Published in final edited form as:

JAMA Pediatr. 2017 August 07; 171(8): e171325. doi:10.1001/jamapediatrics.2017.1325.

Comparative Effectiveness of Clinical-Community Childhood Obesity Interventions: The Connect for Health Randomized Controlled Trial

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Abstract

Importance: Novel approaches to care delivery that leverage clinical and community resources could improve body mass index and family-centered outcomes.

Objective: To examine the extent to which two clinical-community interventions improved child BMI z-score and health-related quality of life, and parental resource empowerment.

Design: Two-arm, blinded, randomized controlled trial conducted from 6/2014 through 3/2016 with measures at baseline and 1 year after randomization.

Participants: 721 children ages 2–12 years with BMI 85th percentile from six primary care practices in Massachusetts.

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Conflicts of Interest: The authors have no conflicts of interest relevant to this article to disclose.

Disclaimer:

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Interventions: Children were randomized to one of two arms: (1) enhanced primary care, e.g. flagging of children with BMI $\geq 85^{\text{th}}$ percentile, clinical decision support tools for pediatric weight management, parent educational materials, a Neighborhood Resource Guide, and monthly text messages or (2) enhanced primary care *plus* contextually-tailored, individual health coaching (twice-weekly text messages and telephone or video contacts every other month) to support behavior change and linkage of families to neighborhood resources.

Main Outcomes: 1-year changes in age- and sex-specific BMI z-score, child health-related quality of life measured by the PedsQL-4.0, and parental resource empowerment.

Results: At 1 year, we obtained BMI z-scores from 664 children (92%) and family-centered outcomes from 657 parents (91%). Baseline mean (SD) age was 8.0 (3.0) years; 35% were white, 33.3% black, 21.8% Hispanic, and 9.9% other. In the enhanced primary care group, adjusted mean (SD) BMI z-score was 1.91 (0.56) at baseline and 1.85 (0.58) at 1 year; an improvement of -0.06 BMI z-score units (95% CI: $-0.10, -0.02$) from baseline to 1 year. In the enhanced primary care + coaching group, adjusted mean (SD) BMI z-score was 1.87 (0.56) at baseline and 1.79 (0.58) at 1 year; an improvement of -0.09 BMI z-score units (95% CI: $-0.13, -0.05$). However, there was no significant difference between the two intervention arms ($p=0.39$). Both intervention arms led to improved parental resource empowerment. Parents in the enhanced primary care + coaching group, but not in the enhanced care alone group, reported improvements in their child's health-related quality of life (1.53 units; 95% CI: 0.51, 2.56). However, there were no significant differences between the intervention arms in either family-centered outcome.

Conclusions: Two interventions that included a package of high-quality clinical care for obesity and linkages to community resources resulted in improved family-centered outcomes for childhood obesity and improvements in child BMI.

BACKGROUND

Childhood overweight and obesity place a significant burden on morbidity and quality of life. In the United States, the prevalence of childhood overweight and obesity appears to have plateaued and may even be decreasing among 2- to 5-year old children as of 2012.¹ Yet, overall prevalence remains at historically high levels.^{2,3} Clinical interventions to reduce obesity have been somewhat effective but are often limited in their effectiveness due to the myriad social and environmental barriers that impede improvement in obesity-related behaviors.^{4,5}

An important, but often overlooked aspect of interventions to improve obesity is the careful consideration of the socio-environmental context in which decisions related to health behaviors are being made, and in which behavior change is expected to occur. Neighborhood socioeconomic characteristics and environmental resources can significantly influence health behaviors and may contribute to childhood obesity in vulnerable populations.⁶⁻¹⁰ Sophisticated geographic information systems methods and community mapping can provide community-level data on environmental resources and this information can assist in developing a tailored clinical-community intervention that could be adapted to an individual's environment and needs.

