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# Pediatric Obesity Attitudes, Services, and Information Among Rural Parents: A Qualitative Study

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## Abstract

The objective of the current study is to learn more about the attitudes concerning pediatric obesity among rural parents, the barriers these parents face in trying to help their children attain a healthy weight status, and the pediatric weight loss services currently available in small rural communities. A series of eight qualitative focus groups were conducted with 21 parents of overweight rural children in third through fifth grade. Eight saturated themes resulted indicating that parents believe overweight children are lazy, are concerned about the weight of their children, believe that some individuals will be overweight no matter what they do, and have tried a variety of techniques to help their child lose weight. Barriers to helping their children lose weight unique to their rural status included lack of weight loss resources in their community, lack of exercise facilities, and lack of low fat or low calorie options in grocery stores. Rural families of overweight children encounter many barriers to healthier living, some of which are unique to their rural status.

### Keywords

pediatric obesity; telemedicine; focus groups; parents' perceptions; rural communities

## Introduction

The prevalence of pediatric obesity is increasing at an alarming rate. The World Health Organization reports that an estimated 20 million children under the age of five are overweight worldwide (1). This is a major public health concern due to the negative health outcomes associated with pediatric obesity, including negative behavioral and medical outcomes such as depression, cardiovascular problems, and endocrine disorders (1,2,3,4,5). As awareness has increased, attention has primarily focused on urban populations, with very little information available on pediatric obesity among rural children. Researchers from the Journal of Rural Health recently concluded that while obesity is nationally recognized as a major public health

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problem, its significant role in rural locations is poorly recognized and not clearly understood (6).

There have been relatively few studies examining the prevalence of obesity among rural children, but those available indicate that approximately 20-25% of rural children are overweight (7,8). Current data from the CDC suggest that 15% of children in the United States are overweight (9), indicating that pediatric obesity may be more prevalent among rural children.

The reasons for the higher rates of pediatric obesity among rural children have not been studied and are not well understood. This discrepancy could be due to differences in accessibility to health care services (doctors, obesity clinics, etc.), availability of child appropriate activity outlets (gyms, sporting teams, etc.), or availability of certain healthy or unhealthy food choices (fast food, low-fat grocery items, etc.). Rural Healthy People 2010 (10) indicates several cultural and structural limitations in rural areas the may impact obesity. The cultural limitations include higher dietary fat and calorie consumption, lower rates of exercise, higher rates of screen time (define), and poor education. The structural causes listed include lack of nutrition education, poor access to nutritionists, limited resources, and fewer outlets for exercise. Challenging demographics include that rural individuals are typically poorer and have less education than their urban counterparts, two factors that have been shown to be positively associated with higher rates of obesity.

Qualitative research techniques, such as focus groups, are well suited to assess these differences in potential contributors to pediatric obesity among urban and rural children. Qualitative research can provide detailed information from very specific populations (11). Focus groups have several strengths including their ability to gain a great deal of rich information (verbal behavior, nonverbal behavior, interactions among participants), that they are flexible and allow for probing of statements, don't require as many participants as other methods, and allow for participants to “feed off” each other, covering issues that may never have been foreseen by the research team (11). Previous studies have used focus group methodology to assess eating habits among specific cultural groups, such as African American women (12,13). By asking parents of rural children who are overweight about services available in their communities, barriers they face to treatment, and other issues related to healthy eating and exercise, more detailed information could be gathered about the pediatric obesity challenges unique to rural children and their families. Focus groups provide a wealth of information from the interaction among group members that is otherwise unattainable using other individual qualitative techniques (e.g. interviews).

