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Qualitative Perspectives from African American Youth and Caregivers for Developing the Families Improving Together (FIT) for Weight Loss Intervention

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Abstract

This study obtained qualitative data from African American (AA) youth and caregiver dyads to inform the Families Improving Together (FIT) for Weight Loss Trial. Focus groups were conducted with 55 AA parent and caregiver dyads to gather perspectives on facilitators and barriers, motivators, and program preferences for health and weight loss using a socio-ecological framework. Four main themes emerged: using a positive health promotion framework for weight loss programs, social support and the role of parents in providing positive support, using a socio-ecological approach to examine factors that contribute to weight, and creating programs that are convenient, fun, and reduce barriers to participation. The findings from this study were used to develop the FIT intervention and indicate important individual, interpersonal, and environmental factors to consider when developing weight management and healthy lifestyle programs for AA families.

Keywords

Obesity; Weight loss; Family-Based; Youth; African American; Qualitative

Weight status continues to be a public health concern in African American (AA) communities. Approximately 80% of AA women and 40% of AA youth are overweight (Body Mass Index [BMI] ≥ 25 ; BMI percentile $\geq 85^{\text{th}}$, respectively) (Ogden, Carroll, Kit, & Flegal, 2014). AA women and youth also experience higher rates of obesity (BMI ≥ 30 ; BMI percentile $>95^{\text{th}}$, respectively), with 57% of AA women and 20% of AA youth classified as obese (Ogden, 2015). Further, AA women have more than twice the rate of severe obesity (BMI >40) than Caucasian women (16.4% vs. 7.4%). In addition to a higher prevalence of overweight and obesity, AA communities experience higher rates of associated chronic

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disease conditions such as cardiovascular disease and type II diabetes (Frieden, Centers for Disease, & Prevention, 2013). Effective weight management interventions adapted for AA families are needed (Kumanyika, Whitt-Glover, & Haire-Joshu, 2014).

Best practice models for family-based weight management have demonstrated that actively including parents improves youth health outcomes (Kitzman-Ulrich et al., 2010; Kitzzmann et al., 2010). However, there is little information on how these models translate to minority families, and in particular, AA families (Barr-Anderson, Adams-Wynn, DiSantis, & Kumanyika, 2013; Kumanyika et al., 2014). For example, a recent review of weight management programs for AA youth with a family component only identified 9 weight loss studies (Barr-Anderson et al., 2013). These studies had limited success with all three randomized controlled trials demonstrating null or opposite findings, 3 of 4 studies evaluating diet reported null or opposite findings, and only 3 of 7 studies targeting physical activity had a positive effect. This review concluded that no clear family component emerged and that further research was needed to determine how best to include the family in weight management programs for AA youth. Previous research has also shown that AA have lower retention rates in weight management programs, and demonstrate less weight loss and weight maintenance as compared to Caucasians (Morales et al., 2014; West, Elaine Prewitt, Bursac, & Felix, 2008; Wingo, Carson, & Ard, 2014).

Based on the pressing need to develop effective programs for AA families, several qualitative studies have been conducted. One qualitative study in AA dyads (e.g., adolescent and parent/caregiver) demonstrated that busy schedules and lack of time were significant barriers to participating in weight management programs (Burnet et al., 2011). Additionally, AA dyads have indicated that rather than focus on BMI as a health concern, they would rather focus on the functional limitations of obesity, such as difficulty tying one's shoes or playing with children, as motivation to improve health behaviors (Burnet et al., 2011). Another qualitative study that evaluated social influences on weight management in AA youth (St George & Wilson, 2012) found that both parent and peer relationships were important for developing healthy lifestyles, and that youth preferred a more authoritative parenting style (moderate control, high nurturance) in regards to support for weight management and healthy lifestyle change.

Though these qualitative studies provide some insight into the opinions of AA families, to date, only one qualitative study has extensively evaluated both caregiver and youth perspectives, and none have utilized a socio-ecological framework to inform intervention development. Considering the complex nature of obesity, evaluating different systems that influence health behaviors is essential. Further, lack of a clear model for including and targeting positive parenting components in family-based weight management programs for AA youth indicate that additional qualitative opinions from both AA youth and caregivers are needed. This study employed theories that have been identified as important predictors of health behavior change such as Social Cognitive Theory (SCT) variables including self-monitoring, social support and self-efficacy (Bandura, 2004), and Self Determination Theory that highlights motivation (Ryan & Deci, 2000). Focus groups were used to obtain qualitative data from AA adolescents and their parents/care-givers on the barriers, motivators and program preferences from a socio-ecological perspective (individual, interpersonal/

family, and community factors) to guide the development of the Families Improving Together (FIT) for Weight Loss Trial (Wilson et al., 2015).

