UNIVERSITY OF PORTLAND
SCHOOL OF NURSING

Practice Improvement Project: Child Obesity Screening and Referral

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Background & Significance

- **11.9 %** of children ages 2-19 have BMIs ≥ **97th** percentile and **16.9 %** have BMIs ≥ **95th** percentile (CDC, 2014).
- **Less than 50%** of obese children receive BMI screening or preventive counseling about diet and physical activity (Smith et al., 2013).
- Lack of translational studies around obesity screening and referral.

Problem

- Staff at a county health clinic in the NW identified that their clinic lacked a systematic way to screen and refer children for obesity.
- Prior to this practice change BMI was charted for most children, but each provider treated obesity differently and not according to USPSTF recommendations

Literature Review for Intervention

- AAP (2003) recommends screening all children with BMI once per year.
- USPSTF(2005) recommends screening children aged 6 and older with BMI ≥ 95th and refer them to a comprehensive behavioral program.

Purpose and Aims of Practice Change

- To implement a systematic obesity screening and referral process for children ages 3-17

1. Screen 100% of children age 3-17 for BMI
2. Screen children with BMI ≥95% for readiness to be referred to a behavioral health consultant (BHC)
3. Refer all children with BMI ≥ 95% and readiness ≥ 6 on a scale from 0-10 (0 no motivation, 10 fully motivated) to a BHC
4. Schedule an appointment for children referred with the BHC

Implementation

Theoretical Background

- Overarching Theory
  - Socio Ecological Theory
    - Dynamic interrelations among various personal and environmental factors of the child
- Implementation Model
  - Knowledge-To-Action Cycle (Graham et al., 2006)
    - Knowledge translation theory model where new knowledge moves through different stages until it is adopted and used

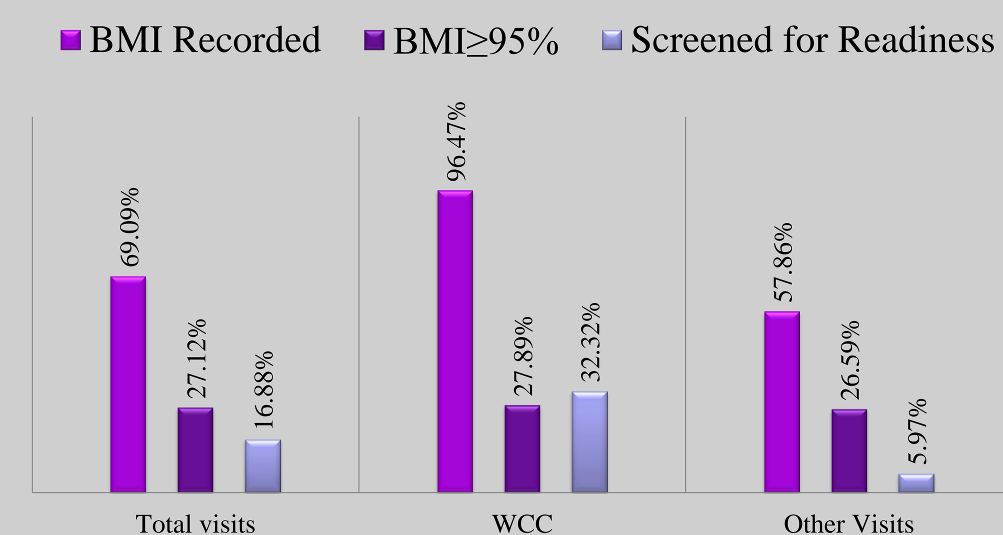
Implementation Steps

- Participants included 3 pediatric providers and support staff
- IRB approval received from University of Portland
- Support staff records height and weight in child's EHR
- EPIC calculates BMI
- Providers check each chart for BMI percentile ≥ 95% by looking at growth chart in EPIC
- Assess child and family for readiness to attend an appointment with a BHC
- Refer to BHC for behavioral intervention
- Appointment made for child and parents with BHC
- Child and family attends appointment
- At end of three months, providers surveyed to evaluate the process

Results

	# of Visits	%
Total Visits	1048	
BMI percentile recorded	874	69%
Visits BMI ≥ 95%	237	27%
Visits with BMI ≥ 95% that were screened for readiness	40	17%
Children screened who were ready for an appointment with a BHC	9	23%
Children screened as ready who were referred for an appointment with a BHC	9	100%
Children referred who attended the appointment	4	44%

Percent Implemented by Visit Type



Staff Evaluation

- TIME (implementation not feasible during shorter episodic appointments)
- Undeveloped relationship with children caused discomfort for providers in discussing obesity
- Staff reported children and families have a negative association to a "counselor/BHC"
- Challenges discussing obesity, including cultural challenges (73% Latino children)

Discussion

- BMI recording of 69% at all visits was higher than national average (less then 50%) but still under the clinic's goal of 100%
  - Heights were often omitted and support staff had different rates of recording
  - Readiness for change screening was the weakest and most challenging part of the implementation
  - Providers did not feel comfortable discussing obesity (needed more rapport with child and family)
- Staff reported decreased readiness due to family members uncomfortable with behavioral "psychological" intervention versus nutritional counseling
- Referral to a BHC showed the strongest results (100%).
  - Presence of a referral process and BHC staff that spoke Spanish in the clinic

Recommendations

- Review BMI goal (100% recording) regularly during the pediatric monthly team meetings and incorporate a clinical reminder in EPIC.
- Discuss obesity and assess readiness for referral at WCCs instead all visits
- Discuss readiness in a more informal way than using 0-10 scale
- Provide cultural training for providers about how to discuss obesity with families and mitigate the negative connotations associated with a behavioral provider
- Continue current referral process and have behavioral staff located in the clinic
- Continue monitoring children for decrease in BMI

Lessons Learned

- Project change identified by the clinic and relevant to their care increased collaboration, trust, and significance of the results
- The clinic wanted to use implementation tools that were practical and easy to use (BMI & 0-10 readiness scale), but we found that even these simple tools can be too time consuming through the practice change process
- Busy providers may need reminders such as an EPIC alert or verbal reminder by support staff to identify children with BMI ≥ 95 % to facilitate the practice change
- Although two of the three providers were Latino, they may need formal cultural training to help address Latino resistance to a behavioral intervention and difficulty discussing weight/obesity with children
- It is crucial that all practice change participants receive training for the project throughout all steps of the process

References provided upon request

University of Portland