

Comparison of Parent-Only vs Family-Based Interventions for Overweight Children in Underserved Rural Settings

Outcomes From Project STORY

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Objective: To assess the effectiveness of parent-only vs family-based interventions for pediatric weight management in underserved rural settings.

Design: A 3-arm randomized controlled clinical trial.

Setting: All sessions were conducted at Cooperative Extension Service offices in underserved rural counties.

Participants: Ninety-three overweight or obese children (8-14 years old) and their parent(s).

Intervention: Families were randomized to (1) a behavioral family-based intervention, (2) a behavioral parent-only intervention, or (3) a wait-list control group.

Outcome Measure: The primary outcome measure was change in children's standardized body mass index (BMI).

Results: Seventy-one children completed posttreatment (month 4) and follow-up (month 10) assessments. At the month 4 assessment, children in the parent-only intervention demonstrated a greater decrease in BMI

z score (mean difference [MD], 0.127; 95% confidence interval [CI], 0.027 to 0.226) than children in the control condition. No significant difference was found between the family-based intervention and the control condition (MD, 0.065; 95% CI, -0.027 to 0.158). At month 10 follow-up, children in the parent-only and family-based intervention groups demonstrated greater decreases in BMI z score from before treatment compared with those in the control group (MD, 0.115; 95% CI, 0.003 to 0.220; and MD, 0.136; 95% CI, 0.018 to 0.254, respectively). No difference was found in weight status change between the parent-only and family-based interventions at either assessment.

Conclusions: A parent-only intervention may be a viable and effective alternative to family-based treatment of childhood overweight. Cooperative Extension Service offices have the potential to serve as effective venues for the dissemination of obesity-related health promotion programs.

Arch Pediatr Adolesc Med. 2008;162(12):1119-1125

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FAMILIES FROM RURAL AREAS represent one of the largest medically underserved populations in the country.¹ Rural counties have higher rates of poverty,² greater percentages of patients with chronic diseases,³ and distinct activity-related design features^{4,5} relative to nonrural areas. These factors make adopting healthier lifestyles more challenging for families in rural communities.⁶ Not surprisingly, children from rural communities have higher rates of obesity than their nonrural counterparts.⁷⁻⁹

The development of effective interventions for childhood obesity represents a critical public health objective,^{10,11} especially in underserved settings. Behavioral, family-based (FB), group interven-

tions that include both the child and parent have demonstrated success in producing weight loss in children.^{12,13} Alternatively, recent studies^{14,15} suggest that working only with the parent(s) may lead to greater decreases in weight status for overweight children than interventions that include both

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children and parents. To our knowledge, only 1 study¹⁵ has published data comparing FB and parent-only (PO) interventions, with the PO intervention demonstrating a greater decrease in percentage of overweight in children relative to the FB intervention. Exclusively targeting parents in weight management programs for

children in rural settings may hold advantages over FB interventions, including the use of fewer resources (eg, number of interventionists, space, materials) to conduct interventions.

Most pediatric weight management trials have consisted of efficacy studies conducted with middle-class participants and delivered in “optimal” (ie, academic research) venues rather than “real-world” community settings. Despite their methodologic strengths, efficacy studies^{16,17} are limited in their ability to estimate the treatment effects that can be expected in community settings. Unfortunately, few generalizable, effective, and sustainable weight management interventions have been translated into practice and, to our knowledge, no published randomized clinical trials address weight management for children in rural settings.¹⁸

Venues for establishing health promotion programs for families in rural areas are limited. One option is the Cooperative Extension Service (CES) network. Nationally, the CES is a partnership among the US Department of Agriculture, land-grant universities, and local governments and provides services to residents in virtually every county in the United States. Youth programs delivered at CES offices include nutrition education,^{19,20} gardening, livestock and farming activities, and outdoor activities. The CES network offers a unique setting in that it provides the infrastructure and stature within rural communities to support preventive services for families. The primary objective of this study is to evaluate the effects of a behavioral FB intervention and a behavioral PO intervention delivered through rural CES offices on children’s weight status.

