Research Proposal

Single parent families, socioeconomic status, and early childhood obesity: A qualitative study

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Specific Aims

- To determine if childhood obesity is more prevalent in single-parent households in comparison to households with two or more parents/guardians.

- To determine if socioeconomic status plays a role in the food purchased for households with children and/or food insecurity.

- To determine if early childhood obesity is more prevalent in families when parents work longer hours.

- To determine if stress levels differ between single parent families, and families with two or more parents/guardians.

Hypothesis

- Single parent families will have a higher prevalence of childhood obesity.

- Socioeconomic levels will be lower in single parent families compared to families with two or more parents/guardians.

- Single parent households will have increased levels of stress among both the parent and the children.

- Food insecurity will be more prevalent in single parent households.

Background

The obesity rates all across the world have been a growing concern. Children’s obesity rates have doubled in the past 25 years, which has had a major impact on the health status of children (Veldhuis, et al. 2009). Young children are developing numerous diseases and problems, which are usually not prevalent at their age. Studies are being done to try to find reasons why this epidemic has grown so large.
In Hawkins study, she researched the effect of maternal employment on the overweight status of young children. Differing patterns of life when mothers return to employment has been associated with early childhood overweight. (Hawkins, et al. 2008.) She found that children “were more likely to be overweight for every 10 hours a mother worked per week.” (Hawkins, et al. 2008.) This could play a role in single parent families, especially if it is a single mother household, and long employment hours are necessary. This also may have a role in single father households, especially if children only live with their father.

Another factor that may play into the increasing status of overweight children is that the parents may have low awareness to their children’s weight status. In Harnack’s study, results indicated that parents are unlikely to recognize childhood overweight among young children. (Harnack, et al. 2009.) In this study, 94% of the parents classified their child as normal weight when their child was overweight. If a single parent is working long hours to support a family, there is a possibility that they may not recognize their child’s weight, which would decrease the likelihood of prevention efforts, since a problem is not recognized. This study had a participation of 90% by mothers. There may have been different results if only fathers were interviewed. It is hard to associate this study to single father families, since the vast majority of participation was by mothers.

Food insecurity has been linked with obesity, and even more so with increased likelihood for diabetes. (Seigman, et al. 2007.) Food insecurity is when a family or person has limited access to food sources, or cannot afford appropriate food sources. Often times, nutritionally inadequate foods, such as fast food, can be very inexpensive, calorically dense, and easily accessed. (Seigman, et al. 2007.) When a family or person cannot access foods with high nutritional quality, or cannot afford these items, often times they will go for the cheapest foods that will offer the most satiety. This may be present in families with a parent working long hours, which may not have enough time to prepare a nutritionally sound meal, or cannot afford one.

**Significance**

With an increasing divorce rate, there are more and more single parent families being formed. The studies found in researching this topic have mainly focused on mothers of families and their views/roles in the feeding of their children, and weight status. Fathers were minimally referenced as being a source of information.

None of the studies found have looked at the relationship between single parent families, and if this has an effect on the weight status of their children. My primary objective is to examine the relationship between overweight status of children, and single parent households. One secondary objective I will look at is socioeconomic status of the family, and if income plays a role in obesity of the children.
**Research Design and Methods**

This study will use qualitative research to find associations between obesity, and family dynamics. The chosen design for this study will incorporate focus groups, as well as anthropometric measures.

There will be two focus groups formed: one with single parents, and one with parents from multiple parent households. Each focus group will have a series of prompts and questions to answer as a group regarding food security, stress levels in the family, physical activity of the children, and role of the child in the household (See Figure-1). The groups will discuss these topics amongst themselves, and data will be collected.

Money sources and income level will be asked on a separate sheet of paper and recorded separately. We would like to analyze what type of financial and socioeconomic level the participants are at, and what effect this has on food purchases made. To get a sense of the typical food purchases made, a food frequency questionnaire will be given to see the typical types of food the family consumes.

