

EFFECTIVENESS OF PLANNED TEACHING PROGRAMME FOR MOTHERS WITH UNDER FIVE CHILDREN REGARDING CHILDHOOD OBESITY

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Abstract: **Background:** childhood overweight and obesity have become a major concern worldwide. Beyond the genetic predisposition with regard to weight gain the overall rapid increase in the past three decades primarily involves environmental and behavioral factors which need to be more clearly identified. Although there is growing evidence for the contribution of decreasing physical activity and several questions remain over the role of dietary factors. **Aims and objectives:** The study aimed at assessing the knowledge of the mothers of under five children, to compare the level of knowledge and to find out the association between the levels of knowledge with selected socio-demographic variables. **Material and Methods:** A two group pre-test post-test pre-experimental approach was adopted. The study was conducted among 60 mothers of under five children selected from rural community areas of Bangalore. The content validity of the tool and teaching plan was established. **Results:** Result of study indicates that the post test knowledge score of the mothers of under five children was increased significantly from 40% to 60%. **Conclusion:** This study concluded that planned teaching programme is an effective tool to improve the knowledge of mothers of under five children on childhood obesity.

Keywords: Under five children, effectiveness, childhood obesity, planned teaching programme.

1. INTRODUCTION

Obesity is a state in which there is generalized accumulation of excess adipose tissue in the body leading to more than 20% of the desirable body weight. Obesity in fact is not only a new challenge but also a rapidly increasing one.

World health organization has described obesity as an escalating epidemic and one of the neglected health problems of present time. Its impact on health is as great as smoking. It has also been reported that obesity has overtaken malnutrition and has become one of the topmost health problems in the world.

Childhood obesity is positively correlated with eventual adult obesity. It is related to many of the same risk factors as adult obesity most notably cardiovascular and psychosocial factor.

Obesity during childhood has been associated with numerous adverse effects including a variety of health complications such as hypertension, left ventricular hypertrophy, atherosclerosis, sleep disorders and non-alcoholic fatty liver disease as well as psychological effects such as stigmatization, discrimination, depression and emotional trauma.

STATEMENT OF THE PROBLEM:

“Effectiveness of planned teaching programme for mothers with under five children regarding childhood obesity in selected rural community areas at Bangalore”.

OBJECTIVES OF THE STUDY:

1. Assess the level of knowledge of the mothers of under five children regarding childhood obesity before and after planned teaching programme.
2. Compare the level of knowledge of the mothers with under five children regarding childhood obesity in experimental and control group.
3. Develop and administer planned teaching programme.
4. Find out the association between the level of knowledge with selected socio-demographic variables

HYPOTHESES:

H1: There will be significant difference in pretest and posttest knowledge level of mothers of under five children regarding childhood obesity

H2: There will be significant association between pretest, posttest knowledge scores of mothers of under five children with their socio-demographic variables.

2. MATERIALS AND METHODS

Research Approach: Evaluative research approach was used.

Research Design: A two group pre-test post-test Pre experimental research design was adopted

Setting of the Study: The study was conducted in rural community area of Bangalore

Target Population: The target population for this study consisted of mothers of under five children

Sample: The sample for the present study comprises of 100 mothers of under five children

Sampling technique: simple random technique

Development of tool for data collection: It consists of 2 parts:-

Part 1:-consists of 10 items related to demographic information such as age of the mother, religion, occupation, type of food intake, educational status of the mother, monthly family income, type of family, number of obese children in the family, number of under five children in the family, source of health information

Part 2:-It consists of 30 multiple choice questions. The questionnaires is divided in to 6 category

- Meaning and definition of childhood obesity
- Causes
- Signs and symptoms
- Diagnostic evaluation
- Management and prevention
- Complications

Validity of instrument: To ensure the content validity of the prepared tool, it was submitted to 06 experts in which 1 is statistician, and 5 nursing personnel specialized in child health nursing.

Reliability: The reliability of tool was established by using spearman brown split half method which indicates that the tool was reliable.

Data collection procedure: the data collection was carried out from 14.11.2009 to 06.12.2009. on day one the purpose of the study was explained to the samples and informed consent was obtained before starting data collection. The samples were divided in to two groups. One is experimental group and another is control group. Each group consists of 50 samples. A pretest was conducted by administering a structured knowledge questionnaire to the mothers of under five

children of both groups by using interview schedule. On the same day planned teaching programme was administered to the same samples of experimental group where the control group is not given any teaching programme. The post test was conducted for both groups by using the same structured knowledge questionnaire after seven days of structured teaching programme.

