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Benefits and barriers to medically supervised pediatric weight-mangement programs

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BENEFITS AND BARRIERS TO PEDIATRIC WEIGHT MANAGEMENT PROGRAMS

by

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A DISSERTATION

Submitted to the graduate faculty of The University of Alabama in Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

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DISSERTATION

ABSTRACT

Objective: To evaluate families 'perceptions about outcome expectations and quality of care provided to their children in a pediatric weight management program as they relate to retention in the program.

Design: The study is a cross-sectional descriptive design.

Research Methods and Procedures: Thirty-five families whose children were returning to a pediatric weight management program for their second visit following orientation in the summer and fall of 2011 participated in this study. The researcher developed the items for the Pediatric Weight Management Survey based on a review of empirical literature, quality of care elements, the conceptual model and the Consumer Assessment Health Plan Survey (CAHPS). Four domains (accessibility, program effectiveness, patient and family-centered care, and outcome expectations) were evaluated utilizing *t*-test, point-biserial correlation and item analysis to determine differences between returnees and non-returnees, and associations with retention in the program. The participants who did not return for their third visit following orientation were contacted to determine why they did not return.

Results: Most (77%) family members who completed the questionnaire had at least a high school diploma or a GED. The largest percentage of respondents had health insurance either through Medicaid (45.7%) or through their employer (34.3%). Almost all of the respondents (88.6%) were female and about half (51.4%) were African American.

Most of the respondents' children who attended the clinic were ages 6-15 (68.6%). Descriptive statistics were calculated for each domain. Retention was defined as the third visit following orientation as determined by the pediatric weight management program. There were no significant differences found between returnees and non-returnees on any of the domains. Point-biserial correlations revealed no relationship between any of the domains and retention. Item analysis indicated cost, time, other responsibilities, and lack of information as possible barriers to returning for the third visit following orientation.

Discussions: The inability to generalize the data collected from this study and the small sample were study limitations. Information obtained from another point in time may have resulted in different findings. Most importantly there is a crucial need to study the obstacles of families enrolled in a pediatric weight management program and why they do not return.

Key Words: quality of care, retention, pediatric weight management programs

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CHAPTER I

INTRODUCTION

The incidence of overweight children is a significant and growing health problem in the United States (US) and in other parts of the world. Excessive weight in children is one of the nation's leading health problems because more and more children are developing chronic and fatal diseases that are linked to being overweight. Studies show that children and adolescents in the US have become significantly heavier over the past 40 years (Center for Disease Control [CDC], 2009; Kaur, Hyder, & Poston, 2003; Institute of Medicine [IOM], 2001).

The prevalence of overweight among children in the US is continuing to increase. Using data from the most recent National Health and Nutrition Examination Survey (NHANES), 17% of children and adolescents ages 2-19 years are overweight (National Center for Health Statistics [NCHS], 2011). According to the CDC, the rate of overweight children ages 2-5 years has increased to 10.4%, and the rate of overweight children ages 6-11 years has increased to 18.1% in 2008 (CDC, 2009). "In 2009-2010 the prevalence of childhood overweight was 16.9%" (Ogden, Carroll, Kit, & Flegal, 2012 p. 490).

The Southeast is expected to have more overweight children than any area of the US and have higher prevalence than states on the West Coast, the Midwest and the Northeast. In 2004, 16% of children in the Southeastern states were overweight

(Reynolds, 2010). Alabama, Mississippi, Oklahoma, South Carolina, Tennessee, and West Virginia had prevalence greater than 30% (CDC, 2009).

Body mass index (BMI) is the most commonly used measurement to determine overweight in children and adolescents. In children, BMI is based on growth charts for age and sex (CDC, 2009). Children with BMI values at or above the 95th percentile of the gender specific BMI growth charts are categorized as overweight (Ogden, Flegal, Carroll, & Johnson, 2002).

Overweight children have become a challenging problem in the pediatric population. Many different approaches to resolve this problem have been investigated. The American College of Physicians (ACP) has debated whether there is high quality care in the US. To have effective care, the treatment plan should insure competence of the physician and team, family involvement, access to care, and interpersonal relationships (IOM, 2006). Quality of care can be increased by availability of treatment, professional competence, convenient hours, and affordability (Creel, Sass, & Yinger, 1990). This type of comprehensive patient care may require training beyond one discipline. Therefore, professionals involved in patient care have formed multidisciplinary teams. However, no published studies have identified programs that are effective in promoting long term weight loss in children (Barlow, Dietz, Klish, & Trowbridge, 2002; Connor & Norman, 2006; Fowler-Brown & Kahwati, 2004). In addition, although family-based weight loss programs have shown success in clinical research (CDC, 2009), they have not shown success in maintaining retention. (Barlow et al., 2002; Flodmark, Marcus, & Britten, 2006; Fowler-Brown & Kahwati, 2004).

Statement of the Problem

Much of the quality-of-health-care literature is focused on defining quality as **“**access to health care**.”** Some studies have suggested that quality of care is a predominant factor influencing families’ retention in a pediatric weight management program (Backleland & Lundwall, 2004; Barlow et al., 2002; Reinehr, Brylak, Alexy, Rersting, & Andler, 2003). Despite the importance of monitoring quality of care, the Agency for Healthcare Research and Quality (AHRQ) in The National Healthcare Disparities Report (2003) stated there are four key barriers to the provision of quality of care: accessibility of care, cultural and socio-economic relationship problems, utilization of care, and program effectiveness. Several studies (Cote et al., 2004; Goldberg & Kiernan, 2005; Grimes-Robison & Evans, 2008; Honas, Early, Frederickson, & O’Brien, 2003) have analyzed the importance of families’ perceptions of quality of care and return visits to weight management clinics. These studies also found barriers to quality of care including conflicts with staff, finances, accessibility, and lack of family involvement. Even though these studies have identified problems with retention, little is known about interventions and overweight pediatric patients who discontinue treatment.

Because little is known concerning appropriate interventions and how to identify problems, there is an immediate need for programs to continue to investigate ways to develop and tailor interventions that are more effective. When the reasons for children discontinuing programs are better understood, pediatric weight management programs can promote interventions that will improve retention (Cote et al., 2004; Honas et al., 003).

Purpose of Study

The purpose of this study was to evaluate families' perceptions about outcome expectations (benefits and barriers) and quality of care provided to their children in the pediatric weight management program as they relate to retention in the program. The study also sought to identify barriers that interfere with completion of the program.

Significance of Study

Over the past decade, there have been numerous weight management programs implemented for overweight children (Honas et al., 2003). Although there are many successful programs, it remains difficult for children who are overweight to remain in treatment programs. Research has shown that program adherence, which is defined as the number of visits with weight management programs, is one of the major areas of concern (Cote et al., 2004; Zeller, Saelens, Raechrig, Kirk, & Daniels, 2004).

Several retrospective surveys have reported that children did not return for follow-up appointments because of lack of transportation, inability to keep timely appointments, and increasing costs (Barlow, 2007; Goldberg & Kiernan, 2005; Grimes-Robison & Evans, 2008;). Despite research findings that indicate some success in retaining and treating overweight children and adolescents, retention remains a significant problem. Developing the programs and interventions that address this problem can be complex. Previous studies (Goldberg & Kierman, 2005; Zeller et al., 2004) have examined ways of encouraging children to return for appointments. Current literature has shown that weight management programs should focus on quality of care and medical insurance issues. Factors such as BMI, age, gender, race and sex have not been explored as factors affecting remaining in the program (White et al., 2004).

There are gaps in the literature concerning families' perceptions of quality of care that their children receive while enrolled in a weight management program. Barlow and Dietz (1998) and Braet (2006) indicated that education during treatment improves retention rates and maintains the success of weight loss. Information concerning family perceptions is crucial and is needed to assist health practitioners to identify factors of success in weight management programs (Brownell & Wadden, 2004).

This study's results may provide a better understanding of families' views of quality of care. Existing literature has shown that families encounter barriers when participating in a treatment program. Researchers recommend that educating families during treatment leads to increasing retention rates and maintaining the success of weight loss (Cote et al., 2004; White et al., 2004).

Research Questions

The study will be guided by the following research questions:

1. What is the relationship between families' perceptions of accessibility and retention in a pediatric weight management program?
2. What is the relationship between families' perceptions of patient and family centered care and retention in a pediatric weight management program?
3. What is the relationship between families' perceptions of the program's effectiveness and retention in a pediatric weight management program?

4. What is the relationship between families’ perceptions of the outcome expectations and retention in a pediatric weight management program?
5. Do returning and non-returning families differ in their perceptions of accessibility in a pediatric weight management program?
6. Do returning and non-returning families differ in their perceptions of patient and family-centered care in a pediatric weight management program?
7. Do returning and non-returning families differ in their perceptions of the program’s effectiveness in a pediatric weight management program?
8. Do returning and non-returning families differ in their perceptions of outcome expectations in a pediatric weight management program?

Conceptual Framework

The theoretical framework guiding this study was Rosenstock’s Health Belief Model (HBM) (Rosenstock, 1974). After the exploration of health behavior theories, the HBM comes to the forefront as the most appropriate theory to direct this clinical problem. The HBM is relevant for this study because of its patient-focused approach and addressing behavior.

This theory is based on the understanding that a person will undertake a new course of action if that person feels that a harmful health condition such as being overweight can be avoided (Rosenstock, 1974). The HBM is one of the most commonly used conceptual frameworks for understanding health behavior (Strecher & Rosenstock, 1997; Turner, Hunt, Debrizzo, & Jones, 2004). The HBM is found to be applicable to measure quality of care elements. The framework is based on family and individual perceptions of quality of care. After a thorough review of the literature, it was determined that accessibility, patient and family-centered care, and program effectiveness comprise the characteristics of quality of care for this study (Cull, O'Connor, Sharp, & Tang, 2005; Glascoe, Oberklaid, Dworkin, & Trimm, 1998; McMahon, 2003; O'Brien, Holubkov, & Reis, 2004). These quality of care elements have been shown in the literature as valuable tools to assess retention in pediatric clinics (Cull et al., 2005). Two constructs of the HBM, benefits and barriers, will provide a framework for outcome expectations of the patient's family in a weight management program (Janz, Champion, & Strecher, 2002).

According to the HBM, involvement in health programs is affected by beliefs about the probability of an action resulting in a perceived benefit. The positive value of the resulting benefit must exceed the potential barriers (Rosenstock, 1966). Perceived barriers and benefits are particularly well suited for chronic conditions such as overweight and comorbidities (Rosenstock, Strecher, & Becker, 1988). These constructs are compatible with the outcome expectations and retention variables that best fit the purpose of this study.

Perceived benefits are defined for this study as perceptions that positive outcomes will result from undertaking specific behavior. The perceived benefit is one of the four major constructs of health-related behavior in HBM (Hockbaun, 1958). In a study by Nejad, Wetheim, and Greenwood (2005), the perceived benefit construct has been shown to be one of the most powerful predictors of behavior to support weight loss.

Perceived barriers are defined in this study as perceptions of possible adverse results from taking part in a pediatric weight management clinic. Perceived barriers include negative perceptions of participating in activities that may decrease the threat of illness. One study found that perceived barriers can be overcome with a positive outlook

(Nejad et al., 2005). By identifying these negative impressions and exploring ways to reduce them, the health care team can recognize if the child or family will be able to change behaviors (Strecher & Rosenstock, 1997).

Model of Study

The conceptual model for this study depicts families' perceptions with regard to quality of care and outcome expectations. The HBM is based on the belief that health behavior is determined by whether families perceive themselves susceptible to a health problem such as hypertension or diabetes and see this as a serious condition. Families should recognize the need to take action if any barriers conflict with positive accomplishments such as treatment, patient and family centered care, accessibility, and program effectiveness (Harrison, Mullen, & Green, 1992). The families' perceived need to take action may be influenced by issues such as whether or not the benefits overcome the cost and effort and whether services are available. The perceived benefit construct was included in the model because of its focused approach and compatibility with patient and family centered care. Benefit is based on the understanding that if a patient conducts a health related action that is positive, such as improving dietary habits, beginning an exercise program, and keeping appointments, there will be a positive outcome such as losing weight. Therefore, the family may perceive that benefits from the program outweigh any barriers that they may encounter (Harrison et al., 1992).

The perceived barrier construct was also considered important for this model because it can assist in finding ways to increase retention and sustain quality of care, an important goal for most weight management programs. The HBM maintains that people will change behaviors if they believe that by changing their behavior they will reduce or eliminate harmful and severe consequences (Harrison et al., 1992). In using this theoretical basis for a weight management program, families can process their own experiences with negative effects of overweight and what they perceive as the benefits of the program. Families' negative perceptions of quality of care may lead to lack of participation in the program and a decrease in retention rates. For example, in using this theoretical foundation for a weight management program, being overweight can be demonstrated as a negative consequence. For family involvement, perceived barriers may include cost of food preparation for diet recommendations. Recent literature states that for various reasons transportation, insurance, and cost of the program may prevent families from continuing in a pediatric weight management program (Harrison et al., 1992).

Quality of care elements will be included in the model of study because quality of care elements of accessibility, patient and family-centered care, and program effectiveness were found to be important in the literature review. (Cull et al., 2005; Glascoe et al., 1998; McMahon, 2003; O'Brien et al., 2004). These variables may impact the retention outcomes.

Lastly, retention was included in the conceptual model because as previous studies have indicated, noncompliance in children/families has been an issue in follow-up appointments (White et al., 2004). Retention is defined for this study as the completion of follow-up visits as determined by the pediatric weight management program. In the study by Cote et al. (2004), perceived quality of care was found to be highly associated with return follow-up appointments and retention in pediatric weight management programs. Retention is essential to the success of interventions in pediatric weight management programs, and lack of retention is recognized as one of the most significant obstacles to treatment. When the reasons why children discontinue services are understood, programs can promote interventions that will improve retention (Honas et al., 2003). The conceptual model and its components are depicted in Figure 1.

CONCEPTUAL MODEL

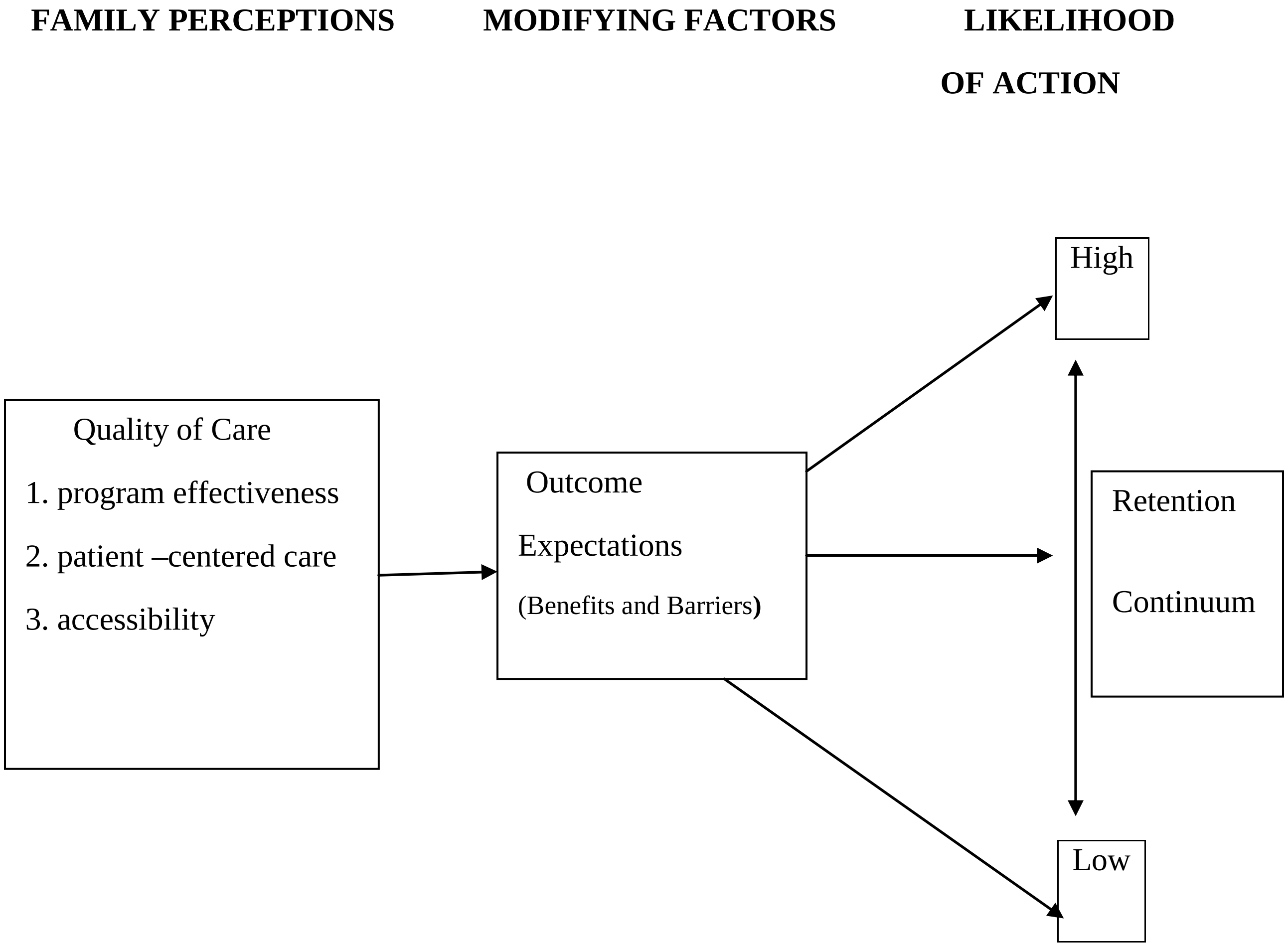

Figure 1 Depiction of Quality of Care elements and outcome expectations (perceived benefits and perceived barriers) in a pediatric weight management program.

Inclusion and Exclusion Delimitations

For studies to be effective, they must qualify their population and define the boundaries as determined by exclusionary and inclusionary decisions. This study's population is delimited by the following:

1. Only families whose children were enrolled in Children's Weight Management Center in the summer and fall of 2011 were included.
2. Children and adolescents are included only if they are primarily supported financially by parents or guardians.
3. Bariatric patients were excluded.

Limitations

The study was limited by the following:

1. This study was limited by the self-reporting accuracy of the participants.
2. This study was a small sample size and was limited to the only pediatric weight management clinic in Alabama.
3. Participation in the study was voluntary; therefore, results may not represent participants who decline.
4. The study was conducted only in Alabama.
5. Data was collected at only one point in time.

Assumptions

For the purpose of this research, the following assumptions were made:

a) The researcher would have access to the files of participating children in order to collect demographic data.

b) Families enrolled in the Children's Center for Weight Management would participate in the questionnaire survey.

c) Families would provide hones answers to the items in the questionnaire.

Study Strengths

The strengths of the study are as follows: (a) the study added to the professional literature based on a conceptual framework in a medically supervised pediatric weight management clinic; (b) the study described the different variables that may contribute to retention in a pediatric weight management clinic; and (c) based on survey results, the study provided recommendations defined and undefined in the professional literature, especially retention of children or adolescents involved in weight management programs.

Operational Definitions

Families: Individuals who provided social support and maintenance to children enrolled in the pediatric weight management clinic.

Outcome Expectations: Possible adverse results (perceived barriers) and desirable effects (perceived benefits) from taking part in a pediatric weight management clinic as measured by thirteen items on the Pediatric Weight Management Survey adapted for this study from the Consumer Assessment Health Plan Survey (CAHPS) (AHRQ, 2006).

Perceived Benefits: Possible desirable effects from taking part in a pediatric weight management clinic as measured by outcome expectations items on the Pediatric Weight Management Survey adapted for this study from CAHPS (AHRQ, 2006).

Perceived Barriers: Possible adverse results from taking part in a pediatric weight management clinic as measured by outcome expectations questions on the Pediatric Weight Management Survey adapted for this study from CAHPS (AHRQ, 2006).

Quality of Care: Combination of three elements: accessibility, patient and family-centered care, and program effectiveness.

Accessibility: The extent to which a patient and family can obtain a service at the time needed and ease with which a pediatric clinic can be reached as measured by eight questions on the Pediatric Weight Management Survey adapted for this study from CAHPS (AHRQ, 2006).

Patient-and Family-Centered Care: Building relations with patients and families by creating a warm atmosphere and by maintaining regular communication as measured by twelve questions on the Pediatric Weight Management Survey adapted for this study from CAHPS (AHRQ, 2006).

Program Effectiveness: The extent to which the Children's Center for Weight Management (CCWM) achieves program objectives and desired results as measured by ten questions on the Pediatric Weight Management Survey adapted for this study from CAHPS (AHRQ, 2006).

Retention: Adherence to third visit following orientation as determined by the pediatric weight management program.

Chapter Summary

The prevalence of overweight has increased significantly among children in the US and most parts of the world (IOM, 2001). Several studies (Cote et al., 2004; Grimes-Robison & Evans, 2008) have analyzed the importance of families' perceptions of quality of care and return visits to weight management clinics. There are no published studies that have recognized programs that are successful in promoting long term weight loss in children (Barlow et al., 2002).

The purpose of this study was to evaluate families' perceptions about outcome expectations and quality of care provided to their children in a pediatric weight management program as they relate to retention in the program. The theoretical framework guiding the study was the HBM which was found to be appropriate to measure perceptions of quality of care. Two constructs of the HBM, benefits and barriers, provided a framework for outcome expectations of the patients' family in a weight management program. The conceptual model (Figure 1) represents families' perceptions with regard to quality of care and outcome expectations. Retention was included in the concept model because previous studies have indicated that non-compliance in children/families has been an issue in follow-up appointments. Perceived quality of care has been found to be associated with return follow up appointments or retention in pediatric weight management programs.

CHAPTER II

REVIEW OF PROFESSIONAL LITERATURE

Introduction

The purpose of this study was to evaluate families' perceptions about outcome expectations (benefits and barriers) and quality of care provided to their children in the pediatric weight management program as they relate to retention in the program. The study also sought to identify barriers that interfere with completion of the program.

The researcher utilized the following databases: Health Reference Center Academic, Health Source Nursing/Academic Edition, Google Scholar, E-Books, ERIC, and Health Information Net of Alabama to retrieve literature and related research concerning overweight children. Topics such as retention, quality of care, pediatric weight management clinics, patient satisfaction, and the Health Belief Model were retrieved.

The purpose of the review of literature was to identify studies and professional literature related to pediatric obesity, program retention, quality of care, and the HBM. . Studies of the HBM, quality of care, and retention in pediatric weight management programs not only highlight the need for further research but also focus on the need to investigate and to determine any barriers that affect retention.

