



A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING CHILDHOOD OBESITY AND ITS IMPACT ON HEALTH AMONG THE MOTHERS OF CHILDREN IN A SELECTED URBAN AREA, AGARTALA, TRIPURA

Nursing

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ABSTRACT

Introduction: Childhood obesity is a growing global public health concern with significant implications for physical, mental, and social well-being. In India, the prevalence of overweight and obesity among children has risen considerably, particularly in urban areas. Agartala, the capital of Tripura, is no exception to this trend. **This study aims** to assess the effectiveness of a video-assisted teaching program on knowledge regarding childhood obesity and its impact on health among mothers of children in a selected urban area of Agartala. **Methodology:** This study employed a pre-experimental, one-group pre-test and post-test design, conducted in a selected urban area of Agartala, Tripura, targeting mothers of children aged 6 to 12 years. A non-probability purposive sampling technique was used to select 40 mothers. Data collection involved administering a structured knowledge questionnaire as a pre-test to assess baseline knowledge about childhood obesity and its health impacts. Following this, a video-assisted teaching program was conducted, focusing on the causes, consequences, prevention, and management of childhood obesity. The same structured knowledge questionnaire was then re-administered as a post-test to evaluate the changes in knowledge resulting from the intervention. **Results:** The study revealed a significant improvement in mothers' knowledge regarding childhood obesity and its impact on health after the video-assisted teaching program. Pre-test scores ranged from 6 to 18 with a mean of 11.43, median of 11, and standard deviation of 2.92. Post-test scores ranged from 11 to 20 with a mean of 13.7, median of 13, and standard deviation of 2.76. The mean percentage score in the area of childhood obesity and its impact on health increased from 34% to 43.75%, and in the area of management and prevention of childhood obesity from 56.54% to 64.85%. The paired t-test indicated a significant difference between pre-test and post-test scores ($t = 6.7, p < 0.05$), confirming the effectiveness of the intervention. Chi-square tests showed no significant association between pre-test knowledge scores and demographic variables such as age, number of children, educational qualification, family income, occupation, and dietary pattern. of families, area of residence, and knowledge levels regarding pubertal growth among participants ($p < 0.05$). **Conclusion:** The study concluded that the video-assisted teaching program significantly enhanced the knowledge of mothers regarding childhood obesity and its impact on health. Pre-test to post-test comparisons showed a marked increase in knowledge scores, affirming the program's effectiveness. No significant associations were found between pre-test knowledge and demographic variables, indicating that the intervention effectively improved knowledge across diverse participant backgrounds.

KEYWORDS

Childhood obesity, Video-assisted teaching, Knowledge enhancement, Mothers, Health impact

INTRODUCTION

Childhood obesity has emerged as a major public health challenge worldwide, with its prevalence tripling over the past three decades. According to the World Health Organization (WHO), in 2020, over 340 million children and adolescents aged 5-19 were overweight or obese. In India, the National Family Health Survey-5 (NFHS-5) reported a worrying increase in childhood obesity rates, with approximately 14.4% of children aged 5-9 years being overweight. This alarming trend is attributed to lifestyle changes, including increased consumption of high-calorie foods and reduced physical activity.

Childhood obesity poses significant health risks, including the early onset of type 2 diabetes, hypertension, and cardiovascular diseases. Additionally, obese children are more likely to experience psychological issues such as low self-esteem, depression, and social stigmatization. The economic burden of obesity is substantial, as it contributes to increased healthcare costs and loss of productivity.

Agartala, the capital city of Tripura, is witnessing similar trends. Rapid urbanization and changing dietary patterns have contributed to a rise in childhood obesity rates. Despite the growing prevalence, there is limited awareness among parents about the causes, consequences, and preventive measures for childhood obesity. Mothers, being primary caregivers, play a crucial role in shaping their children's dietary habits and lifestyle choices. Therefore, enhancing their knowledge is imperative to combat this public health issue effectively.