3. ANALYSIS OF DATA

Both descriptive and inferential statistics analyzed on the basis of the objectives and hypotheses of the study. Mean, median, range and standard deviation calculated. The significance of difference between the mean pre-test and post-test knowledge score of mothers of under five children was calculated using paired t' test. The association between demographic variables and post-test knowledge score regarding childhood obesity was determined by chi-square test. Data presented in the form of tables

4. RESULTS

The finding discussed under the following headings based on objectives of the study.

- Section I – data on demographic variables of mothers of under five children
- Section II - Frequency and percentage distribution of level of knowledge among the mothers of under five children in both groups
- Section III – evaluate the effectiveness of planned teaching programme
- Section IV – Data on Association between the level of knowledge on childhood obesity among mothers of under five children with their socio-demographic variables

SECTION I: DESCRIPTION OF DEMOGRAPHIC DATA OF THE SAMPLE

TABLE I: Frequency & Percentage distribution of samples according to their age

S.NO	Age in years	Frequency	Percentage
1	Below 20	25	25%
2	21-25	30	30%
3	26-30	25	25%
4	Above 30	20	20%

INFERENCE: The majority of the samples were aged between 21-25 years

TABLE II: Frequency & Percentage distribution of samples according to their religion

S.NO	Religion	Frequency	Percentage
1	Christian	20	20%
2	Hindu	70	70%
3	Muslim	10	10%
4	Others	--	--

INFERENCE: The majority of the samples were belonged to Hindu religion (70%)

TABLE III: Frequency & Percentage distribution of samples according to occupation of the mother

S.NO	Occupation of the mother	Frequency	Percentage
1	House wife	88	88%
2	Coolie	10	10%
3	Private employee	--	--
4	Government employee	02	02%

INFERENCE: The majority of the mothers were house wife (88%)

TABLE IV: Frequency & Percentage distribution of samples according to type of food intake

S.NO	Type of food intake	Frequency	Percentage
1	Balanced diet	9	9%
2	Imbalanced diet	45	45%
3	Fat rich diet	17	17%
4	Random intake	29	29%

INFERENCE: Most of the respondents used to take imbalanced diet (45%)

TABLE V: Frequency & Percentage distribution of samples according to educational status

S.NO	Educational status	Frequency	Percentage
1	Illiterate	36	36%
2	Primary school	20	20%
3	Secondary school	33	33%
4	High school	11	11%

INFERENCE: it reveals that illiterate were 33%, 20% were had primary education, 33% were had secondary school education & 11% were had high school education

TABLE VI: Frequency & Percentage distribution of samples according to their monthly income

S.NO	Monthly income	Frequency	Percentage
1	2001-3000	83	83%
2	3001-4000	9	9%
3	4001-5000	7	7%
4	5001 & above	1	1%

INFERENCE: By considering the monthly income 83% respondents were had less income

TABLE VII: Frequency & Percentage distribution of samples according to number of under five children in the family

S.NO	No of under five children in the family	Frequency	Percentage
1	One	51	51%
2	Two	36	36%
3	Three	13	13%
4	Four & above	--	--

INFERENCE: 51% of the respondents had one under five children in the family

TABLE VIII: Frequency & Percentage distribution of samples according to source of health information

S.NO	Source of health information	Frequency	Percentage
1	No information	63	63%
2	Health personnel	27	27%
3	Mass media	10	10%
4	Friends & family members	0	--

INFERENCE: maximum respondents had no source of health information (63%)

TABLE IX: Frequency & Percentage distribution of samples according to number of obese children in the family

S.NO	No of obese children in the family	Frequency	Percentage
1	One	63	63%
2	Two	18	18%
3	Three	--	--
4	No one	17	17%

INFERENCE: Among the mothers 63% had one obese child in the family

TABLE X: Frequency & Percentage distribution of samples according to type of family

S.NO	Type of family	Frequency	Percentage
1	Nuclear family	63	63%
2	Joint family	18	18%
3	Single parent family	--	--

INFERENCE: 63% of the mothers were from nuclear family

Section II - Frequency and percentage distribution of level of knowledge among the mothers of under five children in experimental group

S.NO	Knowledge regarding childhood obesity	Experimental group			
		Pre test		Post test	
		N	%	N	%
1	Inadequate knowledge	20	40	0	0
2	Moderately adequate	30	60	18	36
3	Adequate knowledge	0	0	32	64