Prevalence of Overweight Children

The prevalence of overweight children and adolescents has been increasing since late 1970s in most developed countries such as the US. About one in four children ages 10-17 years in the US is overweight. Previous research has established that the prevalence of overweight children and adolescents has increased rapidly among children and adolescents in the US. Childhood overweight doubled from 1988 to 2004 (Table 1) (Deckelbaum & Williams, 2001). The IOM (2006) indicated that approximately nine million children over six years of age in the US are overweight (IOM, 2006).

Table 1

Prevalence of Overweight in Children

Age	1988-1994	1999-2000	2003-2004
2-5 years	7.2%	10.3%	13.9%
6-11 years	11.3%	15.1%	18.8%
12-19 years	10.5%	14.8%	17.4%

CDC (2006)

Overweight in children and adolescents is a complex and challenging chronic medical condition to treat. Studies show that children have become heavier over the past 40 years (CDC, 2006; Kaur et al., 2003). The prevalence of overweight has almost doubled for preschool children ages 2-5 years, children ages 6-11 years, and adolescents ages 12-19 years. Results from the 2003-2004 National Health and Nutrition Examination Survey (NHANES), which includes measuring height and weight, indicated that an estimated 17% of children and adolescents ages 2-19 years are overweight (CDC, 2006).

The 2005 survey of the Youth Risk Behavioral Surveillance System (CDC, 2006) shows that 10% of high school students approximately 13-18 years old are overweight and another 15.7% are at risk of becoming overweight. This percentage was three times higher than it was in 1985 (Eaton et al., 2005). Data from the NCHS (2002) indicate that in the US, approximately one in five children was overweight. According to Yoga Wang, a researcher at Johns Hopkins, overweight has become a health crisis in the US. Wang (2001) predicted that if the rate of overweight children continued at that pace, 75% of adults and 24% of U.S. children will be overweight (Wang, 2001). By 1999, the Surgeon General reported that 13% of children ages 6-11 years, and 14% of adolescents ages 12-19 years were overweight (U.S. Department of Health and Human Services [USDHHS], 2001). Results from the National Health and Nutrition Examination Survey of 2007-2008 indicated that approximately 16.8% of children and adolescents ages 2-18 years are overweight and there were no significant trends in overweight prevalence for any age group (CDC, 2009).

In summary, prevalence of overweight children has become a valid concern and the prevalence continues to propel upward. Assessment of etiological factors is important to effectively prevent or treat overweight children.

Overview of the Etiology of Overweight Children

Many researchers have determined that there are diverse explanations for the cause of overweight in children. Brownell and Wadden (1992) cautioned that overweight cannot be explained by a single cause. Ogden et al. (2002) indicated that major factors contributing to excessive weight are complex. These included a combination of genetic, metabolic, psychological, behavioral, socio-cultural, and environmental factors. All these factors are influential and must be taken into account when designing studies and interventions for overweight.

Genetic/Biological Contributors

One cause of overweight is related to heredity or genetic events. Although genetics may not be considered the only cause, overweight has been determined to be connected in families. Research has proven that overweight parents have much higher risk of having overweight children. If a child has one overweight parent, he/she has a 40% chance of being overweight and with two overweight parents**,** this chance increases to 70% (Tunnessen, 1999).

Research by Stunkard et al. (1986) concluded that there is a strong relationship between the weight of adoptees and the BMI of their biological parents and showed no relationship between the weight class of the adoptees and the BMI of their adoptive parents. Four types of weight were researched: thin, median weight, overweight, and obese. The authors found this relationship between adoptees and biological parents to be proven across all weight classes. These results emphasized the importance of genetic influences in overweight children. However, it is important to note that even though genetic factors may play a role in weight; this does not exclude the importance of life patterns as a contributing factor.

Another biological reason for overweight concerns is the fat cell which is structured for the storage of triglycerides. Childhood obesity is related to the number of fat cells. The number of fat cells increases in size during youth and when caloric intake rises.

Individuals with average weight usually have 25 to 35 billion fat cells, and an overweight person may have as high as 100 to 125 billion (Leibel, Berry, & Hirsch, 1983, as cited in Brownell & Wadden, 1992).

Environmental and Behavioral Variables

Overweight in children can be determined by environmental events. All these events are influential. Such influences may include the family, environment, activity level, and advertising.

Family: Overweight children may be influenced by their family environment. The family plays an important part in the development of eating patterns and preferences. Early life patterns of eating and attitudes have been found to be a major cause of overweight in children. Existing research claim that excessive weight can be associated with family environment (White et al., 2004).

Family variables such as parent weight, family size, culture, eating, exercise, and family beliefs may be important factors in the cause of overweight in children (Jain et al., 2001; Smith, Hair, Cook, Halle, & Weitzman, 2007). One study of 185 families with children ages 6 to 12 years at the University of Pittsburgh found that the prevalence of overweight children has been shown to be related to family size. Almost 20% of children in the study with families with four or more children were overweight (Epstein, Wing, Koeski, & Valoski, 1990). The authors presented several interesting findings that were found to be related to the number of children in a family.

Epstein, Myers, Raynor, and Saelens (1998) indicated that children’s food preferences were influenced by the types of foods that were brought into the home by the family and they found that 80% of the time, children ate foods similar to the foods other family members ate. A qualitative research study, however, concluded that overweight children in low income environments were influenced by no parental control and no restricted foods (Jain et al., 2001).

Activity: Another environmental factor that has been cited as contributing to overweight among children is level of activity (Clark & Goldstein, 1995; Striegel-Moore, Silberstein, & Rodin, 1986). Overweight children are less physically active than children of normal weight (Brownell & Wadden, 2004). Literature indicates that an inadequate diet and lack of physical exercise prevents children from maintaining an ideal body weight.

Advertising: In addition to the influence of family, there are other variables associated with eating patterns and overweight. Among these variables, television viewing and advertising have been shown to influence eating behavior. In 2002, Coon and Tucker published findings concerning children and adolescents exposed to advertising. Results indicated that overweight children choose advertised food products at higher rates, increased television viewing was related to selection of fast foods, and sweet snacks.

Socio-cultural Variables

Socio-cultural variables also play a key role in the development of overweight in children and adolescents. There are high rates of overweight children in certain segments of the population. The prevalence of overweight is increasing with age, females, low incomes, minorities, and the elderly (Greenberg, Eastin, Hofschire, Lachlan, & Brownell, 2003). In the US, there is an alarmingly high prevalence of overweight in women. A 1994 survey, revealed that changes in overweight among groups differed by gender and ethnicity. Trends were reviewed concerning overweight women. Outcomes showed 33% of Mexican American women and 37% of African American women were found to be overweight (Greenburg, Eastin, Hofschire, Lachlan, & Brownell, 2003).

Strauss & Knight (1999) followed 2913 normal weight children over a 6 year period. The results showed that children with single mothers, African American children with nonworking parents, children with nonprofessional parents, and children whose mothers had not completed high school were more likely to be overweight. Results indicated that there was a greater risk of overweight children with decreased cognitive encouragement with lower socio-economic status (SES) and generally have a deprived home environment.

Kumanyika et al. (1990) examined the US Task Force Report on minority health to determine ethnic differences in overweight children in the US. The author found that overweight is more prevalent among minority groups, including African Americans, Hispanic Americans, Native Americans, Alaskan Natives, and Asian Pacific Islander Americans. Kumanyika et al. (1990) concluded that ethnicity may be an important variable in overweight children.

Researchers have also examined SES as a factor of overweight in children (McMurray, Harrell, Deng, Bradley, & Bangdiwala , 2000; Mei et al., 1997; Sobel & Stunkard, 1989; Wang, 2001). In 1998, Mei and colleagues determined that the prevalence of overweight in preschool children among the low-income population in the US had increased. The researchers examined preschoolers enrolled in pediatric clinics located in 18 states. The researchers found that after adjusting age, sex, and race or ethnicity, the prevalence of overweight increased from 18.6% in 1983 to 21.6% in 1995 based on the 85% percentile cutoff point for weight-to-height, and climbed from 8.5% to 10.2% for the same period based on the 95th percentile cutoff point. Results from this study indicated that there is an alarming and growing health concern especially among low income preschool children in the US.

As noted by Sobel and Stunkard (1989), research has indicated that there is a relationship between SES and overweight children in developing societies. Data was collected from surveys concerning overweight children aged 6 to 18 years in the US, Russia, and China. Results concluded that children belonging to low socioeconomic groups in the US were at a higher risk of overweight. However, because of inconsistencies in research on SES and overweight further studies are needed to understand this relationship (Drewnowski & Specter, 2004).

Comorbidities

Being overweight can be devastating both physically and psychologically. In overweight children, the risk for hypertension, diabetes, cardiovascular disease, psychological problems, and other problems is elevated (Jablow & Koop, 1992; Whitlock, Williams, Smith, & Shipman, 2005). At Tulane School of Public Health and Tropical Medicine, researchers have found overweight to be a factor for cardiovascular symptoms during adolescence (Greene, 2003). Recent studies have shown an epidemic of Type II diabetes mellitus among children and adolescents that would normally be associated with adults (Anderson & Butcher, 2006**).** Pinhas-Hamiel and Zeitler (2000) conducted a review of literature that concluded the main factor in children who develop Type II diabetes mellitus is being extremely overweight, accompanied by overweight family members, a high-fat diet, and a sedentary lifestyle. In fact, children from ages 2 to 5 years may acquire elevated blood pressure secondary to overweight. Barlow and Dietz (1998) found that children as young as 2 to 5 years old can experience elevated blood pressure that may lead to an overweight problem later in life. Elevated pressure may continue to be a medical condition into adulthood.

A significant number of these overweight children are at risk of developing medical problems. Some of the most common medical cormorbidites in overweight children and adolescents that affect multiple organ systems include Type II diabetes mellitus, pulmonary complications, asthma, cardiac problems, dyslipidemia, and orthopedic problems (Deckelbaum & Williams, 2001).

In addition, the adverse effects of this adult disease may be secondary organ damage, including cardiovascular, eye, liver, and kidney disease. Yale researchers evaluated 167 children and adolescents with a BMI greater than the 95th percentile for their age. The participants were also tested for signs of glucose intolerance. Glucose intolerance is when the body is unable to utilize sugar appropriately and the blood sugar level increases to above normal after meals. The results of this study revealed that impaired glucose intolerance can possibly increase children's risks of disease. (Nathan et al., 2007).

Overweight in children is associated connected with lower SES and a higher level of psychological problems such as body image, self-esteem, binge eating, and depression. Weight concerns may have an impact on self-confidence in children. McCabe, Ricciardell, and Holt (2005) found that even young children have indicated dissatisfaction with their bodies, so they examined factors that influence body image among boys and girls ages 8 to 11 years. The study was designed to examine the role of age, gender, and BMI in the development of body image. The authors concluded that self-esteem positively correlated with the child's body satisfaction. The findings have significant implications for treating overweight children. If body image and satisfaction are issues that could affect weight loss, then weight loss programs may need to implement strategies in motivation and consistency in their treatment plans.

In addition, morbidity and mortality in the adult population increases with those individuals who were overweight children or adolescents (Deckelbaum & Williams, 2001). Because of statistics on morbidity and mortality, emphasis must be placed on early intervention in overweight children to prevent profound health consequences (Dietz & Bellizzi, 1999).

Assessment and Treatment Components

Over the past decade, numerous treatment programs have been implemented for overweight children. The most common methods used for weight management include behavior modification, psychiatric procedures, diet, exercise, family involvement, multidisciplinary approaches, and pediatric weight management programs (World Health Organization, 2003b).

Behavior Modification

The motivation to change by the child and family must be assessed before any treatment. Barlow and Dietz (1998) indicated a weight-management program may be harmful for a child not ready to change and may decrease the child's self-esteem.

The primary focus should be behavioral interventions that can be utilized by health care teams to deal with issues of overweight children. Through education, children and their families can make changes in their diet and exercise, which will result in decreased weight, improved cardiovascular status, and physical fitness. There are a variety of behavioral techniques that can assist children and families through effective behavior changes that are permanent (Barlow & Dietz, 1998).

Diet/Exercise

According to the Surgeon General, overweight is generally caused by lack of physical activity and unhealthy eating patterns (United States Department of Health and Human Services [USDHHS], 2009). Dietary modification along with increased exercise and psychological support are significant in treating overweight children. Several factors could affect the caloric intake. Variations in children’s food selections are associated with patterns of physical activities and the family environment. One approach to modifying diet is decreasing high-fat, high-caloric foods and liquids. A preferred approach to dietary modification in overweight children is being very conservative. In young children, a balanced diet with a caloric deficit of 20-30% below usual intake is recommended. Reducing fat and limiting consumption of high-caloric liquids will usually lower the calories. To maintain lean body mass, protein consumption must be monitored. The main goal of treatment is to prevent any weight gain until the child has reached an appropriate weight for height and age (Beal et al., 2004).

An increase in calories and decrease in exercise can have major effects on childhood overweight. It is essential to balance intake and activity. It is crucial that overweight children take part in activities they like in order to maintain interest in being physical fit (Deckelbaum & Williams, 2001). Epstein, Valoski, Wing, and McCurley's, (1990) findings indicated that physical activity plus a diet can assist with weight loss. Families should inspire their children to increase play and provide physical activity opportunities such as use of community recreational facilities.

Overweight children tend to be sedentary, and the objective of physical activity involvement should be to change these habits to being physically active. Families should encourage and reinforce their children to be more active and to reduce time spent in sedentary alternatives such as playing on the computer and watching television (Epstein et al., 1990).

Family Involvement

The behavior and involvement of families is an influencing factor in successful weight management programs. The literature on family involvement indicates that educating families during the pediatric weight loss treatment increases the retention rates and maintains the success of the weight loss treatment in children. Data from these studies emphasize the importance of family participation in pediatric weight management programs (Epstein et al., 1990; White et al., 2004). It is important as part of the program to encourage close contact between family members and periodic family consultations concerning the progress of the child. Lastly, in order to develop interventions successfully, family members should participate in the treatment plan (White et al., 2004).

Family-based weight loss programs for children in which all family members are involved offer opportunities for prevention of excessive weight gain. Results of several studies, (Charney, Goodman, McBride, Lyen, & Pratt, 1976; Nemet et al., 2005) indicated that all family members who participate actively may experience long term change. Likewise, children cannot change their exercise and eating habits by themselves. They need the help and support of their families and possibly a treatment program. It is well documented that families have a tremendous influence on their children's attitudes and behaviors (Braet, 2006; Epstein et al., 1990; Ogden et al., 2002; White et al., 2004).

Families, besides serving as role models, exert a powerful influence on children's exposure to food and food selection (Golan, Weizman, Apter, & Fainaru, 1998). Research has shown that weight management programs that are family-based present a positive way to prevent and treat overweight in children (Caprio, 2006; Epstein & Wing, 1987**;** Reinehr et al., 2003). Because of families' concerns about the eating and physical activity patterns of their overweight children, it is essential that families have knowledge and skills related to issues such as nutrition and physical activity. Pediatric weight management programs are resources that can support family needs and provide interventions to facilitate weight loss in overweight children. Successful participation in a treatment program may provide the support needed to form and create new habits of healthy eating and increased physical activity (Carson-DeWitt, 2010).

Data from three studies emphasize the importance of family participation in weight management programs. Three family-based epidemiological studies (Epstein & Wing, 1987; Epstein et al., 1984; Epstein et al., 1990) implemented over a 10-year period involved children 6 to 12 years old who were 20% overweight. Treatments took place once a week for 8 weeks and then once a month for 6 months. After 10 years of follow up, the data showed that a significant number of children in the treatment programs had maintained their weight loss.

The first study (Epstein et al., 1984) compared the effects of treating children only to those of treating both children and their families. This study used a lifestyle exercise program and focused on weight change behavior. The results suggested that if the families actively participated, it had a significant effect on change and weight management.

Comparing the influence of a positive family history with that of a negative family history formed the basis of the second study (Epstein & Wing, 1987). Children enrolled in the program used self-paced learning strategies to become competent in certain basic skills such as weighing themselves daily at home and graphing their food (Epstein et al., 1990). Again, results indicated that family involvement and history were very important in managing the child's treatment plans.

The third study (Epstein et al., 1990) involved both family and children and compared lifestyle changes to aerobic exercise. The findings showed that lifestyle changes and exercise were correlated with decreasing weight. In summary, the 10-year data from the three family based studies showed long-term weight maintenance effects, with family involvement a strong factor in overweight children (Epstein et al., 1990). Consequently, program success is an outcome of family commitment.

Medically Supervised Weight Management Programs

Health professionals who care for children and adolescents are in a key position to help prevent and treat obesity by promoting behavioral and environmental changes. Children enrolled in successful weight management programs can learn how to be more active and eat in a healthy way. With the assistance of the weight management program, families can begin to understand how to support the child, be good role models, and reduce family tension concerning the child's weight and eating**.** Most importantly, the program may encourage good communication skills between family members. Although, there are many successful programs, it remains difficult for children who are overweight to lose weight and remain in treatment programs (Grimes-Robison & Evans, 2008).

The prevalence of overweight children has risen in the last several decades, and treatment has not met the needs of these children. Children at risk for overweight should be tested or screened by age 10 years. Early intervention is important for success in managing overweight in children (Children's Health System, 2010). The following programs are illustrative of successful and unsuccessful pediatric weight management programs.

Programs that Work

Several recent studies (Anderson & Butcher, 2006; Caprio, 2006; Goldberg & Kiernan, 2005) have defined successful weight management programs as those using a multidisciplinary approach that combines a dietary component, physical activity, parental involvement, and behavioral modification. Multidisciplinary teams are groups of professionals consisting of specialists from several fields. Each professional plays a valuable role in the treatment plan. These teams have proven to be valuable components of successful pediatric weight management programs (Connor & Norman, 2006).

As more pediatric weight management programs are studied, it is becoming apparent that certain components are critical to the success of the program. There is more evidence that these components are needed in approaches to maintain a successful treatment plan. Some studies have revealed pediatric weight management programs that have been identified as successful.

Successful Weight Management Programs

Successful pediatric weight management programs for children have utilized a variety of interventions. There is more conclusive evidence that the components listed below are preferred approaches to maintain a diversified and successful treatment plan.

1. Quality of Care
2. Weight loss
3. Motivation
4. Positive home environment
5. Parental involvement
6. Comprehensive assessment
7. Group behavior therapy
8. Interdisciplinary approach
9. Dietary and physical activity changes

(Braet, 2006; CDC, 2003; CDC, 2006; Cote et al., 2004; Epstein & Wing, 1987; Goldberg & Kiernan, 2005)

The following programs provide evidence related to various interventions and effective weight management (CDC, 2003; Smith et al., 2007).

Strong Healthy Families is a multidisciplinary family-based weight management program focusing on medicine, nutrition, behavior, and physical activity (National Institute for Health Care Management [NIHCM], 2003). The program is comprehensive and runs for 35 weeks. Research has shown successful pediatric weight management programs that include family involvement and supports are more successful with overweight children (Smith et al., 2007). In evaluating the Strong Healthy Families program, it was found that 50% of the children dropped out due to lack of family support (NIHCM, 2003). The positive element of this program and what makes it successful is that the participants who complete the program show a significant weight loss and BMI improvement (Smith et al., 2007).

Kid Shape (NIHCM, 2003) was established in 1987 to work with families from culturally and ethnically diverse populations. Kid Shape found that 87% of the children lost weight within the first 8 weeks and 80% of the children kept that weight off for up to two years. Retention rates remain around 90% which suggests that interventions such as family reminders, patient contracts, and clinic orientation programs are successful ways to promote compliance with scheduled appointments (American Diabetes Association, 2000).

Because of an increasing demand for pediatric weight management programs, Children's Hospital Medical Center in Cincinnati implemented Health Works**.** The Kirk et al. (2005) study was based on a retrospective chart review to examine the success of the Health Works program by determining changes in BMI and reduction in the risk factors for comorbities. The sample was 394 obese overweight children ages 5 to 19 years. The treatment plan consisted of goals for nutrition, physical activity, and family assistance. Results showed a modest change in weight data. A total of 177 (45%) completed the initial phase of treatment. "At onset of treatment, 134 (84%) patients had abnormal fasting insulin concentration, 88 (50%) had abnormal total cholesterol, 14 (8%) had abnormal diastolic blood pressure, and 69 (40%) had abnormal LDL-cholesterol. At the end of treatment, a significant proportion of patients with baseline abnormal blood pressure, total cholesterol, and LDL-cholesterol had normal values" (Kirk et. al, 2005, p. 876). The results of this study demonstrated significant improvement in health outcomes with reduction in BMI. The 5 month program's attrition rate was 55%. Family satisfaction was found to be an important predictor of success in this program (Kirk et al., 2005).

Kaiser Permanente's Kids in Dynamic Shape (KP KIDS) is an interdisciplinary weight management program that was implemented because of prevalence of overweight children in California at 35.6% (Britto & Wenberg, 2008). The weight management program was put into effect in eight Kaiser Permanente's medical centers. The program focuses on overweight children 5-12 years of age with a BMI at or above the 85th percentile. The objective is to educate overweight children and families about healthy life style behaviors and other ways to prevent overweight (NIHCM, 2003).

The Geisinger Health System has two major components: Kid's When Every Individual Gets Health (W.E.I.G.H.) and Kid's WEIGH OF LIFE (NIHCM, 2003). Kid's W.E.I.G.H is a preventive educational program. The WEIGH OF LIFE weight management program for children was developed to focus on the causes of excessive weight and to provide education to the family about the child's condition (Pediatric Weight Clinic, 2007). Unfortunately, in one study of children who dropped out of the program, 25% had an increase in BMI at the time they dropped out, 45% had no change, and 30% had a decrease in BMI. Transportation and distance for children and their parents were factors in these dropout rates (NIHCM, 2003). However, the retention rate remains over 50%.

In summary, strategies that appear to be critical elements of the program include motivational interviewing, group therapy, and family involvement. An interdisciplinary team approach involving pediatricians, psychologists, nurse practitioners, nutritionists, and physical therapists is also effective for pediatric weight management programs.

Although there are many successful programs, it remains difficult for children who are overweight to lose weight and remain in treatment programs. Information about family perceptions in different settings is crucial and is needed to assist health educators and practitioners in developing and implementing successful weight management programs.

Unsuccessful Weight Management Programs

One factor associated with unsuccessful programs is retention. Because retention rates for weight management programs have not improved in the past 20 years, identifying effective techniques for enhancing retention is critical (Goldberg & Kiernan, 2005).

