

Evaluation of a Rural Pediatric Obesity Prevention and Treatment Program Embedded in a PCMH



K. Bridget Marshall DNP APRN CPNP-PC PMHS, Natalie Smith MSN RN, Jodi Miller MSN RN

Purpose

Identify gaps in a pediatric obesity prevention and treatment program embedded in a primary care medical home with the new American Academy of Pediatrics (AAP) clinical practice guidelines (CPGs) using the social ecology framework.

Background

The American Academy of Pediatrics (AAP) (2023) published new childhood obesity (CO) clinical practice guidelines (CPG) for evaluation and treatment of pediatric obesity. The AAP recommends intensive health behavior and lifestyle treatment (IHBLT). A pediatric obesity prevention and treatment (POPT) program was developed using guidelines from the AAP by a pediatric primary care nurse practitioner (CPNP-PC) to incorporate services in a rural PCMH. Referrals to the POPT program clinicians came from one of the twelve providers in the PCMH. Five clinicians delivered evaluation and treatment services in dedicated initial intake appointments incorporated into their regular work schedule. One of the PNP-PCs had a dedicated half day for POPT appointments. Appointments were scheduled monthly. Initial intake appointments were one hour with thirty-minute follow-up appointments. Receptionists were expected to make appointment reminder phone calls. During Covid, patients were offered telehealth appointments.

Objectives

1. Identify the status of evaluation and treatment services of the POBT program at the individual level of the clinicians.
2. Identify the status of the evaluation and treatment services of the POBT program at the clinic level.
3. Identify the status of the evaluation and treatment services of the POBT program at the community level.
4. Identify the status of support for the evaluation and treatment services of the POBT program at the state level.

Organizational Framework



Level	Description
Individual	Documented data in electronic health record by clinician
Clinic	Clinic processes for tracking patients Clinic processes for integrated behavioral health Clinic processes for referrals
Community	Identified resources within community Pathway for bariatric surgery
Statewide	Telehealth appointments with tertiary care Tertiary care collaboration