One reason for the dearth of information on rural pediatric obesity may be that these individuals are often located in remote areas that are difficult to reach. One technological innovation that has helped to combat this problem is TeleMedicine. TeleMedicine (interactive video conferencing between a provider located in one area and families located in another area) allows highly specialized providers in urban areas to serve families in remote rural areas without incurring the difficulties associated with travel. Previous research with TeleMedicine indicates the technology is useful for services ranging from cardiac auscultation (14) to providing individual psychiatry services (15). TeleMedicine has also been used to conduct focus groups to gain provider opinions on topics including pediatric TelePsychiatry (16) and student opinions on distance learning (17). These studies suggest that focus groups can be successfully conducted with both professional and lay audiences over TeleMedicine. In order to overcome the significant distances and/or training issues involved if the current study were to have been conducted in person, we chose to apply the TeleMedicine technology to our focus groups. The current study conducted focus groups over TeleMedicine with parents of rural overweight children in order to learn more about their attitudes concerning pediatric obesity, the barriers

they face in trying to help their children attain a healthy weight status, and the pediatric weight loss services currently available in their rural communities, as well as to assess the feasibility of conducting focus groups over TeleMedicine.

## Research Methods and Procedures

Parents of rural overweight children were recruited through elementary schools. Meetings were conducted with parents (instead of with children) as parents are the persons who sign their children up for health interventions, parents are familiar with what resources are available in their communities, and parents typically accompany their children and support them along the way. Schools were solicited for participation if they had TeleMedicine capabilities and were located in a town or county of less than 20,000 individuals. Flyers were sent to 25 schools, and due to budgetary and staffing constraints only the first 5 that responded were selected for participation. At the participating schools, school nurses sent home flyers with all 3$^{rd}$ through 5$^{th}$ grade school children, inviting parents to call a toll free number if they were interested in participating in a focus group. Research personnel then screened interested parents to ensure that their child had a BMI over the 85$^{th}$ percentile (by parent report of child height and weight) and did not have a developmental disorder. Children with developmental disorders were excluded as they likely have unique issues not targeted by the current study. Research personnel also informed parents that only one parent from each family would be allowed to attend, allowing each family to have equal representation in the focus group. Finally, research personnel arranged focus groups at times convenient to parents.

Prior to the start of each focus group, parents were greeted by their on-site coordinator (typically a school nurse) and given a packet of information to complete, including the consent form, a health information questionnaire, a demographic form, and a perceptions and satisfaction form, which asked about weight loss concerns regarding other family members, and ideas for existing agencies that could serve as an avenue for potential obesity interventions. Focus groups were facilitated by a clinical psychologist with training in focus group facilitation (AMD) and an assistant (MC). The facilitator and assistant were in a conference room in the TeleMedicine Department at the University of Kansas Medical Center, and the parents were located in rooms equipped for telemedicine at their child's elementary school (typically the school nurses office), or in some cases, at the local Area Health Education Cooperative (AHEC) office. The two parties were linked via a live, interactive videoconference that provided a secure, high-quality consultation. Each group was videotaped at both sites (facilitator site and participant site) simultaneously on one tape to allow for transcription.

Focus groups followed a semi-structured format, based on 10 grand tour questions, with follow-up questions as needed determined by the moderator (see Table 1). Questions were derived based upon the author's previous experience with rural pediatric obesity research and clinical work. Specifically, questions were designed to be conversational, clear, seek help from participants, and allow sufficient time (18). Focus groups lasted anywhere from 30 to 90 minutes depending upon the number of participants and parent responsiveness. At the conclusion of the group, parents completed a satisfaction survey and a subject payment form and received an incentive to compensate them for their time and effort (a $50 gift card).

### Data Analysis Plan

Videotapes of focus groups were professionally re-mastered into audiotapes as our transcription service did not work with video. Then, audiotapes were transcribed verbatim by a professional transcription service familiar with focus group transcription. Two research assistants who did not participate in the focus groups, as well as the assistant focus group moderator, read through the transcripts and designated an initial set of topic areas inductively. They then met with an experienced qualitative analyst and developed a code book for use in

formal coding. Using this code book, the two research assistants and the assistant focus group moderator coded the transcripts deductively. All coded transcripts were given to the outside analyst who cross-checked the codes for discrepancies. Inter-coder reliability was measured by cross-checking approximately 10% of all codes. Few differences in coding were found qualitatively; therefore, no quantitative assessment was conducted. The outside analyst compiled all coded transcripts into a series of themes and then met with team members to ensure consensus among members about the meaning of the data, not just the codes themselves. The team discussed the themes and reached consensus without further discrepancies.