Frequency and percentage distribution of level of knowledge among the mothers of under five children in control group:

S.NO	Knowledge regarding childhood obesity	control group			
		Pre test		Post test	
		N	%	N	%
1	Inadequate knowledge	18	36	17	34
2	Moderately adequate	30	60	31	62
3	Adequate knowledge	2	4	2	4

Section III – Evaluate the effectiveness of planned teaching programme in experimental group:

TABLE I: Evaluate the effectiveness of planned teaching programme in experimental group

S.NO	variable	Mean	SD	Standard error	't' value
1	Experimental group				
	❖ Pre test	1.6	0.494	0.069	10.5
	❖ Post test	2.6	0.484	0.068	

TABLE II: Evaluate the effectiveness of planned teaching programme in control group

S.NO	variable	Mean	SD	Standard error	't' value
1	control group				
	❖ Pre test	1.6	0.551	0.077	0.57
	❖ Post test	1.7	0.543	0.769	

TESTING THE RESEARCH HYPOTHESIS H₁:

Hypothesis was tested by using paired “t” test. The value of “t” was calculated to analyze the difference in knowledge of the mothers with their pre-test and post-test scores after calculation “t” calculated 10.5 is more than “t” table 2.000 at the 0.05 level of significance so it shows a very highly significant and association between pretest and posttest knowledge score of mothers of under five children regarding childhood obesity. Hence research hypothesis H₁ is accepted

Section IV – Data on Association between the levels of knowledge on childhood obesity among mothers of under five children with their socio-demographic variables

S.NO	Demographic variables	X ² value
1	Age of the mothers	13.687
2	Religion	1.393

International Journal of Novel Research in Healthcare and Nursing

Vol. 3, Issue 2, pp: (155-161), Month: May - August 2016, Available at: www.noveltyjournals.com

3	Occupation of the mother	7.769
4	Type of food intake	9.217
5	Educational status of the mother	14.464
6	Monthly income	0.009
7	Number of under five children	2.789
8	Source of health information	13.269
9	Number of obese children in the family	8.007
10	Type of family	0.976

5. DISCUSSION

The problem stated to find out the effectiveness of planned teaching programme on childhood obesity among the mothers of under five children in selected rural areas of Bangalore. The majority of findings and recommendations are in accordance with the objectives of the study and hypotheses. Results showed that there is a significant difference between pretest and posttest knowledge score. The obtained “t” value suggests that planned teaching programme proved to be effective in increasing the knowledge of mothers of under five children regarding childhood obesity and the computed chi-square values indicated that there was significant association between knowledge scores and demographic variables.

6. CONCLUSION

The following conclusion drawn from the study findings:

The mean pretest knowledge score of the experimental group was 1.6, standard deviation 0.494 and standard error of mean 0.069. The obtained “t” value 10.5 was significant at $p < 0.001$ level. The mean post test knowledge was 2.6 and standard deviation 0.484, standard error of mean was 0.068. The obtained “t” value was significant. Hence the stated hypothesis was supported. The mean pretest knowledge of the control group was 1.6, standard deviation 0.551 and standard error of mean 0.769. The obtained “t” value was 0.57 was not significant at $p < 0.001$ level. Hence it was proved that planned teaching programme was effective to improve the knowledge of mothers of under five children regarding childhood obesity.

7. RECOMMENDATIONS

Based on the findings of the present study recommendations are made:

1. Similar study can be replicated on a sample with different demographic characteristics.
2. A similar study may be replicated by having only experimental group.
3. A comparative study can be done between a rural and urban community or a illiterate and literate population
4. An exploratory study can be done to assess the risk factors and prevention of childhood obesity among the mothers of under five children
5. A comparative study may be conducted to find out the effectiveness of PTP and self instructional module regarding childhood obesity

Ethical Standards:

This study was conducted after getting approval from the Institutional Ethics Committee and after obtaining written consents from all subjects.

Source of funding: The authors did not receive any financial support from any third party related to the submitted work.

Conflict of interest: The authors had no relationship/condition/circumstances that present a potential conflict of interest.

ACKNOWLEDGEMENT

I express my gratitude and heartfelt thanks towards all who have directly or indirectly helped me to complete this study and their support in each major step of the study.

LIMITATIONS OF THE STUDY:

1. The period of study was limited to 6 weeks
2. Sample size was limited to 100
3. The study was limited to mothers who can understand kannada or English
4. The study is limited to mothers who are having under five children

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