Another underused approach to obesity management is to identify innovative strategies from ‘positive outliers’. Positive outliers are defined as individuals who have succeeded where many others have not, to change their health behaviors, reduce their body mass index, and develop resilience in the context of adverse built and social environments.^{11,12} The premise of the positive outlier approach is that solutions to problems that face a community often exist among certain individuals within that community, and that these successful members possess strategies that can be generalized and promoted to improve the outcomes of others in the same community. Such individuals could help guide intervention development for other families in their same neighborhoods who have struggled with behavior change.

We designed the *Connect for Health* trial to leverage clinical and community resources to improve obesity and family-centered outcomes. The intervention was built upon practices of positive outlier families as well as strategies recommended by a diverse group of stakeholders representing parents, children, pediatricians, and community members.^{13,14} In this report, we summarize the main outcomes of *Connect for Health*.

METHODS

Study Overview

Connect for Health was conducted in 6 pediatric practices of Harvard Vanguard Medical Associates (HVMA), a multi-specialty group practice in Massachusetts. The study design, eligibility and recruitment have been previously described.¹⁵ We randomly assigned patients to one of 2 arms: (1) enhanced primary care or (2) enhanced primary care *plus* contextually-tailored, individual health coaching. The enhanced primary care group served as the control arm even though these patients received some intervention previously incorporated into standard practice at HVMA. The primary outcomes included improvements in child BMI z-score and family-centered outcomes. Study activities were approved by the Partners Health Care Institutional Review Board. The trial has been recorded in clinicaltrials.gov.

Eligibility and Recruitment

Eligibility included: 1) child age 2.0–12.9 years old, 2) BMI ≥ 85th percentile, and 3) family not planning to leave HVMA within the study time frame. Recruitment occurred from June 2014 to March 2015; data collection ended March 2016. At visits with a child whose BMI was ≥ 85th percentile, clinicians received an alert in the electronic health record (EHR) with a link to refer the patient to the study. After receiving the referral, research assistants called parents to establish eligibility, obtain verbal consent, and complete a telephone survey. We then randomized participants and mailed an enrollment letter.

Randomization

We randomized participants using 6 separate randomization lists, one for each practice. We organized the lists into blocks of 4 to maintain balance between the two study arms and participants were randomized according to the order in which their consent was obtained. The lists were generated by the study biostatistician (EJO) and maintained by the study project manager (CH).

Intervention

All pediatric clinicians received a computerized, clinical decision support (CDS) alert during primary care visits identifying children with a BMI ≥ 85th percentile, and two additional CDS tools to assist in management of children with overweight or obesity.^{15–17} Clinicians also gave parents a set of evidence-supported educational materials focusing on specified behavioral targets to support self-guided behavior change.¹⁷ The materials focused primarily on decreases in screen time and sugar-sweetened beverages; improving diet quality; increases in moderate and vigorous physical activity; and improvement in sleep duration and quality. Based on our qualitative work with positive outlier families and feedback from our Parent and Youth Advisory Board, we also developed materials to promote social-emotional wellness.

Enhanced Primary Care (Control)—Participants randomized to the enhanced primary care group were exposed to the clinical best practices described above. In addition, participants received monthly text messages that contained links to publically-available resources to support behavior change, e.g. links to the *Let's Move!* program.¹⁸ Participants also received a Neighborhood Resource Guide listing places that support healthy living in their community.

Enhanced Primary Care + Coaching—In the enhanced primary care + coaching arm, families received individualized health coaching tailored to their socio-environmental context. Four trained health coaches contacted families every other month for 1 year using telephone, videoconference (using Vido®), or in-person visits, according to parent preference. These contacts were approximately 15–20-minutes. Details of the coaching training and quality assurance have been previously described.¹⁵ Families also received twice-weekly text messages or emails,¹⁹ and mailings following each coaching session with educational materials to support families' behavior change goals.

Health coaches used a motivational interviewing style of counseling and shared decision-making techniques^{20,21} to provide family-centered care in addressing childhood obesity risk factors and management. At each contact, health coaches used an online community resource map developed for the study²² to identify resources within each family's community that could support behavior change. In addition, health coaches offered families a 1-month free family membership to area YMCAs to encourage physical activity and community connections. Families were also invited to attend a healthy grocery shopping program led by Cooking Matters®. To engage parents and children in setting behavior change goals, health coaches used a behavior change decision aid tool, developed by our study team that helped families identify outcomes that mattered most to them and potential motivators for engaging in behavior change.

