Statement of the Problem

Obesity is a multilayered problem with no simple solutions which left researchers questioning if obese pre-adolescent children receive family therapy will it result in fewer risk factors associated with medical complications that stem from obesity? Obesity is a problem that results from a caloric imbalance also classified as children eating too many calories and not participating in enough physical activity. When children are affected by this problem it can make the search for a solution much more complicated. In 2012, it was reported that more than one-third of children were obese. The number of obese children has tripled within the past 30 years. Childhood obesity has both immediate and long term health consequences and is mediated by numerous genetic, behavioral, and environmental factors.

In the past the primary study around childhood obesity focused on the long-term health problems, however within recent years society has been doing more studies about the immediate consequences. Immediate consequences associated with childhood obesity include health risks such as pre-diabetes, cardiovascular, high blood pressure and high cholesterol. In addition to health risks children struggling with obesity also have social and psychological problems and self-esteem issues. Obese children are also at greater risk for bone and joint problems. Immediate consequences of childhood obesity pose as much risk and sometimes contribute to the long-term consequences.

Long-term consequences of childhood obesity generally appear when the child is older, sometimes last a lifetime and are generally harder to reverse. Long-term problems can include the adolescent developing type 2 diabetes and osteoarthritis.
Children suffering from obesity also are at risk for having strokes and are at an increased risk for many types of cancers. In addition, obese children are more likely to become obese adults. The scariest part about the long-term consequences is that they can potentially result in death.

Family intervention is an approach that some social workers take when addressing childhood obesity. This intervention involves establishing a safe and supportive environment in which the child thrives combined with healthy eating and lifestyle changes and increased physical activity to combat the problem.

Research Design

Randomization was the designed used to conduct the experiment. Not to be confused with random sampling. Rather these participants volunteered to be a part of the experiment after seeing flyers posted in various places. The randomized design included three repeated measures which were conducted at baseline, immediately post-treatment and at follow-up which was completed one year after enrollment. This design is generally used to increase internal validity. Instead of ensuring participants are representatives of a population, the focused on a specific population and were more concerned with safeguarding the separation experimental group from the control group. In addition to safeguarding the two variable groups, the instruments of measurements used throughout the experiment were also consistent. Both of which contribute to the internal validity. On the contrary, the external validity was not maintained as much. Instead researchers were a little ambiguous about whether both groups received the exact information. In addition to not knowing whether the information was delivered identically or even similar to both groups, it is clear that whatever information conveyed
was delivered by different people from different organization which may have received different training. This poses a threat to the external validity of the experiment.

**Sampling**

Although participants were volunteers the strategic qualitative sampling method used was purposive, homogeneous sampling. Homogeneous sampling is used to select participants that are alike. The sampling frame for this research included participants that were between the ages of eight and eleven years old and who had a Body Mass Index (BMI) greater than or equal to the eight-fifth percentile and did not impaired glucose intolerance, type II diabetes (DM2), metabolic syndrome (MS), hypertension or significant learning problems. The advantage of using this type of sampling is that the population that does not meet the criteria for the sampling study has already been eliminated making the selection process less time consuming. Also purposive sampling makes it a lot easier to obtain participants, which cut down on cost. The disadvantage to this sampling method is proving that the subjective components used were based on the judgment of the researcher; however in this case the judgment of BMI relative to age and sex is non subjective. In addition, this was the best sampling method to use since because the researcher wanted to address specific characteristics of a particular group, obesity.

**Measurement**

The key variables measured in the study were medical and psychosocial variables. Demographic information, including participant’s age, race, gender and family information, was captured also at the base line of the study by Holingshead Four Factor
Index of Social Status. This information included participant’s age, race, gender and family medical and socioeconomic status; with only the participant’s age being a key factor for this study.

The medical variables captured were the children’s BMI which was measured twice using an electronic scale and a stadiometer. Blood glucose and lipid panel were measured by drawing blood from the children. The children’s blood pressure was also checked three times with an automated sphygmomanometer and twice manually to ensure accuracy and normality for the specific child.

The psychosocial variables measured were the level depression, quality of life and positive and negative behavioral adjustments. The children’s self-perception were also measured.

While there were methods used to ensure consistency of study procedures, it would have been great to see the study completed on children that had psychosocial measurements lower than normal. Perhaps if the study included children with psychosocial measurements lower than "normal" the researcher could have made a direct correlation between the intervention and psychosocial behaviors.

Data Collection

As stated above, the data for the key variables were collected three times during the study, at the baseline, immediate post-treatment and during follow-up which took place one year after enrollment. All data and measurements were collected by the same nurse or nurse practitioner. In addition to the same rater collecting the date, the same procedures and tools of measurement were used. If the researcher had decided to use
different tools of measurement during the collection period it may have yielded inaccurate or non-measurable results.

**Ethics and Cultural Considerations**

The family based intervention method used in this study could be deemed effective for children of any age, race and ethnicity simply because the researcher did not exclude a specific demographic outside of age from the study. However, based on current interaction with adolescents in the African American community the ability to incorporate parent involvement, as done in this study, may be problematic. Currently, the Local College Access Network (LCAN) for the Osborn Neighborhood in Detroit, MI has little to no parent involvement. Being that the intervention required parent involvement, trying to sample this district may pose a problem and a larger sampling will need to be included.

Thinking about the study from an ethical point of view, one couldn’t help but to question the disservice that the controlled group received. This group was not afforded the opportunity to learn ways to reverse their obesity. This allowed the children to continue on a path that could lead to medical comorbidities that are associated with obesity. Although, the researcher was sure to give them some treatment to avoid simply not addressing the chronic disease that could have a detrimental effect because anything less some may have seen as inhumane. In addition to the treatment given, morally the researched should have provided more instructional material. It seemed as if the researcher provided the control group a goal without objectives and task on how to reach the goal while the non-controlled received precise directions and continuous care. Perhaps the same results could have been obtained if both groups received the exact
same information while only providing one group with the continuous support that was given by the additional sessions provided.

Result and Implications

Given the pivotal and essential role that families, specifically parents and caregivers, play in shaping the life experiences of children, working with these family members seems essential when developing interventions to combat a chronic disease such as adolescent obesity. Empowering parents to play a key role in the prevention of adolescent obesity have a direct effect on weight loss and health improvement. The family based interventions used in this study included educating the parents on healthy living and ways to battle obesity. This education allowed the parents to not only address obesity in the children but also allowed for a lifestyle change which could be beneficial to everyone in the household. It could be considered a lifestyle intervention.

When conducting this research, a practitioner must be conscious of the factors that are used to consider children obese. This may require some level of medical expertise. The practitioner must also have knowledge of what forms and tools can be used to measure the characteristic criteria for the sampling frame. Lastly, the practitioner will also want to research the family involvement of the potential sampling population. This can be done by obtaining parent/care giver involvement from local schools and also by random questionnaires.

The biggest challenge with implementing this at a local agency would be the lack of, already noted, parent involvement. Some contributing factors of this lack of involvement simply have to do with majority of households are single parent homes. The time for parents, outside of work, may be limited which could be a reason parent
involvement is so low. In addition to parent involvement being a challenge, family economic status may also pose a hindrance on implementing this style of intervention. Overall it will be a challenge to as to continuously engage these families in this type of intervention study.
Works Cited


