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Parental Perspectives of a Childhood Obesity Intervention in Mississippi: A Phenomenological Study

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Abstract

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Keywords

Parental Perspectives, Childhood Obesity Intervention, Family - based Intervention, Community - Based Intervention, Phenomenology, Childhood Obesity

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Family-based, community interventions have been suggested as effective methods of modifying unhealthy behaviors of overweight children. To avoid unsuccessful completion rates, understanding motivating factors and potential barriers for participating families is important. The purpose of this study was to investigate influencing factors that either promote or deter successful completion of a childhood obesity intervention. In-depth interviews were conducted with 10 parents whose child participated in an intervention conducted in central Mississippi. Interviews were audio-taped, transcribed verbatim, and analyzed by a two-person coding team. The research question driving this study was: What do parents perceive as motivators or barriers for completion of an intervention for childhood obesity? Motivating factors of parents included desire to reverse the family's obesity cycle and desire for their child to realize full potential. They perceived their children were motivated by social aspects of the group setting, improved self-confidence, and supportive staff. Scheduling conflicts and lack of complete family support were identified as main barriers. By understanding the experience of parents, programs can tailor instructive materials to meet family needs throughout the intervention. Emphasis should be placed on parental education for sustained promotion of a healthy lifestyle. Continued support and follow-up are also warranted to ensure long-term success. Keywords: Parental Perspectives, Childhood Obesity Intervention, Family-based Intervention, Community-Based Intervention, Phenomenology, Childhood Obesity

Introduction

Childhood obesity has elevated worldwide awareness as its prevalence continues to rise, with an estimated 42 million preschoolers identified as overweight in 2010 (WHO, 2013). The United States has experienced this trend in children and adolescents with an increase of 200% and 300%, respectively, since 1980 (Ogden & Carroll, 2010). Nationally, Southern states have higher rates of obesity (TFAH, 2013). With a percentage of 21.9, Mississippi ranks as the state with the highest rate of childhood obesity for ages 10 to 17 (TFAH, 2010). Reports of health-related and psychosocial implications for overweight or obese children have stimulated public concern, especially since research indicates childhood obesity is likely to continue into adulthood (Deckelbaum & Williams, 2001; Dietz, 1998; Biro & Wien, 2010; Reilly & Kelly, 2011; Pan, Blanck, Sherry, Dalenius, & Grummer-Strawn, 2012). Behavioral habits are learned beginning in early childhood; therefore, it is imperative that health intervention measures be taken during these formative years (Doak, Visscher, Renders, & Seidell, 2006).

School and clinical settings are valuable resources for childhood obesity research; however, there is less exploration of family- and community-based intervention programs. Studies support multifaceted treatment programs involving education of diet, exercise, and behavior modifications (Goran, Reynolds, & Lindquist, 1999; Nemet, Barkan, Epstein, Friedland, Kowen, & Eliakim, 2005; Williams, Campanaro, Squillace, & Bollella, 1997).

Evidence supports that the family is a vital component of therapy and can be influential to the child's outcomes since children often model the behavior of their parents (Gruber & Haldeman, 2009; Moore, Harris, & Bradlyn, 2012). Although no specific model or theory has been created to explain involvement of the family in promoting change in health behavior, it is determined that family participation, regardless of the design of the treatment program, remains a valuable form of intervention (Perryman, Nielsen, & Booth, 2008). Motivation of both the child and family is critical to the success of treatment (Dietz & Robinson, 2005); yet, there is limited understanding of the motivation of parents to seek treatment for their child and support the completion of these measures.

In this research, the overall problem was to explore the journey of the parent through experience with their child in a family-based, community intervention program, called The Youngest Loser, to determine factors that aided in successful completion. This research problem was supported by the following research objectives:

1. Determine parental perceptions of motivators to the successful completion of the intervention
2. Determine parental perceptions of barriers to the successful completion of the intervention
3. Identify family changes that were established as a result of knowledge gained through experience in the intervention

Qualitative research provided a means of determining factors that encouraged parents to continue their commitment with The Youngest Loser intervention program. A phenomenological study of the parents allowed the researcher to explore and describe a phenomenon to better comprehend complexities of a lived experience (Marshall & Rossman, 2006).

Contextual/Background Information of the Intervention Program

The Youngest Loser is a family-based, community intervention program established through Beyond Therapy Pediatric Group, a privately-owned pediatric therapy clinic in Ridgeland, Mississippi. The Youngest Loser gained support from local businesses, exercise facilities, city recreation facilities, physicians, and local celebrity Patrick House, winner of NBC's Biggest Loser Season 10. These community entities provided support to The Youngest Loser through funding, staff, mentorship, and/or facility usage.

The inclusion criteria for The Youngest Loser were that the child must be between the ages of 10 and 13 years and must have struggled with maintaining a healthy weight. Pediatric growth charts are used to plot the height and weight of a child for comparison of their body mass index (BMI) among children of the same age and sex. A BMI-for-age percentile >5th and <85th is considered normal weight for height; >85th and <95th percentile is considered overweight; and ≥95th percentile is defined as obese (CDC, 2012a). According to these guidelines, administrators of The Youngest Loser identified all children involved in the program as either overweight or obese.

Although the main focus of the program was for children, family involvement was also considered important. Therefore, the following requirements were expected of participating families: (a) the child was allowed no more than three absences; (b) at least one parent (or other adult caregiver) was required to attend specific sessions tailored to meet their parental role; and (c) a $250 check was required as a conditionally refundable deposit to secure a position in the program. If participation requirements were met, the check would be made null and void at the end of the program. These obligations were developed in an effort

to extend The Youngest Loser to families of all levels of income by ultimately offering the program at no cost to those who completed program requirements. These commitments also served to instill accountability in participating families.