Methods

Participants

Participants were South Carolina residents recruited through collaborations with pediatric clinics and community based organizations (e.g., churches, recreational centers, YMCA). Study staff contacted potential participants by telephone to determine eligibility prior to implementing focus group protocols. Eligibility included having an overweight AA child between the ages of 11 – 15 years with a BMI equal to or greater than the 85th percentile. Eleven focus groups were conducted at community sites with approximately 5 individuals per group that lasted between 1.0 – 1.5 hours. The study protocols were approved by The University of South Carolina’s Institutional Review Board, and informed consent and assent were obtained prior to participation from parents and adolescents, respectively.

Parents completed a phone screen and provided self-reported child height and weight to determine eligibility. Child demographics, weight measured with a digital scale, and height with a stadiometer were collected at each focus group by trained study staff. BMI percentile was calculated using Center for Disease Control growth curves. A total of 55 individuals (n=30 parent/caregivers; n=25 youth) were eligible and agreed to participate. All participants were African American, and youth were ages 11–15 years. Slightly over half of the youth participants were female (58%), with a mean age of 12.4 (SD = 1.1) years, and a mean BMI percentile of 94. Parent/caregivers were African American and primarily female (92%), with a mean age of 46.1 (SD=9.8), 53% were married, and for individuals with income data 44% had incomes between \$10,000– 29,999, and 44% had income between \$30,000 –59,999.

Focus Group Guide

Questions were developed from previous literature (see Table 1) and included probes to address systems of the socio-ecological model (e.g., individual, interpersonal, and community) (Bronfenbrenner, 1979). Social Cognitive Theory (Bandura, 2004) variables such as self-monitoring, social support and self-efficacy, and motivation from Self-Determination Theory (Ryan & Deci, 2000) were included. Although the questions were similar for youth and parents, slightly different wording was used. For example, the youth discussion guide did not use the term “overweight” or “weight loss” but instead focused on health and lifestyle behaviors to avoid a negative stigma. The discussion guides were composed of four main areas for both teen and parent groups: importance of being healthy/losing weight, facilitators and barriers to being healthy/normal weight, motivators to being healthy/losing weight, and what was desired in a health/weight loss program.

Training of Facilitators

Facilitators were graduate students in psychology and public health who participated in a 2-day training. The training included readings on the basics of qualitative research, focus group interviewing, and group dynamics. Facilitators were trained to emphasize confidentiality, encourage open, honest, and nonjudgmental responses, and for group

members to talk amongst each other in a conversational manner. Each facilitator followed a scripted protocol and used the guide to conduct each group in a similar manner. Focus groups were conducted concurrently in groups separating parents/caregivers and youth. The audio-recorded discussions lasted approximately 1.5 hours and were transcribed by an outside agency.

Data Coding and Analysis

After recorded focus groups were transcribed by an outside agency, the transcripts were checked for accuracy against the original recordings. The coding scheme was composed of “levels” of categorization of the qualitative data. An initial codebook was developed based on expected responses and outlined theoretical constructs. After an initial review of the focus group transcripts, the codebook was revised to more appropriately represent the data. As perceptions, ideas, and suggestions were identified, they were classified into categories or “themes,” which were ultimately used to summarize the data (Strauss & Corbin, 1998). Overall, themes were homogenous and indicated saturation of themes. Decision rules were developed to guide and facilitate the coding of the data by using hypothetical situations to illustrate how responses were to be coded. Coders were provided a copy of both the codebook and decision rules.

Research assistants, trained in coding essentials and decision rules, coded the transcripts using the standardized coding schemes. Coding schemes were developed using a combination of “top-down” and “bottom-up” approaches by integrating both expected and observed responses as codes (Hsieh & Shannon, 2005). This type of qualitative analysis, referred to as directed content analysis, develops codes through expected responses driven by theory and scientific literature, and observed responses from participant discussions (Hsieh & Shannon, 2005). The transcripts were coded by independent raters and inter-rater reliability estimates were calculated ($kappa\ alpha = .76$). A kappa alpha between 0.61 – 0.80 is considered substantial agreement between coders (Hallgren, 2012). Individual raters met to discuss each coding disagreement until a consensus was met regarding the final coding schemes.

Once the transcripts were coded the codes were entered into QSR NVivo for content analysis structures following standard protocols (Miles & Huberman, 1994). Themes were defined as concepts discussed by at least three different participants across at least two different focus groups. Codes were subsequently cross-referenced to each respective participant, and only one code was used per statement. Once codes were applied to all transcripts, QSR NVivo was used to extract coded participant responses. Identified themes were used to develop the FIT for Weight Loss intervention.

Results

Four main themes emerged: focus on prevention of chronic disease and overall health in weight management programs (e.g., using a positive health promotion framework), social support and the role of parents in providing positive support, using a socio-ecological approach to examine factors that contribute to weight, and creating programs that are

convenient, fun, and reduce barriers to participation. See Table 2 and 3 for youth and parent themes, respectively.

