Evaluation of a Middle School Based Program to Improve Knowledge on Healthy Nutritional and Physical Behaviors

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Introduction

Childhood obesity has been characterized as an epidemic by the Institute of Medicine (IOM) due to its pervasive nature that transcends ethnicity, gender, and age. Obesity has placed children at risk for developing hypertension, diabetes, and stroke. Childhood obesity has been characterized as an epidemic by the Institute of Medicine (IOM) due to its pervasive nature that transcends ethnicity, gender, and age. Obesity has placed children at risk for developing hypertension, diabetes, and stroke.

Objectives

We sought to determine whether a middle school-based health intervention promoting healthy eating, physical activity, and education on obesity would increase knowledge and change behaviors to decrease the rate of obesity.

Methods

A pre-test post-test design was used on a group of 30 middle school students in one health class. Students were given a modified version of the CDC’s Youth Risk Behavior Surveillance System Questionnaire (YRBSS) as a knowledge test and their heights and weights were measured for BMI calculation pre-intervention. The intervention composed of a 12-week health curriculum that focused on healthy eating, increased physical activity, and knowledge of obesity. Post-intervention, the same YRBSS questionnaire was given with the inclusion of three questions on nutritional behaviors and fifteen questions on knowledge of obesity and physical activity in the YRBSS questionnaire. There were 16 students that did not get any questions correct on obesity. Twenty-four students did not demonstrate nutritional behaviors and fifteen students did not demonstrate the correct physical behaviors. Lastly, 8 students were identified as being obese in the study.

Conclusions

Overall, an increase in a child’s BMI as well as decline in healthy behaviors could have been influence by many factors. The low socioeconomic status of a student could stimulate a decline in healthy behaviors. Specifically, if the student’s status of a student could stimulate a decline in healthy behaviors. Specifically, if the student’s status of a student could stimulate a decline in healthy behaviors. Specifically, if the student’s status of a student could stimulate a decline in healthy behaviors.

Further pilot studies are needed to examine students after exposure to the same intervention, yet with an extension of exposure to curriculum, beyond 12 weeks. Once this is administered, then the same students need to be followed throughout middle school to determine if their knowledge and healthy behaviors increase and their BMI decreases.

Statistical Analysis

The pre-test answers on knowledge and behaviors of 30 students were matched to their post-test answers. A paired t-test in SPSS was used to determine any variation and determine statistical significance. Pre-intervention BMI was paired with post-intervention BMI and a paired t-test was also used to determine statistical significance. All analyses were performed using SPSS 23.

Results

A paired t-test was used to compare baseline data from post-intervention data. This data was used to determine the effects of the intervention on student’s knowledge, behavior, and BMI.