Factors Influencing Healthy Lifestyle Changes: A Qualitative Look at Low-Income Families Engaged in Treatment for Overweight Children

Rochelle Cason-Wilkerson, MD,¹ Shauna Goldberg, MPH,⁴ Karen Albright, PhD,^{1–3} Mandy Allison, MD, MSPH,¹ and Matthew Haemer, MD, MPH⁴

Abstract

Background: Childhood obesity disproportionately affects low-income minority populations, yet there is a paucity of literature about effective interventions in this population. This study sought to understand the experience of low-income majority Hispanic families engaged in obesity treatment.

Methods: We conducted six focus groups (2 = English, 4 = Spanish) with families who completed a community-based, familyoriented obesity treatment program, using standard qualitative focus group interview methods. Transcripts were recorded, transcribed, and analyzed for thematic content. Two coders using the software program ATLAS.ti (v.7.0; Scientific Software Development GmbH, Berlin, Germany) coded each transcript independently; reflexive team analysis with three study team members was used to reach a consensus.

Results: Participants (n=37) indicated high program satisfaction. Parents reported buying less junk/fast food, increased consumption of fruits and vegetables, preparing and eating more meals as a family, and increasing their families' physical activity (PA). Four barrier and facilitator themes emerged. Barrier themes were time and financial cost, parent's lack of time and energy, influence of family members, and challenges regarding physical environment. Facilitator themes were skill building around healthy eating and parenting, family involvement, and long-term health concerns. Unanticipated findings, parents reported, were that changes resulted in children sleeping better, feeling happier, and less irritability.

Conclusions: Despite low-income families experiencing barriers to lifestyle changes to manage obesity, they made positive dietary changes and increased PA by learning specific skills and including the whole family in those changes. Additionally, some unexpected benefits were noted, including improved sleep, less irritability, and children appearing happier. Future studies should consider using these parent-identified outcomes as secondary measures of program effectiveness.

Introduction

hildhood obesity is an epidemic with widespread consequences, including increased risk of adult obesity and increased severity of obesity in adulthood.^{1,2} Though this epidemic has been a major focus of public health efforts, obesity rates remain high.³ Significant disparities in obesity prevalence by ethnicity affect a large proportion of American children. In 2009–2010, 21.2% of Hispanic children and adolescents were obese, compared to 14% of non-Hispanic white children.⁴ Hispanic children are also disproportionately affected by medical conditions caused by obesity, such as type 2 diabetes and fatty liver disease.⁵ In addition to increased risk associated with ethnicity, childhood obesity prevalence is higher in households with lower income.⁶ Effective, culturally relevant childhood obesity treatment could play a critical role in limiting long-term health risks in low-income minority children with disparately high prevalence and persistence of obesity.⁷

Lifestyle modification remains the most well-established type of intervention for childhood obesity, with some evidence supporting long-term efficacy.⁸ Systematic reviews

¹Children's Outcomes Research Program, The Children's Hospital, Aurora, CO.

²Colorado Health Outcomes Program, ³Colorado School of Public Health, ⁴Department of Pediatrics, University of Colorado, Anschutz Medical Campus, Aurora, CO.

and meta-analyses of effective interventions for childhood obesity have noted that effective treatment strategies have combined dietary, physical activity (PA), and behavioral components.^{2,8–11} However, current evidence for the efficacy of lifestyle modifications has been based on primarily white, middle class, mild-to-moderately obese school-aged children.⁵ In addition, effect sizes for these treatments remain modest, and long-term maintenance is challenging. Notably, the efficacy of these interventions in medically underserved or culturally diverse populations, especially those with preschool-aged children, is largely unknown.^{2,10,12} The most widely disseminated intervention in Britain, MEND, was recently found to yield inferior results for low-income and minority participants.¹³ Methods to support lifestyle changes and their efficacy for BMI reduction in low-income minority populations have not been well established, and additional studies are warranted.5

Studies of childhood obesity interventions have frequently noted issues of nonadherence to recommendations, noncompletion of therapy, and modest effect sizes.^{2,10,12} Researchers of a Cochrane systematic review concluded that qualitative research within interventions would provide critical insight into the views of participants, which may lead to more successful adherence, completion, and stronger effects of treatment.¹⁰ Understanding which lifestyle changes are feasible for participants in a childhood obesity intervention, what skills families perceive as useful, and what factors families believe facilitate healthy habits may allow more positive outcomes.