Focus on Prevention of Chronic Disease and Overall Health

Youth—Youth placed an emphasis on being healthy and avoiding disease, instead of focusing solely on weight in health promotion programs. One teen stated that being healthy involved healthy eating, "...eating a lot of nutritious stuff so your body can function properly" and being physically active. Being healthy was stated as important because, "You can have a good life, like you won't have to have diseases and stuff when you're older or now and you'll be healthy and happy." Avoiding chronic disease was also identified as a motivator for being healthy, "just wanting to be healthy and not have to like diet or lose weight and different diseases kind of. So that's like a motivation for me."

Parents—Like teens, parents also focused on health and avoiding chronic disease instead of weight status. Parents indicated that having an unhealthy weight was related to the presence of medical issues; for example, one parent stated, "it's not really to me considered overweight I guess until it starts affecting your health", and reference points such as body mass index provided by health care providers or the military. Additionally, parents stated that experiencing functional limitations in daily life was an indicator of having an unhealthy weight. As with youth, a major theme among parents about the importance of a healthy weight was to promote health and reduce chronic disease risk. One parent stated that losing weight was important "Because if you're not healthy, you can't work, you can't do anything... I've had family members die from stroke and heart disease and that kind of thing. So I try to learn from them and so, you know, take better care of my body." Parents indicated that good health and avoiding health complications such as diabetes was a motivator, "Yeah health is, is a concern for me. The older you get, the more issues you tend to have with each coming decade of, of things that if you don't take care of yourself, it affects you as you get older." Another parent felt that being in good health would allow more time with family, "I want to see my baby grow up. I got a 30 year old son, so I done seen him grow up, now I got a 14 year old, I'm gonna do another 10 and some odd years with her." Parents also discussed wanting their children to lose weight to avoid stigma associated with being overweight. "...she feels as though the kids are always teasing, you know, picking at her and saying things."

Social Support and the Role of Parents

Youth—Youth identified social support and parents as being important motivators and facilitators for being healthy. Regarding parents, one teen stated, "I think like they're your support system, like they can like help you if they can motivate you if you want to lose weight." Teens also noted the importance of having support through encouragement as motivation, "Someone to be there to encourage and motivate me." Parents were also noted as important support mechanisms to enhance motivation such as cooking less food and engaging in physical activity behaviors such as a daily walk or going to the gym. One teen stated that "Like me and my mom, we go out and we walk all the time." Additionally, youth emphasized the role of support and encouragement in health promotion programs, "you could help someone else, as well as help yourself." Youth discussed desired family activities

such as being included in purchasing healthier foods, “You know, maybe make a list with your parents about some healthier choices that you want to eat that are healthier for you.” Parents were also noted as barriers to improving health, such as, “...because my mom is a single parent and she’s raising me by herself pretty much. And she can’t always get the healthy foods because she doesn’t always have enough money to get to afford it.” Another teen stated, “Sometimes it’s difficult for the parent who works at night or a parent who gets off well at 4:30, 5:00 o’clock they still be tired, just, they want to rest.”

Parents—Parents identified themselves as playing an important role in their child’s weight. One parent stated, “...it’s the responsibility of the parents when our children are overweight.” Another parent stated, “it just takes a, a concerted effort on all of our parts and when parents don’t do it, then children fall by the wayside too.” Parents described, “Being there for them, a positive attitude” and believed that their involvement was crucial, “I know you’ve got to participate with your child to make a positive influence.” Role-modeling from parents was also discussed as a motivating factor for teens, “And they see where you’re trying to, you know, like I’m overweight, so, she said well maybe I can exercise, too, and we can walk sometimes.” Group and social interactions were also emphasized as an important program component and one participant stated, “I think all the family members should go.” Desired family activities to promote parent involvement included buying healthy groceries together, engaging in physical activity as a family, and monitoring what youth eat. Parents also discussed frustrations with parenting youth in regards to health behaviors, one parent stated “I have it there, you know, but I can’t get him, he would rather go and get that chocolate bar. And, I can only talk to myself until I faint and he’s still gonna eat what he wants to eat”.

Socio-ecological Approach to Weight and Health

Youth—Youth described socio-ecological factors as influencing weight and health. An intrapersonal factor identified was a lack of motivation or will power, “...it’s like you know that you’re doing, that you don’t need to eat that last piece of doughnut but you just have to...” Family factors, including support, role modeling, and food purchased by parents were noted by youth as ways parents can help or hinder health. The role of the school environment also emerged. Youth felt that school lunches were not appealing, “...it’s healthy, but it doesn’t taste as good, it’s like kind of nasty.” Furthermore, youth thought that vending machines should not be present in schools. Finally, youth identified the neighborhood as having a role in health. Youth noted the abundance of unhealthy food stores in their neighborhoods, “...if you look around, you see all these fast food places like Chick-Fil-A, McDonalds...” and lack of exercise equipment, “And if you don’t have it, then you’ll probably just stay in the house...”