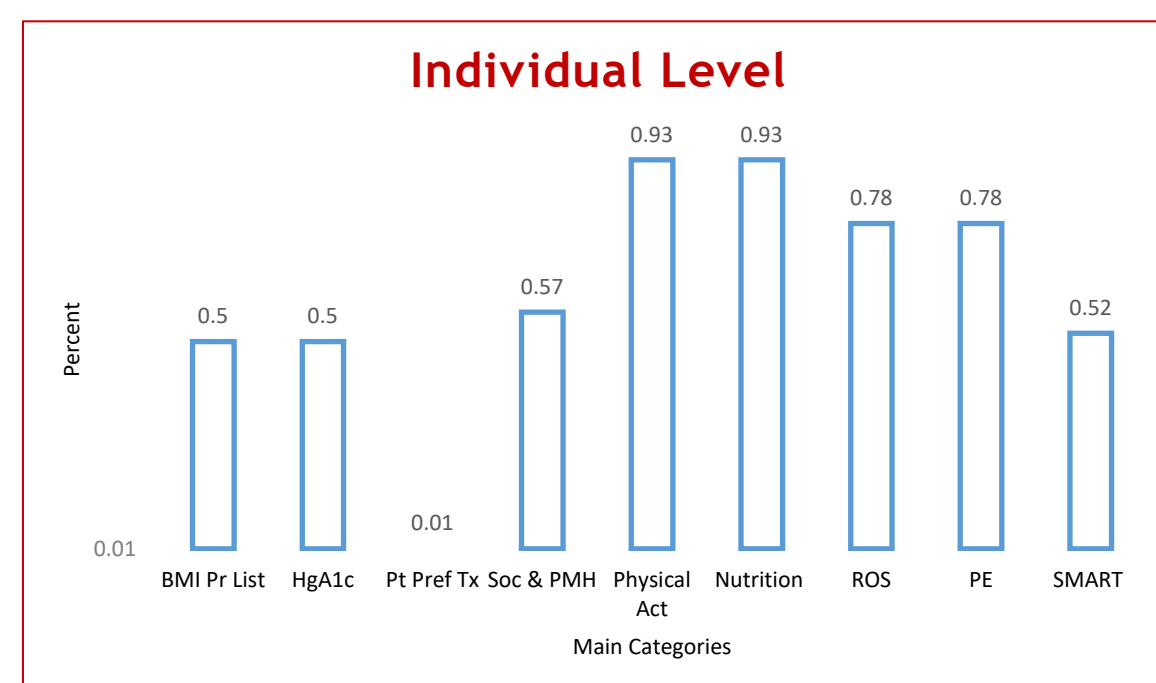
Ethical Considerations

The Colorado Mesa University Institutional Review Board (IRB) also known as the Human principles and considerations, such as those described in The Belmont Report. Subjects Committee has reviewed your protocol and has determined your research activities meet the federal regulations for exempt research under 45 CFR § 46.104. Please note that although this study is exempt from institutional review and approval under 25 CFR 46, this research is not exempt from following ethical