METHODS

PARTICIPANTS

The protocol for the study was approved by the governing institutional review board. Participants were 93 children and their parent(s) from 4 rural counties designated in whole or in part as health professional shortage areas.²¹ Children were between the ages of 8 and 14 years, with a body mass index (BMI) (calculated as weight in kilograms divided by height in meters squared) above the 85th percentile for age and sex. There was no requirement for parental weight. Children and adults were required to obtain physician approval to participate in the study. For families that were not able to access a physician, we arranged for an appointment with a physician at no cost. Families were excluded if the child or parent had a medical condition that contraindicated mild energy restriction or moderate physical activity, were using prescription weight loss drugs, or were enrolled in another weight loss program.

OUTCOME MEASURES

Height and weight were assessed for the child and parent. Height without shoes was measured to the nearest 0.1 cm using a Harpendon stadiometer (Holtain Ltd, Crosswell, United Kingdom). Weight was measured to the nearest 0.1 kg with 1 layer of clothing on and without shoes using a calibrated balance beam scale. Height and weight were measured 3 times, and the average of each was used for analysis. The Youth/Adolescent Food Frequency Questionnaire²² was used to assess the child’s dietary intake during the preceding month.

PROCEDURES

Participant Recruitment

Families were recruited through direct mailings, distribution of brochures through local schools, and community presentations. The intervention was promoted as a healthy lifestyle program to help establish effective weight management strategies for children and families. Interested parents were invited to call our office toll-free to learn about the study, complete a telephone screen, and schedule an in-person screening visit. At the in-person screening, children and their parent(s) completed consent forms and had their height and weight measured. Families who met eligibility criteria were scheduled for baseline assessment.

Assessments

All assessment and intervention sessions took place at the CES office in participating counties. Baseline assessments were held 2 weeks before the start of the intervention. Children and parents were again measured for height and weight and completed the Youth/Adolescent Food Frequency Questionnaire. At this visit, families were notified of their randomization to 1 of 2 lifestyle intervention programs that lasted for 4 months or a wait-list control (WLC) condition. All families completed posttreatment assessment (month 4) within 2 weeks after the completion of the intervention programs and then a follow-up assessment 10 months after the start of treatment. Families received \$50 as compensation for completing each assessment.

Randomization

The PO and FB interventions were held on different weeknights in each county. During the initial telephone screen, families were informed as to which 2 evenings the group intervention sessions would be held in their county. Families then indicated which of these evenings they were available to attend groups. Before the baseline assessment, all families were randomized via computer assignment, based on availability, to 1 of the 2 specific weeknights or the WLC condition. After randomization of all families, the interventions (PO or FB) were assigned randomly to the specific weeknights. Families were notified of their group assignment at pretreatment assessment.

As it turned out, a greater portion of the families who did not attend the baseline assessment session and were never aware of their treatment assignment had been assigned to the WLC condition. In addition, 3 families notified of their assignment to the WLC condition at the baseline assessment visit did not accept randomization and thus did not complete the baseline assessment. These refusals and no-shows led to fewer families participating in the WLC condition.

Participant flow throughout the study is presented in **Figure 1**. Overall, 93 children accepted randomization. Of these, 71 child-parent dyads completed baseline, month 4, and month 10 assessments. Sixty-five parents participated in the program; 58 were women. Only 3 families had both parents regularly attend sessions and complete pretreatment and posttreatment (month 4) assessments. When 2 siblings from a family participated, they were both assigned to the same condition based on the assignment of the younger sibling. Because 7 families had 2 siblings in the program, a total of 64 families participated in the program.

