th}}\) percentile for children of the same age and sex.

Family Support Service Assistant (FSSA): An employee responsible to assure that all the program services are offered and delivered to clients.
Internal referral (IR): A form of document to record the identified special areas of concern.

Body mass index (BMI): Is a measure used to determine childhood overweight and obesity. Body mass index does not measure body fat directly, but it is a reasonable to indicate body mass fatness. Body mass index is calculated using a child’s weight and height. Center for Disease Control and Prevention, (2012).

Program Information Report (PIR): A report that is submitted to the federal government annually to calculate the federal, state and county percentages of program outcomes.

Social work research justification. This study is consistent with one of the primary missions of the social work profession (National Association of Social Workers, 2008) Noted: “to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed and living in poverty.” The findings of this research will contribute to the social work profession by proving important information to Social Workers about the dimension of the problem and impacts of childhood obesity in society. What factors are contributing to childhood obesity and why focusing on prevention and intervention at early age has been found to be as best practices to stop childhood obesity and prevent a future with a large population of obese adults. This research study will also help social workers to educate the individual, families and group organizations about what to do to prevent and stop the prevalence of childhood obesity.
Study limitations. This study did not compare children enrolled in the Head Start program with children enrolled in a private preschool program. This study did not use two sample groups. This study did not use a large sample of diverse ethnic groups. Another limitation of this study was that some parents said that the answers on the nutrition screening forms during the first year of enrollment in the program were misled or inaccurate. Parents said that they were ashamed about their children's wage and did not want to be the judge as parents.

Statement of collaboration. The efforts to complete this study were the efforts of Master of Social Work student Maria Eugenia Pimentel and the collaboration of the Yolo County Office of Education Head Start Program and the department of social work. The thesis advisor for this thesis was David Nylund, LCSW, Ph.D.
In the United States about 1 in 8 preschoolers are obese, children who are obese as preschoolers are 5 times more likely to become obese as adults than preschoolers with normal weight. (Center for Disease Control and Prevention [CDC] 2013) Children who suffer from obesity at preschool age will also be more likely to suffer from physical and mental health problems than those who are not (Center for Disease Control and Prevention [CDC], 2014). If childhood obesity is not controlled now, the prevalence of childhood obesity is going to shape the future of a new generation of Americans. That new generations will also be dealing with many other health diseases that are linked to obesity. These health issues will result in very rare health costs that will be a problem for society. Other costs will be also high because the new obese generations will need not only medical attention, but will requires many other services.

The review of literature in this chapter will review what obesity is and how it is determined, obesity background, why is obesity a health problem, what can be done to reduce childhood obesity and how childhood obesity might be decreased with Head Start Programs. I chose these topics, because it is important to understand why the prevalence of childhood has been increasing for 30 years, what harm it is causing to the American society, and what can be done to stop childhood obesity staring at early age for the future generations.
**Obesity Definition**

Understanding what is obesity and what causes obesity is critical in order to figure out what can be done to stop the prevalence of childhood obesity. According to the CDC Childhood Obesity Facts, overweight is defined as having in accordance with a particular height a combination of excess of body weights from bone, fat, muscle, and water. According to the same report, obesity is defined as having an excess of body fat. Also, that overweight and obesity are conditions as the result of calorie intake that are imbalances of too many calories consumed and the few calories used for the amount of calories consumed. (CDC, 2014).

**Causes of Obesity**

There are many different factors that have been found as causing childhood obesity. (CDC, 2013), according to a report American society is characterized by environments that promote high increase of consumption of unhealthy food more and more sedentary life styles. There are many environmental factors that determine childhood obesity, and childhood obesity is the result of eating too many calories and not getting enough physical activity.

For some children, childhood obesity has been associated with adult head of household education level. (CDC, 2013) Obesity prevalence varies among racial and ethnic groups, age, and sex also by the adult head of household education level. Overall obesity prevalence among children with the head of household education at college level was as half that of those whose adult head of household did not have high school.
education level. The girls percentages were 9% to 19% and for boys 11% to 21% among boys. CDC, (2014b).

The prevalence of obesity and that alarming high increase rate of obesity is why obesity is seen as a very hard epidemic to control. According to the CDC, (2014 A) it is as a combination of conditions that are affected by behaviors, genetic and their environmental factors. The balance of calorie intake is very important to keep a healthy weight and it make sense that if the consumptions of too many calories is not expended, the body will convert the excess of calories in body fat. Childhood obesity is also more prevalence among preschoolers of those from low-income families with an income to a poverty radio of 100 % or less. CDC, (2014B).

(CDC 2014) points out in the same article as prevention to solve the problem for the high consuming of calories and less expended calories. This by having a lifestyle habits that includes healthy eating and physical activity to lower the risk of becoming overweight or obese, and to prevent the developing of other serious health issues related to obesity. Although children of 3 to 5 years old are not aware of how the calorie balance works, so parents and adults who are taking care of young children should be educated about how to calorie consumption and expended works in order to develop the idea of how calorie balance works.

**Measuring Obesity**

Body Mass Index (BMI) is a measure that is used to determine childhood obesity. Using the children's weight makes the calculation and height and age of the children are used to determine overweight and obesity. This calculation doesn't measure the body fact
directly, but it calculates the child weight of fat of the body. Different categories are used for adults and children to use this method to determine weight status because the weights status change based on age and gender, since weight also varies between boys and girls. This calculation doesn’t measure directly body fat, but it calculates body fatness. (Basics About Child Obesity, 2013).