The Teixeria et al. (2004) study analyzed baseline behavioral and psychosocial differences between successful and unsuccessful participants in a behavioral weight management program. A successful outcome identified for this study was weight loss. Participants not completing the program were categorized as unsuccessful. Thirty percent did not complete initial treatment and/or missed follow-up treatment or both. Decisions to leave a pediatric weight management program can be complex. Previous studies (Goldberg & Kiernan, 2005; Cote et al., 2004) have examined means of promoting retention in or return to programs. Greater attention to quality of care, medical insurance issues, and associated factors is needed.

The findings of Braet's (2006) study indicated that withdrawing prematurely from a weight loss program was a negative predictor, and that gender, SES, self-esteem, and symptoms of psychopathology did not predict weight loss. There is limited research in the literature concerning methods to improve interventions and retention in pediatric weight loss clinics (Baekleland & Lundwall, 2004). However, investigation of retention rates in pediatric weight management programs indicates that families are concerned about the following barriers they are experiencing when participating in these treatment programs.

1. Quality of care
2. Insurance
3. Service attrition
4. Cost
5. Inconvenience of appointment times
6. Length of programs

7. Transportation
8. Failure to meet expectations
9. Inflexibility of program

Source (Braet, 2006; CDC, 2003; CDC, 2006; Cote et al., 2004 **)**

Barriers to Retention

Despite research findings that indicate some success in retaining and treating overweight children and adolescents, retention remains a significant problem with pediatric weight management programs**.** In the Cote et al. (2004) study, families in the dropout groups were asked to list the reasons for leaving the program. These reasons included lack of medical insurance coverage, excessive length of the program, lack of adequate transportation, failure of the program to meet expectations, children's desire to leave, and inconvenience of appointment times. Children who left were compared with children who completed the program. There were no significant differences between drop-out and completing children in regard to education, income, race, gender, or medical insurance. More than 30% of families dropping out of the program had difficulty with medical insurance coverage and had a child who desired to leave the program. Families who rated their child's quality of care as low were more likely to leave the program.

Several researchers (Cote et al., 2004; Honas et al., 2003; Zeller et al., 2004) have indicated the significance and importance of increasing retention rates by improving access to care, improving quality of care, and reducing costs. Families have frequently suggested that clinic personnel assist them with understanding insurance coverage. Results of several studies (Cote et al., 2004; Goldberg & Kiernan, 2005; Honas et al.,

2003) have indicated that families of children who dropped out of programs stated that their medical insurance company failed to cover costs of the program. Many families suggested that follow-up telephone calls would sufficiently encourage their family to return for the next appointment. Respondents also suggested improving the availability and flexibility of appointment times, with parents requesting evening and weekend appointments. Families whose children resisted attendance requested that the program personnel work directly with the child to provide encouragement.

Transportation is also a common barrier; however, computer technology may overcome this barrier by bringing the weight counseling to the home, where participants may review information and communicate at their convenience (Cote et al., 2004; White et al., 2004). It was concluded that the Internet can be an effective way to communicate and facilitate behavior change among the children and families influenced by problems concerning attendance. Quizzes were used as another means of assessing information via the Internet. The quizzes were provided at the end of each weekly lesson and required the participant to complete a series of multiple choice questions about the program material and to submit their responses using the Internet (White et al., 2004). Information about family perceptions in different settings is crucial and is needed to assist health educators and practitioners in developing and implementing successful weight management programs (Britto & Wenberg, 2008).

There has been an increase nationally in assessing and improving the quality of health care. Research has shown that families have an important role in advocating for quality of care for their children. Measure of quality requires identification of children’s and families’ expectations for the care delivered to them. Most children and families expect a trustworthy professional or the pediatrician to provide appropriate information in regard to overweight. Families cite cost and convenience as determinants of their use of a weight management program and satisfaction with care (Britto & Wenberg, 2008).

Studies of Pediatric Weight Management Programs

As discussed, low rates of retention have been found in numerous pediatric weight management programs; however, there have been very few efforts to determine predictors of attrition. One study by Germann, Kirschenbaum, and Rich (2007) examined predictors of attrition/retention from a pediatric weight-control program in a low income minority area. Participants were 342 children and adolescents with a median age of 13.0 years in a multidisciplinary behavior program. Results showed that those who attended an orientation session stayed in treatment significantly longer, but attrition/retention was not affected by demographic factors, weight status, or psychological functioning. These results indicated that an orientation session might provide structure for the program and may assist families to determine their expectations.

It has been established in research that for treatment to be effective, the patient should complete the program. Unfortunately, pediatric weight loss retention studies are scant. Many variables have been investigated as predictors of decreasing retention rates from adult weight loss programs. One study focused on predicting program dropouts. This information is critical to developing effective weight loss programs. The purpose of the research was to identify predictors of dropout in a large weight loss clinic. The participants were 866 adult weight loss patients registered at a Midwest clinic based over a two year period (1998-1999). The mean age of the participants was 47. Those with a considerable risk for dropout included females, divorced, African Americans and ages 40 to 50. Statistics showed age to be the most important demographic factor drop out where 76% of 51-60 years completed the program compared to 60% of patients fewer than 40 years of age completed the program. Attrition and retention rates were measured at 8 to 16 weeks. The overall attrition rate for the 16 week program was 31%. The retention rate was 69%. The findings were used for improving the weight loss programs and increasing retention. By knowing the groups at risk for dropout, then programs can target these areas (Honas et al., 2003).

Quality of Care

Researchers (Baekleland & Lundwall, 2004; Barlow et al., 2002; Reinehr et al., 2002) have suggested that quality of care is the predominate factor that influences families' retention in pediatric weight management programs (American College of Emergency Physicians, 2004). Often, the data gathered from explanations of perceptions of quality of care can be helpful for a clinic to determine its success and may also play a role in providing a minimum standard of care while meeting the family and child's expectations.

Defining Quality of Care

The operational definition of the variable "quality of care" for this study is derived from several major health agencies. One of the agencies is the American Academy of Pediatrics (AAP) which emphasizes quality improvement for children. Definitions of quality of care contain the following dimensions: accessibility;

comprehensive and continuous care, patient and family-centered care, compassion, and being culturally effective. The AAP and the American College of Physicians (ACP) have also introduced similar versions of the quality of care process in 2004 and 2006 (Bethel, Read, & Brockwood, 2004). A consistent approach is emphasized to supply the means to track effectiveness and further the progress of quality **(**AAP, 2002).

The Patient-Centered Medical Home (PC-MH) is a model of quality of care approach that encourages collaboration between patients/families and their personal physician in a health care setting. The personal physician should have a continuous relationship with each patient, provide comprehensive care, and coordinate care among qualified professionals such as interdisciplinary teams. The ultimate goal is for families to support the patient and family centered outcomes that are defined by the patient's health care needs. Evidence-based outcomes are considered extremely important to guide health care choices (AAP, 2002).

Safety is an important concept in the definition of quality of care. The Provisional Committee for Quality Improvement and Subcommittee of the AAP indicates that safety is important to quality of care. Safety is emphasized as a priority of the provider. The knowledge of safety and goals must be understood among the patient and families, interdisciplinary teams, and the physician (Bethel et al., 2004).

The American College of Physicians (ACP) has debated whether quality of care delivered in the US is the best that it can be. To be effective, the treatment plan should include information on how therapy will affect the health care quality in the patient's life. Ideally, all physicians would collaborate and contribute to a nationwide quality of care research project. In addition, some of the components of improving quality of health care would include determining appropriateness of technology, competence of the physician and team, and confidentiality while maintaining the patient’s dignity (IOM, 2006).

The Bruce-Jain framework, developed in 1990, was introduced to define quality of care in family planning and has been utilized by other health care agencies. Judith Bruce and Anrudh Jain with the Population Council have defined quality as “the way individuals and patients are treated by the provider (Jain et al., 2001). This framework lists six elements (access to care, information given to patient and families, technical competence, interpersonal relationships, continuity, and respectful friendly treatment that pertain to improving the quality in care). By expanding the scope of quality of care, availability of treatment, professional competence, convenient hours, and affordability are emphasized (Creel et al., 1990).

The Quality Assurance Project (QAP) utilized by the University Research Corporation’s Center for Human Services defines quality as a concept that measures a patient’s goals and provides standards by QAP measurement tools. These tools are determined by quality management guidelines taken from the health care industry and presented to facilities in order to improve health care provider’s performance. Also, in order to develop future strategies, providers must be monitored for quality effectiveness (Luoma, Jansen, & McCalley, 1995).

The Center for Medicare Advocacy has also focused on quality to secure and guarantee effective services. Some of the issues addressed are patient-centered care, promptness of care, and researching why quality problems occur. Quality improvement will allow the health care provider to utilize effective monitoring and implementation of quality standards (Creel et al., 1990).

The IOM’s National Health Quality Report describes quality of care as “the desired outcomes of health services for individuals” (IOM, 2001 p. 2). Quality of care is considered an ongoing process of assessing, anticipating, and fulfilling stated and implied needs. In 2000, the IOM report *to Err is Human: Building a Safer Health System* has become the standard by which to measure quality. The report is one of the most complete action plans for addressing quality of care. Because of the scant amount of information on the most effective ways to achieve quality improvement, another report followed in 2001 *Crossing the Quality Chasm: A New Health System for the 21st Century* which recommended that quality be measured. One recommendation suggests that patients should be given information pertaining to the provider’s quality (IOM, 2001).

The IOM‘s National Health Care Quality Report has been determined to be the most comprehensive account of quality measurement criteria. The framework features four domains of health care quality: 1) safety, 2) effectiveness, 3) patient and family-centeredness, and 4) timeliness. These domains can be useful to measure quality perceptions. Safety refers to patient safety such as diagnosis of conditions, treatment errors, and injuries in health care settings. Effectiveness is defined as providing health services based on scientific principles and the understanding of the risk and benefits associated with care. Family and patient-centeredness refers to partnerships among patient, family, and providers. Timeliness refers to reducing delays in the components that make up the system (IOM, 2001).

Quality of care has been promoted by health care associations and presented at international conferences. Much of the literature on quality of care and health care agencies focuses on defining quality as access to health care and patient satisfaction.

These variables can be measured, observed, and documented by accessing care, goal setting, and implementation of guidelines (Davis, Northington, Moll, & Kolar, 2002; Devers, 2002; Steffen, 1988). Quality of care as defined by APA, IOM, and AMA contains the patient and family-centered approach to delivering high quality health care. This is considered a right of patients and an important part of health programs. As stated above, the definition of high quality services is to provide patients with care that meets their needs. This ensures that patients will be attracted to the system with increased satisfaction. When satisfaction increases, retention rates are affected also. Several research studies have indicated that as service intervention improves, quality of health care improves and services increase (Cote et al., 2004; Honas et al., 2003; White et al., 2003).

In order for patients and families to be satisfied with a program, goals must be met with desired outcomes. As the IOM's Report (2001) indicated, quality of care must be measured. Communication, effectiveness, and family involvement were emphasized in the Bruce-Jain framework, AMA, APA, Medicare Advocacy, and ACP definitions of quality of care. Research has shown that with increased involvement, families can play an important role in advocating for quality of care for their children (Britto & Wenberg, 2008).

The philosophy of the weight management program addresses the problems related to the child's weight and simultaneously assists the family and child to develop a healthier lifestyle. Some of the practice guidelines utilized to ensure a high quality program include the following: individualized treatment plans to meet specific needs, treating all pediatric patients and families as special guests, having child friendly waiting rooms, and maintaining a committed relationship with the child and family to determine satisfaction with the program (Gill, Anhalt, Nealy, & Stadlmauer, 2003).

Research shows that difficult accessibility, poor communication among patients/families and physicians, and lack of patient centered care in treatment plans are found to be barriers to successful outcomes (Beal et al., 2004).

Measuring Quality of Care

There are many ways to measure quality of care in primary health care programs. In order to improve quality of care, measurement must be comprehensive and standardized. Providers should collect reports and utilize data reported to improve interventions and quality in their programs. Measuring quality identifies what is significant and monitors what is occurring, and health care providers can determine what changes should be made. By measuring quality of care, issues can be addressed and procedures developed to provide appropriate care. Also, measuring quality can impress on the providers the importance of components of quality (Brook, McGlyrm, & Shekille, 2000). Data can be gathered by using a variety of evaluation tools, including a quantitative study approach and survey tools to monitor the effectiveness of child health services.

Because of new standardized quality evaluation tools, there are measurements that are more objective. To obtain patient and family centered outcomes, physicians must be accountable for continuous quality improvement and have patients and families actively participate in decision-making with feedback (American Medical Association [AMA], 1994).

Improving Quality of Care

Improving quality of care for patients and families must encompass knowing and incorporating cultural values, previous experience, and patients' perceptions of health care providers. In addition, improving quality of care should bring the pediatric weight management clinics and the communities together to determine strategies to improve quality. Program providers such as the Children's Center for Weight Management (CCWM) must commit to the belief that quality of care is important enough to bring changes to current practices that are not working. Monitoring and measuring quality of the CCWM and other clinics should improve service and patient satisfaction (Creel et al., 1990).

Conceptual Framework

Origins of Health Belief Model

The HBM is one of the behavioral theories noted as providing a framework for developing behavioral interventions (Rosenstock, 1974). The first concept of the original HBM was that health behavior is a personal perception about a disease (Hochbaum, 1958). In 1996 Rosenstock extended the HBM to include a model to direct patients' health outcomes (Glanz, Rimer, & Lewis, 2002).

Description of the Model

The four constructs in the HBM adapted from Rosenstock are: perceived susceptibility (a person's evaluation of personal risk of developing a condition); perceived severity (a person's evaluation of the seriousness of a condition and possible consequences); perceived barriers (a person's evaluation of the factors that assist or discourage implementation of promoted actions); and perceived benefits (a person's evaluation of the constructive consequence of adopting positive behavior**).** In addition to the four constructs, the developers of the HBM proposed that behavior is also determined by cues to action. A person may be motivated to make a change when some cue triggers an action. **A**fter the development of Bandura's social learning theory, Rosenstock et al., (1988) recommended that self-efficacy be an additional construct to increase the person's self-confidence and modify behavior.

The HBM was one of the first models to create a meaningful design that would affect an individual's actions toward positive health to prevent illness. Constructs from the HBM can be used to design interventions that can assist in changing behaviors. As indicated in the conceptual model, benefits and barriers are the positive effects versus perception of negative effects of participating in activities (Strecher & Rosenstock, 1997). Perceived benefits are positive effects of participating in healthy activities such as diet and exercise. Perceived barriers are the negative effects such as obstacles that prevent families and patients from returning for follow-up visits.

Outcome Expectations

The two constructs, benefits and barriers, were selected to guide the current study as aspects of the outcome expectation domain. The HBM is a conceptual framework used to understand health behavior and possible reasons for non-compliance with recommended health action (Rosenstock et al., 1988). Thus, these constructs were intended to address reasons for non-compliance to healthy behaviors. The basic premise of this theory is that by identifying an individual's perceived threat of a given situation as well as whether the perceived benefits of performing the behavior outweigh the perceived barriers, the person's behavior may be more thoroughly explained (Strecher & Rosenstock, 1997).

Studies Using Health Belief Model

According to Conner and Norman (2006), the HBM has been applied to a broad range of subject populations. Three broad areas have been identified: 1) Preventive health behaviors, which include health-promoting (e.g. diet, exercise) and health-risk (e.g. smoking) behaviors, as well as vaccination and contraceptive practices; 2) Sick role behaviors, which refer to compliance with recommended medical regimens, usually following professional diagnosis of illness; and 3) Clinic use, which includes physician visits for a variety of reasons.

Turner et al. (2004) utilized HBM in the Osteoporosis Prevention Program (OPP) which was designed and implemented for middle-aged women. The HBM provided guidelines using the five major components for compliance: perceived barriers, perceived benefits, perceived susceptibility, and perceived severity and cues to action. In addition, factors that can effect compliance such as self-efficacy were utilized. These components of the HBM were included to address reasons for non-compliance concerning recommendations for osteoporosis prevention (Turner et al., 2004).

Turner et al. (2004) identified several perceived barriers including inconvenient program days and time, location, lack of childcare, lack of time, and cost. In order to make class time more convenient, extra sessions of each class were added each month at a variety of times (morning, afternoon, and evening) to increase attendance. Classes were relocated to a community center that provided free childcare services. Because of these cues to action, the women were able to continue in the program (Turner et al., 2004).

To address the barrier of lack of time, the total contact time was reduced. Cost was another barrier listed. Funding was obtained from a local private organization to allow participants to come without charge. To demonstrate the severity of the health threat of osteoporosis, a woman with a severely stooped posture and a protruding abdomen was pictured in the educational materials (Turner et al., 2004).

"Increasing perceived severity, perceived susceptibility, perceived benefits, self-efficacy, and cues to action while decreasing perceived barriers were actions that encouraged participation" (Turner et al., 2004, p.70). The program increased educational support by increasing materials and individual consultation.

Another study (Buckingham & Meister, 2003) that used the HBM was the assessment of condom utilization rates among female sex workers in various communities in Thailand. This study was designed to assess the relevance of constructs from the HBM in predicting whether workers would request condom utilization by their patrons. Attitudes regarding condom use were integrated in each question. The questions represented a construct from the HBM that was to have value in determining whether the female workers would request a patron to use a condom (i.e. perceived susceptibility, perceived seriousness, social cues to action, benefits and barriers). The researchers found overall condom use for 51% among the women was well below the 100% goal of condom use (Buckingham & Meister, 2003).

Summary

Review of the professional literature indicates that clear and objective data must be generated to develop interventions that will minimize barriers families experience in participating in weight management programs for their children who are overweight. For follow-up treatment, it remains extremely difficult for overweight children and their families to continue in weight management programs. Also the literature indicated that there is little research available involving attrition or retention in pediatric weight management programs. Because of the lack of research, weight management clinics similar to the Children's Center for Weight Management (CCWM) clinic are uninformed concerning factors that may influence retention of their patients. The HBM will be utilized by the researcher to develop a survey instrument in an attempt to determine the children's and families' perceptions of the program so program staff members can equip families and children to handle the difficulties associated with the behavior change required to achieve and maintain weight loss.

CHAPTER III

METHODOLOGY

This study evaluated families' perceptions about outcome expectations (benefits and barriers) and quality of care provided to their children in the pediatric weight management program as they relate to retention in the program. The study also sought to the identify barriers that interfere with completion of the program. A quantitative survey was employed. The research design, study setting, population, and sample are described in the chapter. This chapter continues with a description of the conceptual model, survey selection, and item development, followed by research questions and an explanation of data collection and analysis. The chapter concludes with a chapter summary.

Research Design

The current study used a cross-sectional descriptive design to address the research questions. This design allowed the researcher to investigate families' current attitudes and perceptions concerning outcome expectations and qualities of care provided in a pediatric weight management program and examine relationships with retention. Results provided information to better inform clinic personnel/administration on how to improve retention rates.

Weight Management Program

Clinic Setting and Team

This study was conducted in a pediatric weight management program for children located in a large metropolitan Children's Health System, a primary pediatric teaching hospital of the University of Alabama at Birmingham School of Medicine**.** The Children's Center for Weight Management (CCWM) is the only multidisciplinary weight management clinic in Alabama and is open one and one-half days a week. The CCWM program provides multidisciplinary care for children and adolescents aged 2 to 18 years. The multidisciplinary team consists of a pediatrician, nurse practitioner, dietitian, physical therapist, and psychologist. Programs at the clinic consist of nutritional education, counseling, fitness recommendations, and psychological activities. The overall plan of the clinic is to assist families and their children in making permanent changes that result in weight loss and improved health and well-being of overweight children (Children's Health System, 2010).

There are several ways children can become patients at the CCWM clinic. Referrals are made by primary care providers such as pediatricians, community health care providers, and clinicians in other clinics within Children's Hospital. After referral by a health care provider, prospective patients are scheduled to attend a 3 hour orientation program. There is a 9 month waiting period between the referral and the orientation meeting. The orientation meeting is free of charge. Orientation meetings are on Fridays, and families who do not appear for orientation are unable to receive an individual new patient appointment. In 2009, 50% of people scheduled for orientation did not attend (Children's Health System, 2010).

During the orientation meeting, members of the team explain their role and answer questions the children or families may have. Program material is distributed describing the CCWM program objectives, goals for patients, and the role of the multidisciplinary team. At the time of orientation, an appointment is made for the initial visit. The waiting period for the first visit following orientation is approximately six weeks. The initial visit is approximately four hours during which time a thorough assessment of the child is performed by the multidisciplinary team. All new patients are evaluated by a pediatrician who is the Program Medical Director. A nurse practitioner assists the pediatrician to determine any chronic conditions that might affect treatment. In addition, each child has at least one visit from each team member at the beginning of treatment. Evaluations include the patient's medical history and a physical and psychological examination. On an individual basis, decisions are made concerning frequency of visits, involvement of family members, suitable diet, exercise recommendations, and the length of treatment. The Medical Director determines the number of appointments based on patient needs. There are no predetermined criteria for number of visits. When a child reaches the determined goal weight, the treatment plan is discontinued (Children's Health System, 2010).

Study Population and Sample

The researcher used convenience sampling to select participants and administer the survey. The target population for this study included children and adolescents ages 2 to 18 years and their families who were returning for their second visit following orientation. The sample consisted of 35 families whose child or children were enrolled in the CCWM clinic in the summer and fall of 2011, and attended both the orientation meeting and the first visit following orientation.

Conceptual Model

The guiding conceptual framework for this study was the HBM developed to determine why healthy people take certain steps to prevent disease, whereas others evade preventative measures; the constructs, benefits and barriers, provided support for this research. Perceived benefits and barriers are the family's perception of how effective a course of action will be, such as their child attending a weight management program, and what obstacles prevent them from achieving their goals (Janz & Becker, 1984). Benefit and barrier constructs were included in the survey instrument that also measured family perceptions of quality of care. Benefits and Barriers together comprise outcome expectations for a pediatric weight management program. Benefits and Barriers together compare outcome expectations for a pediatric weight management program. The study examines the relationship of outcome expectations and quality of care to retention.

Survey Selection

The first step toward identifying an appropriate survey for this study included a thorough review of the empirical literature. The areas examined for this study were retention, quality of care (accessibility, patient and family-centered care, and program effectiveness), outcome expectations, and the HBM. Choosing suitable instrumentation is a crucial function of managing good quality research (Creswell, 2005). Creswell (2005) emphasizes that when selecting a reliable and valid instrument, the researcher should consider several factors to determine whether an instrument should be included in the study. Identifying and searching relevant databases is the first step. Length and complexity should be considered to determine if the instrument is appropriate for participants. The instrument should match the objectives and purpose of the research. The scoring system is a significant feature to decide if the response scales are appropriate to assess the researcher's needs. Another important factor is whether the instrument is the most suitable method to examine and evaluate the research questions.