INTERVENTION

Interventionists

Interventions were delivered by Family and Consumer Sciences (FCS) agents in collaboration with a postdoctoral psy-

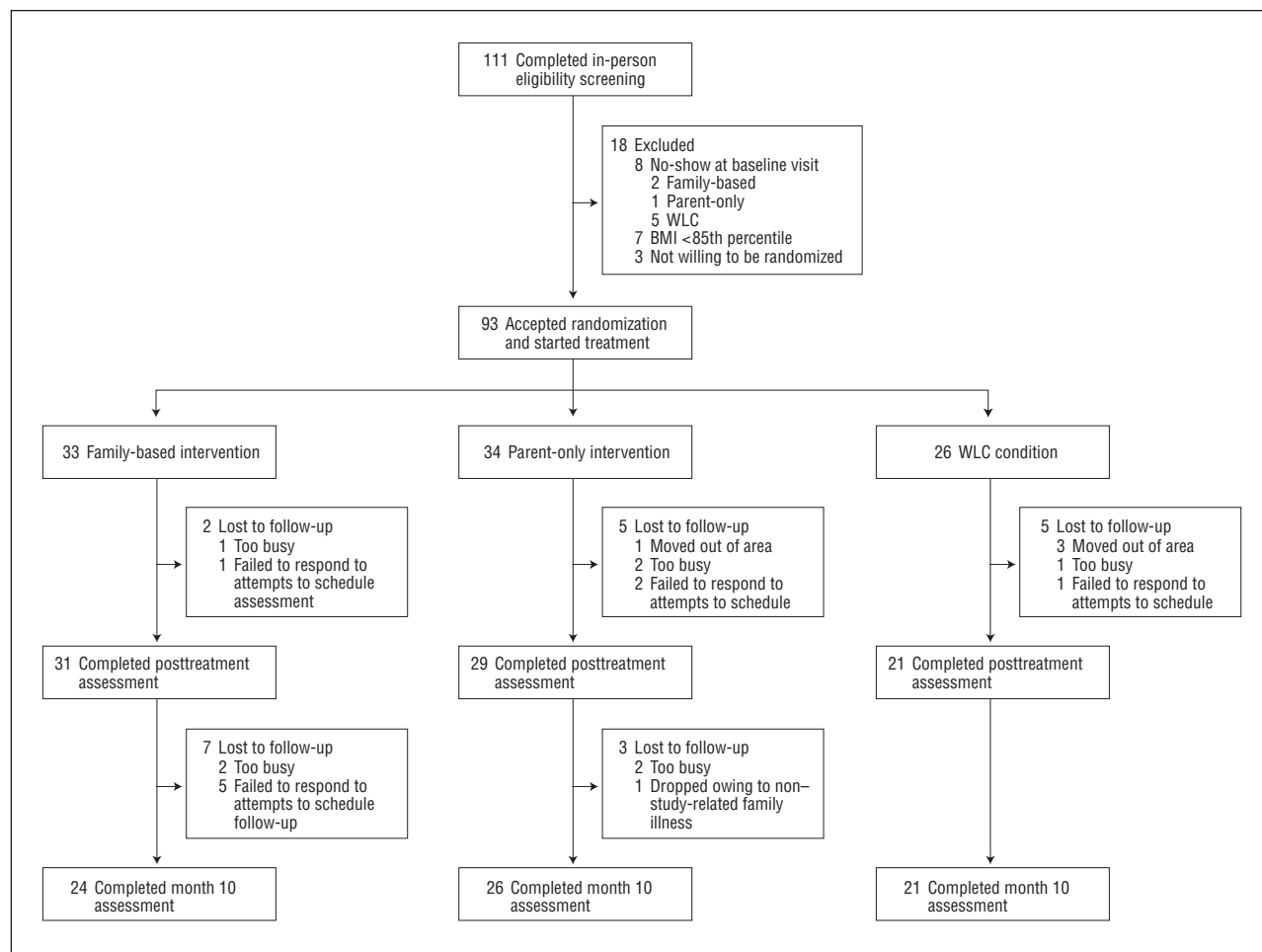


Figure 1. Screening, assessment, and intervention participation in Project STORY. BMI indicates body mass index, and WLC, wait-list control.

chologist (B.J.S.) and graduate students in clinical psychology. The FCS agents have a bachelor's or master's degree, often with a concentration in nutrition, and are commonly employed by the CES to deliver nutrition education programs. All interventionists received 2 full days of training before the intervention and 6 hours of booster training midway through the intervention. Fifteen individuals were trained as interventionists; 6 were FCS agents. Although we originally planned for 50% of interventionists to be FCS agents, 1 of these agents withdrew because of health problems. Interventionists participated in weekly supervision meetings with the principal investigator (D.M.J.). Each primary group leader led both the PO and FB intervention in each county. The FCS agents were always paired with either the postdoctoral psychologist or a psychology graduate student.