By focusing on mothers of children aged 6-12 years in an urban area of Agartala, this study seeks to provide evidence-based insights into the effectiveness of video-assisted educational programs. The findings can inform public health strategies and interventions aimed at reducing childhood obesity and promoting healthier lifestyles among children.

OBJECTIVES OF THE STUDY:

1. To assess the pre-test knowledge regarding childhood obesity and its impact on health among the mothers of children.
2. To find out the effectiveness of video-assisted teaching programme on knowledge regarding childhood obesity and its impact on health among the mothers of children.
3. To determine the association between pre-test knowledge score

among the mothers of children with their demographic variables.

HYPOTHESIS

H₁: There is significant difference between pre-test and post-test knowledge score regarding childhood obesity and its impact on health among the mothers of children.

H₂: There is significant association between pre-test knowledge score regarding childhood obesity and its impact on health among the mothers of children with their demographic variables.

RESEARCH METHODOLOGY:

Research Approach: Quantitative research approach.

Research Design: Pre-experimental one-group pre-test and post-test design.

Variables:

Independent Variable: Video-assisted teaching program.

Dependent Variable: Knowledge of mothers.

Demographic Variables: Age of mothers, number of children, educational status, occupation of mother, family income per month, dietary pattern of family, previous exposure to any educational program regarding childhood obesity.

Setting:

Pilot Study: East Sibnagar.

Main Study: Dhaleswar South, Agartala, Tripura.

Criteria for Setting Selection: Availability of the study sample, feasibility of conducting the study, and cooperation and administrative approval.

Population: Mothers of children in a selected urban area, Agartala, Tripura.

Sample And Sampling Technique:

Sample: Mothers who have children within 6 years to 12 years of age in a selected urban area, Agartala, Tripura.

Sampling Technique: Non-probability purposive sampling technique.

Sample Size: 40 mothers.

Inclusion And Exclusion Criteria:

Inclusion Criteria: Mothers who have children within 6 years to 12 years of age, are able to read and write Bengali, and are available and willing to participate in the study.

Exclusion Criteria:

- Mothers who do not have children within the age range of 6 to 12 years.
- Mothers who cannot read or write Bengali.
- Mothers who are not available or unwilling to participate in the study.
- Mothers who have already attended any educational program regarding childhood obesity.

Research Tool

- **Section A:** Demographic proforma to collect background information (7 items covering age, number of children, educational status, family income, occupation, dietary pattern, and previous exposure to educational programs on childhood obesity).
- **Section B:** Self-administered structured knowledge questionnaire consisting of 35 items on childhood obesity and its impact on health.

Video-Assisted Teaching Program:

- Developed based on extensive literature review and expert opinions.
- First draft created, followed by content validation and final draft preparation.
- Focused on causes, consequences, prevention, and management of childhood obesity, with relevant pictures to enhance understanding.

Data Collection Procedure:

Pre-test (Day 1): Administration of structured knowledge questionnaire to assess baseline knowledge.

Intervention (Day 1): Conducted video-assisted teaching program.

Post-test (Day 7): Re-administration of the structured knowledge questionnaire to measure changes in knowledge.

Data Analysis

- Descriptive statistics (frequency, percentage, mean, median, and standard deviation) used to organize and tabulate data.
- Inferential statistics (t-test, chi-square) used to determine the effectiveness of the intervention and associations between knowledge and demographic variables.

Ethical Permission

- Approval from the Institute Ethical Committee, AHRCPL, Agartala.
- Permission from the Principal, Institute of Nursing Science, and the Hon'ble Mayor, Agartala Municipal Corporation.
- Written informed consent obtained from all participants.

