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Effectiveness of a planned teaching program on knowledge regarding the causes and consequences of obesity among school-going children: A pre-experimental study

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Abstract
Background: Childhood obesity is an important public health concern associated with unhealthy dietary practices, physical inactivity, sedentary behaviour, and other lifestyle-related factors. School health education provides an opportunity to improve children's understanding of obesity and promote healthy behaviours at an early age.
Aim: To assess the effectiveness of a planned teaching programme on knowledge regarding the causes and consequences of obesity among school-going children in a selected school.
Methods: A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. Sixty school-going children aged 6–11 years were selected using a non-probability convenience sampling technique. Data were collected using a self-structured knowledge questionnaire consisting of 20 items. A planned teaching programme was administered after the pre-test, and the post-test was conducted on the seventh day. Descriptive statistics and a paired t test were used for analysis. The questionnaire demonstrated a reliability coefficient of 0.86.
Results: In the pre-test, 15.0% of children had poor knowledge, 85.0% had average knowledge, and none had good knowledge. The mean pre-test knowledge score was 9.78 ± 2.38. Following the planned teaching programme, no child had poor knowledge, 58.33% had average knowledge, and 41.67% had good knowledge. The mean post-test score increased to 14.08 ± 1.96. The paired t test was 12.63 with p
< 0.001.
Conclusion: The findings demonstrate a significant improvement in knowledge following the planned teaching programme. School-based health education may be incorporated into school health activities to improve awareness regarding obesity and its prevention among children.

Keywords: Childhood obesity, school-going children, planned teaching programme, health education, knowledge, school health nursing, pre-test, post-test

Introduction

Childhood overweight and obesity have become important public health concerns. Changes in dietary patterns, increased consumption of energy-dense foods and sugary beverages, reduced physical activity, and increasing sedentary behaviour contribute to unhealthy weight among children.

The school years are an important period for developing dietary, physical activity, and lifestyle habits. Health education delivered during this period can improve children's knowledge regarding healthy eating, physical activity, and the consequences of unhealthy lifestyle practices. Nurses and other school health professionals can contribute to health promotion and obesity prevention.

The present study evaluated whether a planned teaching programme could improve knowledge regarding the causes and consequences of obesity among school-going children.

Aim of the Study

To assess the effectiveness of a planned teaching programme on knowledge regarding the causes and consequences of obesity among school-going children in a selected school.

Objectives

- To assess the pre-test level of knowledge regarding the causes and consequences of obesity among school-going children.
- To assess the post-test level of knowledge following the planned teaching programme.
- To determine the effectiveness of the planned teaching programme by comparing pre-test and post-test knowledge scores.
- To determine the association between post-test knowledge scores and selected demographic variables.

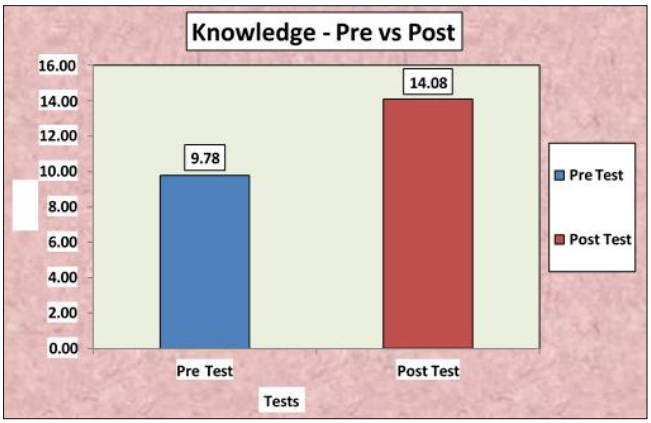
Results

Pre-test Knowledge: Before the planned teaching programme, 9 children (15.0%) had poor knowledge, 51 (85.0%) had average knowledge, and none had good knowledge. The mean pre-test score was 9.78 ± 2.38.

Post-test Knowledge: After the intervention, none of the children had poor knowledge. Thirty-five children (58.33%) had average knowledge and 25 (41.67%) had good knowledge. The mean post-test score was
14.08 ± 1.96.

Assessment	n	Mean	SD	Paired t	p value
Pre-test	60	9.78	2.38	12.63	<0.001
Post-test	60	14.08	1.96		

The mean knowledge score increased by 4.30 points following the planned teaching programme. The paired t test showed a statistically significant difference between pre-test and post-test scores ($t = 12.63$, $p < 0.001$).



Discussion

The present study demonstrated an improvement in knowledge regarding the causes and consequences of obesity following a planned teaching programme. The proportion of children with poor knowledge decreased from 15.0% in the pre-test to zero in the post-test, while the proportion with good knowledge increased from 0% to 41.67%.

The mean knowledge score increased from 9.78 to 14.08, and the paired t test indicated a statistically significant difference between the two assessments. These findings are consistent with the general direction of previous educational-intervention studies cited in the dissertation, which reported improvement in knowledge following structured teaching programmes.

Conclusion

The present study found a statistically significant improvement in knowledge regarding the causes and consequences of obesity among school-going children after implementation of a planned teaching programme. The mean knowledge score increased from 9.78 ± 2.38 in the pre-test to 14.08 ± 1.96 in the post-test, with a paired t value of 12.63 and $p < 0.001$.

The findings support the use of structured school-based health education as an approach for improving children's awareness of obesity and healthy lifestyle practices.

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