**Obesity Rates**

The prevalence of childhood obesity for three decades and the rapid increase of high rates of childhood obesity have become today one of the major public health concerns in the United States. According to the (Centers for Disease Control and Prevention, Childhood Obesity Facts, August 13, 2014) for the past 30 years childhood obesity has more than doubled in children and increased more than four times in adolescents.

**Childhood obesity**

The high increase of obesity and overweight has caused many researchers to study obesity among adults and children in the USA. The investigation of what causes obesity and the effects of obesity is a serious concern during the last years. The centers for Disease Control and Prevention (CDC), has been monitoring obesity in preschoolers and the revealed results have shown how obesity has doubled in alarming increasing increments as triple in the last years. (CDC, 2013) The investigations revealed how the obese children are more likely to be obese when children became adults, the high risk to develop other chronic deceases that are linked to obesity have been since decades a great concern, but lately the concerns with the possibly higher cost to treat deceases caused by
obesity has been alarming researchers, government agencies and public health agencies. The State Obesity prevalence surveillance that measures the high and weights of 11.6 million low income children ages 4 to 6 years from 40 States including the state of Columbia who participated in the Pediatric Nutrition Surveillance System during the years 2008-2011. Race and ethnicity was used to examine the trends and prevalence, and the results revealed that obesity had an age and gender. The results were used to define the trends in child obesity (CDC, 2013).

The percentage rate of children obesity according to CDC, (2014) increased significant among age’s 6 to 11 years obese children from 7% in 1980 to about 18% in 2012. During the same period of time, the rates of adolescents who were obese from ages 12 to 19 years increased from 5% to about 21%. The information in (Childhood Obesity Facts, August 13, 2014) Emphasis how the physical activity and eating habits of young children are influenced by many different sectors of society as the report reveals that family, media, communities, schools, governments and the advertising industry has to do with children eating behaviors and that school plays a critical role in providing children a safe and healthy environment where children can learn about proper nutrition and healthy life styles. It was recommended based on other studies as evidence-based recommendations that prevention is an effective control of obesity (The Journal for Nurse Practitioners-JNP, 2011) reports how the prevention of childhood obesity really can make positive changes if early interventions are done at the first years of a child’s life.
Health Problems of Obesity

Some of the Health effects of childhood obesity include (Stephen & Daniels, 2006) Blood pressure, type 2 diabetes, and early symptoms of hardening of the arteries, nonalcoholic fatty liver disease, polycystic ovary disorder and breathing disorders during sleep. It was found that obesity damage the cardiovascular system too. (Childhood Obesity Prevention, about we Can! Obesity can also cause different types of cancers. Youth that are obese are more prone to have cardiovascular disease like high blood pressure, high cholesterol. CDC, (2014 a) A population according to Basics About Childhood Obesity report based-sample shows that obese youths 5 to 17 years old are 70% more likely to have at least one factor to have cardiovascular disease and that children that are obese are more likely to have pre-diabetes, which is a high risk of diabetes development.

Another of the immediate effects of obesity are also that children and adolescents that are obese are at a greater risk to develop other problems with the joints and other social and psychological problems for example low-self teem and be discriminated based weight (CDC, 2014). According to CDC (2014a) one study shows that children that are two years old are more likely to be obese adults and therefore will have greater risk to develop many other health disease like cardiovascular disease, high cholesterol, high blood sugar, have joints and bones problems, also increase the risk of different types of cancer.
What Can be Done to Reduce Childhood Obesity

Since the prevalence of obesity has tripled during the last 3 decades and the health consequences are highly concerning, the government and researchers are trying to develop different preventive strategies to control and stop the increase in childhood obesity. The Journal for Nurse Practitioners (JNP) (2011) reported that the American Academy of Pediatrics has focused on the child obesity epidemic and is advising BMI screenings at every child’s visit for physical exams starting at age 2. This was recommended as a prevention practice for childhood obesity. In that report, the primary care initiative is discussed as re-establishing in accordance with the new guidelines to properly determine children’s health and to keep children’s health history accurate. This includes nutrition, history, children’s daily physical activity as well as family history focusing on major health risk factors for cardiovascular diseases and diabetes type 2.

The primary care initiative suggests that part of the treatment plan for all pediatric clients should include: promotion of family meals, limiting television time, breastfeeding and regular physical activity as part of the plan to control childhood obesity. Besides those recommendations, the The Journal for Nurse Practitioners (2011) makes specific recommendations for those children with a BMI in the 85th to 94th percentiles that are overweight or obese. The daily recommendations that are given to overweight and obese children are to have five servings of fruits and vegetables, one hour or more of physical activity, limiting watching television to 2 hours aad avoiding sugar and sweet drinks. The same article recommended that if all the suggestions are not effectively helping
overweight or obese children 10 or older, it is suggested to have specific written daily menus by a nutritionist and constant follow-ups about dieting for weight management.

Health Promotion and childcare settings are also seen as very important environments for childhood obesity prevention. The American Heart Association (2008) reported that childcare settings are excellent environments to form and start good healthy habits at an early age and learning how to balance dietary and physical activity. The instilling of healthy eating and exercising in childcare settings is seen as an effective way; according to The American Heart Association to combat high rates of childhood obesity. The American Heart Association (2008) reported according to a survey that 74% of US children ages 3 to 6 that are not in Kindergarten yet are not under parental care, and 57% of US children are in another type of center-based care. Knowing this survey report, the American Heart Association sees this as a perfect environmental setting that is going to be an effective early intervention to prevent and stop child obesity.

