

EFFECTIVENESS OF NEED BASED SOCIAL AWARENESS PROGRAMME ON KNOWLEDGE REGARDING OBESITY AMONG STUDENTS IN SELECTED SCHOOL AT TRICHY DISTRICT

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ABSTRACT

World Health Organization alarmed that over 340 million children and adolescents aged 5-19 were overweight or obese, but it can be prevented with early interventions. Hence the study main aim is to determine the effectiveness of need based social awareness programme on level of knowledge regarding Obesity among selected school students. Study was carried out by adopting pre experimental one group pre-test posttest only design. In the screening phase 276 students were participated, after screening phase it was found that 66 students falls under obese, over weight. Based on inclusion criteria 60 students accepted to participate in the need based social awareness programme. Pre-test was conducted by self-administered questionnaire, and then intervention was given for the duration of 45 minutes. Posttest was done with the same tool. Further the study revealed that posttest mean (9.3) was higher than the pre-test (4.7) with the t-value of 16.1.hence the social awareness programme was found to be effective in increasing the knowledge of students on obesity. Study concluded that by creating awareness on obesity indirectly minimize the non-communicable diseases burden significantly in the community.

KEYWORDS: Need Based Social Awareness Programme, Obesity, Overweight, Students

INTRODUCTION

Adolescence is a period of past physical, mental, social and passionate development. It literally means “to grow into maturity”.⁽¹⁾ During early adolescent period diet, exercise and hereditary factors influence the height, weight, and body build. Throughout the transition from childhood to adulthood, teenagers are struggling to make lifestyle choices and develop behaviour patterns that make impact in their health in current and future.⁽²⁾

Obesity has emerged as one of the major health problem in recent year. WHO (2017) reported the number of obese children and adolescence worldwide has risen tenfold in past four decade. In current trends continue, more adolescence will be obese by 2022.⁽³⁾ By 2025 India will have over 17 million obese children and stand second among 184 countries.⁽⁴⁾ So does the burden of its associated co-morbidities. Non communicable disease and their factors obesity are now becoming a significant problem not only in affluent societies but also in developing countries.⁽⁵⁾

The increasing prevalence suggests that lead to increased hypertension, heart disease, type 2 Diabetes. Influencing factors caused obesity are poor food choices, unhealthy eating practices and lack of Exercise.⁽⁶⁾ Conversely 50 % to 80 %

of obese children become obese adults.⁽⁷⁾ Morbidly from cardiovascular disease, diabetes, obesity related cancer and arthritis were 50 to 100 % higher in obese individual who were obese in children and cardio vascular mortality in such individual is doubled.⁽⁸⁾

It is the need of hour to assess the rising menace of this upcoming epidemic. Hence, close monitoring of overweight prevalence in adolescents and taking timely preventive measures will be an effective approach in dealing with the problem of obesity.⁽⁹⁾

Need based social awareness programme is one approach to reach adolescents at risk for overweight and obesity as well as engage adolescent in learning strategies to improve health behaviour.⁽¹⁰⁾

OBJECTIVES

- To estimate the prevalence of obesity among selected school students.
- To assess the existing level of knowledge regarding obesity among selected school students at Trichy.
- To determine the effectiveness of need based social awareness programme on level of knowledge regarding Obesity among selected school students.
- Find the association between gain knowledge score of school students with their selected demographic variables.

HYPOTHESIS

There will be a significant difference between pre and posttest level of knowledge regarding obesity among selected school students at Trichy.

METHODOLOGY

Approach and Design

Quantitative approach and pre-experimental one group pre-test posttest only design.

Target Population: students between the age group of 11-16 years (6th-10th standard students)

Samples: a total of 60 students between the age of 11-16 years were selected based on inclusion and exclusion criteria

For estimating the prevalence all the students from 6-10th standard were included.

Sample Size: 60 students

Sampling Criteria

Inclusion Criteria

- Students between the age group of 11-16 years
- Who are willing to take part in the study
- Students available during the time of data collection period.

Exclusion Criteria

- Students suffering with some physical ailments.
- Students with deafness and dumb

Sampling Technique

- Non- probability convenient sampling technique.

Setting of the Study

Present study was carried out in Konali High School. Totally 588 students are studying in this school out of which 276 were in 6-10th standard. This government aided school is run by RC missionaries, located near Samayapuram. Health facilities are extended by Trichy SRM Medical college hospital and research centre and government primary health centre, Irungalur.

Data Collection Tool: Structured knowledge questionnaire on obesity, it consist of 2 parts

- Section –A: Background variables of the students
- Section-B: Structured knowledge questionnaire regarding obesity.

Scoring Procedure: the knowledge tool consists of 10 items. Maximum possible score is 10. each correct response carries one score, wrong responses carries zero score.