The researcher should also acquire information about the reliability and validity from the past. The scores obtained on an instrument should be reliable and useful in drawing inferences about the sample and population. Internal consistency reliability is an estimate of the extent to which items measure a similar construct, and test-retest reliability indicates stability of the instrument's scores. Creswell, (2005) states that to attain reliability in a study "scores from an instrument should be nearly the same or stable on repeated administrations of the instrument and they should be free from sources of measurement error and consistent" (p. 649). Hungler and Polit (1995) state an acceptable correlation coefficient is probably in the vicinity of .60 and greater. Validity refers to the degree to which an instrument measures what it intends to measure (Cottrell & McKenzie, 2005).

The literature was reviewed to identify surveys appropriate for this study. Literature included for review focused on pediatric populations. The majority of the instruments found were administered in health clinics and had little evidence to support psychometric characteristics. Several studies were comprehensive and focused on reliability and validity. Most available studies utilized surveys that covered health plans and hospitals with very little emphasis on specific types of health care areas such as pediatric weight management clinics. After searching the literature, eight surveys were identified that had potential for use in this study. For each instrument, reviewed, the researcher looked for incidence of reliability and validity as well as applicability for this

The Victorian Public Hospital's Patient Satisfaction Survey is a comprehensive survey that was administered at 92 acute care hospitals. In July through September 1997, 9,918 computer-assisted telephone interviews were conducted 3 weeks after patient discharge. Survey results highlight strong performance in key areas, including patient satisfaction, attitude of staff, aspects of communication, courtesy of physicians and nurses, and assistance provided to patients (State Government of Victoria, Australia, Department of Health, 1997). The standard version of the Picker Institute questionnaire was used to assess quality of care. The items had an appropriate degree of content validity and internal reliability consistency (State Government of Victoria, Australia, Department of Health, 1997). Questionnaire performance had an overall accuracy of ±0.7% at 95% confidence level on key measures. Procedures for determining the statistical significance of differences in proportions were based on z scores at the 95% confidence level. Even though the survey indicated that clients awarded very high ratings concerning satisfaction, investigation of precise issues determined areas of improvement. Several areas recognized for upgrading were communication and comprehensive information regarding care (State Government of Victoria, Australia, Department of Health, 1997).

The Menzie Centre for Population Health at the University of Tasmania in Australia administered a questionnaire to 467 randomly selected women ages 25 to 44 years. The 20 item instrument included true, false and don't know responses. The aim of the study was to devise a valid and reliable instrument to measure quality of care and knowledge elements concerning Osteoporosis. The questionnaire performance was assessed by an index of difficulty (0.75), Cronbach's alpha (0.70) and principal component factor analysis that was consistent with one factor. The Tasmania Department of Health and Human services questionnaire has a number of potential limitations. The questionnaire items contain quality of care issues; however, the sample utilized was a highly selected population of young female Caucasian women. Although the instrument is based on a broad spectrum of osteoporosis, content may be suitable for use to assess the impact of other educational interventions. It would require validation in other populations and modifications might be necessary to reflect pediatric populations (Winzenberg, Oldenburg, Frendin, & Jones, 2003)

The Primary Care Assessment Tool (PCAT) formatted from the Rapid Assessment tool is used to determine patient satisfaction with primary care services at a district level in Petropolis, Brazil. The sample included 468 patients randomly selected from primary care clinics in the district. The PCAT measures primary care areas such as first visit, family focus, and comprehensiveness with a core set of 100 questions. The instrument was pre-tested with patients of a primary care clinic in Rio De Janeiro, Brazil. Item responses were on a six point Likert scale. Psychometric properties of the instrument were determined by calculating Cronbach's alpha as the measure of internal consistency reliability. The total primary care score had an alpha coefficient of 0.80. One test of the instrument's validity involved examining the association between the provider and the patient assessment of the same primary care dimensions (Macinkoi & Montenegbro, 2007).

The CDC and Prevention's Youth Risk Behavior Survey (YRBS) has been used since 1990 to measure health behaviors of adolescents. One area that the YRBS measures is behaviors related to diet and physical activity. A test-retest reliability study involved administering the YRBS to 1,679 students in Grades 7 through 12 to two groups tested on two occasions. Group prevalence was calculated at two testing occasions. 71.7% of items were assessed as having considerable or higher reliability. No major differences were found in the prevalence estimates between the two testing times. Responses of seventh grade students were less consistent than those of students in higher levels (CDC, 2003).

The HIV/AIDS-Targeted Quality of Life (HAT-QOL) Instrument is a quality of life instrument developed in 1999 by William Holmes. This is a comprehensive instrument with 15 questions about jobs, daily activities, life satisfaction, health, financial, and medication worries. In 2007, a telephone survey of 402 residents was conducted in Medicine Hat, Canada to identify indicators of quality of life that were important to the residents. Health was considered one of the most important of eight indicators. Results revealed all internal consistency coefficients above 0.70, excluding HIV mastery (0.57) and medicine concerns (0.51). Validity evaluations indicated expected associations for all dimensions. Satisfaction scores were identified at 87%. There were several items pertaining to the medical personnel that are not applicable to the pediatric weight management interdisciplinary team (Holmes, Belher, Wang, Chapman, & Gross, 2007).

The Interhealth Care Services Patient Experience Survey and the National Health Service Inpatient Survey (NHIS) are instruments that include patient satisfaction and quality of care variables. The NHIS Core questionnaire items are reviewed every 10-15 years, with the latest revisions in 1997. The Basic Module consists of three components: the Family Core, the Sample Child Core, and the Sample Adult Core with 50 items among all three. The Family Core component collects information on everyone in the family. In 2009, 550 questionnaires were administered to clients who were treated at Cheshire and Merseyside Treatment Centre. There was a 68% response rate to the qualitative survey. Psychometric results were not noted in the review. Because this was a qualitative study, this survey was not considered for this research (National Center for Health Statistics [NCHS], 2007).

In January 1997, the Three Rivers Endoscopy Center implemented a Continuous Quality Improvement Process since January 1997. A Patient Satisfaction survey was developed as part of the commitment to quality of care. The number of included items ranged from 20 to 25. Each quarter the survey was administered to the clinic’s patients. Overall satisfaction rate was found to be 98%. Psychometric information was not included in the survey information. The Endoscopy Patient Satisfaction survey was devised for outpatient endoscopy patients who are not an appropriate population comparison for a pediatric weight management program (Three Rivers Endoscopy Center, 1997).

Consumer Assessment Health Plan Study (CAHPS) Questionnaire

After a targeted review of the questionnaires, it was found that the Consumer Assessment of Health Plan Study (CAHPS) 2.0 questionnaire appeared to be the most appropriate instrument (Appendix A). The survey was unique because it could be customized to meet the needs of the pediatric weight management program. This instrument was selected to assess families' perceptions of quality of care of the pediatric weight management clinic.

A study to estimate the reliability and validity of the CAHPS 2.0 survey was completed in 2003. The project explored the reliability and validity of the CAHPS survey instrument. Medicaid-managed care members of 20 Health Care Maintenance Organizations (HMO) were surveyed using the CAHPS 2.0 instruments in 1999 and 2000. The data from the surveys were then analyzed to assess reliability using Cronbach's alpha. Reliability statistics were compared across time and populations. Approximately 306 health care programs with 166,074 participants were surveyed using the CAHPS 2.0 questionnaires throughout the US by telephone or mail. Researchers performed psychometric analysis to ensure that the questionnaires were reliable and contained valid measures. The CAHPS 2.0 survey questions were grouped into five areas. Alpha coefficients greater than .70 were considered indicative of acceptable reliability (Nunnally, 1978, as cited in Hargarves, Hays, & Cleary, 2003). Two parts had an internal consistency reliability coefficient of =.75 and alpha coefficients in the other three areas ranged from .58 to .61. Two of the domains have high internal consistency and the other three were reliable with acceptable levels (Hargarves et.al, 2003). The survey development plan also ensured validity of the measurement tool. The report formats can be used to produce meaningful, reliable and valid results (Britto & Wenberg, 2008). Finally, one-on-one interviews allowed verification that the instrument was understandable and easy to read.

The CAHPS program was implemented in October 1995 by the Agency for Health Care Research and Quality (AHRQ, 2006) to develop standardized questionnaires used to research health care activities and to address lack of quality of care measurement tools. CAHPS is the registered trademark of the Agency for Healthcare Research and Quality (AHRQ). The CAHPS Health Plan Survey was created to collect information that investigators could use to assess the quality of their program and to develop interventions for improvement. One reason this instrument was selected was that it assessed families' perceptions.

The core items address the families' concerns about their children's health care and capture demographic information about the child. AHRQ asks families about the health care experiences of children 17 and younger and includes some additional items to capture demographic information about the child as well as the family (AHRQ, 2006). The 2.0 version of the Child Primary Care Questionnaire has additional core items that address preventive and developmental care (AHRQ, 2006).

The surveys for determining family perceptions include topics that were crucial to this study such as the accessibility of services, patient-and family-centered care, clinic effectiveness, benefits and barriers. The items ask families to give details of their experiences with the program of care. CAHPS questions are identified in five important areas. The areas that deal with getting needed care and long waits contain questions about the personal physician or nurse. The customer service section contains questions that ask families if they had problems getting help when needed. The helpful and courteous office staff section includes questions that ask if they were treated with courtesy and respect (AHRQ, 2006).

National surveys sponsored by the Kaiser Family Foundation have been conducted repeatedly on quality health care obtained from this tool. Another example of research utilizing these CAHPS 2.0 surveys is the pediatric weight management program in the Cote et al. study (2004), where the families perceptions of care were assessed utilizing the items from the CAHPS 2.0 survey. This particular research study was based on the service quality and attrition of 163 patients enrolled in a pediatric weight management program. The purpose was to investigate demographic and quality of care variables related to retention (Cote et al., 2004).

If the survey is to be regarded as a CAHPS survey, the core items in the questionnaire must remain untouched. However, there are a number of ways in which the researcher is allowed to modify the CAHPS questionnaires. Researchers who utilize CAHPS are free to customize the questionnaires to meet the needs of their study. AHRQ encourages the researcher to use names that refer to the study. There are no limits in regarding the naming of questionnaires. If the CAHPS name is not utilized, the survey can be attributed to CAHPS by using a subtitle, footnote, or as a note on the cover or back of the survey (AHRQ, 2006). Because core items were revised and additional items were included in the survey for this research, the survey was titled the Pediatric Weight Management Survey.

Survey Development

Item Development

The researcher revised or developed the items for the Pediatric Weight Management Survey based on (a) review of research/empirical literature; (b) the conceptual model; (c) quality of care elements: accessibility, program effectiveness, and patient-and family-centered care; and (d) outcome expectations. The first phase consisted of reviewing the CAHPS core questions. These questions inquired about the health care involvement of the child's family and access to care (AHRQ, 2006).

The CAHPS questionnaire has 54 items including a demographic section. When reviewing the CAHPS for items to include in the questionnaire for this study, the researcher ensured that items were consistent with the goals of the CCWM program and elicited information to answer the research questions. The Medical Director of CCWM program was asked to review the items utilizing objectives and goals of the program to determine which were appropriate for the clinic. Items 1, 2, 12, 13, 14, 31, 32, 33, 34, and 38 were eliminated. Any item that referred to the "doctor" was replaced with the term "health team" because each child will have a least one visit from each team member at the beginning of treatment.

The second phase was to determine an appropriate response scale for items. The ordinal five-point Likert scale (Strongly Disagree, Disagree, Not Sure, Strongly Agree, and Agree) was used in this instrument. This scale was selected because it is one of the most common scales for data with questionnaires and is useful for obtaining objectively measureable data and statistical analysis (Creswell, 2005).

For purposes of survey development, the initial pool of items was generated by a critical review of literature and included existing CAPHS items. The literature search included general measures such as quality of care, barriers, benefits, and the HBM. From the CAHPS survey, all items were identified that were important to the quality of care elements and the conceptual model. Redundant items with similar meaning and confusing items were eliminated. Items from the CAHPS survey were either deleted, utilized as they were or reworded. Four domains made up the Pediatric Weight Management Survey. The four domains were accessibility**,** patient and family-centered care, program effectiveness, and outcome expectations (benefits and barriers). The first draft of the Pediatric Weight Management Survey contained 64 items.

Reliability

According to Anastasi (1982) "Reliability refers to the consistency of scores obtained by the same person when reexamined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions" (p.102) One method of estimating reliability is by calculating Cronbach's alpha for internal consistency. Anastasi indicates that this method "is based on the consistency of responses of all items in the test" (p.115). "The more homogeneous the domain, the higher the interitem consistency" (p.115). Nunnally (1978) states, "coefficient alpha provides a good estimate of reliability in most situations" (p. 230). He also states, "Even if other estimates of reliability should be made for particular instruments, coefficient alpha should be obtained first" (p.210). The reliability of each domain of the instrument developed for this study was estimated using Cronbach's alpha. These calculations were done using the data collected for this study and alpha coefficients are reported later in Chapter 4.

Validity

A significant condition by which an instrument's value is evaluated is its validity (Creswell, 2005). Lynn (1986) describes validity as a " crucial factor in the selection or application of an instrument, for validity is the extent to which that instrument measures what it is intended to measure" (Lynn, 1986, p. 382). Content validity refers to the "the degrees to which an instrument measures all of the domains that constitute a concept" (Orrell-Valente et al., 2002, p. 45). To determine content validity, a draft of the survey was reviewed by an expert panel.

Expert panel review

One way to establish content validity is to have a panel of experts comprehensively and systemically review the survey. Four panelists were consulted to assess the content validity of the survey by examining each item. Experts were selected based on their expertise within the health field. Members consisted of individuals with experience in the pediatric health area. Two of the members are on the faculty at the University of Alabama in Birmingham (UAB) School of Nursing. These educators are associate professors or those with PhDs. One of the panelists is an expert in statistical analysis and survey development, and the other has numerous pediatric credentials. The healthcare professionals included the director and assistant director at the CCWM. All panel members were contacted and agreed to review the instrument to determine whether or not it measured the study domains and assessed items relevant to the purpose of the study.

Once the survey was assembled, expert panel members were asked to determine if the items were characteristic of the content area. The draft survey was composed of 64 multiple choice items. Each panelist worked independently to review the instrument and rate items. Each member was given a packet with a cover letter containing directions for completing the Expert Panel Review form **(**Appendix B**)** and a draft of the Pediatric Weight Management Survey. The experts were asked to quantitatively rate items using a four point Likert scale (1=not relevant; 2=needs revision; 3=relevant; 4=highly relevant) and to provide any comments related to revising or deleting items. All responses from the members were received within one week.

As part of the process, a content validity index (CVI) was utilized. “Content validity is the determination of the content representativeness or content relevance of the elements/items of a survey by the application of a two-stage process” (Lynn, 1986 p. 382). The CVI is calculated using the results of the expert reviewers’ ratings of item relevance. A CVI score of 75% was considered a satisfactory score to retain an item.

Upon receipt of all panelists’ ratings, the researcher calculated the CVI for each item using the formula. “The actual CVI formula is the proportion of items that received rating of 3 or 4 by the experts” (Lynn, 1986). The expert panel content validity results are found in Appendix C. Eight items had a CVI below 0.75 and was deleted. One expert suggested two demographic items be deleted because they were not relevant to the purpose of the study. Several items were revised to improve readability. Next, approval was provided by the CCWM to administer the Pediatric Weight Management Survey.

Appendix D contains the final version of the survey administered at the CCWM. Prior to commencing the study, the researcher obtained permission from the Institutional Review Board (IRB). Appendix E contains the IRB approval form.

Survey Review

Surveys were administered to two families during their second visit to test for readability. Participants completed the surveys and provided information about whether the items were meaningful, understandable, and phrased well. One participant suggested that a comment section be placed at the end of the survey.

Data Collection Procedure

The research procedures were designed to interface with the standard clinic procedures as inconspicuously as possible. The nurse practitioner identified second visit patients and gave the researcher the patient record number to place on a sequentially numbered index card. The index cards were placed with the sequentially numbered survey containing the same sequential number. The packet given to the family member had the same sequential number on the outside and contained an information form explaining the purpose, a description of the research including the credentials of the researcher, contact information, the sequentially numbered index card, and a survey.

Families were introduced to the study by the nurse practitioner (Appendix F). If the family agreed to participate, the researcher was introduced and explained the purpose of the study. The information sheet was explained (Appendix G). Appendix H contains the researcher's script. The researcher reviewed with the family the instructions to complete the survey. Respondents were asked not to place their names or other identifying information on the survey in order to guarantee confidentiality. Families were asked to return the completed surveys to the researcher. All but one family completed surveys in the clinic setting. One was returned by mail. The researcher briefly reviewed each survey to ensure all items were answered. Participants were given a $5 dollar gift certificate as an incentive. Once the survey was completed, returned, and checked, the researcher gave the sequentially numbered index card to the nurse so a link could be established to determine those returning or not returning. Data were recorded directly from the survey into an SPSS 20 version data file. Statistical analysis was performed by the researcher on a personal computer using SPSS.

Research Questions and Planned Analyses

One focus of the study was to utilize the results from the survey data as a basis for program improvement (International Business Machines [IBM], 2012). Eight research questions were developed for the study. This section includes the eight research questions and the variables and methods of analysis for each.

The study will be guided by the following research questions:

1. What is the relationship between families' perceptions of accessibility and retention in a pediatric weight management program?

Accessibility was measured by 8 selected questions included in the questionnaire. Point-biserial correlation was used to assess the strength of the relationship between accessibility and retention.

2. What is the relationship between families' perceptions of patient and family-centered care and retention in a pediatric weight management program?

Patient and family-centered care was measured by 12 selected questions included in the questionnaire. Point-biserial correlation was used to assess the strength of the relationship between patient and family-centered care and retention.

3. What is the relationship between families' perceptions of the program effectiveness and retention in a pediatric weight management program?

Program effectiveness in a pediatric weight management program was measured by 10 selected questions in the survey. Point-biserial correlation was used to assess the strength of the relationship between program effectiveness and retention.

4. What is the relationship between families' perceptions of outcome expectations and retention in a pediatric weight management program?

Outcome expectations were measured by 13 selected questions in the questionnaire. Point-biserial correlation was used to assess the strength of the relationship between outcome expectations and retention.

5. Do returning and non-returning families differ in their perceptions of accessibility in a pediatric weight management program?

A *t* test was calculated to determine if there were differences between groups for accessibility.

6. Do returning and non-returning families differ in their perceptions of patient and family-centered care in a pediatric weight management program?

A *t* test was calculated to determine if there were differences between groups for patient and family centered care.

7. Do returning and non-returning families differ in their perceptions of the program's effectiveness in a pediatric weight management program?

A *t* test was calculated to determine if there were differences between groups for program effectiveness.

8. Do returning and non-returning families differ in their perceptions of outcome expectations in a pediatric weight management program?

A *t* test was calculated to determine if there were differences between groups for outcome expectations.

Descriptive Statistics

Descriptive statistics were helpful in summarizing data. Demographics included age, gender, ethnicity, education, insurance, marital status, and income. Descriptive statistics for demographics included frequencies and percentages. Descriptive statistics for domain scores included means and standard deviations.

Chapter Summary

This chapter contains a description of the setting, population, sample, design, instrument and a summary description of eight of research instruments considered for the study. The process for item development was outlined. The data collection process and data analysis used in the research were explained in detail.

CHAPTER IV

RESULTS

The purpose of this study was to evaluate families' perceptions about outcome expectations (benefits and barriers) and quality of care provided to their children in a pediatric weight management program as they relate to retention in the program. This chapter provides summary data describing the sample and presents findings to respond to the research questions. The sample was 35 families whose children were returning for their second visit following orientation in the summer and fall of 2011. Surveys were administered for approximately 10 weeks from July until August of 2011.

Descriptive Statistics

Demographics

A total of 35 families participated in this research study. Tables 2 and 3 contain demographics for the survey's respondents and their children who attend the clinic. Most (77%) family members had at least a high school diploma or a GED. The largest percentage of respondents had health insurance either through Medicaid (45.7%) or through their employer (34.3%). Most of the respondents' children who attended the clinic were age 6-15 (68.6%). Most respondents were female (88.6%), and about half (51.4%) were African American. Five (14.3%) were Hispanic who utilized an interpreter.

Table 2

Characteristics of the Families in the Sample (N=35)

Category	Number of Subjects	Percentage of Total
Gender of Respondent		
Male	4	11.4
Female	31	88.6
Total	35	100.0
Relationship to Patient		
Mother or Father	34	97.1
Grandparent	1	2.9
Total	35	100.0
Ethnic origin		
African American	18	51.4
Asian American	1	2.9
Caucasian	11	31.4
Other (all said Hispanic)	5	14.3
Total	35	100.0
Education level		
No education	1	2.9
Grade schools	2	5.7
Some high school	5	14.3
High school graduation or	11	31.4
Vocational/associate degree	7	20.0
Baccalaureate degree or	9	25.7
Total	35	100.0
Marital Status		
Single	10	28.6
Divorced	3	8.6
Separated	2	5.7
Married	19	54.3
Widowed	1	2.9
Total	35	100.1*
Insurance		
Medicare	1	2.9
Medicaid	16	45.7
Supplement to Medicare	1	2.9
Employer	12	34.3
All kids	4	11.4
Other	1	2.9
Total	35	100.1*

*Percentage total is greater than 100.0 due to rounding error.

Table 3

Characteristics of Patients in the Sample (N=35)

Category	Number of Subjects	Percentage of Total
Child's age		
2-5 years	3	8.5
6-10 years	14	40.0
11-15 years	10	28.6
16-18 years	8	22.9
Total	35	100.0
Gender		
Male	11	31.4
Female	24	68.6
Total	35	100.0
Ethnic origin		
African American	18	51.4
Asian American	1	2.9
Caucasian	11	31.4
Other	5	14.3
Total	35	100.0

Domains

The instrument was developed to measure quality of care and outcome expectations. Quality of care was defined by three domains: accessibility, patient and family-centered care, and program effectiveness. Accessibility was the extent to which a patient and family can obtain a service at the time needed and ease with which a pediatric clinic can be reached. Patient and family-centered care was defined as building relations with patients and families by creating a warm atmosphere and by maintaining regular communication. Program effectiveness was the extent to which the CCWM achieves program objectives and desired results. The definition of outcome expectations was perceived benefits and barriers.

