



A Quality Improvement Project to Improve the Usage of Universal Lipid Screening Guidelines at a Federally Qualified Health Center in the Southern United States

Letisha Scott, MSN, CRNP, FNP-C, DNP Student

Linda Dunn, PhD, RN- Faculty Advisor

Tonya Shanahan, DNP, RN, FNP-BC- Clinical Advisor

Capstone College of Nursing - The University of Alabama



Background

Coronary artery disease (CAD) remains the leading cause of death in the U.S. Atherosclerotic changes leading to CAD begins as early as age 2. Currently, 7% of children in the U.S. have hyperlipidemia (HLD). Despite the National Heart, Lung, and Blood Institute's (NHLBI) 2011 Expert Panel Guidelines that recommend universal lipid screening between the ages of 9 to 11 and 17 to 21, screenings remain low. The lack of guideline adherence increases the likelihood of missed opportunities to implement preventative primary care. A quality initiative to improve guideline adherence utilizing Pettigrew and Whipp's Content Context, and Process Model was implemented.

Purpose

The aim of this quality improvement project was to examine the benefit of an educational intervention on increasing the usage of universal lipid screening guidelines for 9 to 11 year olds within a federally qualified health center providing primary health care to rural and urban communities.

Methods

Design: A retrospective chart review; pre- and post- knowledge survey

Intervention: PowerPoint presentation; educational handout

Statistical Analysis: Wilcoxon Signed Rank Test, descriptive statistics

Participants: 1 Physician, 5 Nurse Practitioners, 1 Physician Assistant

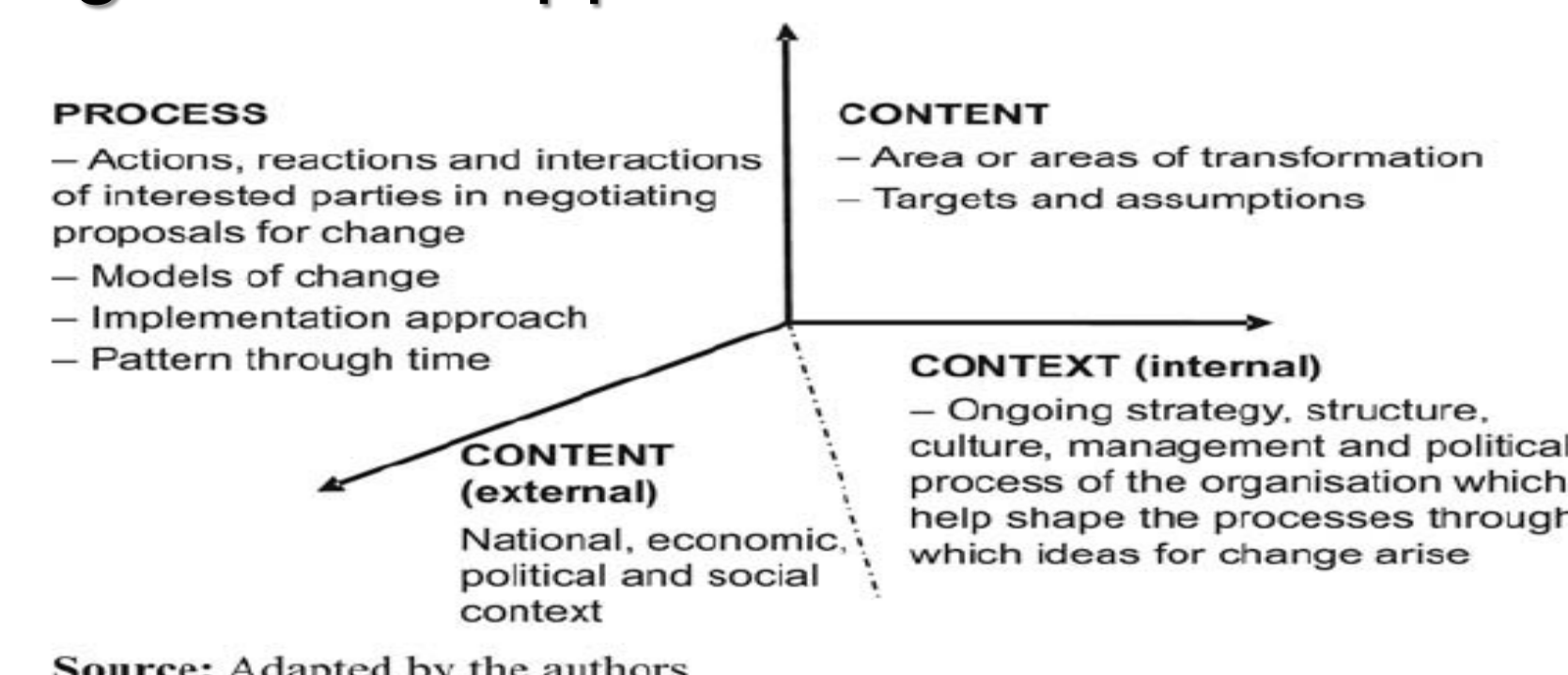
Results

Pre- Intervention
57% unaware of age of onset of HLD
0% knew when to repeat abnormal lipid panel
Post- Intervention
100% aware that HLD can start at 2 (p=0.046)
86% knew when to repeat abnormal lipids (p=0.014)
Improved Confidence in treating HLD in children 86% (p=0.020)
Plan to use 2011 NHLBI Guidelines 71.4%
Lipid Screenings improved from 7.8% (n=384) pre-intervention to **35%** (n=40) post intervention