## Results

Of the 25 parents who indicated an interest in participation with their school nurse, 21 were eligible to participate following a screening phone call from research staff. Reasons for exclusion included child BMI below the 85$^{th}$ percentile (n=3) and a child diagnosed with Down's Syndrome (n=1). This study was approved by the Institutional Review Board of the University of Kansas Medical Center, and all parents signed the appropriate consent form upon arrival at the focus group. Over a 5-week period, eight focus groups were conducted with 2 to 7 participants each as follows: Lincoln Elementary (n=3), Herrington Elementary Group 1 (n=3), Medicine Lodge Grade School Group 1 (n=7), Herrington Elementary Group 2 (n=4), Medicine Lodge Grade School Group 2 (n=2), Local Area Health Education Cooperative (n=2).

### Demographics

See Table 2 for demographic information. Demographic data were not available for 4 of the 21 participants due to missing forms; therefore, the demographics, other than gender, are based on the remaining 17 participants. Participants in focus groups ranged in age from 30 to 47 years with a mean of 38.8 years (*SD* = 5.1) and were 89.5% female. Each participant had a child with a BMI over the 85$^{th}$ percentile. These children ranged in age from 9 to 11 years with a mean of 10.8 years (*SD* = 0.7) and were 61.1% female. The majority of parents had at least some college education (73.3%). Family households ranged from 3 to 8 members with a mean of 4.5 members (SD = 1.4) and 80% had an annual income of $30,000 or more. According to self-report, parents had a mean BMI of 30.9 (*SD* = 10.8) with 20.0% of parents being overweight and 46.7% being obese.

### Focus Group Results

Overall, eight saturated themes emerged from the data, with additional unsaturated themes noted for further study. All themes surrounded the central concept that parents are aware of overweight as a problem among children and believe that it is worthy of attention and intervention. See Table 3 for a list of themes and supporting quotes.

**Theme #1—**Parents generally think that other people's overweight children are lazy and do not exercise. However, two contrasting ideas emerge when parents are asked about their children; either that their children do not exercise enough, watch too much TV, or play too many video games; or that their children are active, but still seem to gain weight.

Parents expressed a bias against other overweight children (that they are lazy or do not exercise) but did not have this bias about their own children. When talking about other children in their communities who are overweight, parents used descriptors like “lazy,” “poor choices,” and “poor parenting.” However, in describing their own children parents did not use these words. In fact, parents often made excuses for their children, suggesting that they believed their children did exercise enough, and were mystified by their continued weight gain. One mother exemplified this perfectly by stating “even while being active he still seems to hold that weight. He rides bikes, runs all over the place but he's still overweight.”

**Theme #2—**Parents are concerned about their child's weight, particularly as it relates to health and future health, and are interested in information about exercise and dietary changes to help their child lose weight. However, some are concerned that telling their children to lose weight will lower their self-esteem.

Many parents were aware of the fact that being overweight as a child directly affects one's health. For example, one father stated “I also worry about this because, you know, because both of his grandfathers were insulin dependent diabetics and they both have had heart attacks and open heart surgery and, you know. And one of his grandfathers died of a stroke, so you put all those extra combinations in there and you know the overweight isn't good for his health because of the history…the family history of the medical problems.” Despite this concern, many parents seemed hesitant to discuss the issue of being overweight with their child, or hesitant to encourage weight loss, as they feared this would have negative ramifications, either in terms of self-esteem or promoting unhealthy eating through eating disorders. One parent stated “you don't tell them that they're overweight, that they need to do something, but you give them healthy choices, you know, you have to guide them.”

**Theme #3—**Though most parents believe that unhealthy habits contribute to childhood obesity and their child's weight problems, some parents believe that obesity has genetic links, that children will “grow into their height” or that even with healthy eating and exercise, some children will be overweight.

Many parents believed that their children were going to be overweight no matter how healthy their habits. Several parents stated this was due to “genetics.” “If it's because of a child's eating habits, or because they'd rather sit around and watch TV then yeah, but like in my family it's overweight in the genes for the most part. And my children aren't real overweight but they can be easily if they stop being active.” Other parents believed their children were going to experience a “growth spurt” and that after this time, their child would no longer be overweight. “My hope is that as he grows he'll grow out of a lot of it and I've seen that happen with a lot of children that did once they hit sort of the teen years and had a growth spurt became long and lean who weren't when they were young.” Their belief that some children will just be overweight, no matter their habits, was also expressed about parent's own weight status, in that they felt that they (the parents) would remain overweight no matter what types of intervention they attempted.