Descriptive statistics were calculated for each domain. The descriptive statistics were calculated to summarize the data. Table 4 contains the means, standard deviations, and ranges. For each domain, a higher mean score indicated a more positive level of family satisfaction. The overall Cronbach's alpha for the survey was .87. The Cronbach's alpha coefficient for each domain in the final version is also shown in Table 4. Initial computations of alpha coefficients revealed that one item did not contribute to the reliability of the composite score of the outcome expectations domain. This item was eliminated from the expectations domain and the questionnaire.

Table 4

Descriptive Statistics for Each Domain (N=35)

Domain	Number of Items	*M*	*SD*	Range	alpha coefficient
Accessibility	8	29.03	4.79	8-37	.73
Patient & Family-centered Care	12	45.66	4.82	36-50	.97
Program Effectiveness	10	45.29	5.01	33-50	.94
Outcome Expectations	13	46.43	4.75	37-54	.64

Note: A 5-point Likert scale was used to score all domain items. (1= strongly disagree 2= disagree 3= not sure 4= agree and 5= strongly agree.)

Retention

Retention is defined as the third visit following orientation as determined by the pediatric weight management program. Twenty-one participants in this study returned for their third visit which was a retention rate of 62%, and thirteen patients (38%) did not return. These visits were entered as *yes* or *no*. The retention choices were given a score of *yes* (third visit following orientation) or *no* (no third visit) and coded as 0 for *no* and 1 for *yes.* Table 5 summarizes results of the four domains for participants who did or did not return for the third visit following orientation. The number of participants for this and all subsequent tables is 34 instead of 35, because one participant's data had to be deleted due to a record number coding error. There were very small differences between the scores of the domains of returnees and non-returnees. The largest difference was 1.31 points on the Outcome Expectations domain.

Table 5

Descriptive Statistics for Each Domain at Each Level of Retention

	Yes (follow-up visit)			No (follow-up visit)		
Domain	*N*	*M*	*SD*	*N*	*M*	*SD*
Accessibility	21	29.29	5.5	13	29.31	2.8
Patient & Family-centered Care	21	44.61	5.8	13	44.97	4.6
Program effectiveness	21	45.57	5.1	13	44.61	5.8
Outcome Expectations	21	47.00	5.0	13	45.69	4.6

Research Questions and Results

Four research questions dealt with the relationship between retention and quality of care and outcome expectations:

1. What is the relationship between families' perceptions of accessibility and retention in a pediatric weight management program?

2. What is the relationship between families ‘perception of patient and family-centered care and retention in a pediatric weight management program?

3. What is the relationship between program effectiveness and retention in a pediatric weight management program?

4. What is the relationship between families’ perceptions of outcome exceptions and retention in a pediatric weight management program?

To analyze relationship between each domain and retention a point biserial correlation was utilized. A point-biserial correlation coefficient is used when one variable (retention) is dichotomous and the other is continuous (domain scores).

The point-biserial correlation is a special case of the Pearson correlation. Point-biserial correlation was used to assess the strength of the relationship between retention and each domain. The alpha level was set at .05. The degrees of freedom were the number of participants minus two (32).

A correlation of 1.0 indicates a perfect positive correlation and a value of -1.0 indicates a perfect negative correlation (Cottrell & McKenzie, 2005). A negative sign in front of the r value indicates there is a negative correlation between the two domains. When correlations range from .20 to .35 there is only a slight relationship, .35 to .65 indicates a useful correlation for limited prediction, .66 to .85 is considered very good, and .86 and above is considered high (Creswell, 2005).

The relationship between accessibility and retention was investigated using point-biserial correlation coefficient. There was a negative correlation between accessibility and retention (r_{pb}= -.002, p = .989). Results indicated that accessibility was not significantly associated with retention. Results of the point-biserial correlation failed to disclose a statistical significant relationship between patient and family-centered care and retention (r_{pb} = .100, p=.573). The correlation between program effectiveness and retention showed no statistical significant relationship (r_{pb} = .093, p= .600). Lastly, the results of the point-biserial correlation showed no association between outcome expectations and retention (r_{pb} = .129, p= .467). None of the domains showed a statistically significant association with retention. Table 6 summarizes the results of the correlations.

Table 6

Point-biserial Correlations Between Each Domain and Retention

Domain	r_{pb}	p
Accessibility	-.002	.989
Patient & Family-centered Care	.100	.573
Program Effectiveness	.093	.600
Outcome Expectations	.129	.467

Four research questions dealt with the differences between returnees and non-returnees on measures of quality of care and outcome expectations.

1. Do returning and non-returning families differ in their perceptions of accessibility in a pediatric weight management program?
2. Do returning and non-returning families differ in their perceptions of patient and family centered care in a pediatric weight management program?

3. Do returning and non-returning families differ in their perceptions of the program's effectiveness in a pediatric weight management program?
4. Do returning and non-returning families differ in their perceptions of outcome expectations in a pediatric weight management program?

Independent *t* tests were conducted to decide if there was a significant difference between groups (returns and non-returns) for each domain (accessibility, patient and family centered care, program effectiveness, and outcome expectations).

A basic parametric procedure for testing differences in group means is the *t* test (Hungler & Polit, 1995). The significance level was set at .05 and any probability smaller than this indicates significant findings. The degrees of freedom were 32 which is the number of participants (34) minus two (N-2). A table of significance was utilized to determine the critical value of the sample. If the *t* values obtained in this sample are greater than or equal to the critical *t* value in the table then the differences between two groups means are statistically significant at the preset alpha level. The critical *t* for each of the analyses in this study was 1.6973.

Results of the *t* test failed to reveal a statistically significant difference between groups for any of the four domains. Each observed *t* value was less than the critical *t* of 1.6973. Table 7 contains a summary of *t* test results for the four domains.

Table 7

Independent t Tests for the Difference Between Groups (Returns and Non-returns) for Each Domain

Domain	*df*	*t*	*p*
Accessibility	32	.013	.584
Patient & Family-centered Care	32	-.529	.541
Program Effectiveness	32	-.570	.959
Outcome Expectations	32	-.737	.933

Item–level Descriptive Analyses

Additional descriptive analyses examined the percentages of returnees and non-returnees who strongly agree/agree on each item on each domain of the survey. Overall, high percentages of respondents reported positive perceptions about the program. The analyses in this section simply highlight where a group offered relatively less positive responses. Analysis of the non-returners who had lower than 85% of strongly agreed/agree items were reviewed. A review of the eight accessibility domain items indicated that there were lower percentages of strongly agree and agree in items 1, 2, 5, 6, and 8. Items 1 and 2 pertained to accessibility of staff and having questions answered in a timely manner. Scores for the non-returnees were 84.6% and 84.7%. Only 77% of non-returnees strongly agreed or agreed that they saw someone within 15 minutes (item 6). Also, in the negatively worded item 5, 76.9% of the non-returnees compared to 76.2% of returnees strongly agreed or agreed that appointments interfered with other responsibilities. Results for item 8, also a negatively worded item, indicated that 92.1%

of non-returnees and 80.9% of returnees found it difficult to get to the clinic. In summary, the majority of both groups were satisfied with the accessibility to CCWM's clinic. Seeing the provider in a timely manner and difficulty getting to the clinic were the only problems. Table 8 contains results for items included in the accessibility domain.

Table 8

Accessibility Items – Comparing Returns and Non-returns who Strongly Agreed or Agreed

	Percentage of Group who Agree/Strongly Agree	
Item	Returns	Non-returns
1. I was able to reach someone in the clinic during regular office hours with a medical question about the child.	85.8.%	84.6%
2. I received an answer to my medical questions the same day.	90.5%	84.7%
3. I was able to schedule an appointment when it was handy.	95.2%	92.4%
4. I was satisfied with the speed with which my calls for an appointment were answered.	90.5%	92.4%
5. *Appointments I received interfered with other responsibilities.	76.2%	76.9%
6. Based on the first visit, the child and I saw someone from the health team within 15 minutes.	85.8%	77.0%
7. I found the location of the health clinic to be handy.	100.0%	92.3%
8. *It is usually difficult to get to the clinic.	80.9%	92.1%

*Indicates negatively worded item.

Descriptive analyses examined the percentages of returnees and non-returnees who strongly agreed/agreed on each of the twelve items in the patient and family-centered care section of the survey. Item 8 inquires whether there was enough information given during the child's visit. Among non-returnees, 84.7% agreed or strongly agreed compared to 100% of returnees. Table 9 presents results for items included in the patient and family-centered domain.

Table 9

Patient and Family-centered Care Items – Comparing Returns and Non-returns who Strongly Agreed or Agreed

	Percentage of Group who Agree/Strongly Agree	
Item	Returns	Non-returns
1. The child and I were able to talk freely to the team about the child's plan of care.	90.4%	100.0%
2. The team explained things to the child and me in a way that was easy to understand.	100.0%	100.0%
3. The team listened carefully to the child and me.	100.0%	100.0%
4. The child and I were encouraged to ask questions by the team.	100.0%	100.0%
5. I was satisfied with the way the team answered questions.	95.2%	100.0%
6. The team talked with the child and I about how much and what kind of food he/she eats.	100.0%	100.0%
6. The team talked with the child and me about how much and what kind of exercise the child gets.	95.2%	92.3%
7. The team gave the child and me enough information about the plan of care.	95.2%	92.4%
8. I was satisfied with the amount of time the team spent with the child and me during the child's visits.	95.2%	100.0%
9. I was given enough information during the child's visit.	100.0%	84.7%
10. I was given printed handouts or booklets with information concerning the child's plan of care.	95.2%	92.4%
11. All questions concerning the child's plan of care were answered by the team.	100.0%	100.0%

Descriptive analyses examined the percentages of returnees and non-returnees who strongly agreed/agreed on each of the ten items on the program effectiveness section of the survey. Item 2, which inquired about satisfaction with the child's involvement in the clinic, was the one item that showed the lowest percentage of non-returnees who agreed/strongly agreed (84.7%). Results can be found below in Table 10.

Table 10
Program Effectiveness Items – Comparing Returns and Non-returns who Strongly Agreed or Agreed

	Percentage of Group who Agree/Strongly Agree	
Item	Returns	Non-returns
1. Based on the child's care received, I am likely to return for follow-up visits.	100.0%	92.3%
2. I am satisfied with the child's involvement in the weight management program.	90.5%	84.7%
3. I was satisfied with the assistance when completing the registration process.	95.2%	92.3%
4. I am satisfied with the personal concern shown by the team members to the child.	100.0%	100.0%
5. The team was courteous and respectful during visits.	100.0%	100.0%
6. The receptionists were helpful, courteous and respectful.	95.2%	92.3%
7. The team clearly explained ways for the child to lose weight.	90.5%	100.0%
8. The team adequately explained the weight loss goals for the child.	90.5%	100.0%
9. The team was well informed about the child's plan of care.	100.0%	100.0%
10. I was satisfied with the expertise of the team.	100.0%	100.0%

Descriptive analyses examined the percentages of returnees and non-returnees who strongly agreed/agreed on each of the thirteen items in the outcome expectations section of the survey. Items 1, 2, 5, 8, 9, and 10 were reviewed. Item 1 asked if the child's attendance is an effective way to lose weight. Among the non-returnees, 77.0% agreed or strongly agreed compared to 100% returnees. Item 2 inquired about whether the evaluation by the team would help the child lose weight. The non-returnees agreed/strongly agreed at 84.6%. For item 5, 84.7% of non-returnees agreed/strongly agreed that attending the clinic would improve their child's physical fitness. There were several negatively worded items. On item 8, 69.3% of non-returnees compared to 81.5% of returnees agreed/strongly agreed that involvement in the clinic would take too much time. Item 9 responses indicated that 61.6% of non-returnees compared to 52.3% of returnees agreed/strongly agreed that the program would cost too much money. Item 10 responses indicated that 46.2% of non-returnees, compared to 57.2% of returnees agreed/strongly agreed that being overweight will last a long time. On item 11, 77% of non-returnees as compared to 80.9% of returnees believed that appointments interfered with obligations. For item 12, the two groups' percentages were similar; 84.7% of non-returnees and 85.7% of returnees agreed/strongly agreed that a weight loss program was not necessary if a diet is followed. For item 13, 100% of the non-returnees compared to 81.3% for the returnees found transportation to the weight management clinic a problem. Percentages by groups can be found in Table 11.

Table 11

Outcome Expectations Items – Comparing Returns and Non-returns who Strongly Agreed or Agreed

Item	Percentage of Group who Agree/Strongly Agree	
	Returns	Non-returns
1. I believe the child's attendance at the weight management clinic is an effective way to lose weight.	100.0%	77.0%
2. I believe if the child is evaluated by the team, it will help the child lose weight.	95.3%	84.6%
3. If the child follows the team's plan of care, it will help him/her to lose weight.	100.0%	92.3%
4. If the child follows the plan of care, I believe he/she will live longer.	95.2%	100.0%
5. I believe attending the weight management clinic will help the child become more physically fit.	95.3%	84.7%
6. I believe increased exercise will improve how the child feels about himself/herself.	90.4%	100.0%
7. I believe the child will stay healthier following a weight management program.	100.0%	100.0%
8. *I believe being involved in the weight management program will take too much time.	81.5%	69.3%
9. *I am sure the weight management program will cost too much money.	52.3%	61.6%
10. I believe that problems encountered with being overweight will last a long time.	57.2%	46.2%
11. *I believe that appointments may interfere with other obligations.	80.9%	77.0%
12. *I believe that a weight loss program is not necessary if a chosen diet is followed.	85.7%	84.7%
13. *I believe that it would be hard to find transportation to the weight management clinic.	81.3%	100.0%

*Indicates negatively worded item.

Comments on Survey

There were comments from 14 families (39%) reported on the surveys. Ten comments were positive, and families complimented the program. Several stated that the child's self-esteem had increased and that the staff was knowledgeable. Three indicated they were completely satisfied. Four comments stated obstacles that had interfered with their clinical experience. One family listed numerous problems with the program such as parental and child forms too lengthy with no feedback, receptionist was rude, felt unwelcome, and patient was not given a diagnosis until numerous calls were made to the clinic. Because of the wait between team members to examine the patient, it was suggested that informational videos be shown while waiting. Another family stated they travel two hours one way for a clinic visit and even though they felt it was worth coming to the clinic it would be nice to get an appointment other than Friday. Needing someone to assist with a solution concerning child eating junk food was also listed. Weekly reminders were another suggestion such as remembering to exercise and eat fruit and vegetables. A complete text of families' comments can be found in Appendix I.

Questions Asked of Non-Returnees

At the end of the study, the researcher received permission to ask two questions of those not returning for the third visit following orientation. The questions were "Was there a reason your child did not return for his/her last appointment? If so, what are some of the things that kept your child from attending the clinic? Thirteen families who participated in the survey at the Children's Center for Weight Management did not come back for the child's third visit following orientation. After phoning the families, the following was found: two families' phones were disconnected; two families stated they had rescheduled an appointment, four families were not at home, and five families answered the researcher's questions.

Five of the families reported some type of barrier that prevented them from returning to the clinic. One family member related that she had forgotten and had a death in the family. Another recounted a problem with time and that the patient was attending a nephrology clinic that was providing some diet suggestions. The third family stated that the weight management program was a waste of time, costly and wasn't "hands on." One family's response was that until the lab work bill was paid they would not return to the clinic. The last respondent stated that her daughter had been in the hospital. The complete texts of the family narratives are presented in Appendix J.

Summary

This chapter presented the results of the statistical analyses and findings related to the research questions. The statistical analysis was performed to answer the study's research questions. Descriptive statistics included calculating means, standard deviations, and coefficients. Alpha coefficients provided estimates of internal consistency reliability. Independent *t* tests examined differences between groups (returnees and non-returnees) on each domain. Point-biserial correlations assessed the association between retention and each domain. Additional descriptive statistics consisted of a comparison of two groups (non-returnees and returnees) for each item on each domain.

CHAPTER V

DISCUSSION, IMPLICATIONS, LIMITATIONS, CONCLUSIONS

This chapter presents an overview of the study, a restatement of the research questions, and summary of findings. Limitations will be reviewed, implications and conclusions discussed, and recommendations addressed.

Discussion

It is well-known that childhood overweight is an important health issue with outcomes of serious consequences. There is an increased risk for hypertension, diabetes, cardiovascular disease, psychological problems, and others (Jablow & Koop, 1992; Whitlock et al., 2005). In addition, habits leading to overweight are developed in young children and once established, are difficult to replace. According to Ogden et al. (2002), major factors were found that contribute to excessive weight. These factors include a combination of genetic, metabolic, psychological, behavioral, socio-cultural, environmental, and family lifestyle practices surrounding activity and nutritional status.

Over the past decade, there have been various treatment programs implemented for overweight children. The most common methods used for weight management include behavior modification, psychological counseling, diet, exercise, family involvement, multidisciplinary approach, and pediatric weight management programs (World Health Organization, 2003a). It has been shown that pediatric weight loss programs can be effective; however, for care to be helpful the patient should complete the program.

The purpose of this study was to evaluate families' perceptions about outcome expectations (benefits and barriers) and quality of care provided to their children in the pediatric weight management program as they relate to retention in the program. The study also sought to identify barriers that interfered with completion of the program.

Based on the review of literature this study examined four elements (accessibility, program effectiveness, patient and family-centered care, and outcome expectations) and their relationship to retention. These quality of care elements have been found to be associated with low retention rates from weight loss programs. With the epidemic of overweight children, it is crucial to examine why retention rates are decreasing in pediatric weight management programs (Sothern, Gordon, & Almen, 2006). These quality of care elements have been shown in the literature as valuable tools to assess retention in pediatric clinics (Cull et al., 2005).

The HBM constructs Perceived Benefits and Perceived Barriers were included in the conceptual model to provide a framework for outcome expectations of the patient and family. The HBM was relevant because of its patient centered focus and beneficial outcomes that result from its use (White et al., 2004). Outcome expectations were measured by possible adverse results (perceived barriers) and desired effects (perceived benefits) from taking part in a pediatric weight management clinic.

Lastly, retention was included in the concept model because as previous studies have indicated, non-compliance in children/families has been an issue in follow-up appointments (White et al., 2004). Retention in this study was defined as completion of the third visit following orientation. Recognizing families' reasons for not returning is one the purposes of the study. In Cote et al. (2004) study, perceived quality of care was found to be highly associated with return follow-up appointments.

Research Questions

These eight research questions guided the dissertation study:

1. What is the relationship between families' perceptions of accessibility and retention in a pediatric weight management program?

2. What is the relationship between families' perceptions of patient and family centered care and retention in a pediatric weight management program?

3. What is the relationship between families' perceptions of the program's effectiveness and retention in a pediatric weight management program?

4. What is the relationship between families' perceptions of the outcome expectations and retention in a pediatric weight management program?

5. Do returning and non-returning families differ in their perceptions of accessibility in a pediatric weight management program?

6. Do returning and non-returning families differ in their perceptions of patient and family centered care in a pediatric weight management program?

7. Do returning and non-returning families differ in their perceptions of? the program's effectiveness in a pediatric weight management program?

8. Do returning and non-returning families differ in their perceptions of outcome expectations in a pediatric weight management program?

Summary of Findings

The research design for this study was a cross-sectional descriptive design to address the research questions. The study sample for the quantitative analysis included 35 families recruited from the CCWM. The ages of the children ranged from 2 to 18 years, although the majority of the children were between the ages of 6 to 15 years. Most were female and about half were African Americans. Most respondents had at least a high school diploma or a GED. The largest percentage of respondents had health insurance.

The survey developed/adapted for this study was evaluated to determine internal consistency reliability of the domains. Coefficient alphas ranged from .64 to .97. Point-biserial correlations examined relationships between retention and each domain. Results indicated no significant associations. Independent *t* tests were performed to determine if there were significant differences between groups (returnees and non-returnees) on each domain (accessibility, program effectiveness, patient and family-centered care, and outcome expectations). No significant differences were found.

Descriptive analyses were done to determine the percentages of returnees and non-returnees who strongly agreed/agreed with each domain item on the survey. Results were presented for items on each domain. Overall, high percentages of respondents agreed/strongly agreed with statements. However, some relativity power percentages were highlighted. Analysis of the accessibility items indicated that on 4 positively worded items the percentages of non-returnees who agreed/strongly agreed were below 85%. Items 1 and 2 asked if the families reached the clinic and received answers to their medical questions concerning the child in a timely manner. Honas et al. (2003) study indicated that adherence to program objectives is critical and should include family involvement. Item 6 pertained to the wait to see the health team. The literature indicates that families have listed wait times as a common barrier to follow-up visits ((Hampl, Paves, Lauhoscher & Enell, 2011). In this study, only 77% of non-returnees strongly agreed or agreed that they saw someone within 15 minutes. Previous studies by Hampl et al. (2011) and Cote et al. (2004) concluded that that one of the major factors for accessibility has been work commitments hindering families from bringing children for follow-up visits. In this study on item 5, 76.9% of the non-returnees strongly agreed/agreed that appointments interfered with other responsibilities. This is somewhat to be expected, because the majority of the families have jobs or other obligations.

Analysis of the patient and family-centered care items indicated that there were lower percentages of strongly agree /agree for non-returnees on item 10 eliciting whether there was enough information given during the child's visit. In the Cote et al. (2004) study, issues related to lack of information were considered a primary barrier. In this study, 84.7% of non-returnees agreed/strongly agreed, compared to 100% of returnees. Determining if patients are knowledgeable and receiving appropriate information concerning the program are very important to engaging and retaining patients.

Descriptive analyses examined the percentages of returnees and non-returnees who strongly agreed/agreed on each item of the program effectiveness domain. Item 2 inquired about satisfaction with the child's involvement in the clinic. Cote's study in 2004 on service quality and attrition focused on satisfaction and perceived quality of care as obstacles experienced by the patient and family. Dropouts were lower in satisfaction.

The present study also found 84.7% of the non-returnees were satisfied compared to 90.5% of returnees.

Descriptive analyses examined the percentages of returnees and non-returnees who strongly agreed/agreed on items in the outcome expectations domain. Seven questions were reviewed. For item 1, 77.0% of non-returnees versus 100% of returnees believed the child's attendance is an effective way to lose weight. In the study by Barlow et al. (2002), barriers such as poor communication and lack of knowledge or information concerning treatment programs were identified as barriers to retention. Their study identified some primary barriers such as lack of information about what the children are learning about health and weight loss which can be effective in increasing knowledge concerning weight loss. On item 2, 84.6% of non-returnees compared to 95.3% of returnees believed an evaluation by the team would help the child lose weight. Family participation was emphasized in the Barlow et al. (2002) research by providing families with specific information to address the importance of the interdisciplinary team and participation in the treatment plan. CCWM staff may use findings from the present study to guide changes that result in increased information to encourage family participation. Item 5 revealed that 84.7% of non-returnees (compared to 95.3% of returnees) believed attending the clinic would help their child become more physically fit. Cote's study in 2004 found that 25% of families reported that the program failed to meet their expectations such as physical fitness.

