ejpmr, 2023, 10(4), 319-323

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Research Article

ISSN 2394-3211

EJPMR

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON HAZARDS OF PLASTIC WASTE AND ITS SAFE DISPOSAL AMONG A SELECTED RURAL COMMUNITY AREA AT BANGALORE, KARNATAKA

Deepak K. Nair*

Assistant Professor, Malankara Orthodox Syrian Church College of Nursing, Kolenchery.

***Corresponding Author: Deepak K. Nair**

Assistant Professor, Malankara Orthodox Syrian Church College of Nursing, Kolenchery.

Article Received on 29/01/2023 **Article Revised on 18/02/2023** **Article Accepted on 10/03/2023**

ABSTRACT

The present study was entitled "A study to assess the effectiveness of structured teaching programme on hazards of plastic waste and its safe disposal among a selected rural community area at Bangalore, Karnataka" were based on the objectives, To assess the existing knowledge of rural community people on hazards of plastic waste and its safe disposal. To assess the effectiveness of Structured teaching programme on hazards of plastic waste and its safe disposal among rural community people, To find the association of the knowledge level with selected demographic variables such as age, sex, religion, education, economic background, occupation housing pattern, family size ,methods of disposal of waste in house etc. in Hegganahalli rural Community area, Bangalore. Research approach adopted in the study was evaluative approach. The research design used was experimental pre-test post-test design. The sample consists of 60 people residing in Hegganahalli rural community area. Simple random sampling technique was used to select the sample. Data collected through structured questionnaire. Data was analysed using descriptive and inferential statistics. The correlation between the pre-test knowledge scores and post-test knowledge scores on hazards of plastic waste and its safe disposal among community people which depicts the overall mean and standard deviation of pre-test knowledge scores were 22.37 and 1.119 respectively whereas the overall mean and the standard deviation of post-test knowledge scores were 84.47 and 3.228 respectively. The Pearson's`R' Correlation value was found to be -0.281 which is significant at $p < 0.05$ with negative correlation of degree of freedom 58 which states that as the knowledge of community people towards hazards of plastic waste and its safe disposal increases by the structured teaching programme.

KEYWORDS:

INTRODUCTION

One among the most hazardous manufacture is the plastic. Plastic is a group of different chemical substances, which consists of a substance having a high molecular weight called polymers that change from the thin consistency of plastic into solid at the final state. Plastic has become a part of every aspect of human living. It is made important from birth by its use in the form of catheters, masks, sheets etc till the grave with its multiple facets of application. It is been used for packaging, carrying, storing and wearing, that which made the life more risky to its exposure. It has become the health and environmental hazard.

Statement of the problem

"A study to assess the effectiveness of structured teaching programme on hazards of plastic waste and its safe disposal among the people in a selected rural community area at Bangalore".

OBJECTIVES

- To assess the existing knowledge of rural community people on hazards of plastic waste and its safe disposal.
- To assess the effectiveness of Structured teaching programme on hazards of plastic waste and its safe disposal among rural community people.
- To find the association of the knowledge level with selected demographic variables such as age, sex, religion, education, economic background, occupation housing pattern, family size ,methods of disposal of waste in house etc.

Hypothesis

The hypothesis will be tested at 0.05 level of significance

- **H 1:** There will be significant increase in the knowledge score after structured teaching programme.
- **H 2:** There will be significant association between the knowledge scores with selected demographic

variables like age, religion, education, economic background, occupation housing pattern, family size, methods of disposal of waste in house etc

Research approach
The survey approach was found to be suitable for the present study.

Research design
An evaluative approach was used to evaluate the effectiveness of child to child programme through the difference between the pre test and post test scores. So Experimental Pre test – Post test Design is used in this study.

Setting of the study
The study was conducted in Hegganahalli rural community area, Bangalore.

Population
The population selected for the present study comprises people in selected ward of Hegganahalli rural community area, Bangalore.

Sample size
60 people in selected ward of Hegganahalli rural community area, Bangalore.

Criteria for selection of sampling
The criteria for sample selection are mainly depicted under two headings, which includes the inclusive and the exclusive criteria.

1. Inclusion Criteria
- People residing in rural community area.
- Willing to participate in the study.
- Knows Kannada or English language.
- People available during study period.

2. Exclusion Criteria
- People residing in urban areas.
- Excluding plastic wastes.
- People not willing to participate.
- People who are migrating.
- People who doesn't know English and Kannada.

Instrument used for the study
An instrument selected in a research study should be as far as possible the vehicle that would best obtain data for drawing conclusions, which are pertinent to the study. Based on the objectives of the study, a structured knowledge questionnaire was prepared.

Development of the Tool
A structured knowledge questionnaire was prepared to identify the learning needs of staff nurses regarding cardiac defibrillator. The following steps were used in the preparation of the tool.
- Review of literature.
- Preparation of the blueprint.

Description of the Tool
Interview schedule was constructed in two parts. It consists of two parts.
Part I: The demographic data of the staff nurses.
Part II: A structured questionnaire was used to assess the knowledge of community people regarding the hazards of plastic waste and its safe disposal.

Plan of Data Analysis
The data obtained was analyzed in terms of the achieving the objective of the study using descriptive and inferential statistics.
Statistical Analysis of Data.

Descriptive statistics
Frequency and percentage used to describe demographic characteristics of Community people being studied under research/
i) Mean and standard deviation was used to assess knowledge regarding hazards of plastic waste and its safe disposal among people residing in the Hegganahalli PHC area.