General Intervention

For both intervention conditions, weekly group sessions were held for the first 8 weeks, then biweekly for the next 8 weeks. Sessions lasted 90 minutes. Changes in dietary habits were addressed via a modified version of the Stoplight Diet.²³ Child and parent participants in both treatment conditions were asked to monitor everything they ate but were not required to record caloric intake. Families had the option of using abbreviated monitoring forms after the first 4 weeks or earlier if needed. Families and group leaders worked together to set daily dietary goals at the end of each group session, which included limiting the consumption of high-fat/high-sugar foods (ie, "red foods") and increasing fruit and vegetable intake. Children and

adults were encouraged to eat a well-balanced diet based on the food guide pyramid. Increased physical activity was promoted through a pedometer-based step program. Families were provided with pedometers. Children and parents were encouraged to monitor their physical activity and gradually increase their daily steps. New goals were systematically introduced throughout the program. Self-monitoring and goal setting were individualized to the participants' progress and preferences. More information on the intervention structure and specific behavioral strategies used is provided in a previously published article.²⁴ Treatment manuals were developed for this project.

FB Intervention

Parent and child dyads participated in simultaneous but separate groups. In the parent group, the first portion of the meeting involved a review of the progress made in implementing the strategies developed for changing their eating and exercise habits. Difficulties reported by the parents were addressed through group support and discussion. The second segment focused on knowledge and skill training related to nutrition, physical activity, and behavior management strategies. At the end of each session, children and parents were brought together to develop goals for the week and specific plans to achieve these goals. The child group sessions included 3 segments: (1) a review of progress during the previous week, (2) a physical activity to demonstrate strategies to keep active, and (3) preparation of a healthy snack. Children and parents were weighed in private at alternating group sessions.

Table 1. Demographic and Baseline Weight Status Information

Characteristic	Family-Based Condition	Parent-Only Condition	Wait-List Control Condition
No. completing all 3 assessments	24	26	21
Mean age of child, y	11.4	11.0	11.0
<11 Years old, %	25	43	43
Boys/girls, No.	9/15	14/12	5/16
Mean age of parent, y	40.4	41.0	45.0
Two-parent households, %	79.2	84.6	66.7
Child race, %			
White	66.7	80.8	80.9
African American	12.5	3.8	14.3
Hispanic	16.7	3.8	4.8
Biracial	4.2	11.5	0
Annual family income, %			
≤\$19 999	16.6	19.2	19.1
\$20 000–59 999	45.8	46.1	61.9
≥\$60 000	29.2	34.6	19.1
Child BMI z score	2.160	2.015	2.133
Parent BMI	32.86	35.47	35.66

Abbreviation: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared).

PO Intervention

Only the participating parent(s) attended group meetings. Each session included 3 segments, similar to the parent group for the FB intervention. An emphasis was placed on teaching parents how to work with their children to set goals. Each week interventionists suggested a range of dietary and physical activity targets that would be appropriate for each child and parent. Parents were encouraged to meet with their children to set individual goals within the suggested range. Parents were weighed every other week. Children were only weighed at baseline, posttreatment (month 4), and follow-up (month 10) assessments.

WLC Condition

Families assigned to the WLC condition completed assessments on the same schedule as those in the intervention conditions and received a weight management intervention after the final follow-up.

DATA ANALYSIS

Analysis was completed on all participants who completed month 4 and month 10 follow-up assessments, with no exclusions based on attendance. Analysis of covariance (ANCOVA), with corresponding baseline values entered as covariates, was used to assess changes in weight status and caloric intake across conditions. When the omnibus ANCOVA was significant, planned comparisons were used to examine differences between the 2 active interventions relative to the WLC condition. Analyses were conducted using a commercially available software program (SPSS 15.0; SPSS Inc, Chicago, Illinois).