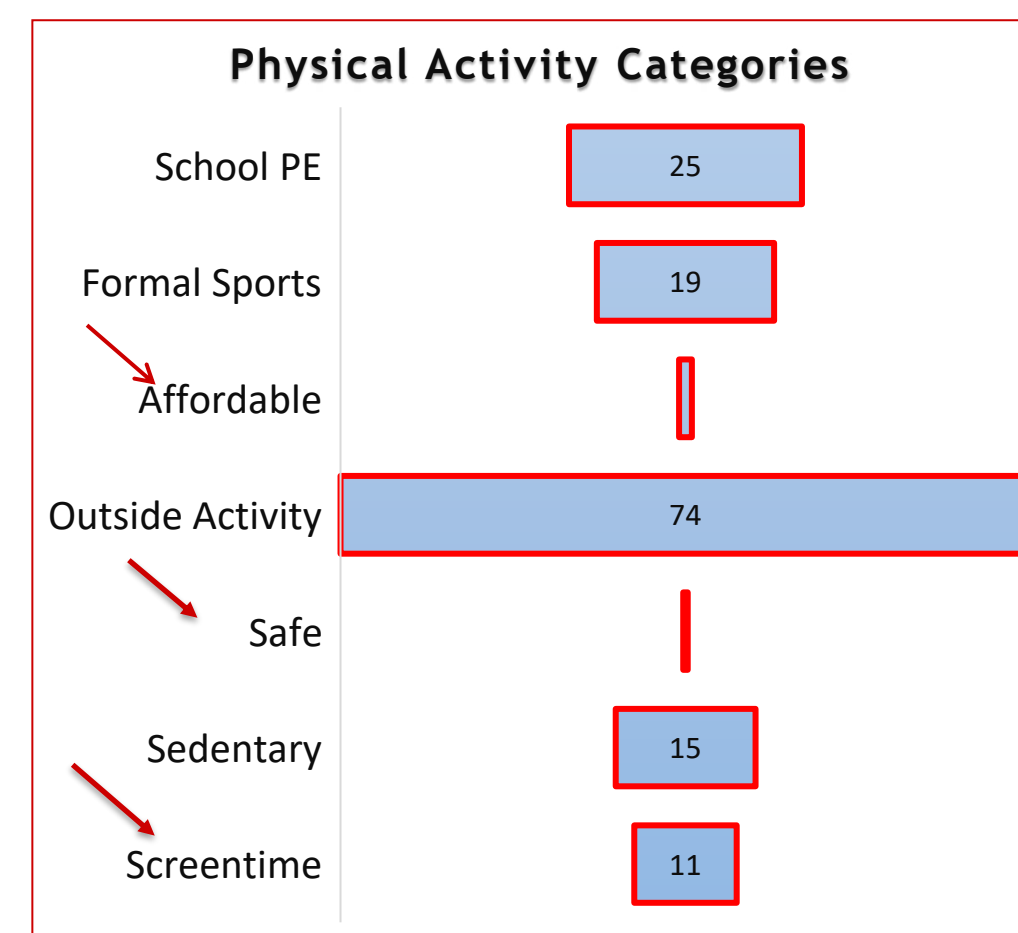
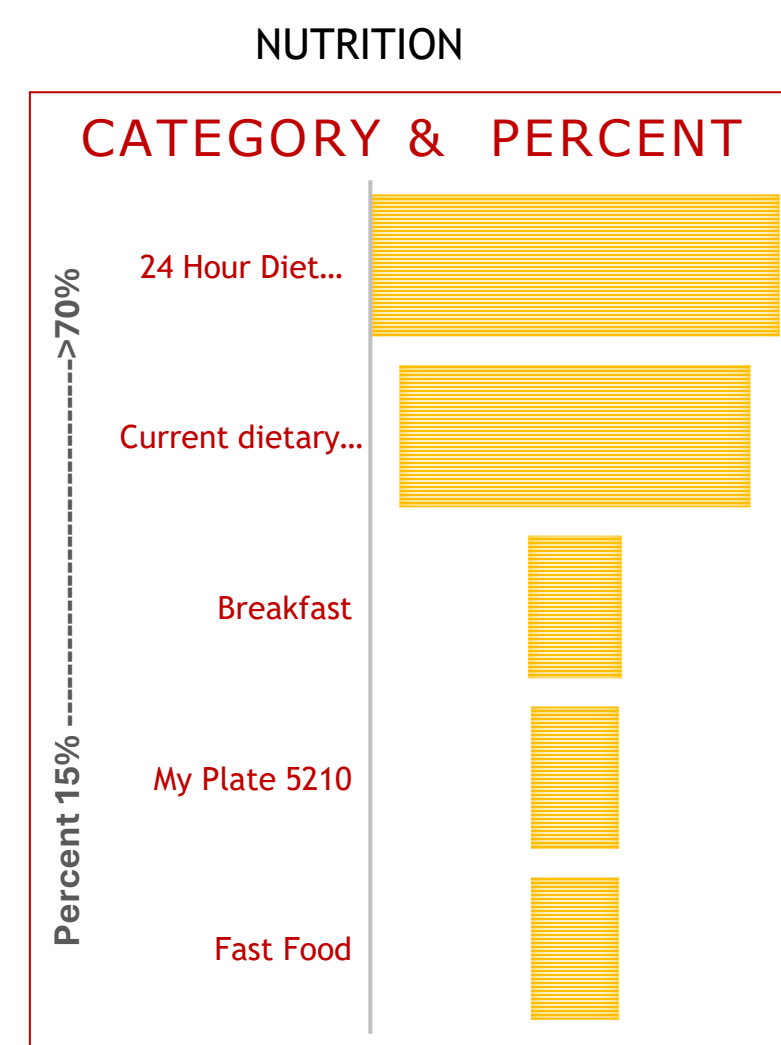
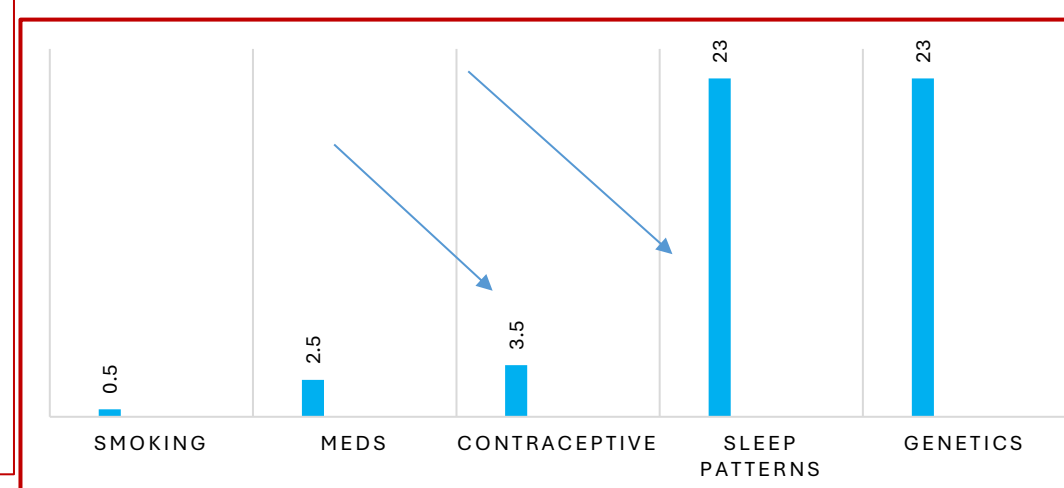
Methods