Parents—Parents identified individual level motivators such as feeling good/being healthy, achieving personal goals, tangible rewards such as a new wardrobe, and looking good as motivating factors for achieving a healthy weight for themselves. In relation to youth, parents strongly endorsed individual level factors as contributing to weight such as dietary, physical activity, and sedentary behavioral patterns. Interpersonal factors were also discussed such as spousal support providing motivation, and peer pressure providing

motivation for teens to be healthier. Parents also raised many environmental factors that contribute to weight status. Parents shared concerns regarding safety, “children being abducted and stuff like that, you know, you just feel better knowing they’re inside”; lack of community exercise facilities for older youth, “The parks are equipped for little children for you to watch them”; affordability, “So when you start really buying and trying to eat healthy and really do right, it’s gonna cost you more”; and time constraints, “When I get home after work it’s over, I’m tired, nothing gets done.” Finally, parents also discussed schools as playing a role in child weight status, “...the lunch choices there are not great and so a lot of them don’t even bother with that, they go straight to the vending machines.”

Creating Programs that are Convenient, Fun, and Reduce Barriers to Participation

Youth—Youth desired health promotion programs that included fun activities. Some examples included wanting to play sports and be outside, learning healthy cooking skills, and using the Internet or chat rooms. Youth discussed including activities that would be fun, “like playing basketball that would be something that kids want to do” and “cooking healthier meals and recipes.” Having a program with online components also appealed to youth, “Like an online thing and it would be fun.”

Parents—Adult themes related to desired program components included convenience, activities that are fun for youth, and reducing barriers to participation. Parents stressed wanting a program that was convenient and eliminated attendance barriers such as transportation, “help with transportation is always helpful” and childcare, “childcare would be good.” A final theme from parents was to incorporate activities that were fun and hands-on. One participant stated, “finding something fun where they don’t even realize what they’re really doing, you know, whether it’s in a sport, and you’ve got to cater to what kids like and what they desire.” Suggestions for hands-on activities were practicing cooking healthy meals and a field trip.

Discussion

The purpose of this qualitative study was to gather opinions from AA parents and youth on barriers, motivators, and program preferences from an ecological perspective (individual, interpersonal/family, and community factors) that could be used to guide the development of the FIT for Weight Loss Intervention, a family-based weight management program. Four main themes were consistently observed from focus groups. The first was an emphasis on engaging youth and their parents in obesity programs by integrating a positive health promotion perspective for weight management. Both parents and youth in the focus groups emphasized the importance of health and reducing chronic diseases. Parents were also concerned with negative stigma associated with ‘overweight’ and wanted youth to feel a sense of belonging. Parents and teens also identified social support and having parents serve as role models and provide encouragement as essential for engaging youth in positive health behaviors, and as desired program elements. An additional salient theme was the importance of using a comprehensive (e.g., socio-ecological) approach to understand factors that contribute to weight status including individual level factors such as motivation and skills, family factors such as parental support and family-based activities, and community level

factors including availability of healthy choices in neighborhoods and schools. The final theme that emerged was creating programs that are convenient, help to reduce barriers to participation, and incorporate fun activities. Convenience included issues related to childcare and location, as well as having online elements.

Qualitative data from the current study suggest that parents and teens viewed weight management from the perspective of improving health and avoiding disease. This is consistent with previous research that found that AA individuals view functional limitations of weight status, such as the ability to play with children, as more important than weight itself (Burnet et al., 2011). Parents were also concerned with stigma associated with terms such as ‘obesity’ and wanted programs that were positively framed as health promotion. A study in Caucasian parents found that recruitment for weight management programs would be more successful if framed positively and did not mention ‘overweight’ or ‘obesity’ (Smith, Straker, McManus, & Fenner, 2014). These preferences were integrated into the FIT intervention by focusing on lifestyle-based approaches to improving health behaviors (e.g., small changes that are easy to incorporate and maintain). The connection between lifestyle behaviors and prevention or reduction of chronic disease was included in addition to weight loss. Based on preference, parents and youth choose goals for lifestyle behaviors (e.g., diet, physical activity, sedentary behavior) and/or weight loss (e.g., self-monitoring of calories, foods, or portions). Lastly, recruitment materials focused on improvements in health and reduction of chronic disease instead of weight loss.

Social support was identified as important for making positive changes in physical activity and diet related behaviors, and both parents and teens stated that parents in particular were important in encouraging and motivating youth. Caregivers in one study believed that parents played the most important role in contributing to child weight status (Alexander, Alfonso, & Hansen, 2015). Previous quantitative and qualitative research has also found that AA youth preferred tangible or instrumental support from parents to improve lifestyle behaviors (Siceloff, Wilson, & Van Horn, 2014; Wright, Wilson, Griffin, & Evans, 2010). Social support was targeted in the FIT intervention by creating family goals for lifestyle behaviors, group feedback in session, and brief individual family support sessions prior and following the group intervention with a FIT facilitator.