Season 1 of The Youngest Loser began with 32 participants on June 25, 2011. The average age of participants was 11.2 years. The cohort was 73% female, with a racial/ethnic composition of 57% Caucasian, 40% African American, and 3% biracial.

The program was 12 weeks in length and children met three times per week for two hours. Parents were required to attend select sessions throughout the program but were encouraged to participate in all sessions with their child. Children were recruited for The Youngest Loser through physician referrals, local advertisements in newspapers and Parents & Kids magazine, and by word of mouth. Sessions were staffed by a registered dietitian, physical therapists, and volunteers. During each session, children were led in approximately 1 hour and 15 minutes of activities by a physical therapist. The weekly sessions rotated to different locations surrounding the Jackson-metro area to allow families the ability to explore alternative options for physical activities. The purpose of this was to introduce various forms of exercise that could easily be incorporated into the entire family's lifestyle. Activities included yoga, cycling, tennis, swimming, soccer, and cross-fit workouts. In addition to physical challenges, sessions also incorporated an educational component during the remaining 45 minutes. Participants were taught how to read food labels and create a healthy food plate. They were given a journal to document food and beverages consumed daily throughout the program. A registered dietitian met with the children in focus groups to discuss their food journals and weekly decisions. During two sessions, volunteers provided cooking classes that allowed participants the opportunity to create healthy food options. In addition to diet and exercise, children were taught the importance of teamwork, staying motivated and positive, and setting goals.

Since the children participating in the program were between 10 and 13 years of age, they relied on their parents or caregivers to transport them to the three weekly sessions. They also depended on their parents or caregivers to provide healthy food options on a daily basis. The framework of The Youngest Loser required a commitment of not only the children, but also their parents or caregivers. This early-intervention program sought to instill ownership of the entire family in the success of the children who were participating, in hopes that modifications made would last beyond the 12 weeks of the program.

The Youngest Loser staff recorded measurements of the children both pre- and post-intervention. All data were measured directly by staff, rather than reported by parents. Quantifiable outcomes of the children varied. A wide range of weight loss was reported, with one child losing as much as 20 lbs. At the opposite end of the spectrum, one child gained 7 lbs. While not all children were successful in losing weight during the program, positive outcomes were evident. The most remarkable physical changes were increased strength, agility, and endurance. The children also became more confident in their abilities. Success of this type of program is not solely based on quantifiable data. This study seeks to answer questions that can only be determined through qualitative methodology.

The significance of this research impacts several individuals. First, this research will inform directors of early-intervention programs for childhood overweight and obesity of potential changes that can be made to reduce barriers families may face throughout the course of the program. Second, this research affects families who may consider enrolling their children in programs of this type because of positive changes made to the structure of the programs. Third, this research affects future participants because of knowledge gained through past experiences. The rationale for the study is that the results of this research will provide a more comprehensive understanding of ways childhood obesity interventions can be

tailored to meet the needs of both children and parents, which will translate into successful outcomes for the child.

Literature Review

The fundamental causative factor of obesity is a caloric imbalance involving a higher number of calories consumed than expended. A plethora of contributing factors aid in this caloric imbalance, making obesity a complex condition to overcome. Studies indicate that childhood obesity is a combination of three main factors: genetics, overeating, and lack of exercise (Nieman, 2004). Behavioral, environmental, and social influences may be the prime culprit catapulting childhood obesity rates to the current trend (Crespo, Smit, Troiano, Bartlett, Macera, & Andersen, 2001). At home, parents provide and control access to food. They also influence physical activity by either promoting or discouraging certain types of activities.

Several unhealthy behaviors have contributed to the unequal intake and output of calories resulting in obesity. Some of the leading behaviors include poor eating habits, such as eating away from home, unwise snacking decisions, and larger portion sizes; unhealthy eating patterns, such as overeating and binging; and lack of physical exercise (AACAP, 2011; Karnik & Kanekar, 2012). Engaging in physical activity on a routine basis has positive effects of increased stamina, bone and muscle health, weight regulation, decreased stress and anxiety, and improved self-confidence (CDC, 2012). Lack of exercise has opposite effects and is related to the childhood obesity epidemic.

Parental Influence in Childhood Overweight and Obesity

Parents play an important role in the interrelationship among the child's genetics, behavior, and environment. Genes are provided by parents; children oftentimes view their parents as role models and mimic their behavior; and parents are responsible for providing their children with basic needs (Kendall, Wilken, & Serrano, 2007).

Children learn through observing the behavior and attitudes of others, especially their parents or caregivers. Early food preferences are established through foods that are familiar to children. Variables within the home environment that can affect a child's eating behaviors include the nutritional preferences of parents, availability of foods within the home, and tactics used when feeding children (Anzman, Rollins, & Birch, 2010; Scaglioni, Salvioni, & Galimberti, 2008). Since parents act as providers, enforcers, and role models, it is their influence that may be the strongest predictor for their child's dietary habits (Clark, Goyder, Bissell, Blank, & Peters, 2007).

The promotion of healthy family habits within the home environment is crucial to successfully target childhood obesity (Gruber & Haldeman, 2009). This involves properly educating parents so they understand how to modify their behavior and choices with diet and exercise. Parents can control food availability, portion sizes, and physical activity practices to promote a healthier home environment. When at least one parent is actively involved in the weight loss intervention, the outcome is apparent in both short- and long-term weight reduction and maintenance of their children (Epstein, 1998).