RESULTS

Demographic Key Findings Of The Study

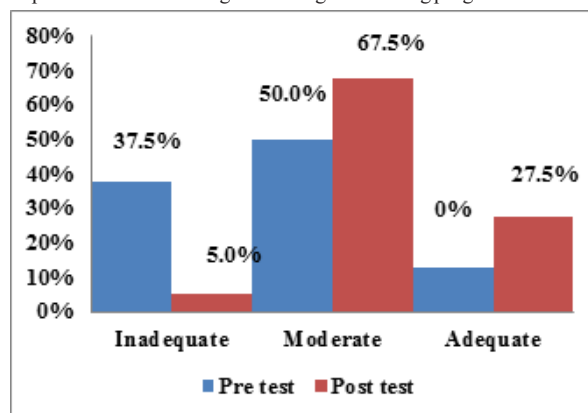
The demographic profile of the mothers in this study reveals diverse characteristics. Regarding age distribution, the majority of mothers, 13 (32.50%), are in the 31-35 years age group, followed by 11 (27.50%) in the 36-40 years range, 10 (25%) in the 26-30 years bracket, and 6 (15%) in the 41-45 years category. In terms of the number of children, most mothers, 19 (47.50%), have two children, 16 (40%) have one child, and 5 (12.50%) have three children, with none having more than three. Educational qualifications vary, with 22 (55%) mothers having an undergraduate education, 13 (32.50%) having completed graduation, and 5 (12.50%) holding postgraduate degrees. Family income levels show 12 (30%) earning between Rs. 5000 – Rs. 10,000 per month, 11 (27.50%) earning less than Rs. 5000, 10 (25%) earning between Rs. 10,001 – Rs. 15,000, and 7 (17.50%) earning more than Rs. 15,000. Occupationally, 21 (52.50%) of the mothers are working women, while 19 (47.50%) are housewives. The dietary patterns indicate that 35 (87.50%) families are non-vegetarian, whereas only 5

(12.50%) are vegetarian.

Table 1: Range, Mean, Median, and Standard Deviation of Pre-test and Post-test Knowledge Scores Among Mothers Regarding Childhood Obesity and Its Impact on Health

Level of Knowledge	Rang	Mean	Median	SD
Pretest	6 – 18	11.43	11	2.92
Posttest	11 – 20	13.7	13	2.76

The pre-test scores ranged from 6 to 18, with a mean of 11.43, a median of 11, and a standard deviation of 2.92. After the intervention, the post-test scores ranged from 11 to 20, with a mean of 13.7, a median of 13, and a standard deviation of 2.76. These results indicate an improvement in knowledge following the teaching program.



Graph:1 Level Of Knowledge In Pretest And Posttest.

Table 2 Effectiveness Of Video-assisted Teaching Programme On Knowledge Regarding Childhood Obesity And Its Impact On Health Among Mothers Using Paired T-Test

Observation	Mean	SD	Mean difference	Paired t test
Pre-test	11.43	2.92	2.27	6.7
Post-test	13.7	2.76		

The mean pre-test score was 11.43 with a standard deviation of 2.92, while the mean post-test score was 13.7 with a standard deviation of 2.76. The mean difference between the pre-test and post-test scores was 2.27, and the **paired t-test value was 6.7, indicating a statistically significant improvement in knowledge ($p < 0.05$).**

Regarding the association between selected demographic variables and the level of knowledge

The chi-square analyses found no significant associations between pre-test knowledge scores on childhood obesity among mothers of children and demographic variables such as age, total number of children, educational qualifications, family income, occupation, or dietary patterns. This suggests these factors do not influence pre-test knowledge scores significantly.

CONCLUSION:

The study concludes that the video-assisted teaching program effectively enhances mothers' knowledge regarding childhood obesity and its health implications. Significant improvement was observed in post-test scores compared to pre-test scores, indicating the program's efficacy. However, demographic variables such as age, educational qualifications, family income, occupation, and dietary patterns showed no significant association with pre-test knowledge scores. These findings underscore the program's effectiveness in educating mothers, irrespective of their demographic backgrounds.

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