Qualitative research methods are particularly well suited to understanding an intervention's effectiveness as perceived by participants.¹⁴ There have been only minimal qualitative studies, which discuss the perspective of minority or low-income participants.^{15–17} The few qualitative studies that have incorporated low-income families with an obese or overweight child have focused on barriers to making healthy lifestyle changes.^{18,19} Yet few qualitative studies to date have identified factors that participants perceive facilitate the successful implementation of lifestyle changes. No identified studies have focused on the perspectives of low-income minority families attempting lifestyle change for their overweight or obese child. Understanding these perspectives may promote better effectiveness and less attrition in these populations. In order to address these gaps in the literature, this study aimed to understand how low-income, predominantly Hispanic, families accepted a family-based, lifestyle-change intervention and how they integrated treatment goals into daily life. The study explored perceptions of both facilitators and barriers to lifestyle changes using a qualitative approach.

Methods

Data Collection

Focus groups were conducted with parents who participated in the Healthy Living Program (HeLP), a community-based, family-oriented childhood obesity treatment program serving low-income, predominantly Hispanic, families in the Denver, Colorado, metropolitan area. Primary care providers were trained to use motivational interviewing skills to refer pediatric patients above the 85th percentile BMI to the HeLP. The entire family is invited to attend the program, which consists of 12 educational and experiential sessions, including parenting skills training, cooking classes, and nutrition and fitness education. Families set and track goals each week in these areas.

Parents who participated with their children in the HeLP were recruited to participate in focus groups if they had completed at least 2 of the 12 program sessions. Parents were contacted by telephone and given a description of the purpose and structure of the focus group. Parents who agreed to participate were offered several possible focus group dates and selected the option most convenient to them. Reminder calls were conducted 1 day before each focus group. Four focus groups were conducted in Spanish and two focus groups were conducted in English, a distribution intended to proportionally reflect the language preferences of the larger HeLP participant population. Each focus group lasted approximately 1.5 hours, was conducted by a member of the research team fluent in both Spanish and English and trained in qualitative methods, and was digitally recorded and transcribed verbatim by a professional transcriptionist. The focus group facilitator employed a semistructured guide developed by the research team and designed to elicit parents' experiences with the HeLP and identify barriers to, and facilitators of, healthy lifestyle change. Data collected in Spanish were transcribed in Spanish and then translated to English. Each focus group participant received a \$30 gift card to compensate them for their time, child care was provided, and dinner was offered during each group. The Colorado Multiple Institutional Review Board approved this study.

Data Analysis

Data were analyzed in an iterative process involving established qualitative content methods and reflexive team analysis.^{20,21} Focus group transcripts were independently read multiple times by three members of the research team in order to achieve immersion. Code categories were developed independently using an emergent, rather than a priori, approach and then compared and discussed until code agreement was achieved.²¹ Two members of the team then applied the resulting codes to the transcripts, and the third confirmed the coding. The analysts met regularly to check new findings, discuss emergent new codes and themes, and assess the preliminary results of the analysis process.²² Throughout the analytic process, the qualitative data software program ATLAS.ti (v.7.0; Scientific Software Development GmbH, Berlin, Germany) was used for data organization and management.

Results

Seventy-six families who participated in the HeLP between 2010 and 2012 were contacted to participate in this

Overall Reactions to the Healthy Living Program

One of the common themes that emerged from the focus groups was that participants stated consistently a high satisfaction with the HeLP. A parent reflected one example:

[The] kids really liked class and [when] it finished they were kind of like, "I want to go." They did not want it to be over ...