Level of Knowledge

- Inadequate knowledge- 1-3
- Moderately adequate knowledge- 4-6
- Adequate knowledge- 7-10
- Reliability of the tool was carried with test-retest method. r-value was 0.8, found to be reliable.

Need Based Social Awareness Programme on Obesity:

It was developed by researcher after extensive review of literature. Lecture cum discussion was adopted along with LCD as AV aids to deliver the intervention. Intervention was held for 45 minutes. This includes definition of obesity, causes, risk factor, diagnosis of obesity, prevention and management of obesity and its ill effects.

Data Collection Procedure:

A prior formal permission was obtained from school authority before data collection. Students were given an explanation regarding purpose of the study and consent was obtained.

In phase I prevalence of obesity was assessed: weight and height of all the students were measured and the BMI was calculated. Height was measured in standing erect position without foot wear, using a standard stripmeter. Weight was checked with bath weighing scale and BMI was calculated by using $BMI = \frac{wt. \text{ kgs}}{ht^2 \text{ m}^2}$ formula. WHO, BMI percentile was used to classify over weight and obesity.

Cut off – percentile classification was,

BMI < 18.5 kg/m² – under weight

18.5-24 kg/m² - normal

25- 29 kg/m² - over weight.

BMI > 30 kg/m² – Obese.

Phase II- students identified with obesity were purposefully included for Need based planned awareness programme intervention. Initially their existing knowledge on obesity was assessed with structure knowledge questionnaire following which intervention on obesity was conducted with the help of LCD. After 7 days the posttest knowledge was assessed with the same questionnaire.

Plan for Data Analysis

Descriptive statistics like mean and percentage used to assess the baseline variables.

Pair t – test was used to analyze the effectiveness of Need based planned awareness programme intervention, chi-square test to find out the association between knowledge with the selected baseline variables of the students.

RESULTS AND DISCUSSION

Prevalence of Obesity among School Students

Table 1 shows that out of 276 students only 9 % (24) of them fall under obesity category and 14 % (39) were observed to be overweight. Majority (77 %) of them are normal.

Table 1: Number of Students Identified as Overweight, Obese and Normal. N=276

Group	Total Number		Boys		Girls	
	n	%	n	%	n	%
Over weight	39	14	23	8	16	6
Obese	24	9	14	5	10	4
Normal (control)	213	77	109	40	104	37

Background Variables of the Selected School Students

Table 2 explicated that majority (28(47 %) were in the age group of 12-14 years.65 % of the participants belongs to male population. Most (58 %) of them follow Hindu religion and maximum were (55 %) living in the nuclear families. in regard to the type of food, 95 % were non-vegetarians. Leisure time habits of the student's shows that 53 % of them were spending time in watching T.V. and only 17 %, 15 % were playing out door games and indoor games respectively.

Table 2: Frequency and Percentage Distribution of Background Variables of Selected School Students. N=60

S. No	Background Variables	Frequency(f)	Percentage (%)
1.	Age in years		
	11-12	12	20
	13-14	28	47
	15-16	20	33
2.	Gender		
	Male	39	65
	Female	21	35
3.	Religion		
	Hindu	35	58
	Christian	23	39
	Muslim	02	03
4.	Type of family		
	Nuclear	33	55
	Joint	22	37
	Extended	05	08
5.	Type of food		
	Vegetarian	03	05
	Non-Vegetarian	57	95
6.	Leisure time habits		
	Indoor games	09	15
	Outdoor games	10	17
	Watching T.V.	32	53
	Social media	07	12
	others	02	03

Level of Knowledge on Obesity among Selected School Students

Figure 1 expressed that during pre-test most of them (78 %) had inadequate knowledge and only (15 %) had moderately adequate knowledge on prevention of obesity. In the post-test 11 (18 %) of them had moderately adequate knowledge and most of them 48(82 %) had adequate knowledge on prevention of obesity.