**Theme #4—**Parents have tried a variety of methods to help their children lose weight, but none have been successful and most are short-lived.

Parents were keenly aware that they needed to increase their child's exercise and decrease caloric intake in order to improve child weight status. They had attempted to do this through modifications in the home environment, such as starting a walking program, decreasing fast food consumption, or having more fresh fruits and vegetables available. However, parents also readily reported that these attempts met with limited success and were short-lived. “We started a program, a walking program, her and I did that for awhile but then like I said we each get busy and we don't get it done.” Some families reported that the reason that these programs are not more successful is that the children do not see any results to motivate them to continue the program; “We've done exercising. We've done riding the bicycles, you know, every night, you know, and then he thinks it's not doing anything because, you know, he doesn't have enough patience, you know, I think to give it the long term…he's like most people, they want the overnight success story.”

**Theme #5—**Parents are concerned that other children make fun of their overweight children.

Most parents reported that their children had reported being made fun of due to their weight status. “A lot of name calling that comes with being overweight. I hear a lot of kids call … him fat.” This was especially difficult for some parents who themselves were overweight as children, and caused parents to be more critical. “I'm probably a little more critical than I should be; I worry about being too critical, you know as far as I don't want to cause my child to have an eating disorder because of my comments, I don't want to be verbally abusive, but yet you try to protect them because you don't want them to go through what you went through all your life and experience the no dates, no dresses that fit, people making fun of you.”

**Theme #6—**There are many perceived barriers to their children losing weight, including most importantly, lack of resources in the community, poor school lunches, distance to weight loss programs, time to do healthy activities (e.g. exercise, prepare a healthy meal), the higher cost of healthy foods, the potential cost of weight loss programs, and a lack of motivation on the part of their children.

The lack of resources was exemplified by one family who had recently moved to a small rural town from a large urban area and reported “When we moved here…we were used to having a lot of low fat and high fiber alternatives and things and different brands and our selections here are much more limited and because not many local shoppers are looking for that our local grocery really can't afford to give shelf space to it” suggesting that item availability in grocery stores may be a concern. Another family expressed a concern regarding the expense associated with eating healthy; “I also find when I'm grocery shopping and I'm looking for healthy snacks they are so much more expensive than the other ones that it is very frustrating to go to the grocery store and think you're buying healthy stuff and then your grocery bill is so high.” Another concern was lack of parent time to make the necessary changes; “Parents don't have enough time to fix a balanced supper and it is easier to throw something together that's maybe not as nutritious and more fattening than a more balanced meal.” And, finally, other parents were concerned that their children would refuse to engage in the changes recommended by their parents; “She refuses to diet or do anything like that.”

**Theme #7—**Motivation is key to helping their children succeed, but is difficult to provide. Some possibilities for motivation include goal setting, money or other incentives, social support from other children, and making a program enjoyable.

All parents were concerned about motivating children to engage in and then maintain behavior change. They felt that any program that was going to be successful for children would have to be motivating; the children would have to want to come to the program on a regular basis and express this desire to their parents, rather than parents having to coerce children into attending. “I want my daughter to say, let's go, let's go: we're going to be late. I don't know … what would do that, but that's what I would like … where she just wants to come to it.” Parents also felt that the program should motivate behavior change through incentive programs; “Something else that would keep the kids more involved is …like a reward type of program. You know, if they were rewarded for every achievement that they made, then they, you know, got some kind of a reward or something to make him feel a sense of accomplishment.” Parents also felt a successful program would be goal oriented; “Where they could, you know, set goals and then they could meet those and it would make them feel better.”

**Theme #8—**Parents wanted a free or low-cost comprehensive program that gives the option of life-long participation, with a weight loss facility that is open long hours.