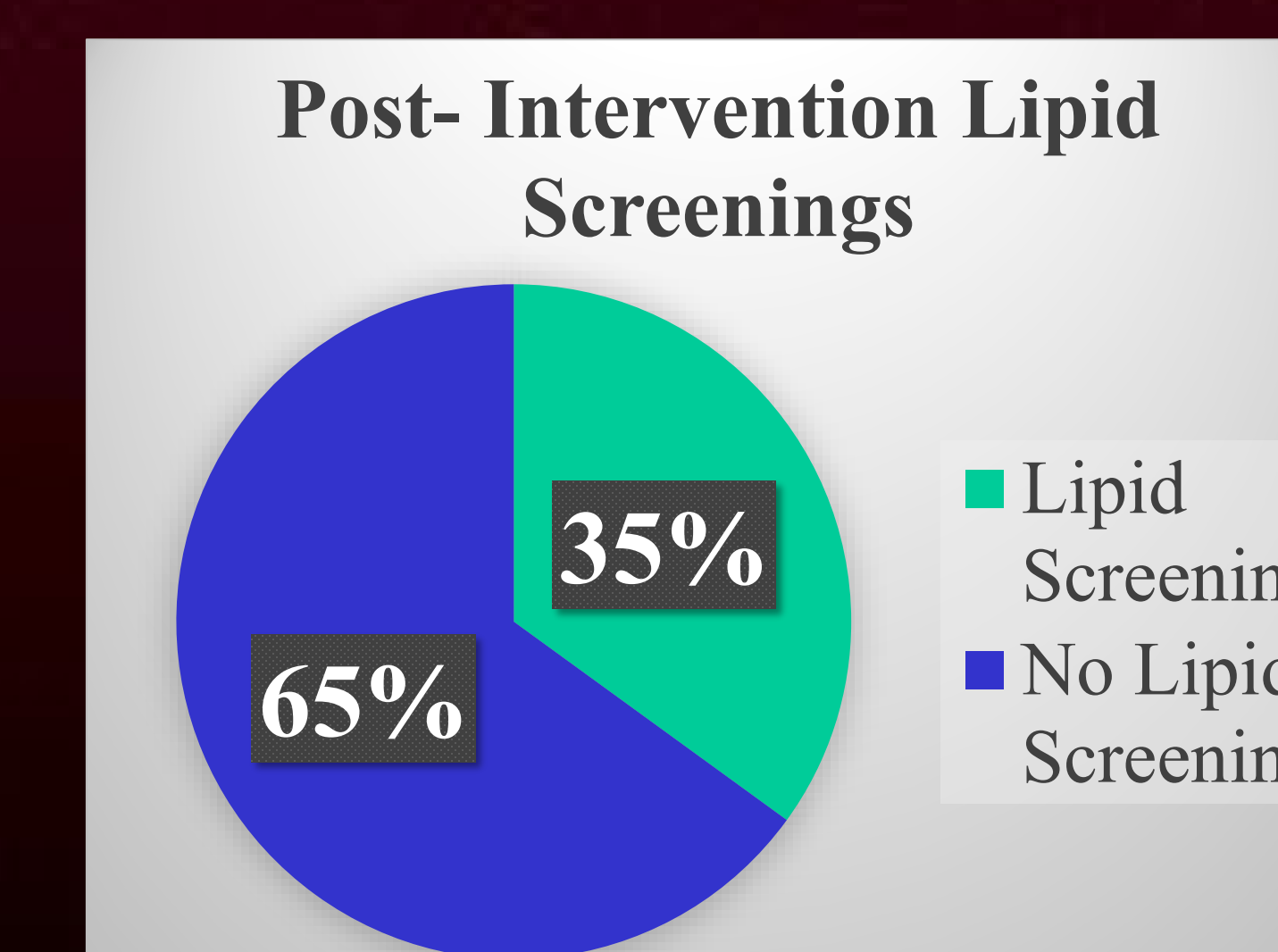
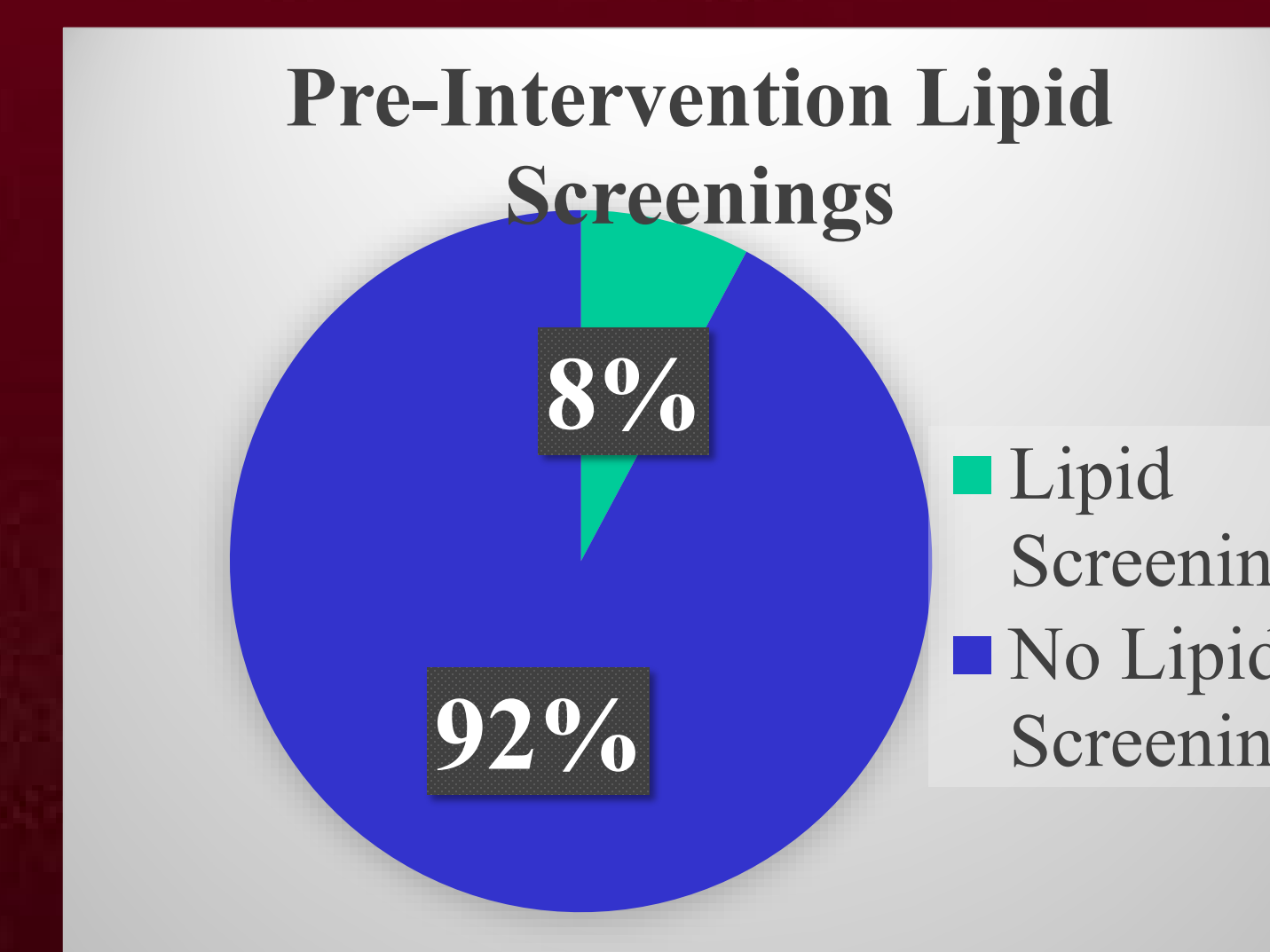
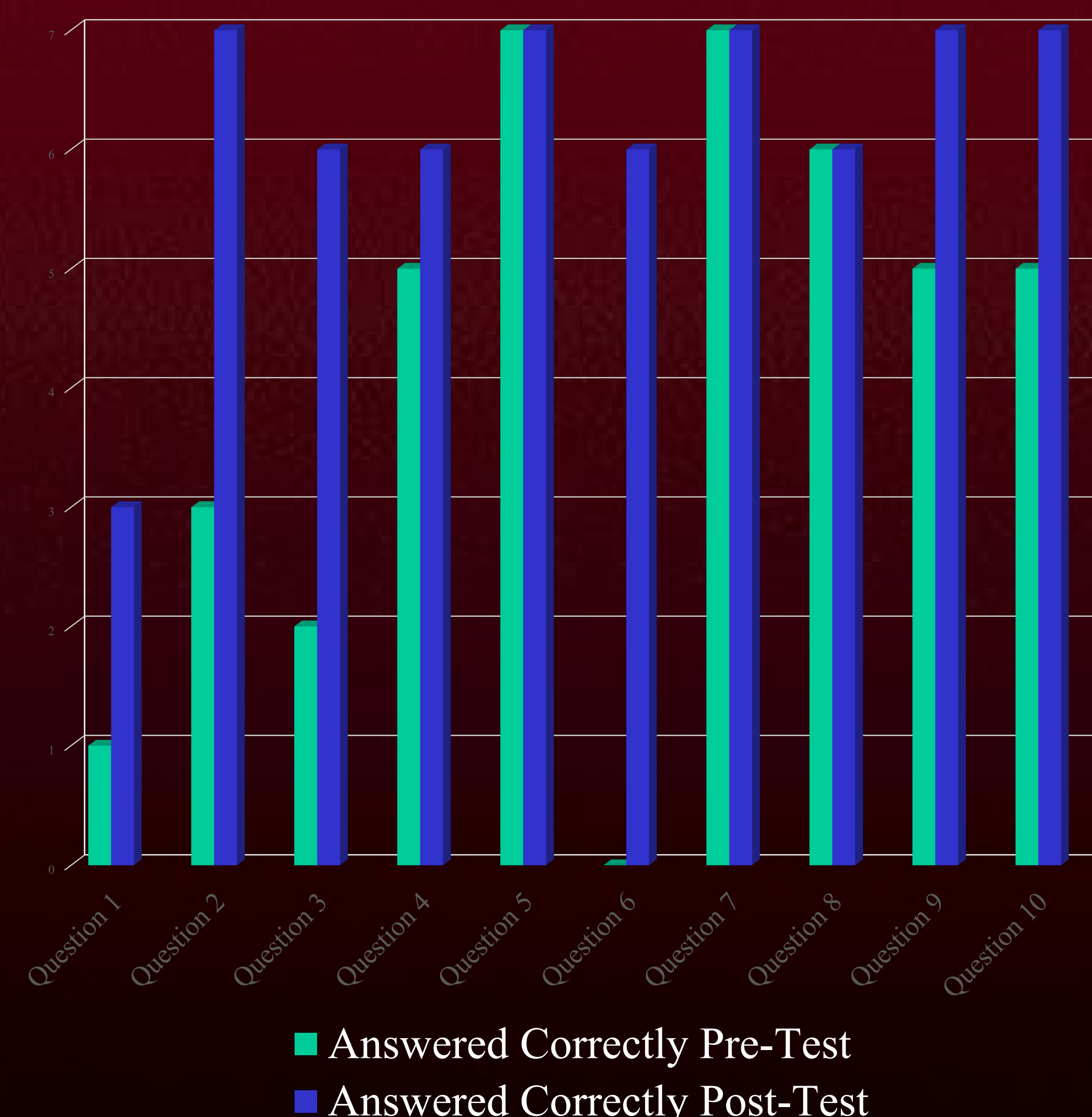
PICOT/Framework

In 9 to 11 year old patients, how does the implementation of 2011 NHLBI universal lipid screening guidelines following an educational intervention to providers compared to no guideline education affect the number of lipid screenings performed and provider adherence to guidelines during a three-month period?

Pettigrew & Whipp's Process Model of Change



Hyperlipidemia Knowledge



Discussion

Preventative health care is key for the underserved, underinsured populations in both rural and urban areas. Early identification, management, and treatment of hyperlipidemia can drastically reduce cardiovascular events, co-morbidities, and early deaths (Wilson et al., 2015). Further research is needed to fully explore the benefit of universal lipid screenings in 9 to 11 year olds and to educate clinicians on the benefits of universal screenings.

Limitations:

1. A change in the organization's administration during the study.
2. A small sample size and a single organization