Retrospective chart reviews were conducted from a five-year period between 2017- 2022. Data points included documented items aligned with the AAP CPG. An excel tool was created to organize and tabulate the dichotomous data points indicating if the data was present (yes), not documented (no) or not applicable (NA). Random assignment of charts was selected and revolving so that all five clinicians had a representative 20% sub-sample from the total patients (N = 1,057). All data was aggregated. Statistical significance was not calculated because the purpose was to look at processes and not individuals. The following categories were collected and organized using the social ecological model. All data was collected from children with a BMI of 85% or higher as recorded on the problem list or from within the in-house referral system.

Individual Level Documented Results



Social & Patient History at Subsequent Visits



Clinic Level Documented Results

Screenings Limitations: none on social determinants of health; mental health; or food insecurity. Clinic tracking process lacked dedicated staff due to turnover. Clinic referral process absent for in-house integrative behavioral health. No in house referrals children between ages 2 - 6 years old.

Community Level Documented Results

Sleep study services are available in the community. A community recreation center is available to the public with transportation from schools. Green space includes bike paths and public parks. Cooking matters classes are offered through the health department.

Regional Level Documented Results

A certified adolescent bariatric surgery medical center was 90 miles away. Telehealth options are available for tertiary care center. State food support resources need exploration for grants.