Subsequently, according to The American Heart Association (2008) promoting health is important, but it is also very important, according to the current researchers, to in the same way focus on getting to know more about the nutrition and physical activity of children to know what these two things can do to prevent children obesity. Being that a poor diet and not being physically active is a major factor that contributes to obesity, it is very important to address at an early age. According to research from The American Heart Association, (2008) there is evidence that if children are overweight before they are 8 years old, those children will become obese as adults, and their obesity will be more severe. Therefore, the prevention of obesity at preschool age is an extremely important
environment to stop this childhood epidemic in the US. The American Heart Association (2008) recommends the reinforcing nutrition and physical activity in the preschool settings. It is important to consider that one of the most potentially influential factors to prevent child obesity are the children's parents as role models. Furthermore, it is important to work directly with parents to educate them about healthy practices at home and outside the home in the early stages of their children's life.

**How Childhood Obesity Might be Decreased with Head Start Program**

Given that Preschool settings have been seen as one of the effective intervention strategies to reduce childhood obesity, different preschool programs are focusing on helping preschoolers to reduce the prevalence of childhood obesity. One of those programs focusing on prevention and intervention is the Head Start Program. The Head Start program is one of the larger preschool programs in the nation that is federally funded and is also required to follow the federal nutrition guidelines in accordance with the federal performance standards to make sure children enrolled in the Head Start program have individual nutrition assessments and height, weight and BMI evaluations. According to the American Heart Association (2008) preschool settings such as Head Start are the perfect time to intervene with teaching preschool age children about a well-balanced diet and appropriate physical activity levels.

As discussed by Tanner (2015) it was reported that the Head Start program has been shown to effectively help children of low-income families do better in school after they leave the Head Start program. Similarity the Head Start program has also shown that Head Start not only helps children do better in school, but it also helps low-income
children combat childhood obesity. Tanner points out a study that was done by researchers at the University of Michigan, which involved 44,000 preschool-aged children. According to the report, the research study had some weaknesses, but the report also involved potential and important benefits to show how Head Start could help reduce child obesity. Head Start is particularly suited to combatting this problem because; obesity is significantly affecting low-income children according to the (Centers for Disease Control and Prevention (Childhood Obesity Facts, 2014).

According to Tanner (2015), there are more than 1 million children participating in Preschool programs. It was also mentioned that Head Start is a program that promotes school readiness, healthy eating, and physical activity. The services that are offered to parents about health and nutrition as mentioned by Tanner (2015) are very important. Another point that Tanner makes is that in some of the Head Start centers there are two meals offered to the children, a good benefit for those children. According to the same report about 44,000 children participated and 19,000 of those children were Head Start participants. The health records and height and weight measurements of children 2 to 6 years old were provided for the study. The participating children were compared with children from participating families who were wealthier, and with private insurance. (Tunner 2015)

According to the American Heart Association (2008), the study results showed that 16 percent of children entering Head Start were obese, 12 percent of the Medicaid kids were and 7 percent of the children of others were obese. The study showed that after
a year, 11 percent of the children from Head Start that were obese became of a normal weight.

About 27% of 2 to 5 year old children are actually overweight or obese and more than 11 million children younger than 6 years old spend 30 hours per week in a non-parental care and that children of working parents, spend about 40 hours per week in early care centers. According to the American Heart Association report, the childcare centers are expected to reverse the obesity trends. Reynolds Jackson & Cotwright (2013) discussed that early child education (ECE) also provides help for children to establish appropriate healthy eating habits and active lifestyles because these habits are very important to be established during the first years of their lives. Because the adults around them easily influence young children and because young children’s parents and children’s guardians can also get influenced by the information and opportunities given to parents to utilize and adopt healthier practices at home, to resume the ECE is considered an essential factor to combat childhood obesity.

Obesity prevention is focusing on healthy eating interventions in preschool settings. The Nutrition Journal (2014) review shows that one of the new venues for obesity prevention is promoting healthy eating habits. According to the journal review it was found that it is very important to establish healthy eating habits during the first years of children’s lives and preschool centers and other childcare settings are powerful environments to influence and teach young children eating interventions as an effective way to prevent obesity among the young children under 6 years old that are in preschool
and care facilities. The Nutrition Journal (2014) states that childcare centers have the potential to do early interventions and they can help stop the prevalence of child obesity.

The predicted social and personal levels of effects caused by obesity are great reasons to focus now on health promotions that are taking place in school settings, because it was found according to this research that they have been focusing on 3 to 6 years old children and that it was found that there are more promising findings in interventions that targets infants to five years old. Although it was also found that children under 5 years old are under-represented. According to the report, it is important because infants and children under five years old are consuming 70% of their nutrient intake when they are under care outside of the home. This fact is seen now as a potential intervention because institutional catering may be created in such accordance so as to follow the nutritional guidelines. According to the report children’s nutritional intake will be adequate, the objectives of the early educational establishments are to increase children’s knowledge of healthy eating habits and to establish skills that will help children have a better future (Nutrition Journal, (2014).

According to the article by Ashleigh et al., (2013) Vital Signs: Obesity Among Low- Income, Preschool-Aged Children United States, 2008-2011, (2013) it was reported that after observing 19 out of 43 states. There were significant declines in obesity among the low-income preschoolers. According to the study, it is important to continue with the implementation and evaluation of programs to prevent childhood obesity. One particular recommendation was to evaluate geographical and social changes. As discussed in the article, data from the National Health and Nutrition Examinations Survey (NHNES)
showed that the prevalence of childhood obesity still reminds high among young children including preschoolers. According to the report, childhood obesity will affect the children’s future health and social-emotional development.