The current study extended research by St. George and Wilson (2012), by exploring perceptions of AA caregiver/youth dyads instead of youth alone on parental and family involvement in weight management or healthy lifestyle programs. Results from St. George and Wilson (2012) demonstrated that adolescents desired parental monitoring of behaviors, and an authoritative parenting approach. Both youth and parents in the current study discussed the importance of parental role modeling, engaging in healthy behaviors together, purchasing healthier foods, gathering input from youth on food purchasing, participating in physical activity and healthy eating as a family, and being a motivational support tool. Additionally, parents discussed difficulties and frustrations in parenting around healthy food choices, indicating a need for resources on parent/child communication and effective parenting strategies. The FIT intervention provides instruction and activities to facilitate positive communication and strategies for parents to provide autonomy support for teens. Authoritative parenting style, positive communication, support, and autonomy support were

included that guided parents on how to provide choice and involvement in changing youth health behaviors. Additionally, curriculum materials included family rules around health behaviors, positive communication strategies, monitoring youth behaviors, and use of concepts such as “you provide, they decide”, and “push versus pull” language.

Both parents and teens in the current study stated that changes could be made in providing healthy but appealing foods and that environmental factors such as abundance of unhealthy restaurants and food stores, lack of facilities for physical activity, and unsafe neighborhoods served as barriers to being healthy. AA adolescents have previously reported that cafeteria food served in schools is unappetizing (Christiansen, Qureshi, Schaible, Park, & Gittelsohn, 2013). Additionally, past research has also identified that environmental factors, such as neighborhood safety (Alexander et al., 2015; Burnet et al., 2011; Christiansen et al., 2013) and lack of community physical activity resources (Ries et al., 2008) are barriers to being healthy among AA adolescents. The FIT intervention included components to problem solve these barriers through individual and group activities on planning for high-risk situations and substituting healthy alternatives.

Previous research has shown that retention rates in weight loss programs are lower for African Americans than Caucasians (West et al., 2008; Wingo et al., 2014). Parents in the current study desired programs that eliminated participation barriers, such as time constraints, transportation issues, and childcare. This is consistent with other qualitative research that found these issues to be barriers for AA families (Burnet et al., 2011). Participants also desired programs that were family focused, fun and hands-on. Other qualitative research has found that AA families preferred hands on activities and active engagement during intervention sessions (Burnet et al., 2011). Teens in the current study also wanted programs that incorporated technology such as chat rooms or the Internet. To address these barriers, the FIT intervention was designed to be short and to allow flexibility for busy family schedules. Group sessions lasted 8 weeks, and the second 8 weeks of the program were completed online. Makeup sessions were also provided for families who could not attend a group session. Additionally, participants needing transportation were given bus passes and free childcare was provided for younger children during all group sessions.

To address retention, the FIT for Weight Loss Intervention incorporated interactive hands-on activities and games, parents and teens participated together, and the family was targeted to increase engagement in the program. Further, cultural prompts were included in each weekly session to increase engagement. The second portion of the FIT intervention is a culturally and individually tailored web-based intervention. The tailored nature of the online intervention and the change in delivery of the intervention from in person to online was designed to keep families engaged in the intervention. The 8-week online intervention was developed as an additive program to be conducted conveniently in the home setting (Wilson et al., 2015). Development of the online portion of the program addressed youth preferences for programs with an online component, and parent preferences related to convenience and time barriers. The online program was also unique in that it was individual tailored based on child progress and parenting skills. Each week, the parent chose one of six target health behaviors linked to an autonomy-supportive parenting strategy (e.g., energy balance and

calorie goals/active listening; fast food/reverse role play; fruits and vegetables/increasing engagement; physical activity/escape hatch, volition, choice; sedentary time/you provide, they decide; sweet drinks/push versus pull) and received culturally and individually tailored information based on their current level of autonomy-supported parenting, and child's progress in the target health behavior. Cultural tailoring involved messages based on the depth of the parent's cultural values. Specific details of the online intervention can be found elsewhere (Wilson et al., 2015; Alia et al., 2014).

Themes that emerged from this study, along with a pilot version tested in African American families (Kitzman-Ulrich et al., 2011), and previous best practice weight management interventions, guided the conceptual framework for the "Families Improving Together for Weight Loss" study that is being evaluated in a large-scale randomized trial (Wilson et al., 2015). The conceptual framework that links theoretical variables with curriculum is comprised of Social Determination Theory (SDT) (Ryan & Deci, 2000), Family Systems Theory (FST) (Broderick, 1993), and Social Cognitive Theory (SCT) (Bandura, 2004). Essential elements from each theory were integrated into the FIT intervention curriculum. SDT essential elements included communication skills such as positive communication strategies and shared decision-making; autonomy support that encourages adolescent input on choices and negotiation of rules; and motivation, which was targeted by providing choice to both parents and youth, creating a sense of belonging, and using fun interactive games during group sessions. SCT essential elements included self-monitoring of weight and lifestyle behaviors; goal setting that included how to set short and long-term goals; self-regulation skills that included problem-solving personal and environmental barriers, and self-efficacy by including practice of weight loss behaviors. Lastly, FST essential elements included parental monitoring of youth health behaviors including limit setting, social support, and positive communication skills. A detailed description of the theoretical essential elements and curriculum have previously been published (Wilson et al., 2015; Alia et al., 2014).