Prevention of Childhood Overweight and Obesity

The co-morbidities and financial burdens associated with childhood obesity necessitate immense urgency toward prevention of the disease. Childhood obesity can be prevented if several measures are implemented. Body mass index (BMI)-for-age percentile

can be used in the early identification of excessive weight gain; physicians can provide dietary and physical activity interventions as they deem necessary; and ongoing advocacy and research regarding this topic can be beneficial for prevention (AAP, 2003). The U.S. Department of Health and Human Services identified one of the 2020 national health objectives as reducing the prevalence of obesity in children and adolescents aged two to 19 years from the 16.2% baseline in 2005-2008 NHANES data to 14.6% (Nutrition, 2012). The primary causes of obesity must be addressed in prevention tactics. These causes include overeating and reduced physical activity. The American Academy of Pediatrics (2006) asserts that physical activity must be promoted in the home, community, and at school.

Intervention Programs

Combating childhood obesity presents many challenges, including finding intervention programs that prove to be effective. Childhood obesity prevention programs exist in various environments and serve as behavioral interventions. Lifestyle modification is the focus of preventive programs for children since surgery and medications are not suggested for obese children (Shalitin et al., 2009). These lifestyle modifications have traditionally concentrated on nutrition, education, physical activity, and behavioral changes (Suskind et al., 2000). Instead of focusing on one of these modifications, programs tend to utilize a combined approach. SHAPEDOWN and Trim Kids are programs that have been implemented in various settings across the country to effectively aid in weight management for children (Hadley, Hair, & Dreisbach, 2010).

A variety of intervention programs exist with differences in the setting, focus, and goals. The most common programs are structured as school-based, family-based, or community-based interventions. Numerous school-based interventions exist and are structured to focus on nutrition only, physical activity only, or a combination of both nutrition and physical activity. Effective family-based interventions can bring the family together as a team to influence behavioral changes in the lifestyle of the overweight or obese child. Parents are provided with strategies for controlling situations that may present as barriers. Community-based interventions can foster support of the child's environment and provide increased accessibility to physical activities. These interventions can bring children together and serve as motivational tools to encourage healthy lifestyles (Karnik & Kanekar, 2012). While various intervention programs exist, further research is needed to determine which approach, setting, and design is most effective since this remains undetermined (Hadley et al., 2010).

The focus of this study is to evaluate a specific family-based, community intervention. Programs of this nature that are designed to reduce childhood obesity through targeting modifiable risk factors, such as lack of physical activity and poor eating habits, are indicated in the literature as vital to improving the quality of life of children by reversing unfavorable health effects of obesity (Huffman, Kanikireddy, & Patel, 2010). Literature indicates that childhood obesity treatment should involve the family and utilize tactics to motivate families to complete the treatment program (Grønbaek, Madsen, & Michaelsen, 2009). Interventions tailored for the family have been structured as either focused solely on the obese child, concentrated exclusively on the parent, or involving participation of the entire family in the treatment process. Some studies of interventions involving at least one parent have proven more effective than those focused on treating the obese child individually, since obesity tends to exist in the entire family unit (Golan, Weizman, Apter, & Fainaru, 1998; Gruber & Haldeman, 2009; Perryman et al., 2008). One study reported better program retention, an increased percentage of weight loss, and longer maintenance of weight loss when parents were involved. They attributed this to parents taking more responsibility in providing healthy

food choices and encouraging physical activity (Golan et al., 1998). While there is no standardized theoretical model for childhood obesity intervention programs, multiple approaches exist and are being studied to determine the most effective design (Hadley et al., 2010). Regardless, available evidence reveals early prevention is vital to reversing the childhood obesity epidemic because it targets children during the formative years when they are more receptive to parental influence (Birch & Ventura, 2009).

Causative and contributing factors of obesity have gained considerable research efforts and, although information is disseminated to the public via television, computers, and other media forms, the issue remains a threat to the nation's health. The U.S. Department of Health and Human Services provided a set of goals and objectives for the prevention of disease and promotion of health (U.S. Dept., 2012). *Healthy People 2020 (HP 2020)* contains 22 objectives that highlight the negative impact of poor nutrition on health and weight status. *HP 2020* calls for a decline in the amount of obese children and adults in the United States and provides numerous goals toward these efforts (U.S. Dept., 2010). The prevalence of childhood obesity has become a global epidemic that will continue to increase if preventative measures are not taken. Intervention efforts can assist in meeting the goals of *Healthy People 2020*. This study aims to explore a family-based, community intervention to add to the research knowledge base in an effort to strengthen frameworks of programs similar in design.

Studies support multifaceted treatment programs involving education of diet, exercise, and behavior modifications (Nemet et al., 2005; Williams et al., 1997; Goran, Reynolds, & Lindquist, 1999). Evidence supports that the family is a vital component of therapy and can be influential in the child's outcomes, since children often model the behavior of their parents (Moore et al., 2012; Gruber & Haldeman, 2009; Golan, Kaufman, & Shahar, 2006). Although no specific model or theory has been created to explain involvement of the family in promoting change in health behavior, it is determined that family participation, regardless of the design of the treatment program, remains a valuable form of intervention (Perryman et al., 2008). Motivation of both the child and family is critical to the success of treatment (Dietz & Robinson, 2005); yet, there is limited understanding of the motivation of parents to seek treatment for their child and support the completion of these measures. This study seeks to explore the experiences of parents whose children were involved in a program to combat childhood obesity in the heaviest state in the nation and to create a model that informs future interventions of this type.

Role of the Researcher

The first author, K.M., was principal investigator (PI) of the research study and the primary writer for this manuscript. Her research interests are in childhood obesity prevention and qualitative methodology. Second author, J.B., served as mentor, providing assistance in the manuscript compilation. Findings of the study will be shared with administrators of The Youngest Loser intervention program to strengthen future sessions.

Ethical considerations prior to, during, and after the study were carefully considered, and proper steps were taken to protect the rights of the participants involved in the study. Expedited review of the research protocol was approved by the University of Mississippi Medical Center Institutional Review Board (IRB). To ensure confidentiality, the PI assigned a unique identifier to all data. The de-identified data were analyzed by a two-person coding team.