The study results show how different geographical environmental affect the rates of child obesity from state to state, as well as the influence of other factors. Therefore it is equally important to keep monitoring the rates of obesity to use appropriate strategies for prevention and make sure to make appropriate decisions when it comes to policies that involves social environments, since 19 states have increases of obesity among low-income preschoolers, while other recent findings showed the decrease of obesity on children in higher income populations.

According to the Vital Signs other factors might have contributed to the changes in obesity trends, such as the slowing economy that enabled more families to be eligible to qualify for food and nutrition programs like WIC changes in policies that had affected reflected changes in social environments such as facilitating more recreational facilities for low-income children, more nutrition implementation in early child care centers, and initiatives targeting childhood obesity such as the Let’s Move task force that has been promoted by Michelle Obama. Early Child Education centers have promoted healthy eating and physical activity for preschoolers as well as educating parents and adults taking care of children to improve healthy eating habits.

A recent news release by the Sacramento Bee Newspaper, (Pugh, 2014) based on the data from the federal Centers for Disease Control and Prevention stated that despite
all the efforts to combat obesity, there are still high rates for adults and youths that are still suffering from obesity. In the other hand, the study showed how the prevalence of child obesity among children two years old significantly decreased from 14 percent in 2003-2004 to 8.4 percent in 2011-2012 according to the report; this drop in child obesity among preschoolers has been due to different state programs focusing on obesity prevention.

The efforts have been made at childcare centers with improving the quality of nutrition and physical activity and promoting and supporting breastfeeding. For example, the results of the “Lets Move” program that promotes children doing more physical activity and promotes more healthy habits. Being healthy and in shape has become a new healthy norm as a result of the “Lets Move” program, according to the Sacramento Bee Pugh, (2014).

This article also discussed the emphasis to combat childhood obesity through the early intervention that has been achieved at the childcare centers during preschool age. More importantly, is it at that early age when better healthy lifestyle and appropriate physical activity can better established during the first years of children’s lives. According to the Director of the CDC, the participation of children in the federal nutrition programs has contributed to the significant change in the prevalence of childhood obesity (Pugh 2014). The results of the survey have made people optimistic about future reductions in childhood obesity.
Farley & Dowell, (2014) stated in their article that after three decades childhood obesity rates had finally changed for good. According to Farley & Dowell, (2014), the decreased in childhood obesity in New York, may have happened as a result of the many prevention strategies that have been implemented. Changes in demographics, environmental changes, and policy changes. According Farley & Dowell (2014) there have been different prevention factors that have contributed to childhood obesity improvement to all taken place. But changing eating patterns at home, and the continuing media campaigns reinforcing healthy eating and physical activity have been one of the possible effective interventions.

Childcare centers and food programs like the Woman Infant and Children (WIC) program and school food services were also discussed by Farley & Dowell, (2014) is a big part of the long reduction in child obesity among preschoolers in New York schools. Another point that was discussed in the article is that a recent study done by the WIC program among children 3-4 years old in New York showed how child obesity decreased differently among ethnic groups and also in different neighborhoods. The study also showed that the majority of children that were enrolled in the WIC program were from the ethnic groups with the greatest decrease in child obesity over the time of the study.

It was also found in the study that childhood obesity had decreased in New York to the most in youngest children (Farley & Dowell 2014) this is perhaps because parents have more control of their older children’s diet more than parents have control of their older children’s diet. Farley & Dowell, (2014) also stated that it changes in the food package of the WIC program, the increased 60 minutes physical activity at schools,
parent involvement and educating parents about BMI with the strategy of sending home a personalized BMI information to parents all had positive changes in New York. In Arkansas parents were informed about the BMI, but that strategy was not utilized in California for example where the results were not as good (Farley & Dowell 2014).

According to Hughes & Gooze (2010), the Head Start Program is the largest program in the nation that offers early childhood education for low-income children. As discussed in the article, about one-third of children enrolled in the program are overweight or obese. Therefore, the Head Start program has been receiving funds to support childhood obesity. However, Head Start has also been facing barriers to handle obesity prevention. According to the report, the directors of Head Start in 50 states have been facing difficulties to implement program initiatives that support childhood obesity prevention. The main obstacles according to Hughes & Gooze (2010) that were reported by Head Start directors were not finding enough time to constantly implement the initiative “I Am Moving, I Am Learning”, for example, the scarcity of resources, and more needed staff training.

Hughes & Gooze (2010) stated, that moreover, in order to handle the barriers to obesity prevention among Head Start; it is important to really understand the original Head Start policies, especially because these policies were established with the intention to address the importance of nutrition and gross motor physical activity development. These nutrition guidelines were included in the Head Start performance standards. Nutrition guidelines were established for Head Start programs to provide well-balanced meals, snacks and to promote nutrition education for children and parents. Hughes &
Gooze (2010) state about one-third of the program directors reported that Head Start programs shouldn’t be facing barriers to obesity prevention if the Head Start program would be serving proper nutritional meals and snacks. According to the reported survey that was completed by most program directors, another identified obstacle was the attribution of the lack of not having enough money. (Hughes & Gooze (2010) According to one third of directors, one fifth of program directors reported that their program would not experience barriers to prevent obesity if their program would increase the amount of gross motor activity during the time children were in the centers. Half of the program directors responded with lack of time and money as another barrier. In addition, 30 percent of program directors reported that parents not encouraging gross motor activity as a barrier and 22 percent of directors reported the lack of staff training and limited knowledge.