Several negatively worded items reverse questions were identified pertaining to retention. One of the primary factors faced by families and identified as barriers were cost and lack of time, issues supported by the literature (Cote et al., 2004; Hampl et al., 2011; Tershakovec & Kuppler, 2003; Sothern et al., 2006). Item 8 investigated the belief that the program would take too much time, and 69.3% of non-returnees strongly agreed/agreed. On item 9, 61.6% of non-returnees believed that attending the weight management program would cost too much. Cost as identified earlier as a barrier to retention remains a problem for weight management programs (Skelton & Beech, 2011). In the present study, the majority of participants had some type of insurance. Many families may not be aware of financial opportunities to participate in the program and taking the initiative to learn more about the program and its benefits. On item 10, 46.2% of non-returnees (57.2% of returnees) believed problems encountered with being overweight would last a long time. The existing research (Barlow et al., 2002; Hampl et al., 2011; Zeller et al., 2004) indicates that families are not aware of opportunities to participate in the treatment plan. These issues may be communication problems in which the family is not taking the initiative to learn more about their role in the weight loss program.

Limitations to the Study

The following were found to be limitations in the study:

1. The Pediatric Weight Management Survey is a self-report survey adapted in part from CAHPS that can be used in a clinical setting. The survey elicits responses to items relating to satisfaction with the CCWM program. The subjects may not have felt comfortable providing the information and altered their answers to reflect what they felt the researcher wanted to record.

2. The research design is a small sample of the population, and the sample was selected from the patients at their second visit only. Information obtained at another point in time may have resulted in different findings.
3. There were only 5 out of the 13 non-returns available for the follow-up call. Greater participation in the follow-up call may have yielded more information.
4. The data was collected from this single geographic area, even more specifically; a single program cannot be generalized to the larger population.

Contribution to Literature

This study identified a few reports in the literature focusing on retention in pediatric weight management programs. The research identifies some barriers to family involvement that have previously been recognized, reinforcing the existing literature base. Previously detected barriers that this study also identified are insurance (Hampl et al., 2011; Tershakovec & Kuppler, 2003; Cote et al., 2004), frequency of visits (Cote et al., 2004, Honas et al., 2003), transportation (Cote et al., 2004; Hampl et al., 2011; Zeller et al., 2004), and time (Cote et al., 2004; Hampl et al., 2011). Areas that were not researched were demographic predictors (Honas et al., 2003; Tershakovec & Kuppler, 2003) severe obesity (Zeller et al., 2004), and BMI scores (Tershakovec & Kuppler, 2003).

Prior to this study, research was based on investigating attrition and failure to return to a weight management clinic. The present research appears to be unique because it examined the families' perceptions about quality of care and outcome expectations as they relate to retention, and it identified barriers that might interfere with completion of the program. The Pediatric Weight Management Survey was adapted by this researcher to determine levels of satisfaction and was administered to 35 families with a follow-up call to non-returnees. The Pediatric Weight Management Survey was divided into four sections: accessibility, patient and family-centered care, program effectiveness, and outcome expectations.

Implications

Across studies, family's dissatisfaction with program treatment has drawn no clear conclusions (Hampl et al., 2011; Skelton & Beech, 2011); however, this research contributes to the limited body of literature regarding family perceptions about quality of care and outcome expectations in pediatric weight management programs and minimizing retention problems. Patient retention is crucial for weight-management programs in order to achieve desirable outcomes. Although the results of this research cannot be generalized, they contribute to the health education and health promotion knowledge base.

Little is known about the methods used by pediatric weight management programs to improve retention. Even though there were no significant findings, responses to particular items may be beneficial to increase retention and improve patient and program outcomes. Several families responded that cost, frequency of visits, and other obstacles prevented them from returning. One approach might be to increase frequency of contacts by utilizing on line check-ins, weight-ins, or group chats done from home via internet. Almost everyone has a phone or computer with a camera and an internet hook-up. Based on comments on the questionnaire and responses from families who did not return to the clinic, staff may find more creative interventions that would benefit the patient and family and assist the clinic in resolving problems with retention.

It would be advantageous for the weight management program to optimize the use of the staff to identify the non-attendance families and follow up with a telephone call to determine why they did not return. Also, reminding families with a telephone call or printed reminders before the patient's follow-up visit may enhance patient retention. The Hampl et al. (2011) study indicated "that the majority of clinics with high non-attendance did not use methods to engage patients before or after the initial visit" (p. 59). There were no significant findings in this study relating quality of care to retention; nonetheless, several families indicated in the follow-up phone call obstacles such as transportation and cost that were the reason they did not return to the clinic. The focus of the research was to determine if there were any associations between quality of care and retention and even though there were no significant findings the study can be continued with a larger sample.

Conclusions

The following conclusions were drawn from the findings of this study:

1) A focus of this study was to determine if there was a relationship between the retention and each of four domains (accessibility, program effectiveness, patient and family-centered care, and outcome expectations). There was no significant relationship found between retention and any of these domains.
2) A focus of this study was to also determine any differences between two group means (non-returnees and returnees) on the four domains (accessibility, program

effectiveness, patient and family-centered care, and outcome expectations). There were no significant differences between groups on any of the domains.

Recommendations for Future Research

A larger sample size and choosing multiple programs and locations could provide a more diverse sample with findings that are more generalizable.

Future studies using this design may find it more beneficial when collecting information to use a combination of methods. Further use of this survey or modification thereof should be followed by a qualitative or mixed method assessment. The qualitative assessment could be useful in clarifying issues raised concerning satisfaction. The use of focus groups or individual interviews could be a viable option for addressing pertinent family issues.

Recommendations for Children's Center for Weight Management

Another recommendation would be to increase budget funds and time for follow-up efforts. The study follow-up was limited to two phone calls and no further contact was made. If multiple calls were made to each household until a family member was directly reached, the response rate would likely have been higher. It is recommended that patients who do not return for follow-up appointments are contacted by one of the interdisplinary team members to determine reasons the patient did not return.

Based on the comments on the questionnaire and responses from families who did not return to the clinic, clinic staff may find interventions that would benefit the patient and family and assist the clinic in resolving problems with retention.

The researcher recommends generating a procedure visit report or electronic data base to monitor patient visits. A comprehensive process of documenting follow-up visits should be completed for each patient and family. Implementing an electronic data base, a benchmarking procedure could ascertain families/patient nonattendance rates for initial and follow-up visits. Documenting whether the patient either returned for the follow-up visit or that attempts to contact the patient had been exercised can be recorded.

More emphasis needs to be assigned to utilizing the internet to engage patients to communicate with the team.

Because only a few studies have identified research of families' perception of quality of care and barriers that affect retention, there is a recommendation to further broaden this research as a pilot study for future use.

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APPENDIX A

CAHPS 2.0 SURVEY

CAHPS® Clinician & Group Survey

Version: Child Primary Care Questionnaire 2.0 (Beta)

Language: English

Response Scale: 4 points

This questionnaire was developed and tested with the four-point scale only. It is not available with the six-point scale.

cahps
File name: 1353a-4_ChildPrim_Eng_4pt_V2.doc
Last updated: October 7, 2008

Instructions for Front Cover

- Replace the cover of this document with your own front cover. Include a user-friendly title and your own logo.
- Include this text regarding the confidentiality of survey responses:

> **Your Privacy is Protected.** All information that would let someone identify you or your family will be kept private. {VENDOR NAME} will not share your personal information with anyone without your OK. Your responses to this survey are also completely **confidential**. You may notice a number on the cover of the survey. This number is used **only** to let us know if you returned your survey so we don't have to send you reminders.
>
> **Your Participation is Voluntary.** You may choose to answer this survey or not. If you choose not to, this will not affect the health care you get.
>
> **What To Do When You're Done.** Once you complete the survey, place it in the envelope that was provided, seal the envelope, and return the envelope to [INSERT VENDOR ADDRESS].
>
> If you want to know more about this study, please call XXX-XXX-XXXX.

Instructions for Format of Questionnaire

Proper formatting of a questionnaire improves response rates, the ease of completion, and the accuracy of responses. The CAHPS team's recommendations include the following:

- If feasible, insert blank pages as needed so that the survey instructions (see next page) and the first page of questions start on the right-hand side of the questionnaire booklet.
- Maximize readability by using two columns, serif fonts for the questions, and ample white space.
- Number the pages of your document, but remove the headers and footers inserted to help sponsors and vendors distinguish among questionnaire versions.

Additional guidance is available in **Preparing a Questionnaire Using the CAHPS Clinician & Group Survey**:
https://www.cahps.ahrq.gov/cahpskit/files/32_CG_Preparing_a_Questionnaire.pdf

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Survey Instructions

Answer each question by marking the box to the left of your answer.

You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

☒ Yes → **If Yes, go to #1 on page 1**
☐ No

Please answer the questions for the child listed on the envelope. Please do not answer for any other children.

Your Child's Doctor

1. Our records show that your child got care from the doctor named below in the last 12 months.

Name of doctor label goes here

Is that right?

- 1☐ Yes
- 2☐ No → **If No, go to #43 on page 6**

The questions in this survey booklet will refer to the doctor named in Question 1 as "this doctor." Please think of that doctor as you answer the survey.

2. Is this the doctor you usually see if your child needs a check-up or gets sick or hurt?

- 1☐ Yes
- 2☐ No

3. How long has your child been going to this doctor?

- 1☐ Less than 6 months
- 2☐ At least 6 months but less than 1 year
- 3☐ At least 1 year but less than 3 years
- 4☐ At least 3 years but less than 5 years
- 5☐ 5 years or more

Your Child's Care From This Doctor in the Last 12 Months

These questions ask about **your child's** health care. Do **not** include care your child got when he or she stayed overnight in a hospital. Do **not** include the times your child went for dental care visits.

4. In the last 12 months, how many times did your child visit this doctor for care?

- 1☐ None → **If None, go to #43 on page 6**
- 2☐ 1 time
- 3☐ 2
- 4☐ 3
- 5☐ 4
- 6☐ 5 to 9
- 7☐ 10 or more times

5. In the last 12 months, did you ever stay in the exam room with your child during a visit to this doctor?

- 1☐ Yes → **If Yes, go to #7**
- 2☐ No

6. Did this doctor give you enough information about what was discussed during the visit when you were not there?

- 1☐ Yes → **If Yes, go to #10**
- 2☐ No → **If No, go to #10**

7. Is your child able to talk with doctors about his or her health care?

- 1☐ Yes
- 2☐ No → **If No, go to #10**

8. In the last 12 months, how often did this doctor explain things in a way that was easy for **your child** to understand?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

9. In the last 12 months, how often did this doctor listen carefully to **your child**?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

10. Did this doctor tell you that you needed to do anything to follow up on the care your child got during the visit?

1☐ Yes
2☐ No → **If No, go to #12**

11. Did this doctor give you enough information about what you needed to do to follow up on your child's care?

1☐ Yes
2☐ No

12. In the last 12 months, did you phone this doctor's office to get an appointment for your child for an illness, injury or condition that **needed care right away**?

1☐ Yes
2☐ No → **If No, go to #14**

13. In the last 12 months, when you phoned this doctor's office to get an appointment for **care your child needed right away**, how often did you get an appointment as soon as you thought your child needed?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

14. In the last 12 months, did you make any appointments for a **check-up or routine care** for your child with this doctor?

1☐ Yes
2☐ No → **If No, go to #16**

15. In the last 12 months, when you made an appointment for a **check-up or routine care** for your child with this doctor, how often did you get an appointment as soon as you thought your child needed?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

16. In the last 12 months, did you phone this doctor's office with a medical question about your child during regular office hours?

1☐ Yes
2☐ No → **If No, go to #18**

17. In the last 12 months, when you phoned this doctor's office during regular office hours, how often did you get an answer to your medical question that same day?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

18. In the last 12 months, did you phone this doctor's office with a medical question about your child **after** regular office hours?

1☐ Yes
2☐ No → **If No, go to #20**

19. In the last 12 months, when you phoned this doctor's office **after** regular office hours, how often did you get an answer to your medical question as soon as you needed?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

20. Wait time includes time spent in the waiting room and exam room. In the last 12 months, how often did your child see this doctor **within 15 minutes** of his or her appointment time?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

21. In the last 12 months, how often did this doctor explain things about your child's health in a way that was easy to understand?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

22. In the last 12 months, how often did this doctor listen carefully to you?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

23. In the last 12 months, did you and this doctor talk about any questions or concerns you had about your child's health?

1☐ Yes
2☐ No → **If No, go to #25**

24. In the last 12 months, how often did this doctor give you easy to understand instructions about taking care of these health questions or concerns?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

25. In the last 12 months, how often did this doctor seem to know the important information about your child's medical history?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

26. In the last 12 months, how often did this doctor show respect for what you had to say?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

27. In the last 12 months, how often did this doctor spend enough time with your child?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

28. In the last 12 months, did this doctor order a blood test, x-ray or other test for your child?

1☐ Yes
2☐ No → **If No, go to #30**

29. In the last 12 months, when this doctor ordered a blood test, x-ray or other test for your child, how often did someone from this doctor's office follow up to give you those results?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

30. In the last 12 months, did you and this doctor talk about your child's learning ability?

1☐ Yes
2☐ No

31. In the last 12 months, did you and this doctor talk about the kinds of behaviors that are normal for your child at this age?

1☐ Yes
2☐ No

32. In the last 12 months, did you and this doctor talk about how your child's body is growing?

1☐ Yes
2☐ No

33. In the last 12 months, did you and this doctor talk about your child's moods and emotions?

1☐ Yes
2☐ No

34. In the last 12 months, did you and this doctor talk about things you can do to keep your child from getting injured?

1☐ Yes
2☐ No

35. In the last 12 months, did this doctor give you any printed handouts or booklets with information about how to keep your child from getting injured?

1☐ Yes
2☐ No

36. In the last 12 months, did you and this doctor talk about how much or what kind of food your child eats?

1☐ Yes
2☐ No

37. In the last 12 months, did you and this doctor talk about how much or what kind of exercise your child gets?

1☐ Yes
2☐ No

38. In the last 12 months, did you and this doctor talk about how your child gets along with others?

1☐ Yes
2☐ No

39. In the last 12 months, did you and this doctor talk about whether there are any problems in your household that might affect your child?

1☐ Yes
2☐ No

40. Using any number from 0 to 10, where 0 is the worst doctor possible and 10 is the best doctor possible, what number would you use to rate this doctor?

☐ 0 Worst doctor possible
☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7
☐ 8
☐ 9
☐ 10 Best doctor possible

Clerks and Receptionists at This Doctor's Office

41. In the last 12 months, how often were clerks and receptionists at this doctor's office as helpful as you thought they should be?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

42. In the last 12 months, how often did clerks and receptionists at this doctor's office treat you with courtesy and respect?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

About Your Child and You

43. In general, how would you rate your child's overall health?

1☐ Excellent
2☐ Very Good
3☐ Good
4☐ Fair
5☐ Poor

44. In general, how would you rate your child's overall mental or emotional health?

1☐ Excellent
2☐ Very Good
3☐ Good
4☐ Fair
5☐ Poor

45. What is **your child's** age?

1☐ Less than 1 year old

______ YEARS OLD *(write in)*

46. Is your child male or female?

1☐ Male
2☐ Female

47. Is your child of Hispanic or Latino origin or descent?

1☐ Yes, Hispanic or Latino
2☐ No, not Hispanic or Latino

48. What is your child's race? Please mark one or more.

1☐ White
2☐ Black or African-American
3☐ Asian
4☐ Native Hawaiian or other Pacific Islander
5☐ American Indian or Alaska Native
6☐ Other

49. What is **your** age?

0☐ Under 18
1☐ 18 to 24
2☐ 25 to 34
3☐ 35 to 44
4☐ 45 to 54
5☐ 55 to 64
6☐ 65 to 74
7☐ 75 or older

50. Are you male or female?

1☐ Male
2☐ Female

51. What is the highest grade or level of school that you have completed?

1☐ 8th grade or less
2☐ Some high school, but did not graduate
3☐ High school graduate or GED
4☐ Some college or 2-year degree
5☐ 4-year college graduate
6☐ More than 4-year college degree

52. How are you related to the child?

1☐ Mother or father
2☐ Grandparent
3☐ Aunt or uncle
4☐ Older brother or sister
5☐ Other relative
6☐ Legal guardian
7☐ Someone else

Please print: ______________________

____

53. Did someone help you complete this survey?

1☐ Yes
2☐ No → **Thank you. Please return the completed survey in the postage-paid envelope.**

54. How did that person help you? Mark all that apply.

1☐ Read the questions to me
2☐ Wrote down the answers I gave
3☐ Answered the questions for me
4☐ Translated the questions into my language
5☐ Helped in some other way

Please print: ______________________

____

____

Thank you.

Please return the completed survey in the postage-paid envelope.

CAHPS® Clinician & Group Survey

Supplemental Items for the Child Primary Care Questionnaire 2.0 (Beta)

Language: English

Response Scale: 4 points

cahps®
File name: 1353a-4_ChildPrim_Eng_4pt_V2.doc
Last updated: October 7, 2008

TABLE OF CONTENTS

Important instructions

Placing Supplemental Items in the Core Questionnaires. After you copy one or more supplemental items into the core questionnaire:

- **Fix the formatting** of the items as needed to fit into the two-column format.
- **Renumber** the supplemental item and **ALL** subsequent items so that they are consecutive.
- **Revise ALL skip instructions** in the questionnaire to make sure they point the respondent to the correct item number.

After Hours Care

Insert AH1 – AH2 after core question 19.

AH1. After hours care is health care when your child's usual doctor's office or clinic is closed. In the last 12 months, did you try to get any after hours care for your child at this doctor's office?

1☐ Yes
2☐ No → **If No, go to core question 20**

AH2. In the last 12 months, did the after hours care available from this doctor's office meet your needs?

1☐ Yes
2☐ No

Chronic Conditions

Insert CC items after core question 44.

CC1. Does your child currently need or use medicine prescribed by a doctor, other than vitamins?

1☐ Yes
2☐ No → **If No, go to question CC3**

CC2. Is this medicine for a condition that is expected to last for at least 12 months?

1☐ Yes
2☐ No

CC3. Does your child need or use more medical care, more mental health services, or more educational services than is usual for most children of the same age?

1☐ Yes
2☐ No → **If No, go to question CC5**

CC4. Are these services or medical care for a condition that is expected to last for at least 12 months?

1☐ Yes
2☐ No

CC5. Is your child limited or prevented in any way in his or her ability to do the things most children of the same age can do?

1☐ Yes
2☐ No → **If No, go to question CC7**

CC6. Is this because of a condition that is expected to last for at least 12 months?

1☐ Yes
2☐ No

CC7. Does your child need or get special therapy, such as physical, occupational or speech therapy?

1☐ Yes
2☐ No → **If No, go to question CC9**

CC8. Is this therapy for a condition that is expected to last for at least 12 months?

1☐ Yes
2☐ No

CC9. Does your child have any kind of emotional, developmental, or behavioral problem for which he or she needs or gets treatment or counseling?

1☐ Yes
2☐ No → **If No, go to core question 45**

CC10. Is this treatment or counseling for a condition that is expected to last for at least 12 months?

1☐ Yes
2☐ No

Doctor Communication With Child

The 1.0 version of the Child Primary Care Questionnaire had additional supplemental items under this heading; those items (DC1, DC2, and DC4) have been incorporated into the 2.0 version of the questionnaire.

Insert DC3 after core question 7.

DC3. In the last 12 months, how often did this doctor encourage **your child** to ask questions?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

Doctor Communication With Parent

Insert DP1 after core question 21.

DP1. In the last 12 months, how often did this doctor ask if you had any questions about your child's health?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

Doctor Thoroughness

Insert DT1 – DT2 before core question 28.

DT1. In the last 12 months, did this doctor ever examine your child?

1☐ Yes
2☐ No → **If No, go to core question 28**

DT2. In the last 12 months, how often was this doctor as thorough as you thought your child needed?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

Identification of Site of Visit

Insert ID1 after core question 1.

ID1. Which health center did your child visit to get care in the last 12 months? Please mark one or more.

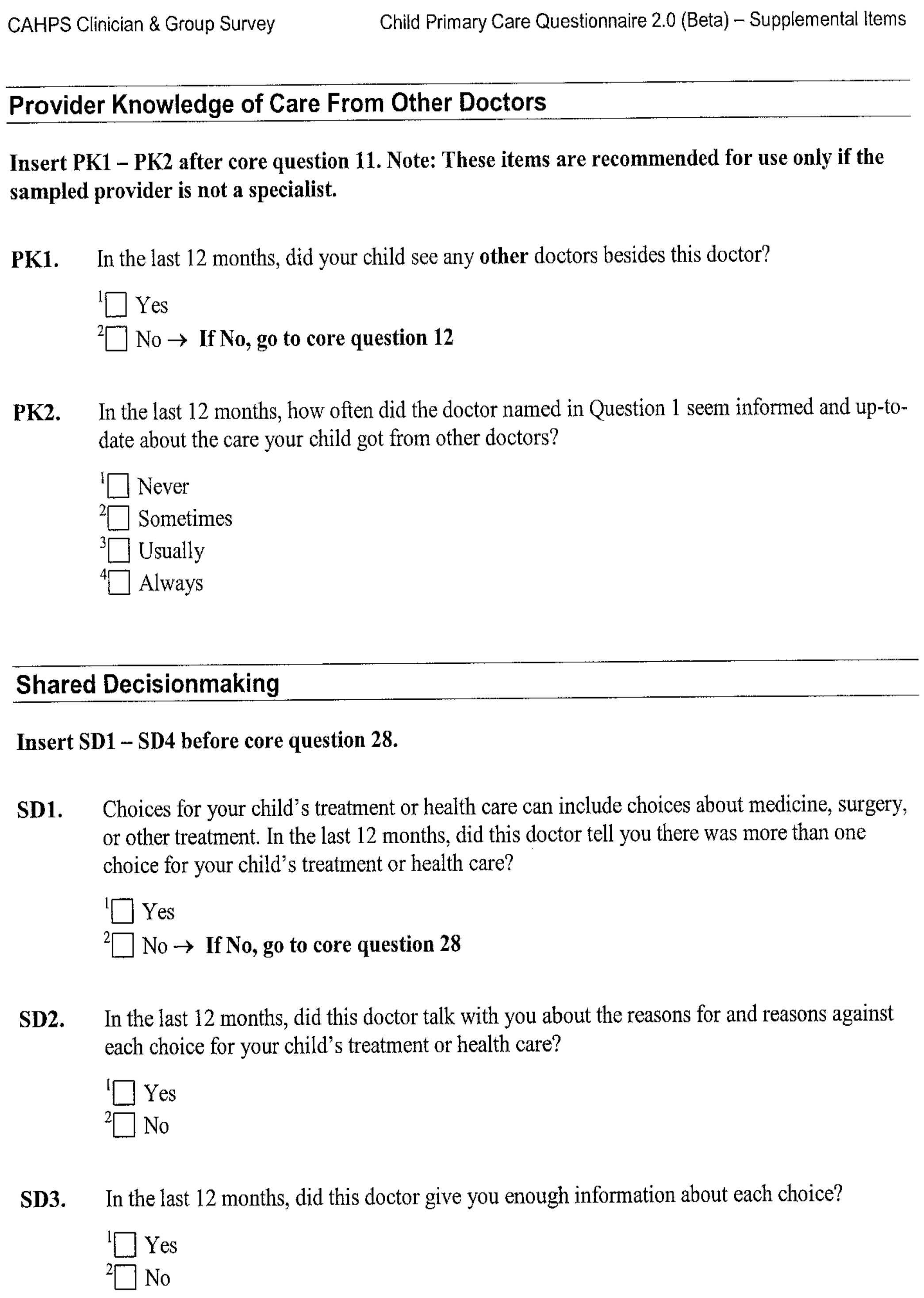
1☐ (List names of health centers)
2☐
3☐
4☐
5☐ Don't know

Prescription Medicines

Insert PM1 after core question 27.

