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Original Research Article

Effectiveness of Information, Education and Communication on Prevention of Obesity in Young Adolescents

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ABSTRACT

Background: Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. In 2016, 39% of adults aged 18 years and over (39% of men and 40% of women) were overweight. Overall, about 13% of world adult populations [11% of men and 15% of women] were obese in 2016.
Objectives: To assess the effectiveness of Information, Education and Communication on prevention of obesity among young adult and adolescent among nursing students before and after structured teaching programme and to find out the relationship between the level of knowledge regarding prevention of obesity in pretest and posttest .
Methodology: A Quasi Experimental Design was carried out in the study the sample comprised of 50 students who were selected by purposive sampling technique. The tool comprises of demographic profile and 30 multiple choice questionnaire. Reliability of the tool was checked by using multiple choice questionnaire. The data were analyzed by using structured questionnaire. The data was analyzed by using descriptive and inferential statistics.
Results: There is significant association between the knowledge and the selected demographic variables.
Conclusion: Obesity in adolescents and children has raised to significant levels globally with serious public health consequences. The findings of the study concluded that IEC was very effective in improving the knowledge of the students on prevention of obesity.

Keywords: Knowledge, Effectiveness, Obesity, Nursing Students

INTRODUCTION

Obesity is a chronic disease which has spread all over the world and threatens public global health. [1] Obesity is commonest expression of unhealthy diet often combined with lack of physical activity. Obesity is characterized by an excess of body fat or adiposity. Obesity is most often defined by the body mass index (BMI and the use of body mass index for the age to define being overweight and obese in children and adolescents is well established for both clinical and public health applications. [2]

The overall trends of childhood obesity are increasingly globally and prevalence is expected to reach 9.1% by 2020. [3] Worldwide obesity has nearly tripled since 1975. [4] In 2016, more than 1.9 billion adults, 18 years and older, were overweight of these over 650 million are obese. Most of the world's population live in countries where overweight and obesity more people than underweight. 38% adults are aged 18 years and over were overweight in 2016 and 13% are obese. 41 million children under the age of 5 were overweight or obese in 2016. Over 340 million children

and adolescent aged 5 -19 were overweight or obese in 2016. By 2025, India will have over17 million obese children and stand second among 184 countries where the numbers of obese children are concerned. A recent study carried out in Surat, Gujarat, reported the prevalence of obesity in different adolescent to be 6.5%. [5] Another similar study conducted in Telangana found the prevalence of obesity to be 2.8 % in Hyderabad. [6]

An internet obesity prevention program for adolescent state that prevention is widely advocated as important strategy to address the rising prevalence of obesity in adolescents. [7] School based prevention program are one approach to reach adolescent at risk for overweight and obesity as well as engage adolescent in learning strategies to improve health behavior. The majority of programs have been multifaceted and comprehensive include health education [diet and physical activity] behavioural strategies, parental support. Results of numerous meta analyzes and systemic review indicate that more than 75% of programs resulted in significant improvements in knowledge, self-efficacy and health behavior. [8] A study was conducted adolescent that compared an internet obesity prevention program to traditional classroom education indicated better behavioural and psychological outcomes within internet program. [9] Adolescent also reported that they preferred media based education over print materials and lecturers. [10]

Josh and josh have found obesity as an emerging problem in preschool, school going, and adolescent children. [11] Galhotra stated that physical activity and time spent outdoor is notably low among adolescents because greater stress in academics at school. [12]

According to Rani and Sathiya Sekaran the prevalence risks factor of obesity was high, but the children in their study had accurate perceptions of their body weight due to higher education and they were making effort to modify risks factors such as unhealthy dietary habits, sedentary life style, and television viewing. [13]

Chung and Puri conducted a study to compare eating and weight concern among underweight, normal weight, and overweight adolescent girls [16 -18 years] in New Delhi. [14] Even normal weight and underweight girls reported concern about excess weight. The level of satisfaction with body size is decreased with increased weight higher number of obese [76.6%] compared with normal weight [38%] and underweight [14%] girls reported that they engaged in dieting. These girls were found to be missing meals, snacking, and eating out.

Eating outside home [school canteen and fat food centers] was a significant risk factor. Those children buying lunch at canteen and restaurant are more likely to develop overweight and obesity. [15, 16]

The rising incidence of overweight and obesity among children and adolescent has become cause of concern India.

Hence this research study aimed to evaluate the effectiveness of IEC package on prevention of obesity among young adult and adolescents.

MATERIALS AND METHODS

Quasi experimental was selected to conduct this study with a sample size of 50 among 17-21 years age group of college students. The sample was selected by using purposive sampling method. The study was conducted in Meenakshi College of Nursing, Mangadu, Chennai. Based on selection criteria data collection tool with two part namely demographic variables and self-structured questionnaire to assess the knowledge level of the pretest was conducted among the students and teaching regarding prevention of obesity was given by using PPT slides. After 7 days post test was conducted to the same group with same tool and scoring was done.