The PI engaged in participant observation throughout the entire first season of The Youngest Loser to gain an understanding of the commitment of both the children and their parents or caregivers. The researcher is aware that particular biases and assumptions occur in

qualitative research. The researcher acknowledges that her personal experience of having a family member who struggled with childhood obesity could serve as a source of theoretical sensitivity towards the setting of the study. The researcher also acknowledges that living in Mississippi, which has the nation's highest childhood obesity rate, could potentially serve as a source of theoretical sensitivity towards the demographics of the participants. Potential bias was addressed through the use of a peer coder for inter-rater reliability.

One strategy that enhances the validity of this study is the participant observation by the researcher. In order to gain the trust of the children and parents involved in The Youngest Loser, the PI volunteered during the 12-week program and attended 31 of the 37 sessions. The researcher was able to perform various activities with the children and become immersed into their experience. Trustworthiness was assured through the use of a peer coder to determine an acceptable level of inter-rater reliability and through the use of member checks with participants. An audit trail was also maintained by the PI throughout the study.

Methods

Rationale for a Qualitative Research Design

Qualitative research methodology was appropriate for this study because it allowed the researcher to understand how the participants interpreted their experiences. Empirical phenomenology was the qualitative research approach used as a guiding perspective because it involved exploring the "lived experiences" of several participants with a particular phenomenon. Through the phenomenological perspective, the researcher was able to describe the commonality in the descriptions of the experiences of the participants instead of theorizing about what was common (Marshall & Rossman, 2006). Phenomenology places emphasis on the actual experience and how that experience is transformed into consciousness. The purpose is to identify the core meanings of shared experiences of individuals within a particular phenomenon (Merriam, 2009).

To identify the essence and meaning of the experience, one-on-one, semi-structured interviews were used to explore this topic. This approach allowed behavioral characteristics of the family dynamics to emerge, thereby providing an in-depth understanding of motivating factors and barriers that affect how the family makes decisions. Phenomenological interviewing required the researcher to be aware of personal biases and assumptions which may have resulted from their own experiences. Through epoche, or bracketing, the researcher set aside their experiences, as much as possible, prior to the interview process in an effort to begin with a new perception to fully describe how participants viewed the phenomenon (Merriam, 2009).

STUDY DESIGN

Participants

Participants for this study were selected through the use of a purposeful sampling strategy. No specific characteristics of participants, such as gender or level of education, were determined in advance. Inclusion criteria were that they had a child who participated in the initial cohort of The Youngest Loser intervention program. Participants (one parent from each family) were recruited from a list of 30 children who completed Season 1 of The Youngest Loser on September 17, 2011. Beginning October 11, 2012, a research assistant sent the families a weekly recruitment email describing the study. This continued for a total of seven weeks. Included in the email was an introductory letter to introduce the researcher,

explain the study, and affirm willingness to participate. Potential participants were also informed of their rights as a participant, informed that participation was strictly voluntary, and notified of their ability to withdraw from the study at any point. Those who agreed to participate were asked to reply to the email so the researcher could schedule a personal interview.

Setting

Semi-structured, one-on-one interviews were conducted at a location that was convenient for the participant. Only the parent who had participated with the child in the program was invited for an interview. The researcher who had volunteered during Season 1 of The Youngest Loser conducted the interviews. It was anticipated that familiarity with the researcher would allow the parents to freely express themselves during the interview. An interview guide utilizing open-ended questions was constructed with the assistance of a peer researcher to establish a framework for guiding the semi-structured interviews. The interview guide was organized in a manner which allowed participants to describe experiences with the program in their own words. The interview guide was formatted as a series of open-ended questions, with probing and follow-up inquiries used for guidance with difficult questions and to glean additional information. Since interviews were conducted approximately one year after completion of the program, participants were asked to reflect on experience they had with their child in the program.

Data Collection and Analysis

A demographic questionnaire and contact information were obtained prior to the interview for participant validation purposes. The questionnaire was also a means of ensuring maximum variation within the group of participants. This helps demonstrate that the sample is more representative than a random sample and is a technique often utilized when the sample size is less than 30 (Patton, 1990). The participant was notified of their ability to conclude the interview at any point. Therefore, completion of the interview served as implied consent.

Audio recordings were obtained during each interview. The interviews were transcribed verbatim within 36 hours after each interview to capture the full response of the participant. The demographic questionnaire completed by the participant was not included in the audio recording and was excluded from the coding process.

Confidentiality of each participant was maintained throughout the study, as no response can be directly linked to any participant. The researcher obtained a verbal consent prior to the interview and participants were informed of their ability to conclude the interview at any point. No participants requested to stop the interview process. The Principle Investigator identified each audio recording with a unique code that would not be traced back to the participant. The PI was the only individual with records of the codes. After transcriptions of audio recordings were completed and participant validation acquired, information identifying any of the participants was destroyed.

The results to follow were based on data obtained qualitatively through semi-structured interviews. Each member of a two-person coding team independently evaluated each interview transcript to enhance inter-rater reliability and address potential bias. The process began with horizonalization, in which transcripts were initially read line-by-line to highlight quotes or statements that afforded better understanding of the participant's experience. The transcripts were then read multiple times and notes were made as deemed appropriate. The coding team then evaluated the highlighted statements to identify patterns,

which were clustered into common themes. Data were re-evaluated to allow for making connections among information that emerged. The researcher used the themes and rich statements from participants to provide textural and structural descriptions of their experiences. Lastly, the researcher used these descriptions to present the common experiences of the participants, or the essence of the phenomenon (Merriam, 2009).