Considering that child had obesity is one of the major public health concerns in the United States, the Head Start program is considered one of the early child development programs with the most potential to do childhood obesity prevention (Hughes & Gooze, 2010). Therefore, varies Head Start programs are implementing different strategies that focus on childhood obesity prevention. According to Davis & Sanders (2013), in 16 Head Start programs the Child Health Initiative for Lifelong Eating and Exercising (CHILE) is one of the evidence-based intervention strategies to prevent childhood obesity. The CHILE program consists of improving nutrition and physical activity by reinforcing classroom curriculum, training teachers, and food service staff and includes the local community with, for example the participation of parents.
Davis & Sanders, (2013) state that in rural areas, certain ethnic groups of preschoolers are more affected by obesity than others. According to Davis & Sanders (2013) American Indians and Hispanics are also underrepresented in the obesity prevention research. The CHILE intervention program uses a socioecological framework model that suggests five interventions that involve classroom curricula, organizational, staff professional development, and school food services. Family engagement and community grocery store participation with the local health providers are also included. The CHILE framework also suggests integrating intervention into the classroom and among the whole school environment (Davis & Sanders, 2013).

Nutrition and physical activity intervention are part of the curriculum components that according to Davis & Sanders (2013) are considered the core of the CHILE program, so the nutrition and health practices are done with children participating in activities and lessons that are focused on establishing habits to eat more fruits and vegetables. According to the CHILE report, children need 8 to 12 exposures to foods before the children develop a preference for that food. Therefore the CHILE food component, along with the Head Start food component, provide exposure to new vegetables eight times, and nutrition lessons are conducted in class and incorporated in the school menu.

The CHILE physical activity curriculum, according to Davis & Sanders (2013) children should have about 60 minutes of daily physical activity. This was recommended by the National Association of Sport and Physical Education and therefore 30 minutes of physical activity were added to the HS curriculum and teachers were received technical training and support that also helped Indian school children with the development and
promotion of language development, mathematics, literature, social and emotional
development and physical health.

The CHILE family engagement curriculum was combined with the already
established standards that expect parent participation. The CHILE family engagement
program included taking home educational materials, increasing whole grain food, food
recipes, and shopping ideas. Family events were also great opportunities to involve
families with establishing healthy eating and physical activities. Parents were taught how
to read food labels. Grocery store activities also helped parents to get more expose to
shopping properly and be exposed to more affordable foods. Parents talks with local
health providers is a part of the sociological theory model that helps to better educate
parents about health and nutrition and for the providers to support and help the
community. (Davis & Sanders 2013).

According to Davis & Sanders, (2013) what was learned from the CHILE
research is the difficulty of integrating diversity of cultures norms among the different
sites and at the same time to keep applying closely the intervention of the design. Even
though professional development was frequently provided to staff and the regulations and
recommendations were followed, when it was reviewed there was a high turnover of
staff. It was also learned according to the report that the changes with food were easier
for the Head Start cooks because they had the authority to change menus and also add
new foods to the menu. However, it was as easy for others to change the menus. In the
area of family engagement, the participation varied from site to site and from year 1 and
year 2 Davis & Sanders, (2013).
As it is discussed by Davis & Sanders (2013), that the stores managers were willing to participate in the CHILE research, because CHILE promoted stores with the family events and the events seemed to benefit the store. The store managers were willing to participate only if their participation didn’t affect the store’s businesses. Similar to the grocery store participation, the health care providers were also willing to participate in family engagement when health providers were asked to participate. Health providers felt enthusiastic because they knew the patients and were willing to work outside of the clinics with the same community of patients and be able to connect patients with other resources in the community. The only problem with the health care participation with CHILE was the lack of time for health providers to participate due to their busy schedule. At the end of the research Davis & Sanders (2013) found that Head Starts Centers have a big potential to do child obesity intervention, but the program is already full of regulations that makes it impossible to add more activities, regulations, or new programs to the already busy schedules of the Head Start program.

To summarize Chapter 2, there are different prevention strategies and research about childhood obesity that have been done for the last three decades to help reduce childhood obesity. But unfortunately, according to Pugh (2014) there haven’t been significant results on Adults and older children. On the other hand, recent decrease of childhood obesity among the preschool children in childcare settings have been exciting and has inspired focus more on obesity prevention among the preschoolers as a resolution to stop future adult obesity.
Chapter 3:

Methodology

This research study utilizes quantitative descriptive research design. The goal of the study is to determine if the services offered by the Yolo County Office of Education Head Start program positively impact children who are identified as overweight/obese to control or reduce their obesity. Secondary data that was used for this study was collected by the Yolo County Office of Education’s Head Start program with various purposes not specific to purpose of this study.

Study Design

This study uses a quantitative descriptive research design to determine the relationship between an independent variable and another dependent or outcome variable in a population. According to Hopkins (2000), quantitative descriptive research design usually measures subjects only once. In addition, the basic seven steps of a quantitative approach, as outlined by Grinnell, Williams, Margaret, Unrau, and Yvonne (2014) were applied to this study: problem identification, selection of specific variables, design of the study, collection of data, analysis of data, interpretation of data, and the presentation of the findings.
Variables

The hypothesis of this research is that children that are identified as obese/overweight will be positively impacted after receiving the nutrition and health services that Yolo County Office of Education Head Start program provides to manage, maintain, or decrease children’s body weight. The program also helps children’s parents and caring providers to better approach their children’s obesity/overweight status. The dependent variable is the diagnose as of a child obese/overweight and the independent variable is the various services that Head Start offers to all children enrolled in the programs who are identified as obese/overweight.