There are several limitations to the present study. First, this study lacks generalizability as only AA families in the Southeast were recruited for the present study. In addition, groups were not separate by sex given the small sample size of the study. Thus, future research should include a stronger focus on sex differences relative to weight management programs given that facilitators and barriers may differ based on these differences. Understanding how demographic variables such as income, education, marital status and number of children in the household influence outcomes may also provide additional insight for intervention development.

The overall goal of the FIT for Weight Loss Intervention was to develop a program that was interactive, comprehensive, engaging, and fun that would provide skills to change lifestyle and parenting behaviors, in a realistic and graduated approach, resulting in long-term and sustained changes. Utilizing a brief face-to-face group intervention provided a sense of belonging and connection to facilitators, along with the ability for group support, family support, and hands-on practice of skills. Integrating aspects such as child-care and transportation, along with correspondence and make-up capacities for missed sessions, provided flexibility and reduced barriers. Furthermore, graduating to an online program

provided novelty and convenience. Lastly, tailoring the online program provided individualized feedback related to the parent and teen's progress resulting in a more engaging program. To encourage long-term behavior change, booster sessions were developed to support parents in transitioning from the FIT program for approximately 6 months after completion.

Conclusions and Future Recommendations

Overall, the findings from this study indicate important individual, interpersonal, and environmental factors to consider when developing weight management and healthy lifestyle programs for AA families. Developing a comprehensive approach that targets multiple ecological systems and theoretical variables associated with sustained behavioral change, integrates preferences and needs of the population, and addresses barriers to participation, has the potential to provide important health promotion and prevention of chronic disease in AA families (Seo & Sa, 2010). A strength of the current study is using input from AA youth and caregivers to develop and pilot test a weight management and healthy lifestyle program for AA families. The FIT intervention also capitalizes on improving the family climate, positive communication skills, and autonomy support that many past studies have not targeted specifically and which are instrumental as adolescents transition into early adulthood. Incorporating ideas and feedback from the population of interest, and adapting delivery methods should result in greater interest, retention, and efficacy in the targeted population.

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References

- Alexander DS, Alfonso ML, Hansen AR. Childhood obesity perceptions among African American caregivers in a rural Georgia community: a mixed methods approach. *J Community Health*. 2015; 40(2):367–378. DOI: 10.1007/s10900-014-9945-4 [PubMed: 25218019]
- Alia KA, Wilson DK, McDaniel T, St George SM, Kitman-Ulrich H, Smith K, et al. Development of an innovative process evaluation approach for the Families Improving Together (FIT) for weight loss trial in African American adolescents. *Eval Program Plann*. 2014; 49C:106–116. DOI: 10.1016/j.evalprogplan.2014.12.020
- Bandura A. Health promotion by social cognitive means. *Health Educ Behav*. 2004; 31(2):143–164. DOI: 10.1177/1090198104263660 [PubMed: 15090118]
- Barr-Anderson DJ, Adams-Wynn AW, DiSantis KI, Kumanyika S. Family-focused physical activity, diet and obesity interventions in African-American girls: a systematic review. *Obes Rev*. 2013; 14(1):29–51. DOI: 10.1111/j.1467-789X.2012.01043.x
- Broderick, C. *Understanding family process: Basics of family systems theory*. Thousand Oaks, CA: Sage Publications; 1993.
- Bronfenbrenner, U. *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, MA: Harvard University Press; 1979.
- Burnet DL, Plaut AJ, Wolf SA, Huo D, Solomon MC, Dekayie G, ... Chin MH. Reach-out: a family-based diabetes prevention program for African American youth. *J Natl Med Assoc*. 2011; 103(3): 269–277. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21671531>. [PubMed: 21671531]