Outcome Measures

We obtained height and weight from children's EHR at baseline and at 1-year. In routine practice standardized across all sites, medical assistants measured children's weight, without shoes, using electronic, calibrated scales, and height using a stadiometer. The primary outcome of age- and sex-specific BMI z-score was calculated on the basis of the 2000 CDC

growth charts. In addition as a secondary outcome, we used CDC-defined cutoffs to categorize BMI as normal ($\leq$ 5th percentile, $<$ 85th percentile); overweight ($\geq$ 85th percentile, $<$ 95th percentile); obesity (95th percentile to $<$ 120% of the 95th percentile); and severe obesity ($\geq$ 120% of the 95th percentile)^{1,23}

Parent-reported outcomes were assessed using telephone surveys at baseline and at 1-year. Parents reported their child's health-related quality of life using the four subscales of the PedsQL-4.0.^{24,25} We also assessed parental resource empowerment using the child weight management subscale of the Parent Resource Empowerment Scale.²⁵ The five items in the scale assessed parents' perceived knowledge of, ability to access, comfort accessing, knowledge of finding, and ability to acquire resources related to child weight management. Response options were: strongly disagree, disagree, agree, or strongly agree, worth 1 to 4 points, respectively. Items were averaged to create a summary score (range= 1–4). Cronbach's α was 0.87.²⁶

Other Measures—Using surveys at baseline, we obtained child's race/ethnicity, parent's educational attainment and height and weight, and annual household income. At 1-year, we assessed the feasibility of the study and parents' acceptance of and satisfaction with the intervention components. To assess unintended consequences we also asked parents if their participation in the program affected their satisfaction with their child's health care services. To investigate prior trends in child BMI, we also obtained children's height and weight 1 year prior to the baseline study visit (pre-baseline) from the EHR.

Statistical Analysis

Distributions of participant characteristics across the 2 study arms were analyzed using t-test and chi-square tests and were found to be balanced at baseline. We performed multiple imputation using chained equations to impute missing outcomes for the 57 out of 721 subjects (8%) who did not have BMI outcomes at 1 year follow up. In intent-to-treat analyses, we assessed the effect of the interventions on BMI z-score, PedsQL-4.0 summary score, and the parent resource empowerment score using linear mixed effects repeated measure models to account for clustering within participant over time. Participant baseline and 1 year measures were used as the outcome variables. Random intercepts were included in the models to account for correlation over time. The primary predictors were fixed effects for the intervention arm, time, and the time-by-intervention interaction term which determined whether there was greater improvement in the enhanced primary care + coaching group than the enhanced primary care group. Analogous ordinal logistic repeated measures models were used to model the effect of the intervention on the odds of being in a lower BMI category at follow-up compared to baseline. All models included indicator variables for clinical site. All models were implemented using SAS, version 9.4 (SAS Institute, Cary NC).

RESULTS

Baseline Characteristics

Clinicians referred 1752 children; we attempted to contact the parents of 1545 children to assess eligibility. We enrolled 721 children; 361 were randomized to the enhanced primary care group and 360 were assigned to the enhanced primary care + coaching group (**Figure 1**). During the intervention period, one participant disenrolled from the enhanced primary care + coaching arm, citing insufficient time for the study activities. At 1 year, we obtained BMI from 664 children (92.0%) and surveys from 667 parents (92.5%). **Table 1** shows the characteristics of the study sample. Baseline mean (SD) age was 8.0 (3.0) years; 35.0% were white, 33.3% black, 21.8% Hispanic, and 9.9% other; 45.4% lived in households with annual incomes < \$50,000.