Parents consistently reported that no programs were available in their areas to help their children become healthier or lose weight. However, should such a program become available, they had several suggestions for details of the program including convenience, affordability,

and longevity. “If you could go at your convenience, the place is always open, you let yourself in, went in, did your activities, and left when you were done.” “Where it's still affordable for everybody to go. And that would be another thing, is the cost of the program…it should be free, state funded.” “I guess the program that I'm thinking of that yes, it would have to be a lifetime. Maybe you wouldn't want to do it every week for the rest of your life, but I would think you'd still go back.”

### Participants' Perceptions

In addition to being concerned about the weight status of the child identified as overweight, 46.7% of parents reported being concerned about the weight status of other household members. Parents were concerned about the weight status of an average of 1.3 household members (*SD* = 1.6) in addition to the child identified as overweight. The majority of parents reported that the best agency to partner with for an intervention program would be schools (n=7), followed by parks and recreation centers (n=4), physicians (n=3), churches (n=2), health departments (n=2), and rural health extension offices (n=1).

### TeleMedicine Feasibility Results

Of the 8 focus groups conducted, all were completed via TeleMedicine. No focus groups had technical issues that affected group discussion or caused re-scheduling. There was a slight lag between live discussion and transmission, however both parents and moderators quickly adjusted and this did not seem to affect discussions. Parents reported 100% satisfaction with the focus group discussion, indicating they were not adversely affected by the TeleMedicine component of the program. Moderators noted that having the on-site facilitator was necessary so that this person could hand out papers, assist with setting up the TeleMedicine equipment, and dial in for the connection. However, on-site moderators did not do anything during the focus groups themselves. Finally, the outside analyst had 12 years of in-depth familiarity with focus group methodology and data analysis, including conducting approximately 80 focus groups and analyzing an additional 50, and reported that the transcripts obtained from the current TeleMedicine focus groups were very similar to those obtained from other in-person focus groups.

## Discussion

The current study reports on the findings of focus groups conducted over TeleMedicine with parents of rural overweight children. Results point to several implications regarding pediatric obesity in rural children. First, responses indicate that even though focus groups were composed of parents of overweight children, these parents held certain negative stereotypes about other overweight children in their communities, including that they are lazy or watch too much TV. Also, parents were very concerned about their child's weight, but were not sure what to do about this concern. They expressed hesitation to tackle the issue directly, for fear of damaging their child's self-esteem or causing an eating disorder, and instead expressed hope that their child would outgrow the problem. Previous research indicates, however, that children rarely grow out of obesity, but rather children who are overweight tend to become overweight adults (19,20). Parents also expressed a certain hopelessness or belief that their child would be overweight despite what changes were made and instead attributed this to genetics or family history. Interestingly, approximately 50% of the parents in our focus groups were obese, and this may have contributed to their belief that child weight loss attempts would be unsuccessful, as it is relatively easy to assume based upon their current weight status that their own attempts at weight loss were unsuccessful. Parents also expressed concern about their children being made fun of by their peers, often giving poignant examples from both their children's experiences, and from their own. Some parents reported that this negatively impacted their

relationships with their children, as they wanted to "protect" them from this peer maltreatment which led them to be overly harsh or critical at times themselves.

Parents expressed many barriers to helping their children lead healthier lives, several of which were unique to their rural status. For example, parents consistently reported that there were no child weight loss programs available in their communities, and that there were few outlets for family based physical activity. Parents did report that school sports teams were available, but several stated that these opportunities were too expensive for their child to participate. Regarding eating in rural areas, many parents were thankful that there were fewer fast food choices available. However, they were frustrated that their grocers did not offer many low fat or low calorie items available in larger, urban grocery stores. Distance to primary care physicians was also reported to be a problem. Some parents reported traveling over an hour to see their primary care physician who they reported was often their only source for weight loss information.

Parents expressed other barriers to helping their children lead healthier lives that were consistent with parents from urban areas (21). For example, parents reported that their schedules were too busy to shop for and prepare healthy meals on a consistent basis. The high price of healthy snack items and fresh fruit were also stated as barriers. A behavioral concern was noted by several parents in that their children would refuse to implement any suggested changes, indicating that behavioral interventions would be key to the success of any programs for these families. Previous research with urban children has indicated that obesity interventions with children and their families are more successful if they do include these behavioral components (22).