In addition, participants reported liking the relatable material, the convenient location of the classes, and that the program was free. Most of all, they liked that the program involved the entire family and encouraged family

Table I. Patient Characteristics	
Variable	Participants (n=37) (%)
Gender	
Women	35 (95)
Ethnicity	
Hispanic	28 (85)
Parents of a preschool-aged child	20 (54)
Parents of a male overweight child	18 of 33 (55)
Parents of a female overweight child	15 of 33 (45)
Parents with I minor child	3 (8)
Parents with 2 minor children	12 (32)
Parents with 3 minor children	(30)
Parents with 4 or more minor children	8 (22)
No. of children not reported	3 (8)
I adult in home	4 (11)
2 adults in home	20 (54)
3 adults in home	3 (8)
No. of adults not reported	10 (27)
Income (per month)	
<\$1900	18 (49)
\$1900-3500	7 (19)
>\$3500	2 (5)
Maternal educational attainment	
Did not complete high school	12 (32)
High school diploma	7 (19)
Some college/completed college	9 (24)
Missing data	9 (24)

activities around food and exercise. Participants reported that the lifestyle changes facilitated by the HeLP also helped their children sleep better, be less irritable, and their children seemed happier. Participants, when prompted, did have some recommendations for improvement to the program. They preferred that the classes and program be lengthened for continued learning and possibly having additional hands-on components, such as gardening, added to the curriculum. They also requested information about physical activities to engage in during winter months.

Barriers to Implementing Diet and Physical Activity Recommendations

Four main themes emerged from the analysis of transcripts regarding barriers to implementing diet and PA recommendations. These included cost, parents' lack of time and energy, influence of other family members, and challenges with physical environment.

Cost. Participants identified both financial and time costs as barriers to implementing lifestyle changes. These costs included investment in purchasing and preparing fruits and vegetables (FV):

Sometimes it seems like the healthier stuff is more expensive.

It's the preparation...getting out the grater and setting up the carrots.

You know, do you really want to go home and mess up the kitchen to cook all this stuff when you could run through [the] drive thru? It's really hard...when you are in a rush.

In addition to food-related costs, participants also identified the expense of enrolling children in organized sports as a barrier to PA. One parent relayed the fact that her child wanted to participate in a particular sport, but the cost was prohibitive.

It's really difficult. I've done some research on different places that they want, like Karate, which is a couple hundred dollars a month.

Parent's lack of time and energy. Focus group participants identified their own lack of energy and available time to be physically active with their children as a barrier to PA.

To me, my job [is a barrier to physical activity], because I work even Saturdays and Sundays, and I do not have any resting day.

Influence of other family members. Focus group participants reported family members being resistant to new, healthier foods. Some reported challenges with other caregivers providing junk food. This resistance to change among people in the home environment was noted as a barrier to implementing lifestyle changes:

[Other family members] are pretty much set in their ways...So they balk at kale, and minestrone not having potatoes in it" Why are you putting that in there? What do you use it for?"

Table 2. Healthy Living Program Curriculum	ogram Curriculum			
Parent support	Nutrition	PA/fitness	Teaching methods	Skills employed
 Build healthy home environment Family meals Rules and responsibilities at mealtime Rules and responsibilities at mealtime Gain support from family and friends Understand reasons for weight gain Overcome food neophobia Parenting skills Prarenting skills Praising, ignoring, time out, time in, chore grounding Giving effective directions Parenting as a team Plan ahead for charges in routine Foster a healthy body image 	 Involving children in the kitchen Food preparation Offer fruits and vegetables to child at every meal Shopping with children Shopping with children MyPlate Reading nutrition labels Cooking with and shopping for: whole grains, healthier fats, produce, lean proteins Healthy breakfasts, healthy snacks Healthy snacks Recipe outlines, time-saving techniques Make healthier restaurant choices 	 Reducing screen time Identify barriers to PA and solutions Stay motivated Family fitness Overcome burnout Plan for schedule changes 	 Dialog with group Self-reflection Information Skill training Role play Role play Modeling Skill building with guided practice Problem solving Social support Knowledge application Sampling new foods Grocery store tour Menu-planning activities 	 Self-monitoring Goals setting Specific Measurable Accountability Accountability Rewards Realistic Time limited Self-efficacy Skill practice Discussions with family members Parent as role model
PA, physical activity.				