POWER ANALYSIS

Post hoc power analyses were used to determine the detectable change in BMI z score from 0 to 10 months for the FB and PO interventions relative to the WLC condition. Effect sizes detectable with 80% power and 2-sided level .05 tests were used. Standard deviations and sample sizes were set equal to their ob-

Table 2. Outcome Data by Treatment Condition

Outcome	Family-Based Condition	Parent-Only Condition	Wait-List Control Condition
Child BMI z score, mean (SD)			
Month 0	2.133 (0.43)	2.160 (0.35)	2.015 (0.41)
Month 4	2.055 (0.52)	2.021 (0.47)	2.003 (0.48)
ΔMonth 0-4	-0.078 (0.16) ^a	-0.139 (0.19)	-0.012 (0.15)
Month 10	2.018 (0.53)	2.069 (0.44)	2.037 (0.48)
ΔMonth 0-10	-0.115 (0.22) ^a	-0.091 (0.20) ^a	0.022 (0.17)
Child energy intake, mean (SD), kcal/d			
Month 0	2311 (807)	2256 (641)	2259 (1321)
Month 4	1818 (696) ^b	1840 (703) ^b	1891 (1026) ^b
ΔMonth 0-4	493 (828)	416 (686)	368 (639)
Month 10	1921 (899) ^b	1815 (669) ^b	1861 (823)
ΔMonth 0-10	390 (784)	441 (663)	398 (910)
Parent BMI, mean (SD)			
Month 0	32.86 (6.8)	35.47 (8.2)	35.66 (9.3)
Month 4	32.12 (6.7)	34.53 (7.9)	34.93 (9.0)
ΔMonth 0-4	-0.74 (1.0)	-0.94 (1.6)	-0.73 (2.6)
Month 10	33.07 (6.9)	34.90 (8.0)	35.11 (9.6)
ΔMonth 0-10	21 (1.5)	-0.57 (2.4)	-0.55 (3.6)

Abbreviation: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared).

^aStatistically significantly different compared with the wait-list control condition at $P < .05$ (between-group difference).

^bStatistically significantly different compared with the pretreatment energy intake at $P < .05$ (within-group difference).

served values. For comparing the FB and WLC conditions, we had 80% power to detect a shift from 0.022 to -0.145. For comparing the PO and WLC conditions, we had 80% power to detect a shift from 0.022 to -0.135.

RESULTS

Baseline demographic and weight status data are given in **Table 1**. No statistically significant differences were found between conditions on these variables. Comparison of baseline variables between families who completed all assessments relative to those who did not revealed that children who failed to complete assessments were younger (10.0 vs 11.1 years, $P = .01$) and had a higher BMI z score (2.45 vs 2.11, $P = .001$). Participants in the PO condition attended, on average, 74% of the sessions compared with 63% in the FB condition ($t = 1.27$, $P = .20$). Weight status and caloric data across assessments are given in **Table 2**.

WEIGHT STATUS CHANGE FROM PRETREATMENT TO POSTTREATMENT ASSESSMENT

Omnibus ANCOVA examining change in child BMI z score from pretreatment to posttreatment assessment (month 4) was statistically significant for treatment condition ($F_{2,67} = 4.48$, $P = .02$). Planned comparisons demonstrated that the PO intervention exhibited a greater decrease in mean BMI z score relative to the WLC condition (mean difference [MD], 0.127; 95% confidence interval [CI], 0.027 to 0.226). No significant difference was seen between the FB and WLC groups (MD, 0.065; 95% CI, -0.027 to 0.158;

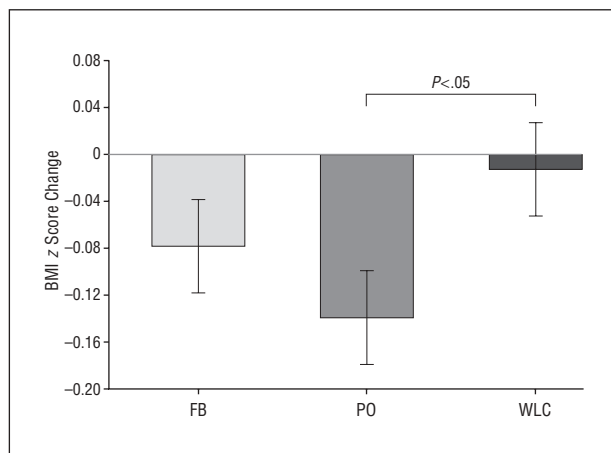


Figure 2. Mean change in child body mass index (BMI) z score from pretreatment to posttreatment (month 4). BMI is calculated as weight in kilograms divided by height in meters squared. FB indicates family based; PO, parent only; and WLC, wait-list control. Error bars indicate SD.