Of the focus group participants, 46.7% were obese. Many of these parents were obese as children and stated that their current obesity or childhood obesity directly affected their perception of their child's obesity, and at times, negatively impact their relationship with their overweight child. There are no data in the literature to suggest that parents who are obese interact any differently with their obese children than parents who are not obese. However, the current focus group results suggest that this may be the case, warranting future research in this area.

Finally, parents had many suggestions regarding the ideal pediatric obesity intervention for their rural communities. Interestingly, these suggestions were quite similar across sites, indicating that these rural communities had a great deal in common, at least on this topic. First, they wanted the intervention to be conducted in their communities as driving to other communities for treatment would present a barrier for many families. They also wanted the intervention to include the entire family, and focus on habit changes for everyone in the family, not just one child. Of note, approximately 50% of parents indicated that they were concerned about their weight not only of the identified child, but of at least one other individual in their family. This could have influenced why they felt so strongly that the intervention should include the entire family. Parents also wanted this intervention to be free, and to be life-long. Parents also felt that the intervention should include an exercise component, and that children and families should be allowed to use this exercise component frequently, possibly several times a week. Sites suggested for exercising included the high school gym and the community center. Ideally, parents wanted to be able to drop in and out of the program, in order to accommodate vacations, after school activities, and other scheduling issues. Most importantly, all parents indicated that the program would have to be fun. They wanted their children to be the key motivators to keep the family involved, and consistently reported that they would drop out of a program that their children complained about or did not want to attend.

### Limitations

There are several limitations to the current study. First, our sample size was small, and some of our focus group sizes were small. However, data analysis indicates that all themes reached saturation, meaning additional participants would likely not have added to the depth or breadth of parent responses. Second, we only included 5 communities in one Midwestern state, leaving our data non-transferable. It is possible that rural participants from other communities or from other states would have responded differently. Third, this is a qualitative study, so we do not have information on the actual health behavior differences unique to rural and urban children. Although qualitative methodologies in general have some limitations, focus groups were well suited to address the objectives of the current study, namely to learn more about the attitudes concerning pediatric obesity among rural parents, the barriers these parents face in trying to help their children attain a healthy weight status, and the pediatric weight loss services currently available in their small rural communities. Finally, we had few fathers participate. Greater paternal participation could have possibly changed our results.

### Implications

The current study suggests that parents of rural overweight children share some concerns in common with parents of urban overweight children, but also have some concerns unique to their rural status. Parents suggested in great detail what type of pediatric obesity interventions they would like to see offered in their communities. The programs they desire are quite intensive and may not be realistic for some communities. Follow-up studies may help to determine which of the desired program components are most important and could allow communities to focus on these components rather than on trying to implement an entire intervention package. Follow-up studies should also be conducted with rural children to learn more about their unique opinions regarding components to include in a rural pediatric obesity intervention program. Researchers and clinicians would be wise to take these factors in to account when intervening with this underserved population.

Feasibility results indicate parents were extremely satisfied with the TeleMedicine aspect of the focus groups, suggesting that this may be a possible avenue for providing pediatric obesity intervention services to children and families in these remote rural areas. Previous research indicates that TeleMedicine has been used successfully with other medical problems, such as depression (23) and cardiovascular issues (24), so it is likely that it could be just as successful in the area of pediatric obesity.

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**Table 1**

The 10 focus group questions.

| | |
|---|---|
| **1** | "Tell us who you are, where you live, and something special about your son or daughter who is in the 3rd, 4th or 5th grade." |
| **2** | "When you think of an overweight child, what comes to mind?" |
| **3** | "Do you believe overweight children need to improve their weight?" |
| **4** | "Have you wanted to change your child's weight status? What resources have been available in your area to help you improve your child's weight status? Have you tried any of these?" |
| **5** | "If your child and family were to participate in a health improvement program, write down three topics that the program should be sure to cover. After you've written them down, we'll go around and discuss them as a group." |
| **6** | "If your child and family were to participate in a health improvement program, what would this program be like?" |
| **7** | "How often should the program meet? I'll write down a few options, have each of you pick one and give me some information on why you chose that option." (Daily, twice per week, once per week, twice per month, monthly). |
| **8** | "How long do you think a program like this should last? A few weeks, a few months, a year?" |
| **9** | "If your family dropped out of a program like this, why would you drop out? And, what can we do to prevent people dropping out?" |
| **10** | "Finally, we are trying to help overweight kids and their families become more healthy. What advice do you have for us?" |