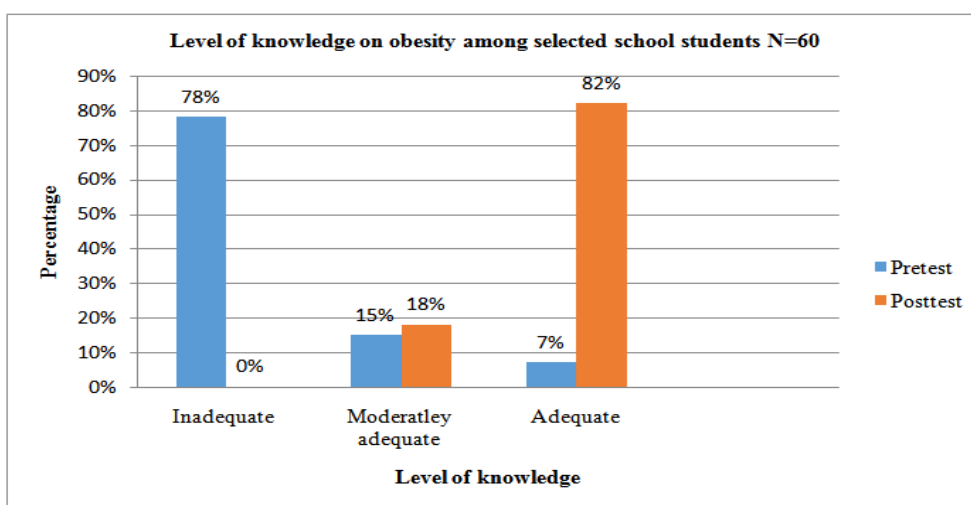


Figure 1: Percentage Distribution of Level of Knowledge Regarding Obesity among Selected School Students.

Effectiveness of Need Based Social Awareness Programme on Level Of Knowledge on Obesity among Selected School Students

Table 3 explicated that the mean pre-test level of knowledge score was 4.7, and the mean post test score was 9.3 with the mean difference of 4.6, the obtained 't' value is 16.1. It was found to be significant at $p < 0.05$ level. Hence the hypothesis (H_1) is accepted.

Table 3: Mean, SD and t-Value of Pre-Test and Post-Test level of Knowledge on Obesity among Selected School Students. N=60

Level of Knowledge	Mean	SD	MD	t-value
Pre-test	4.7	3.94	4.6	16.1*
Post-test	9.3	2.17		

Significant at $p < 0.05$ level

Association between Knowledge score of School Students with Their Selected Background Variables

The present study findings shows that male gender and non-vegetarian type food consumption had a significant association with their level of knowledge on prevention of obesity. Other variables are not associated.

DISCUSSIONS

In the present study main aim is to determine the effectiveness of need based social awareness programme on level of knowledge regarding Obesity among selected school students. The 1st objective was to estimate the prevalence of obesity among selected school students. It shows that among 276 students 24(9%) of them were obese and 39 (14%) falls the category of overweight. It was similar with the study conducted by Shashidhar Kotian, Ganesh Kumar S, et al. (2010)¹¹, in the Karnataka state, in his study the overall prevalence of overweight among adolescents was 9.9% and obesity was 4.8%. Many studies have shown that the prevalence of overweight among adolescents varies between 10 and 30%. Prevalence varies within the country due to differences in the lifestyle, specifically in the dietary patterns, and physical activity.

2nd objective of the study was to assess the existing level of knowledge regarding obesity among selected school students, study results revealed that 47(78%) had inadequate knowledge and 9(15%) acquired moderately adequate knowledge and 4(7%) of them had adequate knowledge. It was similar with the study conducted by Garggy Shaji, Navya Choolaparambil Joseph, Aswathy Mathu, Vidhu Joshy, (2019)¹² in Trissur. A pretested self-administered questionnaire was used to collect the data. 46.4% of adolescents had low knowledge on obesity, 46.9 have moderate knowledge, and only 6.7% of them had high knowledge on obesity. It may be due to ignorance commonly observed among the adolescent age group.

3rd objective of the study was to determine the effectiveness of need based social awareness programme on level of knowledge regarding Obesity among selected school students. The present study the mean pre-test knowledge score was 4.7 with the SD of 3.94, mean posttest knowledge score is 9.3 and the calculated mean difference was 4.6 with the t value of 16.1. It was found to be significant at $p < 0.05$ level. Hence the hypothesis H_1 is accepted. It clearly revealed that need based social awareness programme was effective in improving knowledge on obesity among selected school students. This results were alike with the study carried out by Titi Xavier Mangalathil, Pushpendra Kumar, Vikas Choudhary (2014)¹³ at Rajasthan.

Find the association between knowledge score of school students with their selected demographic variables revealed there is an association with the male gender following more non vegetarian diet of lifestyle. It was similar with study by Hasan Huseyin Eker, et al. (2017)¹⁴ Beyoglu district of Istanbul province of Turkey. He concluded that healthy diets and losing weight in a healthy way were more commonly accepted by the female students than the male gender.

RECOMMENDATIONS

- It can be replicated on a large scale, thus the findings can be generalized.
- Co-hort study design with effectiveness of self-instructional module on prevention of obesity can be done.
- Comparative study can be conducted between rural and urban schools.
- Correlation study between stress level and prevalence of obesity among adolescents can be done.

CONCLUSIONS

Need based social awareness programme on level of knowledge regarding Obesity among selected school students was found to be effective community health nursing strategy. It is a cost effective intervention can be practice in the routine school health programmes. Public health nurse can make significant contribution in creating healthy citizens by adopting this primary intervention.

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