The effectiveness of the services offered to obese/overweight children were measured by comparing the body weight, height and weight charts, body mass index, (BMI) eating patterns, and children’s level of physical activity of the identified children when they were initially enrolled in the program versus the second year following participation in Head Start program services.

Study Subjects

The study population used in this research study consisted of 17 Head Start students between the ages of 3 and 5 years old, identified as obese/overweight with a BMI between 91 to 100 percent. They all had low-income statuses, are of many ethnicities and cultures, and are females.
and males. The children were selected because they met the obese/overweight criteria needed. The sample came from the Child Plus program’s computer data system that is used for the nutrition and health component of the Head Start program.

There were problems encountered in this study with the complicated and slow process in obtaining the program’s authorization from the Nutrition Department for access to the program’s Child Plus data, and to obtain the parental authorization to participate in this program from 35 parents.

Sample Population

The sample of 35 potential participants was chosen using the program’s Child Plus computer system, which categorized children under the nutrition component once those children were diagnosed as obese or overweight. The identified children with body weight problems participated in the program for two years. The data was used to analyze and describe the possible impact that the Head Start program had on children to control or reduce their body weight. Out of 35 parents asked for voluntary participation, only 17 parents were willing to participate.

Instrumentation

The tools used for this research study were: the Head Start program application, the “Food My Child Eats” form, nutrition screening
forms, health screening forms for height and weight and children's height and weight charts instruments with BMI. Letters of authorization were obtained to use the program's data along with parental authorization letters to use children's information. The forms used for this study research were forms that the Yolo County Head Start program creates and uses for their own use.

The validity and reliability of this data is unknown and the survey instrument was not tested for reliability. The data, however, was previously collected based on the parents/care provider's provided information. The instruments were selected because the forms had all the information needed to compare the status of the children the program and the improvements in terms of the children's weight after they participated and received the provided services in the program. No modification was applied to the data or results, since the data was previously collected and used for other purposes than the purposes of this study.

**Data Gathering Procedures**

The researcher met with the Program Director to request authorization to use the program's data. The researcher was asked to seek the permission in writing and to submit it to the Head Start program administration for approval. The used data was previously collected for the 2012-2013 and 2013-2014 program years. Parental authorizations letters were presented and collected from parents, and than submitted to
the Program Director and program administration for approval to analyze data.

**Data Analysis**

Once the information was received from parents and the program, the information was organized and entered in tables. Body weight, eating patterns, and physical activity levels were compared before and after children had participated in the program and received all the program’s provided services for two years. The body weights, BMI, and percentiles were analyzed to determine any possible body weight and composition changes of those children identified as obese/overweight.

**Protection of Human Subjects**

A Protection of Human Subjects application was submitted to the Sacramento State University Division of Social Work Human Subjects Committee and the application was approved as “exempt”. The protection of human subjects protocol was followed to ensure the rights of privacy and safety for all the human subjects that participated in this study. There was no identification revealed of any the human participants.
Summary

This study used a quantitative descriptive research design. The purpose of this study was to analyze data from Yolo County Head Start program to determine if their services positively and effectively impacted children who were identified as obese/overweight by maintaining or reducing the children’s weight. Human participants were protected at all times by providing them with their privacy and human rights throughout the course of this study. This study did not expose participants to harm.
Chapter 4

Study Findings and Discussions

The purpose of the study was to determine if services offered in Yolo County’s Head Start Program made a difference in minor participant’s weight. Parents of the subjects were asked to answer questions pertaining to demographics, food consumption, and physical activity prior to participation in the program and two years following participation. Participants were also weighed during both of these times. Subjects and their families participated in services for two consecutive years. The program consisted of education, health, nutrition, social services, mental health and special needs services. These services were provided to participants and their parents/care providers. The quantitative analysis focuses on demographics, Body Mass Index (BMI) changes, participants percentile changes, food consumption, and frequency of physical activity.

Overall Findings

Overall, 17 subjects were quantitatively analyzed and the following section outlines the results of this analysis. The results are presented as in the following order: Demographics of Subjects, Body Mass Index, Age Percentile, Food Consumption, and Physical Activity.

Demographics of Subjects

The subjects in the study were between three years of age and five years of age when they began participating in services. Three subjects (11.8%) were three years old; 10 subjects (58.8%) were four years old; and five subjects (26.3%) were five years old.
Table 1

*Age of Subjects When They First Began Program*

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 years old</td>
<td>2</td>
<td>11.8</td>
</tr>
<tr>
<td>4 years old</td>
<td>10</td>
<td>58.8</td>
</tr>
<tr>
<td>5 years old</td>
<td>5</td>
<td>26.3</td>
</tr>
</tbody>
</table>

The number of female and male subjects was almost equal, nine subjects were female (52.9%) and eight subjects were male (47.1%).

Table 2

*Gender of Subjects*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>9</td>
<td>52.9</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>47.1</td>
</tr>
</tbody>
</table>

Of the 17 subjects, 15 (88.2%) were Hispanic, one was Indian (5.9%) and one was Caucasian (5.9%).