$P = .16$). The independent-sample t test found that there was no significant difference between the PO and FB conditions (MD, 0.061; 95% CI, -0.039 to 0.162; $P = .23$) in BMI z score change. **Figure 2** displays the mean change in BMI z score from pretreatment to posttreatment assessment (month 4) across the 3 conditions.

WEIGHT STATUS CHANGE FROM PRETREATMENT ASSESSMENT TO MONTH 10 FOLLOW-UP

Omnibus ANCOVA examining change in child BMI z score from pretreatment assessment to follow-up was statistically significant for treatment condition ($F_{2,67} = 3.343$, $P = .04$). Planned comparisons demonstrated that the PO (MD, 0.115, 95% CI, 0.003 to 0.220; $P = .04$) and FB (0.136; 0.018 to 0.254; $P = .03$) interventions showed significantly greater improvement in mean weight status relative to the WLC condition. Children in the PO intervention showed an overall mean (SE) decrease of 0.090 (0.039) BMI z score unit, whereas children in the FB condition exhibited an overall mean decrease in BMI z score of 0.115 (0.046) unit. No statistically significant difference was seen in BMI z score change between the PO and FB conditions ($P = .68$).

Figure 3 displays the mean change in BMI z score from pretreatment assessment to month 10 follow-up across each of the 3 conditions.

PARENTAL BMI

No significant differences were found in parental BMI change score at month 4 ($P = .93$) or month 10 ($P = .17$) assessment across any of the treatment conditions. Change in parental BMI was not correlated with change in child weight status at month 4 or month 10 assessment.

CALORIC INTAKE

ANCOVAs examining change in child caloric intake across condition from pretreatment to posttreatment (month 4) assessment ($F_{2,67} = 0.15$, $P = .86$) and pretreatment to follow-up ($F_{2,67} = 0.09$, $P = .91$) were not statisti-

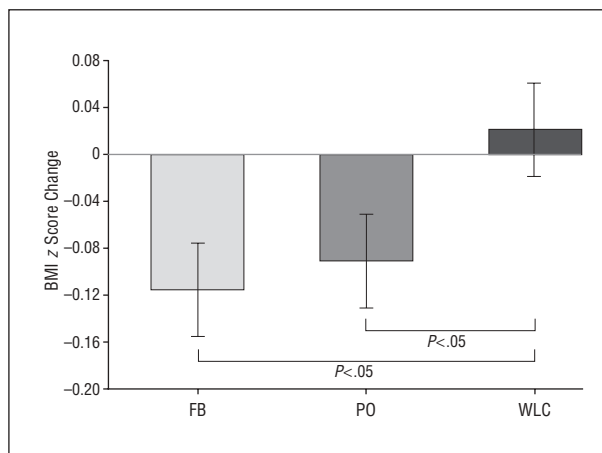


Figure 3. Change in child body mass index (BMI) z score from pretreatment to follow-up (month 10). BMI is calculated as weight in kilograms divided by height in meters squared. FB indicates family based; PO, parent only; and WLC, wait-list control. Error bars indicate SD.

cally significant. Exploratory analyses using paired sample t tests to examine within-group changes at posttreatment assessment (month 4) found that the FB ($t = 2.333$, $P = .01$), PO ($t = 3.090$, $P = .005$), and WLC ($t = 2.574$, $P = .02$) conditions reported statistically significant decreases in mean caloric intake. However, only the FB ($t = 2.789$, $P = .03$) and PO ($t = 3.395$, $P = .002$) conditions showed statistically significant within-group decreases in caloric intake from baseline to follow-up (Table 2).