RESULTS

The Chi-square value shows that there was statistically significant association between the level of knowledge and gender,

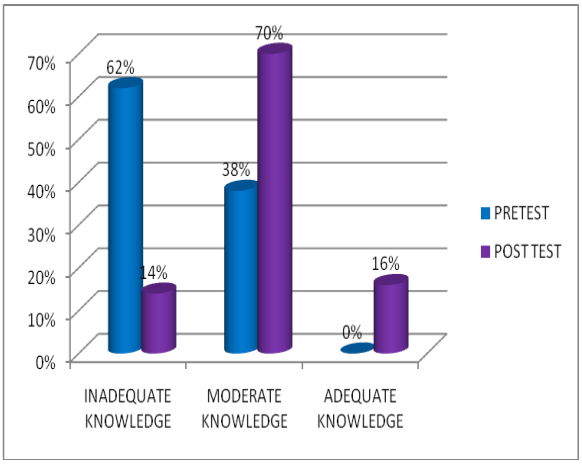
religion, place of accommodation, and skipping of breakfast in posttest.

TABLE -I: DISTRIBUTION OF SAMPLING ACCORDING TO VARIABLES

S.LNo	DEMOGRAPHIC VARIABLES	FREQUENCY [N]	PERCENTAGE [%]
1	AGE IN YEARS		
	a] 17-18 years	13	26%
	b] 18-19 years	12	24%
	c] 19-20 years	25	50%
	d] Above 20 years	0	0%
2	GENDER		
	a] Male	7	14%
	b] Female	43	86%
3	YEAR OF EDUCATION		
	a] I year	14	28%
	b] II year	36	72%
4	PARENT INCOME		
	a] Rs 5,000 -10,000	25	50%
	b] 10,000 -20,000	9	18%
	c] 20,000- 30,000	12	24%
	d] Above 30,000	4	8%
5	RELIGION		
	a] Hindu	43	86%
	b] Christian	5	10%
	c] Muslim	2	4%
	d]Others	0	0%
6	TYPE OF FAMILY		
	a] Nuclear family	38	76%
	b] Joint family	12	24%
7	PLACE OF ACCOMODATION		
	a] Day scholar	22	44%
	b]Hostel	22	44%
	c]Stay at relative house	6	12%
8	TYPE OF AREA STAYED		
	a]Rural	25	50%
	b] Urban	25	50%
9	TYPE OF FOOD CONSUMING		
	a] Vegetarian	7	14%
	b]Non- vegetarian	43	86%
10	DO YOU CONSUMING FAST FOOD?		
	a]Yes	36	72%
	b] No	14	28%
11	HOW MANY TIMES YOU EAT FAST FOOD?		
	a] Daily	5	10%
	b] Monthly	45	90%
12	DO YOU SKIP YOUR BREAK FAST?		
	a] Yes	17	34%
	b] No	23	46%
13	WHICH TYPE OF DISH YOU MORE INCLUDED IN DIET?		
	a] Leafy vegetables	19	38%
	b] Meat , fish , egg	18	36%
	c] Pulses	12	24%
	d] Fried items	1	2%
14	HOW MANY TIMES YOU TAKE FOOD IN A DAY ?		
	a] 3 Times	45	90%
	b] 4 Times	1	2%
	c] 2 Times	3	6%
	d] 5 Times	1	2%
15	DO YOU DO ANY EXERCISE DAILY?		
	a] Yes	9	18%
	b] No	41	82%
16	WHAT IS YOUR SLEEPING DURATION?		
	a] 4	2	4%
	b] 6	24	48%
	c]7	13	26%
	d] Above 7 hours	11	22%

TABLE II COMPARISON OF LEVEL OF KNOWLEDGE IN PRE AND POST TEST N= 50

VARIABLES	PRETEST				POSTTEST				't' VALUE	'P VALUE
	n	%	Mean	S.D	n	%	Mean	S.D		
INADEQUATE KNOWLEDGE	31	62%			7	14%				
MODERATELY ADEQUATE KNOWLEDGE	19	38%	11	4.05	35	70%	15.8	4.36	5.46	P< 0.05
ADEQUATE KNOWLEDGE	0	0%			8	16%				(S)



The study proved that significant association between the level of knowledge and gender, religion, place of accommodation and skipping of breakfast in posttest. The chi-square value shows that there was no statistically significant association between the level of knowledge and all other demographic variables.

DISCUSSION

This findings supported by a study which was shah et al among children and adolescent [8-18 years] were educated about health, nutrition and physical activity ,non communicable disease and healthy cooking practices in three cities of north India revealed low nutritional knowledge score in government [75-94%] and private [48-78%]. Despite the national nutritional programme at community level only 14% of adolescent population had been exposed to nutrition education due to poor implementation of IEC in India. [17]

In this study after posttest 14% sample had inadequate knowledge. 70 % sample had moderate level of knowledge and 16% sample had adequate level of knowledge. It showed that there was significant [P<0.05] in the level of knowledge.

CONCLUSION

The result of the study showed that the students who are doing B.Sc. [N] I year and II year scored of high score after participated in structured teaching programme. Therefore it was concluded that structured teaching programme on prevention of obesity is effective. Its confirmed that post test score of group is higher than in pretest do score

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