- Christiansen K, Qureshi F, Schaible A, Park S, Gittelsohn J. Environmental factors that impact the eating behaviors of low-income African American adolescents in Baltimore City. *J Nutr Educ Behav.* 2013; 45:652–660. [PubMed: 23916684]
- Frieden TR. Centers for Disease C and Prevention. CDC Health Disparities and Inequalities Report - United States, 2013. Foreword. *MMWR Surveill Summ.* 2013; 62(Suppl 3):1–2. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24264482>.
- Hallgren KA. Computing Inter-Rater Reliability for Observational Data: An Overview and Tutorial. *Tutor Quant Methods Psychol.* 2012; 8(1):23–34. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/22833776>. [PubMed: 22833776]
- Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res.* 2005; 15(9):1277–1288. DOI: 10.1177/1049732305276687 [PubMed: 16204405]
- Kitzman-Ulrich H, Wilson DK, St George SM, Lawman H, Segal M, Fairchild A. The integration of a family systems approach for understanding youth obesity, physical activity, and dietary programs. *Clin Child Fam Psychol Rev.* 2010; 13(3):231–253. DOI: 10.1007/s10567-010-0073-0 [PubMed: 20689989]
- Kitzman-Ulrich H, Wilson DK, St George SM, Segal M, Schneider E, Kugler K. A preliminary test of a motivational and parenting weight loss program targeting low-income and minority adolescents. *Child Obes.* 2011; 7(5):379–384.
- Kitzmann KM, Dalton WT 3rd, Stanley CM, Beech BM, Reeves TP, Buscemi J, ... Midgett EL. Lifestyle interventions for youth who are overweight: a meta-analytic review. *Health Psychol.* 2010; 29(1):91–101. DOI: 10.1037/a0017437 [PubMed: 20063940]
- Kumanyika SK, Whitt-Glover MC, Haire-Joshu D. What works for obesity prevention and treatment in black Americans? Research directions. *Obes Rev.* 2014; 15(Suppl 4):204–212. DOI: 10.1111/obr.12213 [PubMed: 25196414]
- Miles, MB.; Huberman, AM. *Qualitative data analysis: An expanded sourcebook.* Sage Publications, Inc; 1994.
- Morales KH, Kumanyika SK, Fassbender JE, Good J, Localio AR, Wadden TA. Patterns of weight change in black Americans: pooled analysis from three behavioral weight loss trials. *Obesity (Silver Spring).* 2014; 22(12):2632–2640. DOI: 10.1002/oby.20904 [PubMed: 25251464]
- Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011–2012. *JAMA.* 2014; 311(8):806–814. DOI: 10.1001/jama.2014.732 [PubMed: 24570244]
- Ries AV, Gittelsohn J, Voorhees CC, Roche KM, Clifton KJ, Astone NM. The environment and urban adolescents' use of recreational facilities for physical activity: a qualitative study. *Am J Health Promot.* 2008; 23(1):43–50. DOI: 10.4278/ajhp.07043042 [PubMed: 18785374]
- Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am Psychol.* 2000; 55(1):68–78. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11392867>. [PubMed: 11392867]
- Seo DC, Sa J. A meta-analysis of obesity interventions among U.S. minority children. *J Adolesc Health.* 2010; 46(4):309–323. DOI: 10.1016/j.jadohealth.2009.11.202 [PubMed: 20307819]
- Siceloff ER, Wilson DK, Van Horn L. A longitudinal study of the effects of instrumental and emotional social support on physical activity in underserved adolescents in the ACT trial. *Ann Behav Med.* 2014; 48(1):71–79. DOI: 10.1007/s12160-013-9571-x [PubMed: 24327135]
- Smith KL, Straker LM, McManus A, Fenner AA. Barriers and enablers for participation in healthy lifestyle programs by adolescents who are overweight: a qualitative study of the opinions of adolescents, their parents and community stakeholders. *BMC Pediatr.* 2014; 14:53.doi: 10.1186/1471-2431-14-53 [PubMed: 24552207]
- St George SM, Wilson DK. A qualitative study for understanding family and peer influences on obesity-related health behaviors in low-income African-American adolescents. *Child Obes.* 2012; 8(5):466–476. DOI: 10.1089/chi.2011.0067. DOI: 10.1089/chi.2012.0067 [PubMed: 23061501]
- Strauss, A.; Corbin, J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory, 2nd Edition.* Thousand Oaks, CA: Sage Publications; 1998.

- West DS, Elaine Prewitt T, Bursac Z, Felix HC. Weight loss of black, white, and Hispanic men and women in the Diabetes Prevention Program. *Obesity (Silver Spring)*. 2008; 16(6):1413–1420. DOI: 10.1038/oby.2008.224 [PubMed: 18421273]
- Wilson DK, Kitzman-Ulrich H, Resnicow K, Van Horn L, St George S, Siceloff E, et al. An overview of the Families Improving Together (FIT) for weight loss randomized controlled trial in African American families. *Contemp Clin Trials*. 2015; 42:145–157. DOI: 10.1016/j.cct.2015.03.009 [PubMed: 25835731]
- Wingo BC, Carson TL, Ard J. Differences in weight loss and health outcomes among African Americans and whites in multicentre trials. *Obes Rev*. 2014; 15(Suppl 4):46–61. DOI: 10.1111/obr.12212 [PubMed: 25196406]
- Wright MS, Wilson DK, Griffin S, Evans A. A qualitative study of parental modeling and social support for physical activity in underserved adolescents. *Health Educ Res*. 2010; 25(2):224–232. DOI: 10.1093/her/cyn043 [PubMed: 18703530]