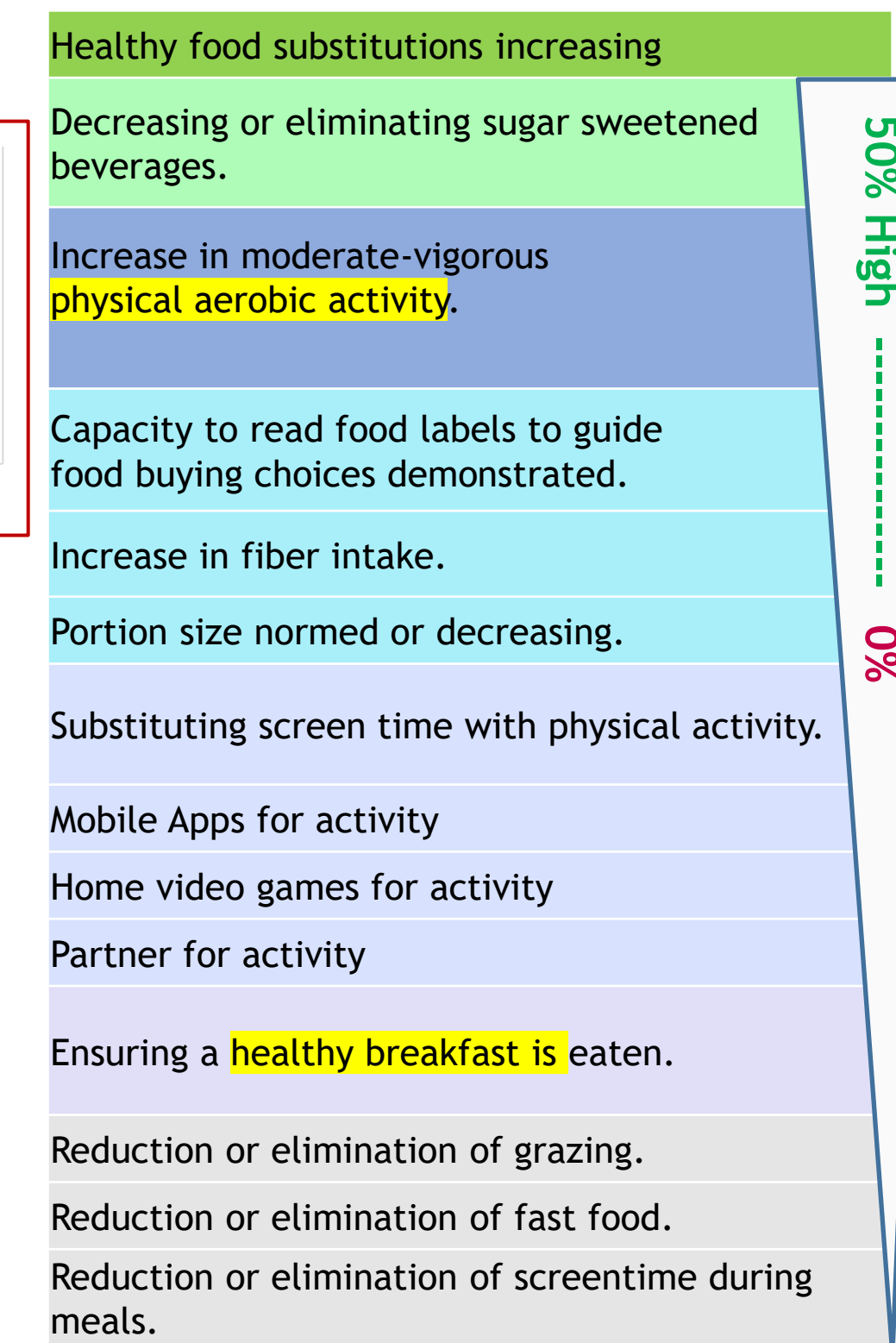
Evaluation

The Continuum of Obesity Care and the Role of PCP/PHCP Hampl, S. E., et al. (2023).

Principles of Chronic Care Model & Medical Home

AAP CPG (Hemple et.al. (2023)	POBT Program Evaluation	Action
Diagnosis and Measurement Measure height, weight, BMI	Gap in referrals age range 2- 6 years	Flag EHR to capture patients Flag referrals to program and track
Risk Factors Assess individual, structural and contextual risk factors	Gap in screenings for social determinants of health including food	Incorporate screenings for food insecurity, transportation, mental health, and ACEs as appropriate
Evaluation Perform comprehensive patient history	Gap in obtaining ROS information pertinent to treatment	Create template in EHR to capture data
Order relevant diagnostic studies and labs	Gap in lab orders for HgA1c	Add flag in chart to follow up
Treat co-morbidities	Gap in sleep study evaluation, mental and behavioral health evaluation	Process for referrals prior to initial intake
Deliver non-stigmatizing care	Not evaluated	Create process for evaluation of providers and clinic flow
Use MI to engage patient and families in addressing overweight and obesity, set goals and promote participation or utilization of local resources or programs	<ul style="list-style-type: none"> MI used consistently Gap in using community resources 	SMART goals and shared decision making needs improvement from 53% to new target of at least 75%. Practice board member has agreed to champion outreach to community resources.
Promptly engage and refer children to intensive HBLT treatment, if available. If intensive HBLT treatment is not available in your area, deliver highest intensity HBLT treatment possible.	<ul style="list-style-type: none"> Little connection or use of community hospital in region for adolescent bariatric surgery 	Establish relationship with regional surgery center Determine information to facilitate referrals.

Patient Centered Interventions



Relationship to Nursing

The American Association of Colleges of Nursing (AACN) Essentials (2021) compel nurses to evaluate system processes (Domian 7) and quality and safety (Domain 5) using evidence-based practice. Program evaluation is an expectation of advanced practice nursing. It evaluates delivery of care for improvement to patients, families, and systems.

References

QR Code