Each participant in the study completed a questionnaire that included the following demographic variables: race, child gender, child height and weight measurements, parent gender, parent height and weight measurements, parent marital status, and parent's highest level of education. The interviewed participant was also asked to report their spouse's highest level of education, as well as their height and weight.

Results

Participants and Setting

A total of 10 parents were involved in this research study. The participants, consisting of nine females and one male, were from various backgrounds and diverse family environments. A questionnaire was used for collection of demographic data for each participant. Unique identifiers have been substituted for actual names of the participants. These data provide a context for participants who contributed to this research through individual interviews.

Four of the participants in this study identified themselves as African American, and the remaining six as Caucasian. Their ages ranged from 31 to 46 years. Six of the participants identified their families' place of residence as suburban, three as urban, and one as rural. The nine female participants interviewed were biological parents of their child who participated in The Youngest Loser, while the male participant identified himself as step-father to his child who participated in the intervention program. Marital status of participants varied, with eight currently married and the remaining two single.

Educational attainment reported for both the participant and their spouse varied. Each participant noted educational levels consisting of some college experience and higher. One participant had some college experience, four had bachelor's degrees, three had master's degrees, and two had doctoral degrees. The married participants reported the educational level of their spouse as well. One spouse had no college experience; four had some college experience; one had a master's degree; one had a doctoral degree; and one had a professional degree as a Doctor of Medicine (MD). The two single mothers did not report educational attainment of a spouse. Although one participant chose not to disclose the family's level of income, three participants reported an income below $100,000, while six reported a level at or above $100,000.

The participants were asked to report the height and weight of themselves, their spouse, and their child. This self-reported information was used to determine the current body mass index (BMI) of each adult and BMI-for-age percentile of their child. All participants in this research study, along with their spouse—if applicable—and child, had BMIs categorized as either overweight or obese.

The researcher scheduled interviews at a location, date, and time that was convenient for each participant. The majority of the interviews were conducted either in the morning or during mid-day; however, two interviews took place in the evening. Settings for the individual interviews varied because the researcher sought to establish an atmosphere where the participant would feel comfortable and safe enough to talk freely about their experiences. For three of the interviews, the researcher met the participants at their place of employment. Another interview was conducted in a car in the parking lot of a school where the participant

waited for their children to finish extracurricular activities. One of the interviews took place in a restaurant and another in a coffee shop. A public library served as the setting for another interview. Two of the interviews took place in the home of the participant. Finally, one participant chose to interview in the office of the researcher.

Findings

Specific themes were documented as they related to the research objectives of the study to identify parental perceptions of motivating factors and barriers to their child's successful completion of The Youngest Loser. Parental motivators will be presented first, followed by parents' perceptions of motivating factors of their child in the successful completion of the program. Next, barriers experienced by the family as perceived by the parents will be presented. Lastly, findings from lifestyle changes that resulted from the intervention will be offered.

All of the parents were interested in enrolling their child in the intervention program because they were aware of their child's weight issues and were concerned about both short- and long-term consequences. Many parents noted they wanted to prevent a family pattern of obesity from continuing. They either revealed their struggle with weight as a child, or mentioned family members who had obesity-related health concerns. Common interests in the program included parental guidance for their child's non-compliant eating and exercise behaviors; education for their child of healthy foods and additional resources for activities; and emotional support for their child for increased motivation and self-esteem. In all cases, this program represented hope for these parents.

All of the parents observed their child participate in The Youngest Loser at least a couple of times; however, no parent stated they were present for every session. While a few of the parents said they volunteered for some of the sessions, the majority of the parents did not actively participate in the program with their child. Although they may have not been committed to staying for each session, parents were dedicated to making sure their child attended.

Parents expressed their level of commitment to making sure their child completed the program. The consensus was that, although they may have faced barriers and challenges, both they and their child were able to remain motivated throughout the program. Several motivating factors were identified that contributed to the attainment of initial goals established by both parents and children.

Motivating Factors for Successful Completion of The Youngest Loser

Parents were asked to identify what motivated both them and their child to complete the 12-week intervention program. Factors serving as motivators for parents differed from those of their children. Parents identified with the experiences of their child and persistently expressed they did not want their child to end up like them, as they could foresee future limitations due to additional weight. Parents also conveyed a strong belief in program completion. They wanted their child to finish the program and realize their abilities through such an accomplishment. Themes I and II demonstrate factors that motivated parents to remain committed to the program.

Theme I: Yearning to Break the Cycle

A strong motivating factor of parents was the desire to reverse the trend of obesity within their family. Parents made reference to either personal weight and health issues or

those of immediate family members. They acknowledged their child was making unhealthy behavioral decisions and could envision difficulties they would face as an adult. As a representative sample of the participants' responses, one parent best captured this theme in her comments:

> "Seeing that change in him and not wanting – I don't want my future for him, even though right now I'm a big girl, but I'm not hypertensive…I'm healthy but I could do more if I wasn't so large. I thank God I don't, I'm not suffering any long-term effects of my weight at this point but I know that I need to lose weight because it's coming and I don't want him to get to the point where he's Type 2 diabetic like his dad or heavy like me and can't do what he wants to do… I don't want to create this cycle, you know, that I grew into, because everybody in my – all the adults – they're all big, you know – to where it's OK to be that way" (P1).

Parents recognized the urgency to seek intervention during their child's formative years to prevent them from experiencing similar life issues. The concern for their child's health and well-being was apparent. They were aware of negative emotional and health consequences of obesity and wanted to intervene to break the cycle.

Theme II: Desire for Child to Realize Potential

Another motivating factor for parents that was evident in the findings of this study was the desire they had for their child to complete the program and realize what they could accomplish. Parents believed their child could overcome challenges and obstacles but wanted their child to gain self-assurance.

> "I wanted her to reach her goal at the end…I wanted her to finish it out and see what all she could accomplish" (P5).

