Pediatric Obesity Prevention in Primary Care: Employing Brief Action Planning With the Family Nutrition Physical Activity for Obesogenic Behavior Screening

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Purpose

- Implementing recommendations for lifestyle screening and counseling about weight status and obesogenic behaviors are challenging for primary care providers.[1,2,3]
- A practice-based intervention designed to increase patient health behavior action planning was implemented to facilitate adoption of these recommendations.
- Family Nutrition Physical Activity (FNPA)[4], a brief screen for obesogenic behaviors, paired with Brief Action Planning (BAP)[5], a quick motivational interviewing-informed (MI) support technique, were employed during well-child check-ups (WCCs).
- *Primary objective*: to evaluate health behavior goal setting documented during HSVs.
- *Secondary objectives*: to measure the identification of obesity and adherence to recommended follow-up visits, practitioner acceptability of the intervention, parent satisfaction with the counseling process and tools, and degree of patient and family goals achievement.

Methods

- Pediatric and family medicine practices paired by specialty and socioeconomic demographics were randomized into intervention and control practices.
- Intervention practices received 5 hours of training in BAP and the FNPA for 3 months followed by 3 months of implementation targeting children ages 4-17 years during WCCs.
- Control group practices provided usual care.
- Provider level outcomes: 1) action plan documentation, 2) weight status discussion, 3) self-efficacy of health behavior discussions pre-/post-intervention, 4) satisfaction with the intervention.
- Patient level outcomes: 1) success with action plans at 1 month, 2) perceived patient-centeredness of encounter, 3) satisfaction with the intervention.
- Outcomes were measured by chart abstraction, provider surveys and confidence ratings on self-efficacy and patient surveys 1-month post visit.

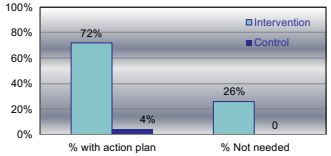
Results

Table 1: Provider Demographics

	Intervention Practices (N=19)	Control Practices (N=17)
Years in Practice (mean)	12.5 years	11.7 years
Age (mean)	45.5 years	42.5 years
Gender	7 males 12 females	5 males 12 females
Race	16 Caucasian 1 Other	17 Caucasian
Degree	8 MD 5 DO 4 APN 2 PA	11 MD 1 DO 5 APN
Specialty	9 Family Medicine 8 Pediatrics 2 Medicine/Pediatrics	9 Family Medicine 5 Pediatrics 3 Medicine/Pediatrics

Twelve practices were randomized to intervention and control groups (19 and 18 providers). No differences in demographics or prior exposure to MI/BAP existed between groups. No significant differences in demographics or weight status existed between the participating 210 intervention and 220 control group patients.(Tables 1&2)

Fig. 1 Provider Satisfaction with FNPA Tool

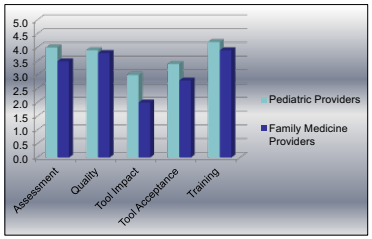


More intervention encounters had action plans (72% vs. 3.6%, $p<0.05$) and weight status discussions documented in the chart (52% vs. 38%, $p<0.05$) compared to control encounters. (Fig.1)

Table 2: Patient Demographics

	Intervention (N=210)	Control (N=220)
Age (mean)	10.7 years	10.4 years
Gender	93 males 117 females	107 males 113 females
Race	180 Caucasian 6 African American 2 Asian 4 Hispanic 16 Other 2 Unknown	187 Caucasian 12 African American 2 Asian 1 Hispanic 14 Other 4 Unknown
Income Level	36 (<$25K) 39 ($25K-50K) 36 ($51K-75K) 81 (>$75K) 18 (Unknown)	33 (<$25K) 55 ($25K-50K) 33 ($51K-75K) 89 (>75K) 10 (Unknown)
BMI (mean)	20.0 kg/m²	19.8 kg/m²
BMI percentile (mean)	142 (<85%) 36 (85-94%) 31 (≥95%) 1 (Unknown)	152 (<85%) 30 (85-94%) 36 (≥95%) 2 (Unknown)

Fig. 2 Provider Satisfaction for Pediatric and Medicine Providers

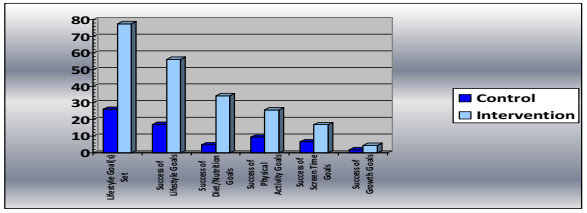


- Intervention providers increased confidence to assess readiness, counsel families on diet, and patients on physical activity, ($p<0.05$).
- Provider satisfaction with assessment and quality of the tool was high (3.8 and 3.9 of 5-point rating).

Results

- Intervention patients set more lifestyle related goals (77.6% vs. 26.2%, $p<0.05$); met their goals most of the time (56.2% vs. 17.1%, $p<0.05$); all lifestyle goals significantly met except growth goals.(Fig. 3)
- They perceived the visit as patient-centered (3.67 vs. 3.41 of 4-point rating, $p<0.05$), and rated ease of intervention as high (3.6 to 3.92 of 4-point rating).

Fig. 3 Success of Action Plans 1 month post-visit:
% lifestyle goals made and met most of the time; % of 4 different lifestyle goals met most of the time



Conclusion

Use of the FNPA tool paired with BAP improved documentation of health behavior action plans and weight status discussions during WCCs. More intervention patients were successful in meeting their plans at 1 month. This practice-based approach can effectively increase provider confidence in effectiveness in influencing patient health behaviors. Further study of this intervention's sustainability and impact on growth trajectories of pediatric patients is warranted.

References

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