**Table 2**

Demographic Characteristics of Parent Participants.

| **Demographic Characteristic** | **Participant Sample (N=19)** |
|---|---|
| Parent age *Mean* (*SD*) | 38.8 (5.1) |
| Child age *Mean* (*SD*) | 10.8 (0.7) |
| Parent gender: Female | 89.5% |
| Child gender: Female | 61.1 % |
| Parent education: | |
| Some high school - High school | 26.7% |
| Some college | 33.3% |
| College | 26.7% |
| Advanced degree | 13.3% |
| Household members *Mean* (*SD*) | 4.5 (1.4) |
| Average yearly household income: | |
| $0-$19,000 | 13.4% |
| $20,000-$49,999 | 46.7% |
| $50,000 or above | 40.0% |
| Parent BMI *Mean* (*SD*) | 30.9 (10.8) |
| BMI Weight Status: | |
| Underweight | 0.0% |
| Normal | 33.3% |
| Overweight | 20.0% |
| Obese | 46.7% |

**Table 3**

Focus group themes and supporting quotes.

Theme #1: *Parents generally think that other people's overweight children are lazy and do not exercise. However, two contrasting ideas emerge when parents are asked about their children; either that their children do not exercise enough, watch too much TV, or play too many video games; or that their children are active, but still seem to gain weight.*

"They don't exercise. That they don't really….that they're not very motivated."
"A child that has trouble running and keeping up with all the other kids. Mostly just wants to sit around and has to wear ugly clothes."
"Cause I just think, well gosh you're fat, you're out of control, what's wrong with you."
"Even while being active he still seems to hold that weight. He rides bikes, runs all over the place but he's still overweight."
"I would have to say that was B just because she is a very active child, and yet she is overweight."
"Whereas she plays every sport, she does things, she's not a couch potato, you know."

Theme #2: *Parents are concerned about their child's weight, particularly as it relates to health and future health, and are interested in information about exercise and dietary changes to help their child lose weight. However, some are concerned that telling their children to lose weight will lower their self-esteem.*

"I also worry about this because, you know, because both of his grandfathers were insulin dependent diabetics and they both have had heart attacks and open heart surgery and, you know. And one of his grandfathers died of a stroke, so you put all those extra combinations in there and you know the overweight isn't good for his health because of the history…the family history of the medical problems."
"Well I think probably the biggest thing is the whole health issue….Because I just know like already she has problems with her knees and I know that it's Osgood Schlatters…she has it in both knees and she's crippling around like an old lady."
"you don't tell them that they're overweight, that they need to do something, but you give them healthy choices, you know, you have to guide them"
"You don't want to teach them not to like themselves like they are, but yet they do need to take off the weight."
"She's very active and I'm all….sometimes I'm afraid if I say anything to her I'm going to make her paranoid and make it worse than it is now."

Theme #3: *Though most parents believe that unhealthy habits contribute to childhood obesity and their child's weight problems, some parents believe that obesity has genetic links, that children will "grow into their height" or that even with healthy eating and exercise, some children will be overweight.*

"If it's because of a child's eating habits, or because they'd rather sit around and watch TV then yeah, but like in my family it's overweight in the genes for the most part. And my children aren't real overweight but they can be easily if they stop being active."
"My nieces and newpher are like twigs, they're real skinny children and the mom buys whole milk and tries to get all this fat into them….but my kid looks at the same stuff and there's just no way she could eat like they do…And they're so thin…it's genetics, I'm sure."
"Some kids are (always going to be overweight) that's the way they're going to be no matter what they do, it's in their genetics."
"My hope is that as he grows he'll grow out of a lot of it and I've seen that happen with a lot of children that did once they hit sort of the teen years and had a growth spurt became long and lean who weren't when they were young."
"But I guess for me when you say an overweight child I don't look at my son and really think of him as being "fat." He may be overweight for his chart, but I think a lot of that through his adolescence when he, you know, shoots up he'll lose a lot of that."
"But like in my family it's overweight in the genes for the most part. And my children aren't real overweight but they can be easily if they stop being active."