PM1. In the last 12 months, did this doctor talk with you about all of the prescription medicines your child was taking?

1☐ Yes
2☐ No



CAHPS Clinician & Group Survey Child Primary Care Questionnaire 2.0 (Beta) – Supplemental Items

Provider Knowledge of Care From Other Doctors

Insert PK1 – PK2 after core question 11. Note: These items are recommended for use only if the sampled provider is not a specialist.

PK1. In the last 12 months, did your child see any **other** doctors besides this doctor?

^{1}☐ Yes
^{2}☐ No → **If No, go to core question 12**

PK2. In the last 12 months, how often did the doctor named in Question 1 seem informed and up-to-date about the care your child got from other doctors?

^{1}☐ Never
^{2}☐ Sometimes
^{3}☐ Usually
^{4}☐ Always

Shared Decisionmaking

Insert SD1 – SD4 before core question 28.

SD1. Choices for your child's treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did this doctor tell you there was more than one choice for your child's treatment or health care?

^{1}☐ Yes
^{2}☐ No → **If No, go to core question 28**

SD2. In the last 12 months, did this doctor talk with you about the reasons for and reasons against each choice for your child's treatment or health care?

^{1}☐ Yes
^{2}☐ No

SD3. In the last 12 months, did this doctor give you enough information about each choice?

^{1}☐ Yes
^{2}☐ No

SD4. In the last 12 months, when there was more than one choice for your child's treatment or health care, did this doctor ask which choice you thought was best for your child?

1☐ Yes
2☐ No

SD4. In the last 12 months, when there was more than one choice for your child's treatment or health care, did this doctor ask which choice you thought was best for your child?

1☐ Yes
2☐ No

APPENDIX B

EXPERT PANEL REVIEW FORM

PANEL REVIEW

Pediatric Weight Management Survey

Please review each item from the Pediatric Weight Management Survey and select one of the rating scales. If you have any comments concerning the items, please indicate at the bottom of the form. Use the 4-point rating scale to determine if the items are valid.

1= not relevant

2=unable to assess relevance without item revision

3=relevant but needs minor alteration

4=highly relevant

I. **About the Child and You**

Item	*Not relevant*	*Needs revision*	*Relevant*	*Highly relevant*
#1				
#2				
#3				
#4				
#5				
#6				
#7				
#8				
#9				
#10				
#11				

II. Accessibility

Item	*Not relevant*	*Needs revision*	*Relevant*	*Highly relevant*
#13				
#14				
#15				
#16				
#17				
#18				
#19				
#20				
#21				
#22				

III. Patient and Family-Centered Care

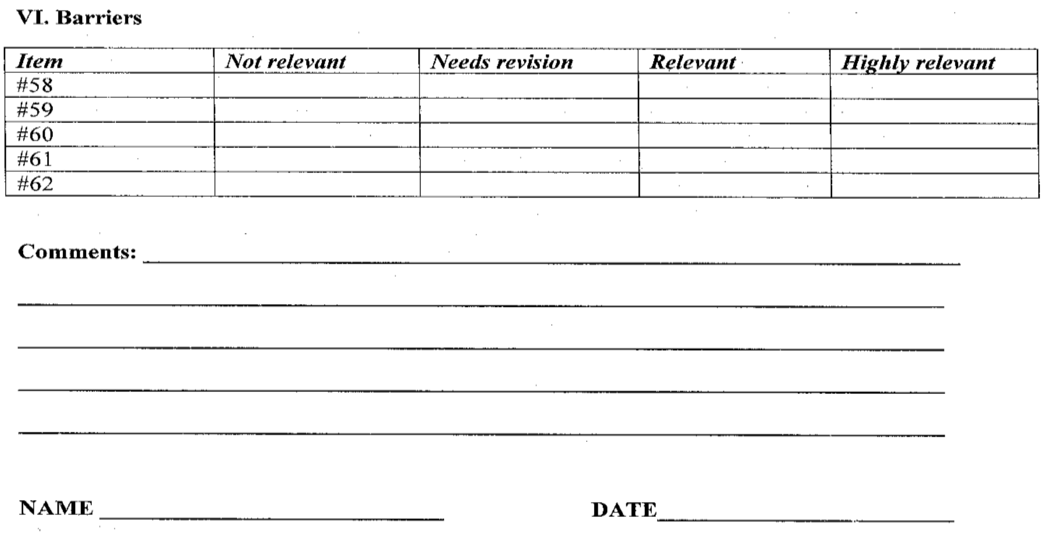
Item	*Not relevant*	*Needs revision*	*Relevant*	*Highly relevant*
#23				
#24				
#25				
#26				
#27				
#28				
#29				
#30				
#31				
#32				
#33				
#34				
#35				

IV. Program Effectiveness

Item	Not relevant	Needs revision	Relevant	Highly relevant
#36				
#37				
#38				
#39				
#40				
#41				
#42				
#43				
#44				
#45				
#46				
#47				
#48				

V. Benefits

Item	*Not relevant*	*Needs revision*	*Relevant*	*Highly relevant*
#49				
#50				
#51				
#52				
#53				
#54				
#55				
#56				
#57				



VI. Barriers

Item	*Not relevant*	*Needs revision*	*Relevant*	*Highly relevant*
#58				
#59				
#60				
#61				
#62				

Comments: ____

____

____

____

____

NAME ______________________________ **DATE**______________________

APPENDIX C

EXPERT PANEL CONTENT VALIDITY RESULTS

Table 1

Expert Panel Analysis

Items	Expert 1	Expert 2	Expert 3	Expert 4	Level of Agreement
1. Dem-relation	Yes	Yes	Yes	Yes	100%
2. Dem-child's age	Yes	Yes	Yes	Yes	100%
3. Dem-child's gender	Yes	Yes	Yes	Yes	100%
4. Dem-child's race-	Yes	Yes	Yes	Yes	100%
5.Dem-parents age	Yes	Yes	No	No	50%
6. Dem-education	Yes	Yes	Yes	Yes	100%
7. Dem-race-parent	Yes	Yes	Yes	Yes	100%
8. Dem-parent gender	Yes	Yes	Yes	Yes	100%
9. Dem-marital	Yes	Yes	Yes	Yes	100%
10.Dem-income	Yes	Yes	No	No	50%
11.Dem-insurance	Yes	Yes	Yes	Yes	100%
12.Access-questions	Yes	Yes	Yes	Yes	100%
13.Access-schedule	Yes	Yes	Yes	Yes	100%
14.Access-answer	Yes	Yes	Yes	Yes	100%
15.Access-schedule	Yes	Yes	Yes	Yes	100%
16.Access-promptness	Yes	Yes	Yes	Yes	100%
17.Access-appointments	Yes	Yes	No	No	50%
18.Access-interference	Yes	Yes	Yes	Yes	100%
19.Access- 15 minutes	Yes	Yes	Yes	Yes	100%
20.Access-location	Yes	Yes	Yes	Yes	100%
21.Accesss-inconvenient	Yes	Yes	Yes	Yes	100%
22.Access-transportation	No	No	Yes	Yes	50%
23.Care-talk	Yes	Yes	Yes	Yes	100%
24. Care-concerns	Yes	Yes	Yes	Yes	100%
25.Care-explained	Yes	Yes	Yes	Yes	100%
26.Care-listened	Yes	Yes	Yes	Yes	100%
27.Care-encouraged	Yes	Yes	Yes	Yes	100%
28.Care-questions	Yes	Yes	Yes	Yes	100%
30.Care-exercise	Yes	Yes	Yes	Yes	100%
31 Care-information	Yes	Yes	Yes	Yes	100%
32 Care-time	Yes	Yes	Yes	Yes	100%
33.Care-visit	Yes	Yes	Yes	Yes	100%
34.Care-handouts	Yes	Yes	Yes	Yes	100%
35.Care-instructions	Yes	Yes	Yes	Yes	100%
36.Program-quality	Yes	Yes	No	No	50%
37.Program-professional	Yes	Yes	Yes	Yes	100%
38.Program-knowledge	Yes	Yes	Yes	Yes	100%
39.Program-goals	Yes	Yes	Yes	Yes	100%
40.Program-weight loss	Yes	Yes	Yes	Yes	100%
41.Program-steps	No	Yes	No	Yes	50%
42.Program-receptionists	Yes	Yes	Yes	Yes	100%
43.Program- courteous	Yes	Yes	Yes	Yes	100%
44.Program- concern	Yes	Yes	Yes	Yes	100%
45.Program-time	Yes	Yes	Yes	Yes	100%
46.Program-involvement	Yes	Yes	Yes	Yes	100%
47.Program-follow up	Yes	Yes	Yes	Yes	100%
48.Program-recommend	Yes	Yes	No	No	50%
49.Benefits-attendance	Yes	Yes	Yes	Yes	100%
50.Benefits-lose weight	Yes	Yes	Yes	Yes	100%
51.Benefits-plan	Yes	Yes	Yes	Yes	100%
52.Benefits-live longer	Yes	Yes	Yes	Yes	100%
53.Benefits-brochures	No	Yes	No	Yes	50 %
54.Benefits-physically fit	Yes	Yes	Yes	Yes	100%

55.Benefits-exercise	Yes	Yes	Yes	Yes	100%
56.Benefits-mental	Yes	Yes	Yes	Yes	100%
57.Benefits-healthier	Yes	Yes	Yes	Yes	100%
58.Barriers- time	Yes	Yes	Yes	Yes	100%
59.Barriers-cost	Yes	Yes	Yes	Yes	100%
60.Barriers -time	Yes	Yes	Yes	Yes	100%
61.Barriers-embarrassing	Yes	Yes	Yes	Yes	100%
62. Barriers-diet	Yes	Yes	Yes	Yes	100%

Note. No = Not relevant; Yes = Relevant or Highly Relevant. Items 16, 19, 21, 37 and 38 were deemed Yes but needed rewording for lower educational level.

Items 5 and 10 were deleted not pertinent to purpose of study. Items 5, 10, 17, 22, 36, 41, 48 and 53 were deleted due to being 50%

APPENDIX D

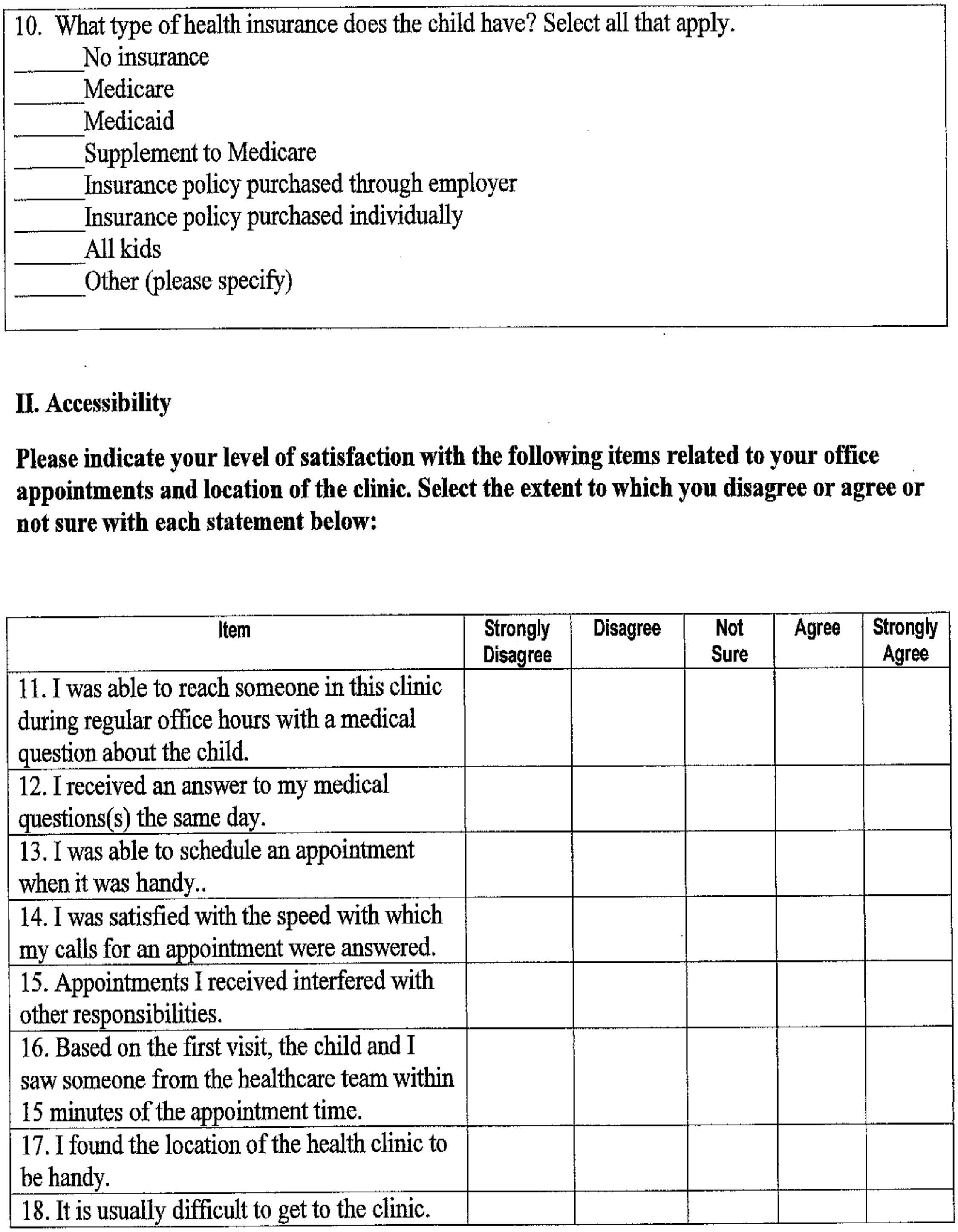
PEDIATRIC WEIGHT MANAGEMENT SURVEY

PEDIATRIC WEIGHT MANGEMENT SURVEY

Instructions: The person completing this survey must be the person (or family member) who has the right to make decisions concerning the patient's care. This questionnaire contains statements that refer to the care your child received at the Children's Center Weight Management Clinic (CCWM clinic). Answer each question by marking the box to the left of your answer. Please add comments at the end of the survey.

I. About the Child and You.

1. How are you related to the child in this clinic? _____Mother or father _____Grandparent _____Aunt or uncle _____Older brother or sister _____Other relative _____Legal guardian _____Someone else	6. What is the highest level of education you have completed? _____ No education _____ Grade School or less _____ Some high school but did not graduate _____ High school graduate or GED _____ Vocational/associate degree _____ Baccalaureate degree or higher
2. What is the child's age? ______under 2 years ______2-5 years ______6-10 years ______11-15 years ______16-18 years ______over 18 years	7. What is your race? (Select all that apply.) _____African American _____Asian American _____Caucasian _____Other (please specify)
3. Is the child male or female? _____male _____female	8. Are you male or female? _____ male _____ female
4. What is the child's race? (Select all that apply) _____African American _____Asian American _____Caucasian _____Other (please specify)	9. What is your marital status? _____Single _____Divorced _____Separated _____Married _____Widowed _____Other (please specify) ______________

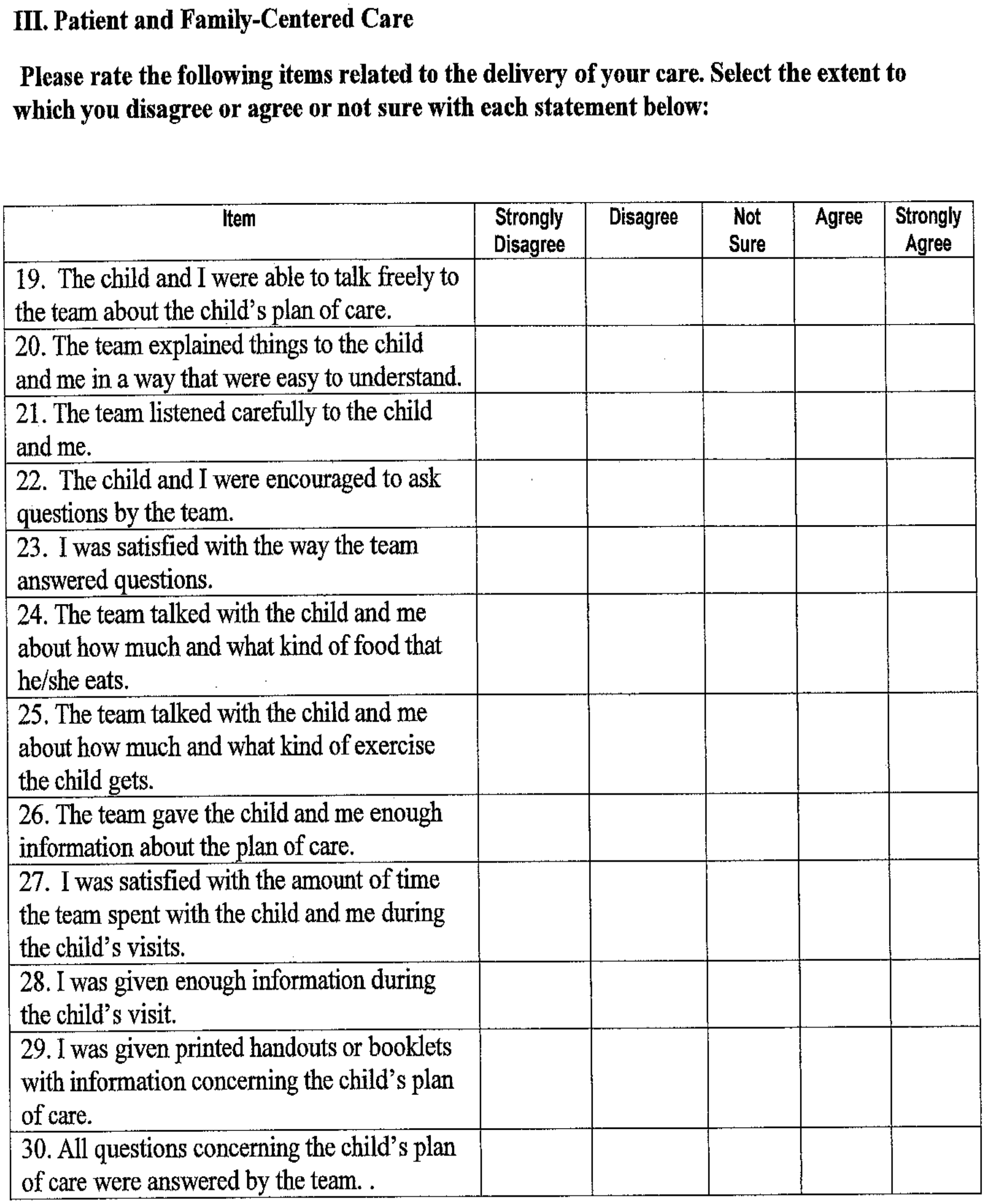


10. What type of health insurance does the child have? Select all that apply.
______No insurance
______Medicare
______Medicaid
______Supplement to Medicare
______Insurance policy purchased through employer
______Insurance policy purchased individually
______All kids
______Other (please specify)

II. Accessibility

Please indicate your level of satisfaction with the following items related to your office appointments and location of the clinic. Select the extent to which you disagree or agree or not sure with each statement below:

Item	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
11. I was able to reach someone in this clinic during regular office hours with a medical question about the child.					
12. I received an answer to my medical questions(s) the same day.					
13. I was able to schedule an appointment when it was handy..					
14. I was satisfied with the speed with which my calls for an appointment were answered.					
15. Appointments I received interfered with other responsibilities.					
16. Based on the first visit, the child and I saw someone from the healthcare team within 15 minutes of the appointment time.					
17. I found the location of the health clinic to be handy.					
18. It is usually difficult to get to the clinic.					



III. Patient and Family-Centered Care

Please rate the following items related to the delivery of your care. Select the extent to which you disagree or agree or not sure with each statement below:

Item	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
19. The child and I were able to talk freely to the team about the child's plan of care.					
20. The team explained things to the child and me in a way that were easy to understand.					
21. The team listened carefully to the child and me.					
22. The child and I were encouraged to ask questions by the team.					
23. I was satisfied with the way the team answered questions.					
24. The team talked with the child and me about how much and what kind of food that he/she eats.					
25. The team talked with the child and me about how much and what kind of exercise the child gets.					
26. The team gave the child and me enough information about the plan of care.					
27. I was satisfied with the amount of time the team spent with the child and me during the child's visits.					
28. I was given enough information during the child's visit.					
29. I was given printed handouts or booklets with information concerning the child's plan of care.					
30. All questions concerning the child's plan of care were answered by the team. .					