PARTICIPANT SATISFACTION

Independent-sample t tests found no statistically significant differences between the PO and FB interventions in parent-reported "satisfaction with changes in child lifestyle habits" ($t_{1,43} = 0.676$, $P = .50$) and "overall program satisfaction" ($t_{1,43} = 0.470$, $P = .64$). In the FB condition, 91% of parents responded yes when asked if they would join the program again; 9% responded maybe. In the PO condition, 88% of parents responded yes; 12% responded maybe.

In response to the statement, "Overall, this was a good program," 85% of the children in the FB condition responded "really true," 12% responded "sort of true," and 3% responded "sort of not true." Children assigned to the PO condition were not asked this question.

COMMENT

A number of published efficacy studies^{12,25,26} describe the positive outcomes associated with pediatric weight management programs delivered in university-based settings. However, little attention has been paid to the translation and dissemination of these interventions, particularly to underserved populations.²⁷ To our knowledge, this is the first randomized clinical trial examining the effectiveness of a weight management intervention delivered in a real-world, community-based setting for families in underserved rural communities.

The results of this feasibility study are promising. At posttreatment assessment (month 4), children assigned to

the PO intervention exhibited a mean decrease in BMI z score that was close to double the mean change observed among children in the FB condition. However, at month 10 follow-up assessment, the PO and FB interventions demonstrated improvement in weight status compared with the control group. Thus, both interventions showed evidence of at least partial maintenance of treatment effects, with children in the FB intervention displaying further improvements in weight status after termination of treatment contact, whereas there was a slight waning of treatment gains by children in the PO intervention.

Although the sample size was too small to allow us to detect the moderating effect of age on weight status outcomes, post hoc inspection of weight status was conducted to assess change by age. For children younger than 11 years, those in the PO intervention experienced an approximately 50% greater decrease in weight status at follow-up relative to those in the FB intervention (BMI z score decrease of 0.093 and 0.061, respectively). However, the opposite was observed for children 11 years and older. Children in the FB intervention experienced an approximately 50% greater decrease in weight status relative to those in the PO intervention (BMI z score decrease of 0.132 and 0.088, respectively). This finding suggests that older children may experience greater benefit from an FB intervention. Older children may be better able to use the skills taught and experiences obtained by participating in treatment. Future research is needed to confirm these findings.

The results of the present study differ somewhat from those reported in the only other published study comparing PO and FB treatments. Golan et al¹⁵ reported that a PO intervention led to greater decreases in child weight status than an FB intervention at posttreatment assessment and 12-month follow-up. In contrast, our data showed similar weight status change from baseline to follow-up for children in the FB and PO conditions. One potential reason for the difference in results is that both interventions in the study by Golan et al did not include the use of daily self-monitoring and goal setting, whereas our interventions included both of these behavioral strategies. Data from the National Weight Control Registry²⁸ and intervention studies with overweight adults²⁹ and children^{12,13,30} have shown that self-monitoring and goal setting are key self-regulatory tools that are critical components of efficacious weight management interventions. Moreover, the FB intervention in the study by Golan et al included the parent and child in the same group, whereas our study incorporated separate but simultaneous groups for the child and parent, which is consistent with the model used in the study by Epstein et al.¹³ Thus, the FB intervention in the study by Golan et al¹² did not represent the standard of care in behavioral FB interventions. Another limitation of the study by Golan et al was the lack of a no-treatment control condition. The inclusion of the control condition allowed us to demonstrate the effectiveness of the PO and FB interventions at follow-up.