Body Mass Index Outcomes

Table 2 shows participants' adjusted changes in BMI z-score and in being in a lower BMI category from baseline to 1-year follow-up. In the enhanced primary care group, adjusted mean (SD) BMI z-score was 1.91 (0.56) at baseline and 1.85 (0.58) at 1 year; an improvement of -0.06 BMI z-score units (95% CI: $-0.10, -0.02$). In the enhanced primary care + coaching group, adjusted mean (SD) BMI z-score was 1.87 (0.56) at baseline and 1.79 (0.58) at 1 year; an improvement of -0.09 BMI z-score units (95% CI: $-0.13, -0.05$). Although we observed slightly more improvement in BMI z-score among the enhanced primary care + coaching group, there was no statistically significant difference between the two intervention arms (-0.02 units; $p=0.39$). These results reflect multiply-imputed data for children with missing 1-year follow up visits.

At 1-year, we found that 9.3% of children in the enhanced primary group and 11.6% of children in the enhanced primary care + coaching group no longer had a BMI in the overweight or obese range. Overall, we observed higher odds of being in a lower BMI category than they were at baseline in both the enhanced primary care group (OR: 1.18; 95% CI: 1.03, 1.35) and the enhanced primary care + coaching group (1.23; 95% CI: 1.08, 1.40).

We conducted post hoc analyses to examine whether our observations of improved BMI z-score in both intervention arms could be explained by an underlying temporal trend towards improvement. This was not the case. Among 560 children with BMI z-scores available 1-year prior to baseline (pre-baseline), at baseline, and at 1-year follow up, we found that BMI z-score was *increasing* in the year prior to enrollment in the enhanced primary care group (0.23 units; 95% CI: 0.18, 0.29) and the enhanced primary care + coaching group (0.16 units; 95% CI: 0.11, 0.22) and then *decreased* in both groups in the year following enrollment (**Figure 2**).

Family-Centered Outcomes

Table 3 shows changes in participants' health-related quality of life and parental resource empowerment during the intervention. Parents in the enhanced primary care + coaching group (1.53 units; 95% CI: 0.51, 2.56), but not in the enhanced care alone group (0.65 units; 95% CI: $-0.38, 1.67$), reported significant improvements in their child's health-related

quality of life. Parental resource empowerment increased in both intervention arms (**Table 3**). However, there were no statistically significant differences in either outcome between the two intervention arms.

Intervention Feasibility, Acceptability, and Unintended Consequences

Among participants in the enhanced primary care group, 91% of parents reported they received the study text messages and 53% were satisfied with their content. Approximately 60% reported receiving the Neighborhood Resource Guide and of those, 66% reported being very satisfied with its content.

For the enhanced primary care + coaching group, 100% of participants reported receiving the study text messages and 72% were very satisfied with their content. Among the 360 participants in the enhanced primary care + coaching group, 65% completed all 6 visits with a health coach; 96% reported receiving neighborhood resource information and 76% were very satisfied with the information. 81 parents (23%) reported joining their local YMCA and 64 parents (18%) reported attending one of the Cooking Matters workshops.

Overall, 48% of participants in the enhanced primary care arm and 63% of participants in the enhanced primary care + health coaching arm reported that participation in *Connect for Health* increased their satisfaction with their child's health care services. Only 7 (1.1%) participants reported their participation in the program decreased their satisfaction with their child's health care services and there were no differences across study arms.

DISCUSSION

In this randomized trial we found that two interventions that delivered enhanced primary care and leveraged clinical and community resources for childhood obesity support resulted in modest improvements in child BMI z-score and greater resolution of elevated BMIs. However, while the magnitude of reduction in BMI z-score was higher in the intervention group that additionally received interactive, contextually-tailored health coaching, the difference compared to the group who were only exposed to enhanced care alone was not statistically significant. Both interventions led to improved family-centered outcomes. However, there were no statistically significant differences in either family-centered outcome between the two intervention groups. Overall, the intervention components were feasible to deliver, acceptable to parents, and did not have adverse effects on parent's perceptions of their child's health care services.