> "…she was enjoying it and…benefiting from it, that kept me going…Seeing her physically exercising and sweating and running and moving was, I mean that was it. You know, the weight loss of course was a bonus, but the main thing was to see her realize that she could do these things" (P7).

> "…I just wanted her to finish it…her habits were changing…she really was benefiting from the nutrition aspect of it" (P10).

As noted in the findings of this study, parents perceived one of the most positive outcomes of this intervention for their child was increased self-confidence. This was evident throughout the child's journey. Themes III, IV, and V were identified as significant motivating factors for the children as perceived by their parents.

Theme III: Camaraderie of Children

All parents acknowledged their child was more motivated while in the group setting. In fact, only a few children attempted the at-home workouts. The majority had difficulty self-motivating and became discouraged. Several parents suggested their child was motivated by their friendships with encouraging peers. The group setting promoted

accountability, and weekly competitions provided incentives for the children to overcome personal weaknesses.

> "…it was getting out of the house and going somewhere, so it was just exciting to him to have friends" (P1).

> "They may have a little competition going on...and she's a social butterfly so she does better in group settings where she can flutter and be social..." (P2).

> "…if all the other kids are doing it, they're gonna do it, you know, or they're gonna strive to be better than the other kids or keep up with them at least" (P6).

> "Oh he was more excited in the group… The competition I think was the biggest motivator for him" (P8).

> "Probably the group setting, because I think you're accountable, I mean because you're in a group and so you know everybody's watching – not with like a critical eye…" (P10).

Theme IV: Improvement of Self-Esteem and Confidence

Every parent expressed a positive improvement in self-esteem and confidence. One mother said the program gave her child confidence to attempt extracurricular activities, such as joining the school band. This boost in self-esteem appeared to be driven by the nature of the program. The environment provided these children with a sense of optimism.

> "She enjoyed all her friends, she ate better, she exercised better, and she was, she just seemed to be so much stronger, you know, every week she was better and it just made her I guess more confident" (P3).

> "I think the weight loss. I think she saw the change happening in her body and uh, she felt good about it, and she wanted to continue on with that, and also I think there was some competitive aspect…the self-confidence boost helped her continue on with it" (P9).

Theme V: Supportive and Encouraging Staff

Parents commended the staff and volunteers of The Youngest Loser for their commitment and encouragement. It was obvious that their support helped the children stay motivated throughout the program. The staff's commitment to maintain a positive atmosphere that was fun and exciting promoted the children's commitment to work hard each week. The children were continuously reassured of their abilities.

> "I guess being around children that were like her and with [staff] and being so positive with them. I think they gave her confidence" (P3).

> "… I think it was good to have a couple of, you know, kind of male role models or male supporters or encouragers there for the male kids…they relate a little better to them naturally" (P6).

Barriers to the Successful Completion of The Youngest Loser

Although all families interviewed completed The Youngest Loser, several factors presented difficulties throughout the program. While different motivating factors were identified for parents and children, the following themes were identified as common barriers among the entire family as perceived by parents.

Theme VI: Conflicts with Scheduling and Transportation

The first half of The Youngest Loser was scheduled during the summer, which presented fewer conflicts than the second half when school and additional activities were added to the equation. Some parents expressed their child's focus changed after school resumed. Logistics became the main barrier for parents. Although scheduling was a challenge for families, they were all committed to completing the program and were able to overcome such obstacles.

> "It was mostly just being able to leave work and different things like that…Just the coordinating of the schedule" (P3).

> "…the toughest thing for me was the transportation thing, you know with me and my husband working and it was always so far away…but you know, sometimes I would use my mom or my sister, or my dad, you know, to help get him there" (P6).

> "…definitely just the logistics of getting her there…making it work with a very, very busy schedule, especially once school started" (P7).

> "There were some times where the scheduling with who was gonna take her" (P9).

Theme VII: Lack of Complete Family Support

While families supported their children by ensuring they attended sessions and completed the program, the majority of parents expressed guilt and shame for not doing more. Several parents said they did not try the recommended healthy recipes because they simply do not cook. Another parent said her family is guilty of eating in front of the television, which she considered a barrier to weight loss. None of the parents admitted their child completed the daily at-home work-outs as was required. The children mainly found alternative methods of physical activity, such as walking and riding the bike. The level of motivation was greater during the actual sessions within the group setting. Families were supportive on multiple levels, but it was apparent they harnessed shame and remorse for some of their weaker parental decisions.

> "Trying to make sure that I made the right choices to help encourage him to make the right choices…making sure that I made the right decision so that he wouldn't fall into what I was doing" (P1).

> "…his hardest thing was like the sodas…you know us as adults don't always set a great example" (P6).

> "I changed what I'd buy, but [my spouse] was still you know going to the store and getting some junk food" (P9).

> "…eating healthy at home, um, because the bad stuff is cheaper and easier and quicker, and that was the main barrier was trying to incorporate all the good stuff into our normal diet" (P8).

Resistance from immediate family members also presented difficulties for the success of the child.

> "Everybody was supportive. My husband, bless his heart, he liked a lot of fried foods. He grew up just a country boy – fried, country cooking…He didn't change his diet, no. No. But the rest of us did" (P8).

> "The older sister was definitely not on board…she wanted Mountain Dew, she wanted Little Debbie cakes and all that stuff, and the way she looked at it was, 'I'm not fat, I'm not overweight, I'm not unhealthy…why am I having to live like this?', but we were able to convince her 'Look, you know, we all need to be on board with this for [her] sake' and eventually I mean she had no choice unless she wanted to get a job and go buy her own groceries" (P9).

Lack of family support described by the majority of these parents was a result of busy schedules and the need for convenience. Previous research supports these notions (Nemet et al., 2005).