Several limitations of the present study must be noted. First, the clinical significance of these findings is unclear. Kirk and colleagues³¹ have reported that a 0.15 BMI z score unit decrease was associated with significant improvements in lipids and insulin levels for obese children. In our study, approximately 38% of children in the

FB condition and 31% of children in the PO condition demonstrated a decrease of at least 0.15 BMI z score unit at follow-up compared with only 5% in the control condition. Second, this study did not include objective or criterion standard measures of physical activity and dietary intake, which limits our ability to draw inferences about the effect of these interventions on specific lifestyle behaviors. Third, we did not obtain program satisfaction data from children assigned to the PO condition. Fourth, the median income of families in the study, although lower than national averages, was higher than that commonly seen in rural communities. Finally, the parents in the present study did not experience significant decreases in weight status, which contrasts with previous FB efficacy trials.^{12,13} One potential explanation is that not all parents in the present study were overweight. In addition, parents in the present study did not monitor their caloric intake, which is a key strategy associated with successful adult weight loss.^{13,28}

Despite these limitations, these data suggest that a PO intervention represents a potentially viable alternative to the FB intervention model. There are a number of possible benefits to including only parents in treatment groups. The first possible benefit is that the parent may be forced to take greater responsibility for learning and explaining strategies to adopt healthier lifestyle habits, as well as implementing those changes in the family environment.¹⁵ Second, attending weight management interventions may be stigmatizing for some children, thereby diminishing their motivation for active participation and increasing their resistance to healthy lifestyle changes.¹⁴ Third, PO sessions may be easier for parents to attend. Finally, PO interventions may allow parents more time for problem solving and receiving support from other parents. Indeed, many parents in this condition reported that groups were their time for a "break from the family."

Findings from this study have potential implications for community-based treatment of overweight youth. Implementation of PO interventions will likely require fewer personnel and material resources than FB interventions, a consideration that is critical for communities with limited resources. Furthermore, families living in rural settings often have limited access to medical and preventive health services. The CES offers an established network of non-medical facilities that exist in almost every county in the United States. Thus, there is great potential for dissemination of this intervention across the country.

The next logical step in this line of research is to examine whether the benefits of PO and FB interventions delivered in rural settings through CES offices can be maintained for a longer follow-up period. Furthermore, it will be critical to assess whether the addition of maintenance sessions can enhance long-term outcomes in community settings, as has been demonstrated in a recent efficacy trial by Wilfley and colleagues.³² Studies examining alternative strategies for delivering extended services (eg, via telephone rather than face to face) may be particularly relevant for families in rural settings where distance represents a significant barrier to face-to-face treatment.³³ Assessment of physiologic outcomes, such as measures of blood lipid concentrations and glycemic control,³⁴ will be helpful in establishing the clinical signifi-

cance of these interventions in community settings. It also will be important to examine the relative cost-effectiveness of these 2 interventions. Finally, ascertaining the most effective strategy for training FCS agents as group leaders will be important. Our experience has been that after coleading a group, CES personnel can function successfully as independent group leaders. However, initial collaboration between university-based team members and CES personnel will be helpful in facilitating ownership of the specific program components.

As the prevalence of childhood obesity increases, the translation and dissemination of effective health interventions to diverse community settings are critical. This is especially relevant for populations at increased risk for obesity, such as residents of rural communities. Results of this study suggest that the CES network is a feasible and potentially effective venue for the dissemination of health promotion programs for families. These results also suggest that a PO intervention may be a viable alternative to FB intervention models in promoting weight loss in overweight children.

Accepted for Publication: March 18, 2008.

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Author Contributions: Dr Janicke had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. *Study concept and design:* Janicke, Sallinen, Perri, Lutes, and Silverstein. *Acquisition of data:* Janicke and Huerta. *Analysis and interpretation of data:* Janicke, Sallinen, Perri, and Brumback. *Drafting of the manuscript:* Janicke, Huerta, and Brumback. *Critical revision of the manuscript for important intellectual content:* Janicke, Sallinen, Perri, Lutes, and Silverstein. *Statistical analysis:* Brumback. *Obtained funding:* Janicke, Perri, and Silverstein. *Administrative, technical, and material support:* Janicke, Sallinen, Perri, and Lutes. *Study supervision:* Janicke, Sallinen, and Huerta. **Financial Disclosure:** None reported.

Funding/Support: The study was supported by grant R34 DK071555-01 from the National Institute for Diabetes and Digestive and Kidney Diseases. Additional supplemental funding for the preliminary pilot work for this study was supplied by the Institute for Child and Adolescent Research and Evaluation at the University of Florida.

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