The *Connect for Health* study was designed with the hypothesis that the intervention group receiving both enhanced primary care and health coaching tailored to children's community resources and social context would be more effective than the group receiving enhanced primary care alone. Yet, our findings did not support this hypothesis and there are several potential reasons. First, the enhanced primary care group was not a typical "usual care" control group. The practices where we delivered the study had already made several updates to their EHR to include clinical decision support tools and to provide families with educational materials for self-guided behavior change support. It would have been unethical to undo these practice changes once they were already established and after evidence

supported their effectiveness in improving child BMI.¹⁷ Second, based on feedback from our Parent and Youth Advisory Board, we made the decision to add content on social and emotional wellness to existing parent educational materials and to provide passive information in the form of a booklet on neighborhood resources. Both of these enhancements could have further strengthened the effects of the control group on improving BMI. Third, it is possible that the number of contacts, frequency, or content of the health coaching provided in the enhanced primary care + coaching group was insufficient to produce greater effects than the enhanced primary care group alone.

While our findings did not support the original hypothesis of a greater intervention effect among the group that was individually coached, our findings do suggest that both intervention groups experienced improved BMI. Without a traditional control group our results could be attributed to temporal trends or regression to the mean. Post-hoc analyses of BMI changes prior to and after enrollment in the trial suggest, however, that the temporal trend was for BMI z-score to continue increasing after enrollment. Thus, our results are unlikely due to secular trends but regression towards the mean may still be a possibility.

The magnitudes of effect on BMI z-score in our study, e.g. -0.06 to -0.09 units, are similar and only modestly higher than those previously summarized (-0.04 units) in a meta-analysis of brief interventions in primary care.²⁷ While these magnitudes of effect interrupted the increasing BMI trends in our population, questions remain about their clinical significance. There is currently a lack of direct evidence for any specific threshold for clinical significance.²⁸ An expert panel has suggested that a BMI z-score reduction of 0.20 units is associated with clinically significant improvement.²⁹ Other studies suggest that changes of 0.15 BMI z-score units led to more healthful cardio-metabolic profiles.²⁸ As suggested by a recent evidence review of childhood obesity management, regardless of what the threshold of clinical significance will be determined to be, simply arresting gain in excess BMI likely constitutes a clinically important benefit for many children.²⁸

In addition to BMI, we examined family-centered outcomes of importance to parents and children. We found that parent-reported, child health-related quality of life improved by 1.53 units among the enhanced primary care + coaching group and appeared to be driven by large improvements in the psychosocial score of the PedsQL; comparably higher than previous pediatric obesity trials.²⁷ These effects were not greater than the enhanced primary care group. These findings suggest that the educational content delivered in both intervention arms related to social and emotional wellness including content on stress reduction, positive thinking, and bullying may have driven the observed improvements in child quality of life. Both interventions also improved parents' perception of empowerment related to their child's weight management – a novel, family-centered measure that has been shown to drive changes in food-, physical activity, and screen-related parenting among parents of children with obesity.^{30,31}

As in any study, this one is subject to potential limitations. First, as previously described, our post-hoc analyses showing an increase in BMI z-score prior to intervention enrollment suggests either that we were successful in reversing an upward trend or that our results reflect regression to the mean. We are unable to rule out the possibility of the latter. Second,

the study setting – a multi-site delivery system with a robust EHR – may not be representative of smaller pediatric practices in the US. However, as a relatively large medical group, HVMA is a typical primary care setting for many children, and meaningful use incentives are promoting increases in EHR adoption in both large and small pediatric practices.³² Thus the *Connect for Health* interventions are likely to generalize to more pediatric settings in the future. Third, our intervention did not decrease the percent of children with severe obesity. Previous studies have suggested that the magnitude of decreases in net daily energy intake necessary for children with severe obesity to achieve a healthy weight is considerably greater than the pediatric weight management that can be delivered in primary care based interventions such as *Connect for Health*.^{33,34} Our findings support the urgent recommendation for evidence-based, more aggressive weight management approaches for children with severe obesity.³⁴

CONCLUSION

Two interventions that included a package of high-quality clinical care for obesity and linkages to community resources resulted in improved parent-reported outcomes for childhood obesity and improvements in child BMI. While individualized health coaching led to improvements in health-related quality of life, it did not have significantly greater effects on child BMI than enhanced primary care alone.