IV. Program Effectiveness

Please rate the following items related to the quality of care of the program. Select the extent to which you disagree, agree or if you are not sure with each statement below:

Item	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
31. I was satisfied with the expertise of the team.					
32. The team was well-informed about the child's plan of care.					
33. The team adequately explained the weight loss goals for the child.					
34. The team clearly explained ways for the child to lose weight					
35. The receptionists were helpful, courteous and respectful.					
36. The team was courteous and respectful during visits.					
37. I am satisfied with the personal concern shown by the team members to the child.					
38. I was satisfied with the assistance when completing the registration process.					
39. I am satisfied with the child's involvement in the weight management program.					
40. Based on the child's care received, I am likely to return for follow-up visits.					

V. Outcome Expectations:

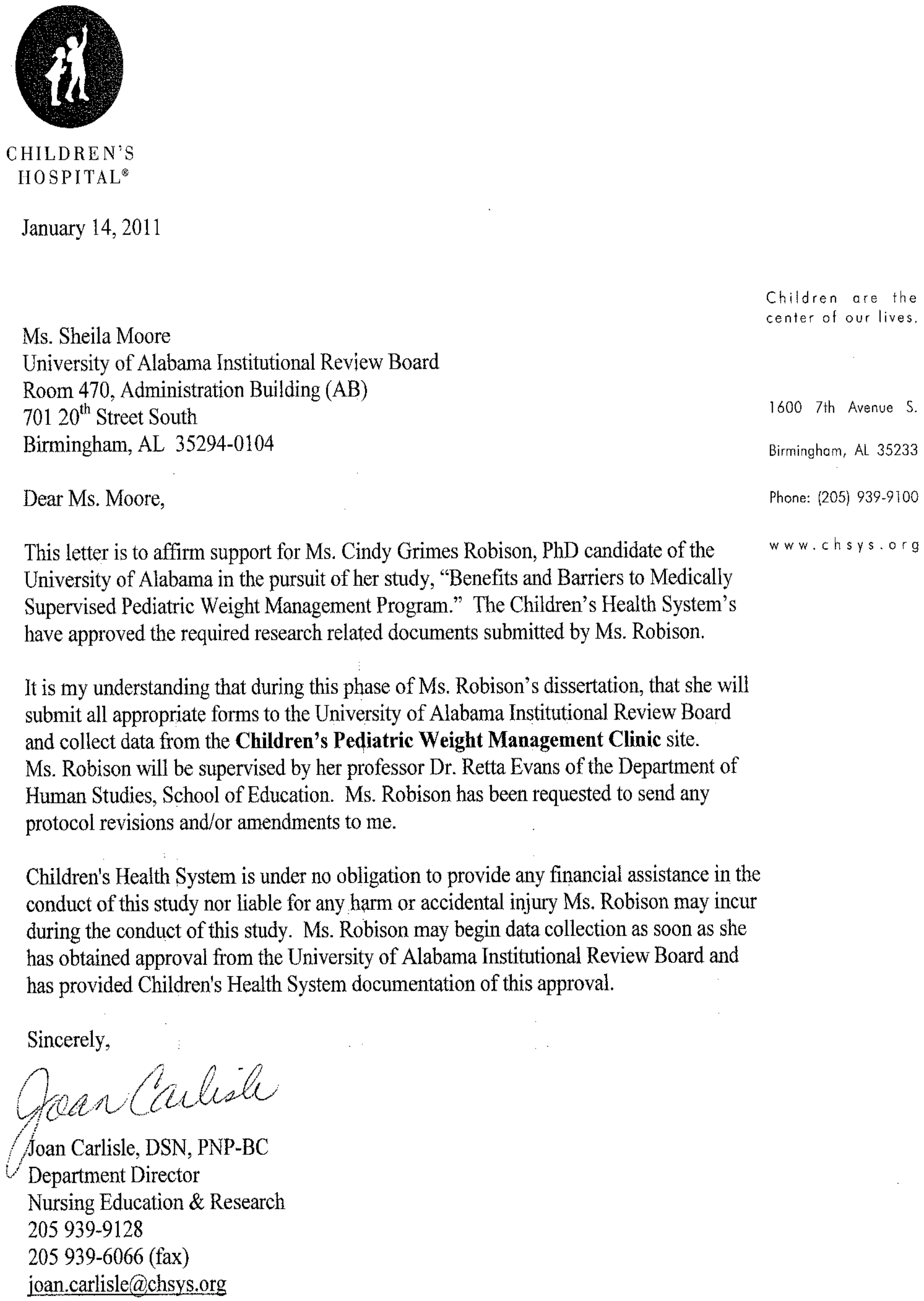
Please rate the following items related to your expectations of the program. Select the extent to which you disagree, agree or if you are not sure with each statement below:

Item	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
41. I believe the child's attendance at the weight management clinic is an effective way to lose weight.					
42. I believe if the child is evaluated by the team, it will help the child to lose weight.					
43. If the child follows the team's plan of care, it will help him/her to lose weight.					
44. If the child follows the plan of care, I believe he/she will live longer.					
45. I believe attending the weight management clinic will help the child become more physically fit.					
46. I believe increased exercise will improve how the child feels about himself/herself.					
47. I believe the child will stay healthier following a weight management program					
48. I believe being involved in the weight management program will take too much time.					
49. I am sure the weight management program will cost too much money.					
50. I believe that problems encountered with being overweight will last a long time.					
51. I believe that appointments may interfere with other obligations.					
52.. I believe that it would be hard to find transportation to the weight management clinic					
53. I believe that a weight loss program is not necessary if a chosen diet is followed.					
54. The child and I believe the exam by members of the team would be too embarrassing.					

Comments____

APPENDIX E

IRB APPROVAL



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January 14, 2011

Ms. Sheila Moore
University of Alabama Institutional Review Board
Room 470, Administration Building (AB)
701 20th Street South
Birmingham, AL 35294-0104

Dear Ms. Moore,

This letter is to affirm support for Ms. Cindy Grimes Robison, PhD candidate of the University of Alabama in the pursuit of her study, "Benefits and Barriers to Medically Supervised Pediatric Weight Management Program." The Children's Health System's have approved the required research related documents submitted by Ms. Robison.

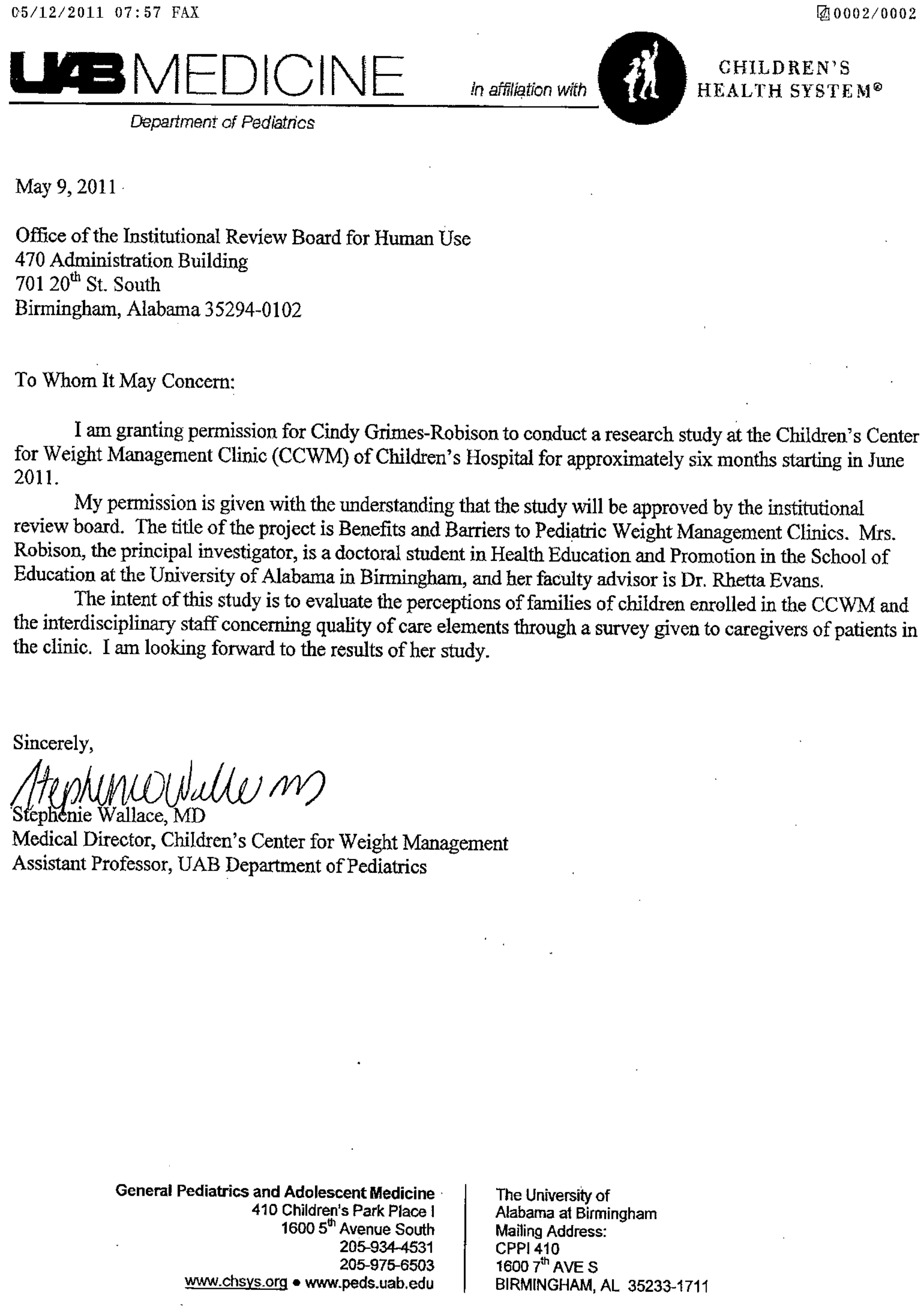
It is my understanding that during this phase of Ms. Robison's dissertation, that she will submit all appropriate forms to the University of Alabama Institutional Review Board and collect data from the **Children's Pediatric Weight Management Clinic** site. Ms. Robison will be supervised by her professor Dr. Retta Evans of the Department of Human Studies, School of Education. Ms. Robison has been requested to send any protocol revisions and/or amendments to me.

Children's Health System is under no obligation to provide any financial assistance in the conduct of this study nor liable for any harm or accidental injury Ms. Robison may incur during the conduct of this study. Ms. Robison may begin data collection as soon as she has obtained approval from the University of Alabama Institutional Review Board and has provided Children's Health System documentation of this approval.

Sincerely,

Joan Carlisle

Joan Carlisle, DSN, PNP-BC
Department Director
Nursing Education & Research
205 939-9128
205 939-6066 (fax)
joan.carlisle@chsys.org



UAB MEDICINE In affiliation with CHILDREN'S HEALTH SYSTEM®
Department of Pediatrics

May 9, 2011

Office of the Institutional Review Board for Human Use
470 Administration Building
701 20th St. South
Birmingham, Alabama 35294-0102

To Whom It May Concern:

I am granting permission for Cindy Grimes-Robison to conduct a research study at the Children's Center for Weight Management Clinic (CCWM) of Children's Hospital for approximately six months starting in June 2011.

My permission is given with the understanding that the study will be approved by the institutional review board. The title of the project is Benefits and Barriers to Pediatric Weight Management Clinics. Mrs. Robison, the principal investigator, is a doctoral student in Health Education and Promotion in the School of Education at the University of Alabama in Birmingham, and her faculty advisor is Dr. Rhetta Evans.

The intent of this study is to evaluate the perceptions of families of children enrolled in the CCWM and the interdisciplinary staff concerning quality of care elements through a survey given to caregivers of patients in the clinic. I am looking forward to the results of her study.

Sincerely,

Stephenie Wallace, MD
Medical Director, Children's Center for Weight Management
Assistant Professor, UAB Department of Pediatrics

General Pediatrics and Adolescent Medicine
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1600 5th Avenue South
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205-975-6503
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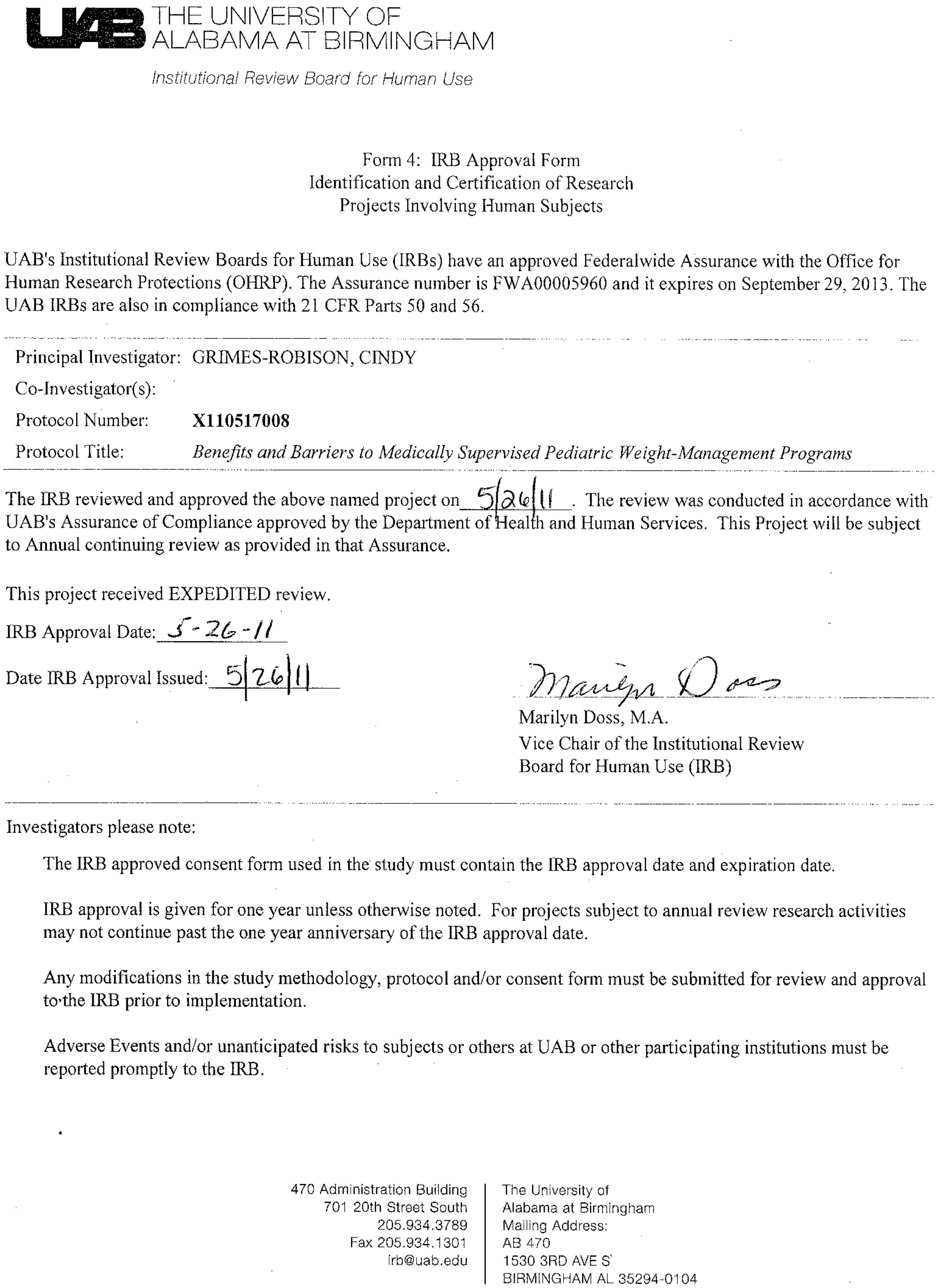

UAB THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM

Institutional Review Board for Human Use

Form 4: IRB Approval Form
Identification and Certification of Research
Projects Involving Human Subjects

UAB's Institutional Review Boards for Human Use (IRBs) have an approved Federalwide Assurance with the Office for Human Research Protections (OHRP). The Assurance number is FWA00005960 and it expires on September 29, 2013. The UAB IRBs are also in compliance with 21 CFR Parts 50 and 56.

Principal Investigator:	GRIMES-ROBISON, CINDY
Co-Investigator(s):	
Protocol Number:	**X110517008**
Protocol Title:	*Benefits and Barriers to Medically Supervised Pediatric Weight-Management Programs*

The IRB reviewed and approved the above named project on 5/26/11. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services. This Project will be subject to Annual continuing review as provided in that Assurance.

This project received EXPEDITED review.

IRB Approval Date: 5-26-11

Date IRB Approval Issued: 5/26/11

Marilyn Doss
Marilyn Doss, M.A.
Vice Chair of the Institutional Review
Board for Human Use (IRB)

Investigators please note:

The IRB approved consent form used in the study must contain the IRB approval date and expiration date.

IRB approval is given for one year unless otherwise noted. For projects subject to annual review research activities may not continue past the one year anniversary of the IRB approval date.

Any modifications in the study methodology, protocol and/or consent form must be submitted for review and approval to the IRB prior to implementation.

Adverse Events and/or unanticipated risks to subjects or others at UAB or other participating institutions must be reported promptly to the IRB.

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APPENDIX F

NURSE PRACTITIONER SCRIPT

Nurse Practitioner Script

There is a doctoral student at the University of Alabama in Birmingham here at the clinic today who is administering a satisfaction questionnaire. Would you allow her to come in and explain her study and questionnaire?

APPENDIX G

INFORMATION SHEET

Information Sheet

Protocol # X110517008

Title of Research: Benefits and barriers of pediatric weight management clinics.

Investigator: Cindy Grimes-Robison MSN, MED, FNP

Explanation of Procedures:

You are being asked to participate in this research study. The research is being conducted in support of a degree in Health Education and Promotion at the University of Alabama in Birmingham. This study is looking at family's perceptions concerning accessibility, patient centered care and program effectiveness at the Children's Center Weight Management clinic. There have been no studies to date obtaining information on all these variables in regard to pediatric weight management programs. You were selected as a potential participant in this study because you may be able to provide information regarding the views of families on elements of patient care at the Children's Weight Management clinic.

If you decide to participate, you will be asked to do the following:

- Read the information sheet.
- If you agree to participate, read the directions and complete the questionnaire regarding your perceptions of your child's care at the Children's Center Weight Management clinic.
- Place the questionnaire in the drop box at the nursing station
- If unable to complete questionnaire at the clinic, read directions and complete questionnaire then returns in the self-addressed envelope identified by code enclosed in the packet.

The questionnaire will take approximately 30 minutes to complete.

Risks and Discomforts

There exists a possibility that one or more of the questions may make you uncomfortable. Understand that if you feel uncomfortable anytime you can discontinue filling out the questionnaire with no negative consequences relating to your participation in this research.

Confidentiality

Information obtained about you for this study will be kept confidential to the extent allowed by law. However, research information that identifies you may be shared with the UAB institutional Review Board (IRB) and others who are responsible for ensuring compliance with laws and regulations related to research, including people on behalf of the Office for Human Research Protections (OHRP). The results of the survey may be published for scientific purposes; however, your identity will not be given out.

APPENDIX H

RESEARCHER'S SCRIPT

Script

Hello

My name is Cindy Robison and you recently completed a survey for the Children's Weight Management Clinic. After reviewing the records at the clinic, it was found that your child did not return for the follow-up appointment. If I can have permission, I have two questions concerning the follow-up visit.

Was there a reason your child did not return for the appointment? If so, what are some of the things that kept your child from attending the clinic? Thank you so much for your time.

APPENDIX I

COMMENTS FROM QUESTIONNAIRE

Comments from questionnaire

1. "It would be nice if appointments were more frequent than every 3 months, not necessarily to see every doctor, but to weigh and touch base with any concerns.
2. "I the father feels that the program is great, It gives the child good self-esteem about his self and motivates him to do better."
3. "The staff and doctors are sweet and nice."
4. "To whom it may concern: Me and my child love to come to the Weight Management Clinic. We love your staff and Dr.s and being told to eat the right foods. We appreciate everything you do for us, and other kids. Keep up the good work."
5. "We were looking for this type of care for 2 years. I am glad it's here and wish more child children could go to camp."
6. "Overall, the weight management program is an excellent one. The staff is knowledgeable and informative to patient s and families. My son and I travel a distance of almost two hours for each clinic visit, but the results are worth the travel. The one area of improvement is with non-scheduling information on Monday-Thursday. With this being a Friday only clinic, I have had difficulty getting information from the clinic on other days or times."
7. "Suggestion: Send friendly reminders to patients about weight loss program. Examples remember fruity vegetables per day. Remember daily exercise. ".
8. "I hope that the weight management will make my child have a healthy life."
9. I really appreciate the time the weight loss clinic staff has taken with my children-our whole family. Thanks."
10. "We are very satisfied with the weight program."

11. “My child likes to eat even if I don’t have junk food in the house. He finds a way to get it so I need a solution that will help us.”
12. “I have brought my granddaughter here so she will feel better about herself and have some confidence. I believe it takes someone outside out family to encourage her about her weight loss. Thanks.”
13. “We are completely satisfied.”
14. “The parental forms and the child forms were excessively long. We got no feedback from/about the completed forms. It would have been better if each discipline verbally asked these questions as part of the evaluation. Not all answers can be yes or no. Did not receive diagnosis at first visit. Had to get diagnosis with a later phone call. Clerical staff could not answer my billing questions and could not direct me to someone who could. One receptionist was rude (consistently) and has an “attitude” Made me feel unwelcome. Would be nice to have information videos to show while patient/families are waiting.”

APPENDIX J

PARENT NARRATIVES

Parent Narratives

Questions:

Was there a reason your child did not return for his/her last appointment? If so, what are some the things that kept your child from attending the clinic?

> "My child is now attending a nephrology clinic which has some of the things that the clinic has. I think if the clinic would weigh my child more frequently maybe every two weeks would be more beneficial. This would help reconnect weight the clinic".

> "My daughter has been in the hospital and I never rescheduled. She is not keeping up with what she was told at the clinic and performing exercises. Waste of time. She is not doing what she is supposed to do.

> "Have to get bill caught up. No enough money to get bill caught up. Wait until lab work and all the bills with the clinic are paid."

> "Just forgot about it. Been busy, sick and had a funeral in the family. Will try to reschedule.

> "Combination of cost and time. Information we received you can find on the internet. There was no sense of hands on from the staff more pictures and information that you can receive off the internet. Also, I asked numerous times over the phone and while at the clinic to give me a figure of what the program would cost. Instead, I received a bill for $700.00 which I wasn't expecting. I was clueless. Also, I was given behavior modification information by the psychologist who was not helpful and most disappointing"