[He] goes with his dad and I ask what he's had [to eat] and he had 2 sodas, French fries, chicken nuggets, pizza, and it's like, What? I look at my husband and I think, why aren't you watching him?

Another quote from a Spanish-speaking participant illustrated difficulty with healthier changes and traditional foods:

They do not fit with our traditions. Our tradition is taquito and everything fried. The "Vitamin T"...tortas, taquitos.

Physical environment. Participants' barriers to PA included lack of a safe place for PA; the concern is evident in one parent's quote below:

When I was younger, I was always outside. But now the way people are, I have to be outside with [my kids]. If I can't see them...I'll run after them. I used to walk to school [but] I'm afraid to have them walk to school...unless I'm driving behind them.

Participant's also noted difficulty with having alternative activities during the colder months:

It seems like it was easiest [to exercise outside] in spring and summer. And then once fall and winter hit, it is so hard because it gets dark sooner. It cut out our daylight. And then the kids start getting...they get real fussy and argue.

Facilitators to Implementing Diet and Physical Activity Recommendations

Four main themes emerged from the analysis of focus group transcripts regarding facilitators to implementing diet and PA recommendations. These included skill building for healthy eating, skill building for parenting, family involvement, and concerns about quality of life.

Skill building for healthy eating. Participants reported learning several important skills that led to healthy changes in the family's nutrition, such as learning to understand nutritional labels and offer appropriate portion sizes. One quote, which was illustrative of this point, came from a parent who relayed the story of an interaction in the grocery store with her 4-year-old son:

When we go to the store and he (4 year old son) sees that I'm reading...He says: "Mom, how much sugar does it have...it has a lot right? That is not right for you."

Specifically, participants also reported that new knowledge and skills facilitated buying and consuming more whole grains, as well as FV. Participants stated that they learned substitutes for higher-fat foods. Specific examples included: substituting ground turkey in place of beef; low-fat milk in place of whole milk; low-fat yogurt in place of sour cream; and olive oil in place of lard. Participants reported baking, broiling, and grilling foods rather than frying foods. They reported that these foods could have just as much taste as higher-fat foods. A parent describing her current cooking practices as a result of what she learned relayed one example of this.

... Now when we cook, we are learning about how to use the oven, [to cook] things like turkey...Now I peel the chicken, I take

all the skin [off], chop it, marinate it, and put it in the oven, [and] I do not put any oil.

Participants also stated learning how to grocery shop strategically, including (1) preplanning meals, (2) use of a list, and (3) involving children in the shopping, helped to avoid purchasing unhealthy foods. Allowing the children to choose items to be purchased increased their willingness to eat healthier foods. Some examples of how these skills were facilitators are shown in the following quotes:

If it's not on the list, we don't need it!

One of the big things for me was [learning about] shopping the outside [aisles] of the store. Stay away from all the processed foods in the store ...

One thing I have changed, instead of not bringing my kids to the store, I let them come to the store...they are allowed to pick anything in the produce section.

Skill Building for Parenting

Parents reported practicing several of the parenting skills taught during the classes in order to implement healthy lifestyle changes. These parenting skills included modeling desired behavior, setting limits around food, using positive reinforcement, increased communication, and parenting as a team. Parents made the following statements that illustrate how these skills were used:

I tell him: if you do not eat it now, you will eat it later ...

... experiencing it in the classroom and then...just talking in the car ride home, it kind of got us communicating about something we just never talk about

... the good thing is he [husband] came to some classes. Because if I had gone alone it would have been very difficult for me.