ACKNOWLEDGEMENTS

The authors would like to thank the providers and staff at Harvard Vanguard Medical Associates for their ongoing collaboration in pediatric obesity research efforts. We would like to thank the *Connect for Health* clinical research coordinators and health coaches for their assistance with the study. We thank the parents and children who serve on our advisory boards and offered their input to help shape the intervention. And lastly, we thank our community partners, Cooking Matters and multiple Massachusetts YMCAs, for making their resources available to study participants.

Dr. Taveras 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. All authors have made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data; drafted the article or revised it critically for important intellectual content; and approved the final version of the article.

Study concept and design: Taveras EM, Marshall R, Sharifi M, Avalon E, Fiechtner L, Orav EJ, Sequist T, Slater D; *Acquisition of data:* Horan CM, Gerber M. *Analysis and interpretation of data:* Taveras EM, Orav J, Gerber M; *Drafting of manuscript:* Taveras EM, Gerber M, Horan CM, Price SN; *Critical revision of the manuscript for important intellectual content:* Taveras EM, Marshall R, Sharifi M, Avalon E, Fiechtner L, Horan CM, Gerber M, Price SN, Orav EJ, Sequist T, Slater D; *Statistical analysis:* Orav EJ, Gerber M; *Obtained funding:* Taveras EM. *Administrative, technical, or material support:* Horan CM, Price S, Gerber M; *Study supervision:* Taveras EM, Marshall R, Avalon E, Sharifi M, Fiechtner L.

Financial Disclosure: This work was supported through a Patient-Centered Outcomes Research Institute Award (IH-1304–6739). Dr. Taveras was also supported by a K24 grant (DK10589) from the National Institutes of Health. Dr. Sharifi was supported by grant K12 HS 022986 from the Agency for Healthcare Research and Quality. Dr. Fiechtner was supported by a NIDDK training grant to the Division of Gastroenterology and Nutrition (T32 DK 007747 PI: Lencer) and K12 HS022986 from the Agency for Healthcare Research and Quality. None of the authors have conflicts of interest to declare. The funding sources for this study had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; and preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

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Figure 1.
CONSORT Participant Flow for the *Connect for Health* Study

Figure 2.
Adjusted Mean BMI Z-Score Changes from Pre-Baseline (1-Year Prior to Baseline),
Baseline, and 1-Year Follow-Up (N=560)

Table 1.

Baseline Characteristics of Participants in the Connect for Health Study, Overall and by Intervention Assignment.

Child Characteristics	Overall (N=721)	Enhanced Primary Care (N=361)	Enhanced Primary Care + Coaching (N=360)
	Mean (SD) or N (%)		
Age, years (SD)	8.0 (3.0)	8.0 (3.0)	8.1 (3.0)
Gender, Female	368 (51.0)	188 (52.1)	180 (50.0)
Race/Ethnicity			
Non-Hispanic White	252 (35.0)	134 (37.1)	118 (32.9)
Non-Hispanic Black	240 (33.3)	110 (30.5)	130 (36.2)
Hispanic	157 (21.8)	85 (23.5)	72 (20.1)
Other	71 (9.9)	32 (8.9)	39 (10.9)
Body mass index, kg/m ² (SD)	22.9 (4.8)	22.8 (4.6)	23.0 (4.9)
Body mass index, z-score (SD)	1.88 (0.5)	1.91 (0.5)	1.87 (0.5)
Body mass index category [*]			
Overweight	263 (36.5)	126 (34.9)	137 (38.1)
Obesity	303 (42.0)	157 (43.5)	146 (40.6)
Severe obesity	155 (21.5)	78 (21.6)	77 (21.4)
Parent and Household			
Parent age, years (SD)	38.4 (7.2)	38.7 (7.3)	38.1 (7.1)
Parent body mass index category			
BMI < 25 kg/m ²	161 (22.8)	79 (22.6)	82 (23.1)
BMI 25 – 29 kg/m ²	236 (33.5)	120 (34.3)	116 (32.7)
BMI ≥ 30 kg/m ²	308 (43.7)	151 (43.1)	157 (44.2)
Parent educational attainment, Less than college graduate	356 (49.3)	186 (51.5)	170 (47.2)
Annual Household Income, < \$50,000	327 (45.4)	150 (41.6)	177 (49.2)

* Overweight (≥ 85th percentile, < 95th percentile); obesity (95th percentile to < 120% of the 95th percentile); and severe obesity (≥ 120% of the 95th percentile)

Table 2.