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Table 1

Parent and Teen Focus Group Questions

Construct	Teen questions	Parent questions
Importance of a healthy weight	How important is being healthy to you?	How important is losing weight to you and/or your family?
Facilitators and barriers for having a healthy weight	What role does family play in your health?	What role does the neighborhood play in children being overweight?
	What role does your neighborhood play in your health?	What role does the home play in children being overweight?
	What do you think makes it difficult for teens to be healthy	How should parents be involved in their child's weight loss efforts?
Motivators for having a healthy weight	What are some things that would motivate you to become healthier?	What would motivate or energize you to lose weight?
		What would motivate or energize your adolescent to lose weight?
Elements to include in a healthy weight promotion program	What kinds of things do you think teens would like in a health program to become healthier?	If you were participating in a weight loss program, where would you like it to be held?
	Do you think teens would be willing to keep track of what they eat and their daily physical activity?	How would you like the weight loss information to be delivered (e.g., group-based setting, individually, CD Rom, telephone, handouts through the mail, video, combination)?
		What would help you continue to participate in a weekly or bi-weekly weight loss program?
		What things do you think would be helpful to include in a family based weight loss program for adolescents?

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Table 2

Child Focus Group Themes

Theme	Sub-Theme	Number of References	Number of Focus Groups	Examples
Focus on Prevention of Chronic Disease and Health	<u>Healthy Behaviors</u>	17	5	Health was considered eating healthy foods and participating in regular physical activity versus appearance or weight.
	<u>Maintain Health</u>	10	4	Having a healthy weight was important for preventing chronic disease and longevity, along with maintaining weight to engage in sports.
Social Support and Role of Parents	<u>Parental Support</u>	14	4	Parental support such as encouragement, participating in healthy activities together, providing access to physical activity and healthier foods were described as important motivators.
	<u>Social Support</u>	11	5	Social support from siblings, friends, and group settings were listed as motivators to engaging in healthy behaviors.
	<u>Parents as Role Models</u>	10	4	Parent health behaviors were important motivators for child health behaviors.
Socio-ecological approach to examine factors that contribute to weight	<u>Individual</u>	14	5	Lack of motivation, temptations of unhealthy foods, and personal responsibility for health.
	<u>Interpersonal</u>	32	5	Parents were discussed as key for monitoring child health behaviors, providing guidance on choices, providing access to healthy and unhealthy food, and lack of involvement due to work demands and fatigue. Importance of support for self-monitoring by friends, parents, or health professionals was discussed. Peer pressure to eat was also mentioned.
	<u>School</u>	18	4	School factors including availability of unhealthy foods, poor taste of healthy foods, vending machines, variability in PE and recess, and the sedentary nature of school influenced child health.
	<u>Advertisements</u>	6	4	Television and online advertisements for unhealthy foods influenced child choices.
	<u>Community</u>	19	5	Community factors such as social norms of being overweight, norms for physical activity, availability of unhealthy foods, and lack of healthy food choices and recreational opportunities influenced child health.

Table 3

Parent Focus Group Themes

Theme	Sub-Theme	Number of References	Number of Focus Groups	Examples
Focus on Prevention of Chronic Disease and Health	<u>Influence on Health</u>	8	4	Weight was considered problematic when accompanied with health issues and functional limitations.
	<u>Body measurements</u>	14	6	Weight for height, military weight standards, and body mass index charts were all discussed as indicators of being overweight.
	<u>Prevention</u>	15	6	Weight loss was important for improvement in overall health and to avoid chronic disease and increase longevity.
Role of Parents and Social Support	<u>Parenting Practices</u>	23	6	Monitoring child, purchasing healthy foods, providing incentives and rewards, autonomy support, parental involvement, and difficulty controlling child behaviors as related to child weight and health behaviors.
	<u>Parental Support</u>	21	6	Parental support including motivation, participating with child in programs, and encouragement were cited as important parent roles.
	<u>Parental Modeling</u>	10	6	Parental modeling of health behaviors, parent seen as successful in weight management efforts were considered important for child behavioral change.
Socio-ecological approach to examine factors that contribute to weight	<u>Biological</u>	5	5	Genetics, metabolism, and health problems that lead to being overweight.
	<u>Individual (Child level)</u>	32	6	Screen time, unhealthy eating, overeating, lack of physical activity behaviors lead to being overweight.
	<u>Interpersonal</u>	11	4	Focused primarily on parent-child interactions such as lack of parental involvement, role modeling, and parents purchasing unhealthy foods.
	<u>Community</u>	15	4	Community related factors that lead to overweight including safety issues, not knowing neighbors, parks not equipped for older children, cost of healthy foods, traffic, and lack of access to leisure physical activities (e.g., pool, recreational centers).