Family Involvement

Participants reported that involving family members facilitated lifestyle changes. Participants reported planning meals, cooking, and eating together as a family.

Now we got everybody chopping vegetables...We got people working now in the household.

Family member involvement also facilitated PA. After completing the program, participants reported more frequently being active as a family through walks to the park, roller skating, dancing, parking further away from stores to increase walking distance, taking the stairs, and enrolling children in organized sports. Participants discussed parent involvement as an important factor in helping their children to be active:

The children feel more motivated with mom and dad...walking, swimming, or doing a sport; they feel more motivated [with us]!

Long-term health concerns. Focus group participants identified the desire to avoid chronic diseases, such as diabetes, high cholesterol, and fatty liver disease, motivated them to implement changes. In the quotes noted below, one can begin to understand the significant concerns these families had for their children, which contributed to the motivation to make lifestyle changes. I want for my kid not to suffer in the future with illnesses that I can prevent now.

I was told that if he stayed overweight, he could get [higher] cholesterol and diabetes and all of that, I got scared. I said no. And then when I came to you guys, the Healthy Living Program, I learned a lot

Discussion and Conclusions

This study adds to the understanding of the experience of a low-income minority population engaged in a weight management intervention. The topic of how low-income families might find success in weight management has not been explored in the literature thus far. Overall, families expressed a high satisfaction with the program. Responses suggest that the practical knowledge and hands-on skill building during the intervention were well received and were used. By including the entire family and emphasizing skills to improve family functioning, the intervention achieved a high level of acceptance and supported lowincome, mostly Latino, families in overcoming barriers to healthy lifestyle change.

Both parents and children were interested in extending the length of the program. This finding is consistent with the high level of attendance—on average, 8 of 12 sessions—completed by participants. Responses suggest that participants would accept a program of longer duration or with additional maintenance contacts.

Parents in this study who participated in the familycentered, community-based childhood obesity treatment program reported barriers to making healthy eating changes similar to those reported in qualitative studies of nontreatment-seeking English-speaking parents in Australia and North Carolina, as well as English and Spanish speakers in Boston.^{16,18,19} Barriers centered around themes of financial and time costs, child food preferences, and lack of knowledge about healthy foods. A study that sampled the general parent population noted a few strategies parents perceived would facilitate healthy changes, including providing dietary information, involving the child, setting limits, supporting parents in changing shopping behaviors, and their own eating behaviors.¹⁶

This study reports, for the first time in a treatmentseeking population, low-income Hispanic parents' perceptions of the facilitators that helped them to overcome or bypass perceived barriers to healthier eating. Parents described that the family used specific skills learned during the program, such as shopping strategically, using a grocery list, reading nutrition labels, learning to cook with low-fat substitutes, eating together as a family, and using strategies to increase acceptance of healthy foods (*e.g.*, modeling and involving children in shopping and meal preparation). These skill-based solutions could be implemented without an increase in cost to the family or with potential cost savings from more-efficient shopping and less food waste.

Similar to a study of Hispanic parents not engaged in treatment, participants discussed lack of support for healthy

changes from other family members.¹⁶ Participants reported implementing strategies to increase positive parent-child interactions. Healthy changes were implemented through modeling and sharing responsibilities of shopping and cooking. The more-frequent positive interaction between parents and children may have buffered the child from the influence of less-supportive extended family. Participants were guided to set realistic goals to change habits that were directly under parent and child control and to troubleshoot external barriers. Parents reported implementing nutrition changes in a manner inclusive of the immediate family, not solely targeting the overweight child. Parents also reported increasing their involvement in modeling and facilitating PA for children. The values of family togetherness and cohesiveness, as well as parent's perceived responsibility to safeguard children's long-term health, were reflected in the parent's responses. The only other qualitative study of parents of who participated in an obesity treatment program, conducted in the UK, also identified the benefits of engaging the entire family as a key theme for successful change.²³

This sample of participants with very low income reported that lack of time and energy owing to long work hours, sometimes multiple jobs, hindered their ability to be physically active with their children. Parents also noted concerns about neighborhood safety and the cost of some organized sports as barriers to PA. Parents reported overcoming these barriers using strategies promoted during the HeLP, including parent modeling of PA, parent engagement in family-based fitness, and exploring a variety of activities available at low or no cost.