Parents noted many modifications that were made within the home in an effort to support the child during the program. Although unhealthy food options were not eliminated from the home, parents expressed they made sure healthy options were always available. They also focused on portion control and incorporating more brown rice into meals. Cutting back on sodas and incorporating more water into the diet were other efforts made to change unhealthy habits.

All families stated that The Youngest Loser was a good program that positively influenced their child in some capacity. When asked what they believe was the most positive outcome from the experience for their child, parents most notably mentioned increased self-esteem and acquired knowledge.

> "I think the things that she learned. That it's so many more children just like her. It's not the end all and be all of her size that she's able to do the exercise and then do the physicalness and play the games like anybody else. I think she learned that she's tougher than she thought she was, or more physically fit than she thought she was, and I think that carries on, you know now, and that she can regulate her weight if she can you know do these things. I think that's kind of made her more proactive about her health" (P3).

> "Her self-esteem. That's definitely been the uh, the biggest factor. That and the health aspect. I know she's a lot healthier than she was. She was always just sort of sick, you know, just didn't feel good. She laid around, she didn't want to get up, didn't want to go and do stuff, and that's not the case now" (P9).

Parents expressed that their children acquired the knowledge and ability to make better decisions. Awareness of the nutritional value of foods and portion control were the most common observations. The incorporation of more water, fruits, and vegetables was also noted.

> "She drinks more water, and she eats more fruit. So I do notice those things. And then she will go for a pack of nuts before she's gonna go for the candy bar. I've just noticed those things. I still think she needs help with like the portion control part, but I've noticed that she pays attention to what is in something. She looks up the nutritional value in it herself" (P5).

> "…he still reads labels. He watched portions. There were several times where he had dinner. He goes, I'm gonna wait 15 minutes and then if I'm still hungry then I'll get some more" (P8).

Although generally pleased with outcomes of the program, the majority of families interviewed reverted back to numerous unhealthy habits. However, though not strictly enforced, several positive household modifications were revealed: promotion of a more active lifestyle, addition of healthier foods into the diet, better portion control, less eating out, better sleep habits, and reduced availability of sodas and sweets.

Discussion

All parents acknowledged their child's struggle with weight and wanted to intervene while they were still young. This was an important initial component for the child's successful completion of the intervention because it is suggested that the first step to prevention of childhood obesity is to identify and overcome barriers to change. Literature indicates that parents are sometimes oblivious their child has a weight issue, while other parents may acknowledge that the problem exists but may be reluctant to institute changes (Stendardo & Shaw, 2011).

The parents in this study voiced a concern for associated emotional consequences of their child's obesity, which included low self-esteem, negative comments about their appearance, and concern of remarks from peers. These psychological and emotional implications of childhood obesity have been researched extensively (Taylor, Ye, Mack, Fry-Johnson, & Harris, 2011; Craig, Sue, Murphy, & Bauer, 2010). Many of the parents also expressed the time commitment involved. Although they stated they were willing to participate for the health and well-being of their child, it was evident they viewed The Youngest Loser as a child-centered intervention program.

Prior to enrollment in an intervention program for childhood obesity, the family should communicate goals and make a commitment to fully engage in the intervention as a complete family unit to support the child participant. Both the parents and the child involved in the intervention need to be motivated to commit to the program and support each other throughout the intervention. When at least one parent is actively involved in the weight loss intervention, the outcome is apparent in both short- and long-term weight reduction and maintenance of their children (Epstein, 1998). Although it will take effort, parents can control food availability, portion sizes, and physical activity practices to promote a healthier home environment.

Numerous types of family treatment programs exist with varying degrees of involvement from both the child and parent. Some studies indicated positive changes of greater weight loss, more modifications in behavior, and higher retention rates in programs

where parents were targeted as the main facilitator of change (Golan et al., 2006). Other studies specify that greater success is achieved when the entire family is involved in the intervention (Gruber & Haldeman, 2009). Unfortunately, all of the parents reported limited involvement with their child in the intervention. They were, however, committed to making sure their child completed the program. Literature indicates that childhood obesity treatment should involve the family and utilize tactics to motivate families to complete the treatment program (Grønbaek et al., 2009).

Parents had a strong desire to reverse the cycle of obesity and sought guidance for their child to become healthier. They did not want their child to follow their model and experience life as an overweight or obese adult. Literature indicates that children oftentimes view their parents as role models and mimic their behavior (Kendall et al., 2007). Some studies of interventions involving at least one parent have proven more effective than those focused on treating the obese child individually, since obesity tends to exist in the entire family unit (Golan, et al., 1998; Gruber & Haldeman, 2009; Perryman et al., 2008). One study reported better program retention, an increased percentage of weight loss, and longer maintenance of weight loss when parents were involved. They attributed this to parents taking more responsibility in providing healthy food choices and encouraging physical activity (Golan et al., 1998). This would suggest more effective long-term family changes could be established as a result of knowledge gained through experience when both the parent and child are involved in an early-intervention health and wellness program for childhood obesity.

Parents knew the potential of their child, but needed an avenue for their child to realize it first-hand. It was evident that parents realized the lack of self-esteem in their child that was a direct result of their unhealthy weight. Literature indicates that psychological problems associated with childhood obesity include negative self-esteem, withdrawal from interaction with peers, depression, anxiety, and the feeling of chronic rejection (Deckelbaum & Williams, 2001).

Parents admitted their child was more productive during group sessions. They either enjoyed the camaraderie with others experiencing common issues, thrived on the competitive nature of the program, or were inspired by their rapport with program staff. Children lacked self-motivation concerning physical activity when asked to perform at-home workouts; however, they became highly motivated while in the group setting amongst their peers. These findings support evidence of the relationship between the social aspect of community interventions and increased motivation (Guide, 2011; Hwang & Kim, 2011).