Theme #4: *Parents have tried a variety of methods to help their children lose weight, but none have been successful and most are short-lived.*

"We started a program, a walking program, her and I did that for awhile but then like I said we each get busy and we don't get it done."
"We've done exercising. We've done riding the bicycles, you know, every night, you know, and then he thinks it's not doing anything because, you know, he doesn't have enough patience, you know, I think to give it the long term…he's like most people, they want the overnight success story."

Theme #5: *Parents are concerned that other children make fun of their overweight children.*

"A lot of name calling that comes with being overweight. I hear a lot of kids call … him fat."
"She goes into middle school next year, I don't look forward to it. It's kind of like the beginning of the mean girl's group…I grew up with being overweight my whole life so I know how rough it is."
"I'm probably a little more critical than I should be; I worry about being too critical, you know as far as I don't want to cause my child to have an eating disorder because of my comments, I don't want to be verbally abusive, but yet you try to protect them because you don't want them to go through what you went through all your life and experience the no dates, no dresses that fit, people making fun of you."
"His main concern is the other kids making fun of him now."
"I think when I was in 7$^{th}$ grade I was like 5 foot tall and 197 pounds, so I was pretty heavy. And I just remember how cruel other kids can be, including my own brothers and sisters. And it really does scar you in life. I mean even, and I'm almost 50 years old, and my weigh still really bothers me."

Theme #6: *There are many perceived barriers to their children losing weight, including most importantly, lack of resources in the community, poor school lunches, distance to weight loss programs, time to do healthy activities (e.g. exercise, prepare a healthy meal), the higher cost of healthy foods, the potential cost of weight loss programs, and a lack of motivation on the part of their children.*

"When we moved here…we were used to having a lot of low fat and high fiber alternatives and things and different brands and our selections here are much more limited and because not many local shoppers are looking for that our local grocery really can't afford to give shelf space to it"
"I also find when I'm grocery shopping and I'm looking for healthy snacks they are so much more expensive than the other ones that it is very frustrating to go to the grocery store and think you're buying healthy stuff and then your grocery bill is so high."
"Parents don't have enough time to fix a balanced supper and it is easier to throw something together that's maybe not as nutritious and more fattening than a more balanced meal."
"I don't think there are programs or support groups around here on weight management for kids in rural Kansas."
"They live here in town and they're more accessible to the recreation things they may have, where J is out in the country and we just….we can't run her to town all the time to do all these things."
"She refuses to diet or do anything like that."

Theme #7: *Motivation is key to helping their children succeed, but is difficult to provide. Some possibilities for motivation include goal setting, money or other incentives, social support from other children, and making a program enjoyable.*

"It's easier to get the kids to go and participate if it was kept fun."

"I want my daughter to say, let's go, let's go: we're going to be late. I don't know … what would do that, but that's what I would like … where she just wants to come to it."
"Something else that would keep the kids more involved is …like a reward type of program. You know, if they were rewarded for every achievement that they made, then they, you know, got some kind of a reward or something to make him feel a sense of accomplishment."
"Where they could, you know, set goals and then they could meet those and it would make them feel better."

Theme #8: *Parents wanted a free or low-cost comprehensive program that gives the option of life-long participation, with a weight loss facility that is open long hours*.

"If you could go at your convenience, the place is always open, you let yourself in, went in, did your activities, and left when you were done."
"Where it's still affordable for everybody to go. And that would be another thing, is the cost of the program…it should be free, state funded."
"A whole facility in place where you could swim and have weights and go through all of the activities. We don't have access to that out here like the other big cities do."
"That wouldn't be so expensive that the kids couldn't or a family couldn't afford it."
"I guess the program that I'm thinking of that yes, it would have to be a lifetime. Maybe you wouldn't want to do it every week for the rest of your life, but I would think you'd still go back."