Changes in Body Mass Index Z-Score and Categories from Baseline to 1 Year, by Intervention Assignment (N=721).

Body Mass Index Outcomes	Baseline	1-Year Follow Up	Adjusted Mean Change		Adjusted Difference **	P
	Adjusted Mean (SD)		β (95% CI)			
BMI z-score, units						
Enhanced Primary Care	1.91 (0.56)	1.85 (0.58)	-0.06 (-0.10, -0.02)		Reference	
Enhanced Primary Care + Coaching	1.87 (0.56)	1.79 (0.58)	-0.09 (-0.13, -0.05)		-0.02 (-0.80, 0.03)	0.39
	Baseline	1-Year Follow Up	Adjusted Odds of Being at a Lower Category at Follow Up		Multiplicative Difference in ORs	P
BMI Category *, %	%		OR (95% CI)			
Enhanced Primary Care:						
Normal	0	9.3	1.18 (1.03, 1.35)		Reference	
Overweight	34.9	28.4				
Obesity	43.4	39.4				
Severe obesity	21.6	22.8				
Enhanced Primary Care + Coaching:						
Normal weight	0	11.6	1.23 (1.08, 1.40)		1.04 (0.86, 1.25)	0.70
Overweight	38.1	28.5				
Obesity	40.6	37.4				
Severe obesity	21.4	22.5				

* Normal (5th percentile, < 85th percentile); overweight (85th percentile, < 95th percentile); obesity (95th percentile to < 120% of the 95th percentile); and severe obesity (120% of the 95th percentile)

** Adjusted estimates from repeated measures model. Adjusted for pediatric practice site.

Table 3.

Changes in Pediatric Health-Related Quality of Life and Parental Resource Empowerment from Baseline to 1 Year, by Intervention Assignment (N=721).

Child Health-Related Quality of Life Outcomes	Baseline	1-Year Follow Up	Adjusted Mean Change	Adjusted Difference
	Adjusted Mean (SD)		β (95% CI)	
PedsQL Summary Score, units				
Enhanced Primary Care	86.0 (11.2)	86.6 (11.4)	0.65 (−0.38, 1.67)	Reference
Enhanced Primary Care + Coaching	85.3 (11.2)	86.9 (11.4)	1.53 (0.51, 2.56)	0.89 (−0.56, 2.33)
PedsQL Psychosocial Score, * units				
Enhanced Primary Care	83.7 (12.7)	84.8 (13.2)	1.05 (−0.15, 2.25)	Reference
Enhanced Primary Care + Coaching	83.1 (12.7)	84.9 (13.0)	1.80 (0.62, 2.98)	0.75 (−0.93, 2.43)
PedsQL Physical Score, units				
Enhanced Primary Care	90.3 (12.5)	90.0 (13.2)	−0.29 (−1.61, 1.03)	Reference
Enhanced Primary Care + Coaching	89.7 (12.8)	90.5 (13.3)	0.76 (−0.58, 2.09)	1.04 (−0.82, 2.91)
Parent-Centered Outcome				
Parental Resource Empowerment, units				
Enhanced Primary Care	2.9 (0.5)	3.1 (0.6)	0.29 (0.22, 0.35)	Reference
Enhanced Primary Care + Coaching	3.0 (0.5)	3.2 (0.6)	0.22 (0.15, 0.28)	0.07 (−0.02, 0.16)

* To create the Psychosocial Health Score (15 items), the mean is computed as the sum of the items divided by the number of items answered in the Emotional, Social, and School Functioning Scales.