Important themes arose that may help explain the motivations of low-income families who reported achieving healthy lifestyle changes despite many barriers reported. These included health- and non-health-related motivations. Parents reported that understanding the long-term health consequences of obesity drove engagement in the program initially, fostered by primary care providers who had been trained to discuss weight-related health concerns in a brief motivational interview at well-child visits. After treatment, parents reported improved family cohesion, better sleep, improved mood, and decreased irritability in children. These secondary benefits may be important to sustaining motivation to maintain changes.

A notable strength of this study is the focus on the perspectives of low-income minority participants, who are at high risk of obesity and its complications, but in whom interventions are less well studied. Few treatment protocols have specifically targeted this demographic group. Even fewer have included families with preschool-aged children, who may have a much higher likelihood of responding to obesity treatment than older children.²⁴ The focus on a treatment-seeking population adds to the understanding of motivational factors that can facilitate healthy changes, types of behavior change strategies, and treatment goals that were well received. Our findings take a step beyond the existing literature that predominantly describes barriers to healthy change in families with obese children.

The study employed rigorous qualitative methodology with two coders coding 100% of focus group transcripts, in addition to consensus coding with a qualitative expert to ensure appropriateness of all analysis. As with most qualitative studies, the sample size is small, relative to the population of interest, so generalizability is limited. This study is also limited, as are qualitative analyses generally, by the inherent subjectivity of the analysis. While conversational encounters afford unique opportunities to understand participants' perspectives, they also involve the inevitable transmission of preconceptions, which influence how data are gathered and interpreted.²⁵ However, all efforts were made to reduce this subjectivity during the analytic process through rigorous bracketing and reflexive team analysis. Those parents that participated in the focus groups were a treatment-seeking population and, as noted previously, were among the participants who completed the program (completed at least 8 of 12 sessions). The small proportion of noncompleters of the HeLP made separate analysis of their perspectives impractical.

In conclusion, our study offers very rare insight into how low-income Hispanic families might overcome many barriers to healthy lifestyle change. Insight into the skills and strategies parents found most useful for change can inform efforts to develop effective childhood obesity treatments that may decrease obesity-related health disparities.

Acknowledgments

This work was funded by a Nutrition Training Grant from the National Institute of Diabetes and Digestive and Kidney Diseases (T32 DK 007658-19; to M.H.); The Colorado Health Foundation Grant No. 3109 (principal investigator [PI]: M.H.); the Children's Hospital Colorado Research Institute Research Scholar Award (PI: M.H.); National Institutes of Health/National Center for Research Resources Colorado CTSI Grant No. UL1 RR025780; and NRSA Primary Care Research Fellowship Grant NRSA T32HP10006 (to R.C.-W.).

Author Disclosure Statement

No competing financial interests exist.

References

- 1. Dietz W, Robinson T. Overweight children and adolescents. *N Engl J Med* 2005;352:2100–2109.
- Wifley D, Tibbs T, Van Buren D, et al. Lifestyle interventions in the treatment of childhood overweight: A meta-analytic review of randomized controlled trials. *Health Psychol* 2007;26:521–532.
- Ogden C, Carroll MD, Kit BK, et al. Prevalence of childhood and adult obesity in the United States, 2011–2012. JAMA 2014;311: 806–814.
- Ogden CL, Carroll MD, Kit BK, et al. Prevalence of obesity and trends in body mass index among US children and adolescents, 1999–2010. JAMA 2012;307:483–490.

