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# QUALITY IMPROVEMENT

# Implementation of childhood obesity identification and prevention strategies in primary care: A quality improvement project



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### **KEYWORDS**

Childhood obesity; Motivational interviewing; Quality improvement; Pediatric primary care Abstract The high incidence and prevalence of childhood obesity, coupled with significant morbidity and financial burden, clearly suggest the need for identification and implementation of effective pediatric obesity prevention strategies in primary care. A solution to this problem includes evidence based clinical guidelines that provide concise, culturally appropriate information on the identification and prevention of childhood obesity in primary care settings. The objective of this quality improvement project was to implement childhood obesity identification and prevention guidelines from evidence-based recommendations into practice. Guidelines were implemented during preventative care visits through the use of a tracking form. The development of the tracking form included input from practice staff resulting in increased fidelity. The tracking form included directions for clear and concise guideline implementation and provided opportunities to record patient BMI, nutritional intake, physical activity, familial obesity prevention education and motivational interviewing and facilitated a practice increase in childhood obesity identification and education. Presence of chart indicators, including nutrition and exercise history, were analyzed to determine the fidelity of the practice change in obesity identification and prevention education. Key outcomes included a significant (p < .0001) practice increase in childhood obesity identification as well as a significant increase (p < .05) in documentation of obesity prevention education through motivational interviewing. Practice change incorporating childhood obesity identification and familial prevention guidelines had positive effects in a pediatric population. Implementation of evidence-based

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guidelines can result in increased identification of children at risk for childhood obesity and enhanced familial obesity prevention education; leading to the long-term goal of creating healthier lifestyles and decreasing risk factors in a vulnerable population.

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# 1. Introduction

Current research indicates childhood obesity is increasing at an alarming rate in the United States. The increased incidence and prevalence, coupled with significant morbidity and financial burden. clearly suggest the need for implementation of effective pediatric obesity identification and prevention strategies. The National Health and Nutrition Examination Survey (NHANES), 1999-2004, with a sample size of 12,384 American children 2–19 years of age, found that almost 16% of children were obese. NHANES data showed obesity in children correlated with high morbidity that continued into adulthood including increased cardiovascular risks of elevated cholesterol and abnormally high blood pressure [1]. Obesity predisposes children to poorer pulmonary function, asthma, orthopedic problems, sleep apnea, polycystic ovary disease, and poor psychosocial health related to obesity-associated bullying and discrimination [2].

The National Association of Pediatric Nurse Practitioners developed Healthy Eating and Activity Together (HEAT). evidence-based clinical guidelines that provide concise, culturally appropriate information on the identification and prevention of childhood obesity in primary care settings [3]. The major objectives of the guidelines are to increase healthcare provider effectiveness in identifying children at risk for obesity and encourage optimal eating and activity practices in families. Noteworthy characteristics of the HEAT approach include a focus on prevention and cultural appropriateness. Emphasis is placed on identifying strengths within the family and fostering strong relationships between parents, children, and healthcare professionals. Motivational interviewing is the cornerstone of HEAT guidelines and provides an evidence-based approach for encouraging patients and their families to make healthy lifestyle behavioral modifications [3].

Motivational interviewing (MI) is directive, patientcentered counseling that is designed to be nonjudgmental, empathetic, and encouraging. The technique elicits intrinsic motivation for behavior change and is effective in individuals who are initially resistant to change [4]. The basic premise of the technique is to facilitate an awareness of discrepancies between the patient's current lifestyle and future goals [5]. For example, if a patient wants to play soccer in the fall, but it has no plans for physical activity in the summer, MI techniques would encourage the patient to identify the discrepancies between his future goals and current lifestyle and make appropriate behavioral modifications. The positive effect of MI techniques on childhood obesity is consistent with the literature. Evidence illustrates an improvement in healthy lifestyle decisions when MI is introduced and maintained in a clinical setting to promote behavioral modification [6].

# 2. The local problem

Kentucky has one of the highest childhood obesity prevalence rankings which places a significant burden on healthcare systems [7]. Unfortunately, there is limited time in the context of routine pediatric primary care visits for healthcare providers to focus on childhood obesity.

Research suggests that socioeconomically disadvantaged children, particularly those of Hispanic and African American ethnicity, are at increased risk for childhood obesity [2]. Demographic characteristics of patients in a local pediatric practice in Kentucky reflected a high proportion from this underserved, high-risk patient population. The Kentucky Cabinet for Health and Family Services reported 16%-23% of children in the local community were significantly obese, with a BMI greater than the 95th percentile [8]. These findings ultimately solidified the need to implement effective pediatric obesity identification and prevention strategies including the use of MI to facilitate lifestyle behavior modifications. Project aims included enhancing the consistency of childhood obesity identification and prevention within the clinic population as evidenced by identification of obesity risk factors and increased family focused education through the use of a tracking tool based on current evidence. The purpose was to determine if the use of a tracking tool, based on current evidence based guidelines emphasizing MI would significantly increase childhood obesity identification and documentation of education strategies implemented by healthcare professionals in a primary care setting.

### 3. Patients and methods

### 3.1. Scope of the project

The practice project involved quality improvement of childhood obesity identification and education within the practice and did not include research interventions that affected participants' well-being. IRB approval was obtained through the Duke University Institutional Review Board.

## 3.2. Setting

The practice setting was a pediatric primary care office serving rural and semi-rural communities. Practice staff included a physician, nurse practitioner and physician Download English Version:

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