Table 3

*Ethnicity of Subjects*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>15</td>
<td>88.2</td>
</tr>
<tr>
<td>Indian</td>
<td>1</td>
<td>5.9</td>
</tr>
<tr>
<td>Caucasian</td>
<td>1</td>
<td>5.9</td>
</tr>
</tbody>
</table>
Body Mass Index of Participants

Of the 17 participants, 11 (64.7%) increased their body mass index and six (35.3%) decreased their body mass index after services were offered to their family.

Table 4

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased BMI</td>
<td>11</td>
<td>64.7</td>
</tr>
<tr>
<td>Decreased BMI</td>
<td>6</td>
<td>35.3</td>
</tr>
</tbody>
</table>

Table 4

Body Mass Index (BMI) After Services

Percentile of Participants

The participant's age percentile was determined prior to participation in services and two years following services. Six participants (35.3%) increased percentile, five (29.4%) decreased percentile, and six (35.3%) maintained percentile.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Percentile</td>
<td>6</td>
<td>35.3</td>
</tr>
<tr>
<td>Decreased Percentile</td>
<td>5</td>
<td>29.4</td>
</tr>
<tr>
<td>Maintained Percentile</td>
<td>6</td>
<td>35.3</td>
</tr>
</tbody>
</table>
Food Consumption

The participant's parents were asked to note the number of foods consumed by the participants in each food group prior to receiving services and post services. Overall, participants increased consumption of meats (0.1%), and fruits and vegetables (6.5%) following two years of intervention. They decreased consumption of grains (1.4%), dairy (0.4%), fats/oils/sweets (1.9%), and soda (2.9%).

Table 6

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Frequency Prior to Intervention</th>
<th>Percentage</th>
<th>Frequency Post Intervention</th>
<th>Percentage</th>
<th>Percentage Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>118</td>
<td>17.3</td>
<td>103</td>
<td>15.9</td>
<td>-1.4</td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>291</td>
<td>42.7</td>
<td>319</td>
<td>49.2</td>
<td>+6.5</td>
</tr>
<tr>
<td>Dairy</td>
<td>66</td>
<td>9.7</td>
<td>60</td>
<td>9.3</td>
<td>-.4</td>
</tr>
<tr>
<td>Meats</td>
<td>115</td>
<td>16.9</td>
<td>110</td>
<td>17.0</td>
<td>+.1</td>
</tr>
<tr>
<td>Fats/Oils/Sweets</td>
<td>63</td>
<td>9.2</td>
<td>47</td>
<td>7.3</td>
<td>-1.9</td>
</tr>
<tr>
<td>Soda</td>
<td>29</td>
<td>4.3</td>
<td>9</td>
<td>1.4</td>
<td>-2.9</td>
</tr>
</tbody>
</table>
Physical Activity

Of the 17 participants 11 (64.7%) increased the number of daily physical activities they engage in and six (35.3%) decreased daily physical activity.

Table 7

<table>
<thead>
<tr>
<th>Change in Frequency of Daily Physical Activity After Services</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Activity</td>
<td>11</td>
<td>64.7</td>
</tr>
<tr>
<td>Decreased Activity</td>
<td>6</td>
<td>35.3</td>
</tr>
<tr>
<td>Maintained Activity</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Specific Findings

Following two years of services, the researcher found that the body mass index of participants increased in over 64.7 percent of participants (n=11). While this is indicative of services not being effective, there were changes in other areas of participant’s lives. These changes include 64.7 percent of all participants decreasing or maintaining the age percentile, participants decreasing the consumption of fats/oils/sweets and soda, and 64.7 percent increasing daily physical activity.

Interpretations of the Findings

The findings suggest that participation in Yolo County’s Head Start Program will benefit children in establishing a healthier lifestyle versus no participation. This change in lifestyle could lead to reduction in obesity levels in children in the long run. Furthermore, the education in various areas the families received during the program will also assist in reduction of obesity levels.
It should be noted that some participant’s parents stated they were not completely forthcoming with all the information during the acquisition of baseline data. Following the two years of intervention and rapport building between the program coordinators and the families, parents were more honest when it came to answering the questions. This initial reluctance resulted in the baseline data not being accurate and made answering the hypothesis difficult.

**Summary**

The program did not immediately impact the families in reduction of obesity in their children. However, the program impacted families where they began to change daily physical routines, acceptance of their child being obese, and a change in eating habits. A more lengthy analysis of the progress of children in the program will be more indicative of the program effectiveness. It is important to note that families obtained the nutrition education and became more aware of the impact of obesity in children. The information obtained is likely to further affect change in their lifestyle to prevent or treat obesity.
Chapter 5

Conclusion, Summary, Recommendations

Many different preschool programs nationwide, including the Head Start program, are focusing on the prevention of childhood obesity. According to a report by the CHILE program one of the most significant obstacles for the Head Start program to combating childhood obesity is that it is not able to add extra curricula due to lack of time and resources. In Yolo County for example the “Let’s Move” program initiative was initially implemented, but it has been inconsistent due to not having time to add extra activities to the busy schedules teachers already have. According to the article America’s Move to Raise a Healthier Generation of Kids, the Let’s Move program is focusing in implementing five goals to help reduce childhood obesity in all schools. Cultural inclusion needs to be added to the nutrition services, parent engagement, and nutrition education services component in the Head Start program services. Exploring new and effective tactics for childhood obesity needs to be included consistently in these programs.

Recommendations

The researcher recommends for further study into practical approaches to stop childhood obesity and a focus on more effective childhood obesity prevention techniques for example, start a school garden with parents and children, increase physical activity in classroom and outside of classroom by rotating different exercise activities with consistency, provide nutrition classes at the centers, and hosting the local Woodland Farmer’s Market to make fresh fruits and vegetables accessible for children and families.
The researcher also recommends more training and nutrition education for teachers and staff to make nutrition a stronger component of their work standard.