- Caprio S, Daniels SR, Drewnowski A, et al. Influence of race, ethnicity, and culture on childhood obesity: implications for prevention and treatment. *Obesity* 2008;16:2566–2577.
- Steele RG, Janicke D. Changing times call for changing methods: Introduction to the special issue on innovative treatments and prevention programs for pediatric obesity. *J Pediatr Psychol* 2013;38:927–931.
- McCormick EV, Dickinson ML, Haemer MA, et al. What can providers learn from childhood body mass index trajectories: A study of a large, safety-net clinical population. *Acad Pediatr* 2014;14:639–645.
- Wifley D, Stein R, Saelens B, et al. Efficacy of maintenance treatment approaches for childhood overweight. *JAMA* 2007;298: 1661–1673.
- 9. Ho M, Garnett SP, Baur L, et al. Effectiveness of lifestyle interventions in child obesity: Systematic review with meta-analysis. *Pediatrics* 2012;130:e1647–e1671.
- Luttikhuis HO, Baur L, Jansen H, et al. Cochrane Review: Interventions for treating obesity in children. *Cochrane Database of Syst Rev* 2009;(1): CD001872.
- Seo DC, Sa J. A meta-analysis of psycho-behavioral obesity interventions among US multiethnic and minority adults. *Prev Med* 2008;47:573–582.
- Kitzmann K, Dalton W, Stanley C, et al. Lifestyle interventions for youth who are overweight: A meta-analytic review. *Health Pyschol* 2010;29:91–101.
- 13. Fagg J, Chadwick PM, Cole TJ, et al. From trial to population: A study of a family-based community intervention for childhood overweight implemented at scale. *Int J Obes (Lond)* 2014;38: 1343–1349.
- Stewart L, Chapple J, Hughes AR, et al. The use of behavioural change techniques in the treatment of paediatric obesity: Qualitative evaluation of parental perspectives on treatment. *J Hum Nutr Diet* 2008;21:464–473.
- Taylor SA, Garland BH, Sanchez-Fournier BE, et al. A qualitative study of the day-to-day lives of obese Mexican-American adolescent females. *Pediatrics* 2013;131:1132–1138.
- Sonneville KR, La Pelle N, Taveras EM, et al. Economic and other barriers to adopting recommendations to prevent childhood

obesity: Results of a focus group study with parents. *BMC Pediatr* 2009;9:81.

- 17. Gordon-Larsen P, Griffiths P, Bentley ME, et al. Barriers to physical activity: Qualitative data on caregiver-daughter perceptions and practices. *Am J Prev Med* 2004;27:218–223.
- Hesketh K, Waters E, Green J, et al. Healthy eating, activity and obesity prevention: A qualitative study of parent and child perceptions in Australia. *Health Promot Int* 2005;20:19–26.
- Styles J, Meier A, Sutherland L, et al. Parents' and caregivers' concern about obesity in young children. *Fam Community Health* 2007;30:279–295.
- Granheim U, Lundman B. Qualtitative content analysis in nursing education. *Nurs Educ Today* 2004;24:105–112.
- Hsieh H, Shannon S. Three approaches to qualitative content analysis. *Qual Health Res* 2005;15:1277–1288.
- 22. Charmaz K. Constructing Grounded Theory. Sage: London, 2006.
- Twiddy M, Wilson I, Bryant M, et al. Lessons learned from a family-focused weight management intervention for obese and overweight children. *Public Health Nutr* 2012;15:1310–1317.
- 24. Haemer MA, Ranade D, Baron AE, et al. A clinical model of obesity treatment is more effective in preschoolers and Spanish speaking families. *Obesity (Silver Spring)* 2013;21:1004–1012.
- 25. Tufford L, Newman P. Bracketing in qualitative research. *Qual Social Work* 2010;11:80–96.

Address correspondence to: Rochelle Cason-Wilkerson, MD University of Colorado Anschutz Medical Campus 13199 East Montview Boulevard Suite 300 Mail Stop F443 Aurora, CO 80045

E-mail: rochelle.cason-wilkerson@ucdenver.edu