Parents as Agents of Change: Examining Parental Shifts Through a Family-Centered Intervention to Improve Child Nutrition and Physical Activity

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Introduction Obesity is common and challenging to treat. Low-income families face additional relevant financial, transportation and social-support barriers. Few studies have examined how family-oriented childhood obesity interventions affect the health behaviors of parents who participate in these interventions.

Methods We conducted a pilot single-group clinical trial: six biweekly group sessions and Fitbits distributed to parent-child dyads. Subjects included 6-12 year old overweight/obese patients of a low-income pediatric clinic, and their parents. Group sessions were co-moderated by a rotating parent participant and medical student and included a discussion of barriers and successes to healthy eating and hands-on activities. Parents reported their daily fruit/vegetable servings and screen time via electronic surveys, and stress, social-connectedness, and mental health information on pre-post validated questionnaires. Statistical process control methods (run charts, using probability-based rules for interpretation) were used to detect pre-post changes in fruit/vegetable consumption and screen time, and Wilcoxon signed rank test for paired differences in daily steps, stress, depression, and social-connectedness.

Hypothesis We expected high satisfaction with group sessions among participants; our target for attendance was 4 of 6 sessions. We expected a pre-post improvement in parental variables studied as an additional benefit to the original study's target aim to improve children's nutrition and physical activity habits.

Results 12 parents participated; 11 had complete data for analysis. On average, participants attended 5 out of 6 sessions (83%). Satisfaction was also high (4.84 out of possible score of 5). Over the three-month intervention, parents reported consuming significantly more fruits and vegetables daily and spending fewer hours on screens. Although not statistically significant, we observed a decrease in group-level pre-post depression and BMI (median pre: 44.7, post: 43.6) and an increase in total number of daily steps. There were no statistically significant changes in any other parental variables measured.

Conclusions Evening group sessions were acceptable and enjoyable, and highly attended without financial incentives for attendance. We saw improvements in parental diet and screen time in this minimal intensity, child-focused intervention. Future work will test this intervention in a larger cohort and seek to understand for whom this type of intervention will be most beneficial.

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