Family dynamics became a barrier as it was challenging to gain complete support of all members of the household. Parents felt guilty about their child being overweight and admitted to not holding the child more accountable. They also confessed to occasionally providing non-nutritional snacks and fast food both before and after The Youngest Loser sessions, most notably due to a hectic lifestyle. Overcoming this barrier is vital to successful outcomes for the child, as previous research indicates positive lifestyle changes are dependent upon the complete involvement of parents (Kirschenbaum et al., 2009). Evidence supports that the family is a vital component of therapy and can be influential in the child's outcomes, since children often model the behavior of their parents (Moore et al., 2012; Gruber & Haldeman, 2009; Golan et al., 2006).

Although most parents interviewed continue to struggle with complete support of the family, they noted multiple positive behaviors that have been incorporated into their lifestyle. The Youngest Loser provided a foundation of knowledge for the child and self-confidence that was not evident prior to the program. Parents admitted they have not continued to encourage healthy eating and exercise behaviors promoted by staff of The Youngest Loser, which has resulted in poor outcomes one year post-intervention. They were satisfied with all

aspects of the program, but recommended continued support for future cohorts. Although their child may have reverted back to their weight prior to the intervention, parents were generally pleased with program outcomes and have noticed their child is more accountable for their decisions because of knowledge acquired through The Youngest Loser.

A model of factors influencing program completion indicated in this study is presented in Figure 1. Findings of this study informed the development of this model. Although conflicts with scheduling and transportation, along with lack of complete family support, presented as perceived barriers, they were not significant factors that hindered program completion. The perceived motivating factors served as the driving force that resulted in successful program completion. Knowledge gained throughout the program led to positive family changes within the home environment.

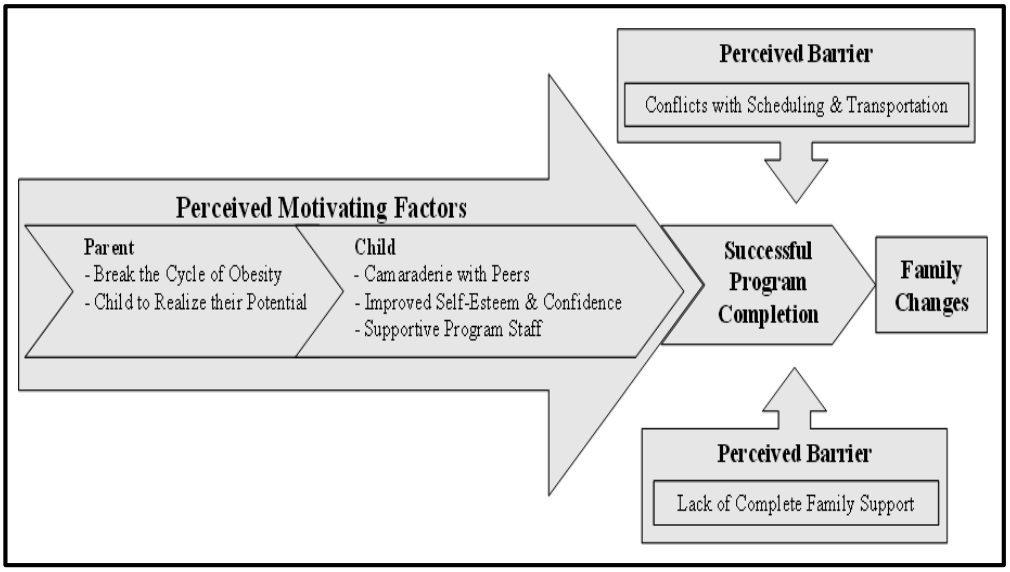

Figure 1. Model of Factors Influencing Program Completion

Limitations

There are several limitations to this study. First, the research targeted a selected population of one program for childhood obesity. The sample size was also limited. Although the results of this study are not generalizable to all programs of this type, we believe our findings contribute to what we know about parental influence in a child's potential to be successful in a weight-loss intervention program. What we learned in our study informs those who plan similar programs. Second, families who agreed to participate may have been more likely to have positive experiences with the program, which could result in bias. All parents involved in this study were generally pleased with the program and their child's outcomes, even though their child may have reverted back to prior habits. This does not guarantee that the remainder of the families shared the same opinions and had similar perceptions or experiences. Third, The Youngest Loser is a new program. Generally, facilitators of well-established programs have already faced challenges and resolved issues within the infrastructure of the program. Facilitators of The Youngest Loser faced many obstacles throughout the 12 weeks of its first Season and learned lessons for future cohorts. The experiences of families may fluctuate until the program is more established.

Future Research

Possible avenues for further research on this topic are numerous. The following are specific recommendations for further study of parental influences on interventions of this type.

1. Interviews of parents in subsequent Seasons of The Youngest Loser could provide evidence of strength of the intervention as staff further develops program curricula, objectives, and outcomes.
2. Focus groups of both children and parents pre-intervention and post-intervention could provide rich data that could help guide program administrators with specific needs of both the children and their family.
3. Implementation of a transitional plan for families to incorporate into their daily life after the completion of the intervention, and follow-up interviews with families at three, six, nine, and twelve months post-intervention could help program administrators understand both immediate and long-term challenges so proactive measures could be reinforced.

Conclusions

As is evidenced in the literature and supported in findings from this study, parental influence is of utmost importance in the successes and failures in a childhood weight-loss program. This would suggest that children would not be able to stick with a program or maintain a healthy eating pattern without the support of parental influences after the completion of an intervention. While it has been difficult to maintain healthy eating and exercise behaviors, parents indicated their child learned the fundamental principles necessary to modify their behaviors in the future if they so desire.

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