**Limitations**

One of the limitations in this research study is the sample size of only 17 participants. With a small sample size, one cannot generalize the findings to the entire population of Head Start participants.

Another limitation to this research study was that the majority of participants were Latino. Latinos in Yolo County have been identified as one of the minority groups that are most affected by the obesity epidemic and have the highest rate of obesity. (Yolo County Health Department, 2014). Considering this is an important factor, the Head Start representation of obesity among preschoolers in this study does not necessarily represent other ethnic groups.

Some discrepancies were found in the completion of screening tools by parents in regard to the expected improvement of healthy eating and exercise following the first and second year of participating in the program. Some of the parents stated that they provided misleading responses on the parent questionnaires during the enrollment process about the children’s eating patterns and about children’s levels of physical activity because they felt shame about their child’s body weight. Parents reported that they did not want their children to be judged about their body weight. Also parents during the enrollment process did not feel comfortable enough with the Family Support Service Assistants (FSSA) to be open and talk about their concerns about their children’s body weight. Most of the FSSAs stated that parents, on the other hand, had initially a negative attitude about addressing
their children weight with them.

Another important point to consider is that obesity among Yolo County Head Start program participants mirrors the obesity rates shown in the community assessment results done in 2014 by the Yolo County Health Department and other community agencies in Yolo County. These results showed how Latino male children are the group with the highest obesity rates. Therefore, a lack of culture inclusion in nutrition services and parents' nutrition education might affect the obesity rates in Yolo County and among the Head Start populations as well. For a more effective program, cultural specifics need to be included in the services provided.

**Implications for Micro Social Work**

It is important to educate parents about the benefits of modeling and educating young children in regard to healthy eating and exercising. Social workers can attribute a lot to the effort of combating obesity in the U.S. with their prevention and intervention utilizing social work approaches of empowering people and communities to use community resources and by educating clients and communities about the problem and health implications of obesity. Social workers working directly with clients can be very significant in childhood obesity prevention.

**Implications for Macro Social Work**

It is very important for social workers to remain informed about obesity research because educating themselves about the cause and effect of obesity will help social workers to educate parents, youth, and children about the importance of having a well-balanced diet and exercise routine in order to live a healthy life. It is also important for
social workers to see where more services are needed. Social workers need to educate themselves on the problem, which in turn will lead to advocating for policy that will make positive changes in the community. This advocacy can focus on the development of new nutrition programs in rural communities, the development of more recreational centers in these areas, and for social workers to help create a networking community to fight the epidemic of obesity.

Summary

This research study was focused on analyzing the Yolo County Head Start program to determine if the services provided by the Head Start program positively impact the children who are identified as overweight or obese. Various nutrition services are offered to children and their parents/care providers that include nutrition classes, nutrition workshops, and promoting parent involvement with nutrition activities. The findings in this study show that the program’s services have not immediately been effective. There were, however, positive changes that in the long term might more effectively impact those children struggling with their body weight. It took two years to note small positive changes as result of increasing food choices and physical activity. The Head Start program needs to add more to their nutrition services. In addition, further research is needed about the effectiveness of the program impacting obese/overweight children in order to help decrease high rates of childhood obesity among preschoolers.
Appendix A

April 24, 2014

To Whom It May Concern:

This letter is to verify that the CSUS graduate student Maria Eugenia Pimentel has been granted permission to access, utilize, and analyze the collected data of 300 children. These participants are children enrolled in the Yolo County Head Start / Early Head Start Program from 2011 to present time. The data was originally collected for the sole purpose of the Yolo County Head Start / Early Head Start programs. Maria Eugenia Pimentel will use the collected data under the permission of the Yolo County Head Start / Early Head Start Program by following the appropriate program's confidentiality protocol and under the condition that it is for the sole purpose of conducting an academic research study. No identifiable information will be used or disclosed. The topics of this research study will be overweight and obesity among the children participating in this program.

If there are any questions about the permission granted to Maria Eugenia Pimentel to analyze the collected data, please do not hesitate to contact Gail Nadal, Director of the Yolo County Head Start / Early Head Start Program at (916) 201-7566.

Sincerely,

Gail Nadal
Appendix B

Protocol for Human Subjects Approval Letter

CALIFORNIA STATE UNIVERSITY, SACRAMENTO
DIVISION OF SOCIAL WORK

To: Maria Pimentel

From: Research Review Committee

Date: May 7, 2014

RE: HUMAN SUBJECTS APPLICATION

Your Human Subjects application for your proposed study, “Obesity Among Children Ages Two to Five Years Old”, is Approved, Exempt, with Recommendation(s). Please review the recommendations below and discuss with your thesis/project Advisor. You do not need to resubmit your Human Subjects Application to the Research Review Committee.

Your Human Subjects application Protocol # is: 14-15-002. Please use this number in all official correspondence and written materials relative to your study. Your approval expires one year from this date. Approval carries with it that you will inform the Committee promptly should an adverse reaction occur, and that you will make no modification in the protocol without prior approval of the Committee.

Recommendation(s)

Recommendation 1: Make sure to identify the data

Recommendation 2: The committee wishes you the best in your research.

Research Review Committee Professors: Maria Dinis, Jude Antonyappan, Serge Lee, Francis Yuen, Kisun Nam, Dale Russell
Cc: Nam
References