All focus groups will take place in a private room at a local elementary school, and recorded for transcription purposes. Once data has been collected, parental responses will be documented and reviewed. Reviewers will not know the identity of the persons in the focus group.

**Figure-1: Focus Group Study Design**

Recruitment:

The first step in designing this research will need to address finding participants for the study. The main group focused on in this study will be the parents of both single parent families, and families with two or more parents living in the same household.

An interest sheet will be sent home to parents with children enrolled in the Lubbock Independent School District to collect study participants. The questionnaire will offer a $50
gift card to United Supermarkets for participation in the study. The sheet will offer contact information, including name and email address, to contact the researcher if interested. The interest form will state that we are looking for both single parents, as well as married couples, with children who attend elementary school in the Lubbock Independent School District. We will have two separate focus groups, one containing single parents, and one containing married couples who live in the same household.

Participants:
The goal number of participants for each focus group is at least 50 participants per group. This will give us an estimated 100+ children samples of anthropometric data to analyze. The participants will come from the Lubbock community, and any socioeconomic status is accepted.

Data Collection:
Once parent participants have been collected and reviewed for exclusions, anthropometric data will be collected by a trained dietitian from the children, including weight, height, and blood pressure (See Figure-2). BMI will be calculated from this data. This data will ascertain what the trend in BMI is for the children of these parents, and will be able to tell which group has a greater obese population, either the single parent group, or the married parent group.

Figure-2: Children BMI Measure Study Design

<table>
<thead>
<tr>
<th>Children of Single Parent Households</th>
<th>Children of Two or more Parent Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=50+</td>
<td>n=50+</td>
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Focus groups will be formed based on each relationship status (single or married), and interviews will be conducted. The questions will focus on the dynamics of the family, and their children in the household. Questions will discuss such topics as physical activity of the children, and role of the child in the household. Questions regarding the children’s preparation or purchase of lunch will also be included. Food insecurity will be discussed.
amongst the group, in questions asking about how they get their food, and affordability. A “typical” day question will also be asked. This will give the researchers a greater sense of the day-to-day family lifestyle differences in the two groups.

Exclusion criteria:
Families with children who have special needs will be excluded, due to additional care that may be provided from an outside source. Caretakers and additional family support will not give clear results. Single parent families living with other single parent families will additionally be excluded. This study wants to focus specifically on dual income families, or single income families. Families with one or more unemployed parents will also be excluded, due to possible lack of income source, or a very limited government issued source. All families with all children over the age of 10 will be excluded, as this study primarily looks at early childhood obesity. Also, older children may step into the role of an additional parent, and for these reasons, older children families will not be included in the study.

Statistical Analysis:
Comparisons between single/married households and different socioeconomic status levels will be made using student’s two-sample T-test, in order to test for statistical significance. Since two populations are being compared, and this is not a “before and after” study, the unpaired test will be used. Analysis of Variance (ANOVA) will also be used to see if the mean for the two groups is equal and has a statistical significance.

Implications and Conclusions
If research concludes a greater association between single parent family households and childhood overweight and obesity, nutrition education and prevention efforts may need to be refocused. By focusing on households with one parent, the prevention efforts may be more successful. This could be a needy population, and may be more willing to participate if the children are at a greater risk. If this study does conclude a greater risk, families with one parent may show more of a concern, and may reevaluate their food purchases.

With an increasing divorce rate, there are more and more single parent families being formed. The divorce rate only continues to increase. In addition, young teenagers are becoming impregnated and trying to raise children on their own. Prevention efforts may need to be focused toward single parent households or single parents in general, if there is a greater prevalence of obesity. Since there are no studies on single parent families or effects on food security of single parents in association with the rates of obesity, more research will be needed.
References Cited


Sweeting, Helen N. Gendered dimensions of obesity in childhood and adolescence. *Nutrition Journal.* 2008 7:1