Inferential statistics
i) Paired t test was used to compare pre-test and post test knowledge scores.

RESULTS AND ANALYSIS
The analysis and interpretation of data of this study are based on the data collected through structured questionnaire on the knowledge of community people (N=60) regarding the hazards of plastic wastes and its safe disposal. The results were computed using descriptive (Mean, Median) and inferential statistics (Chisquare, Standard Deviation, Pearson co-relation) based on the objectives of the study as given below.

The data analysis was done under the following order.
Presentation of Data
To begin with, the data was entered in a master sheet, for tabulation and statistical processing. In order to find the relationship the data was tabulated, analyzed and interpreted by using descriptive and inferential statistics. The data is presented under the following headings.
Section A: Description of demographic characteristics of participants.
Section B: Area wise analysis of knowledge scores.
Section C: Analysis of the overall knowledge of community people regarding hazards of plastic waste and its safe disposal.
Section D: Analysis of association between the knowledge of community people regarding hazards of plastic waste and its safe disposal.

The data collected was grouped and analyzed by using descriptive analytical methods.
Section A: Distribution Of Socio- Demographic variables.

Table 1: Frequency and Percentage distribution of socio demographic variables.

SL.No:	Socio Demographic Variables	Frequency(f)	Percentage (%)
1	**Age (in Years)**		
	(a) 26 – 35	15	25
	(b) 36 - 45	20	33.33
	(c) 46 – 55	15	25
	(d) Above 55	10	16.66
2	**Sex**		
	(a) Male	30	50
	(b)Female	30	50
3	**Religion**		
	(a) Hindu	35	58.33
	(b) Christian	10	16.66
	(c) Others	05	8.33
3	**Educational Status**		
	(a) Uneducated	15	25
	(b) Lower education	30	50
	(c) Above class 10	15	25
4	**Occupational Status**		
	(a) Professionals	15	25
	(b) Non-professionals	25	41.66
	(c) Jobless	20	33.33
5	**Housing Pattern**		
	(a) Pucca House	40	66.66
	(b) Kuchha House	20	33.33
6	**Method of Disposal**		
	(a)Throwing anywhere	25	41.66
	(b) Dumping	10	16.66
	(c) Burning	05	8.33
	(d) Other methods	20	33.33
7	**Source of Information**		
	(a) Health workers	20	33.33
	(b) Medias	40	66.66

N= 60.

Table 1 describes about the frequency and percentage distribution of socio- demographic variables of adolescents according to age in years. are of 15 (25%) of them were between and between26- 35 years and 20(33.33%) of them were between 36 - 45 years and 15 (25%) were of between 46-55 years and 10(16.66%) are above 55 years.

In case of sex, 30(50%) were males and 30(50%) were females.

Towards religion, 35 (58.33%) were from Hindus and 10 of them were from Christians and only 5(8.33%) of them were from other religions.

Regarding educational status, 15(25%) of them were uneducated and 30 (50%) were with lower education status and 15(25%) were with above class 10 level.

Towards occupational status, 15(25%) of them were professionals and 25(41.66%) of them were non-professionals and 20(33.33%) of them were jobless persons.

Regarding the family income, 24(40%) are having a monthly income of Rs.4001-Rs.6000 and 27(45%) are having a family income of Rs.6001- Rs.8000 whereas only 9 are having a family income of Rs.8001-Rs.10000.

Towards the housing pattern, 40 (66.66%) families were having pucca house and 20(33.33%) were having kuchha house.

Regarding the size of family, majority of them 25(41.66%) of them are from joint family whereas 35(58.33%) are from nuclear family.

Regarding the method of disposal of waste, 25(41.66%) were throwing their waste improperly, 10(16.66%) were using dumping method, only 5(8.33%) were burning their wastes and 20(33.33%) were using other method of waste disposal.

Regarding source of health information, 20(33.33%) of them said they got it from health workers and 40(66.66%) of them said they got it from medias.

Section B: Distribution of level of knowledge in pre-test regarding hazards of plastic waste and its safe disposal.

Table 2: Frequency and percentage distribution of level of knowledge in pre-test regarding hazards of plastic waste and its safe disposal.

SL. No	Level Of Knowledge	Frequency (f)	Percentage (%)
1	Inadequate knowledge	22	36.67
2	Moderately adequate knowledge	25	41.67
3	Adequate knowledge	13	21.67

N=60

Table 2 depicts about the level of knowledge in pre-test regarding hazards of plastic waste and its safe disposa**l** among community people which states that majority of the subjects 25(41.67%) of them had moderately adequate knowledge whereas 22(36.67%) of them inadequate knowledge and only 13(21.67%) of the subjects had adequate knowledge.

Section C: Distribution of level of knowledge in post-test regarding hazards of plastic waste and its safe disposal.
Table 3: Frequency and percentage distribution of level of knowledge in post-test regarding hazards of plastic waste and its safe disposal.

SL. No	Level Of Knowledge	Frequency (f)	Percentage (%)
1	Inadequate knowledge	0	0
2	Moderately adequate knowledge	35	58.33
3	Adequate knowledge	25	41.67

N=60

Table 3 depicts about the level of knowledge in post-test regarding hazards of plastic waste and its safe disposa**l** among community people which states that majority of the subjects 35(58.33%) had moderately adequate knowledge whereas 25(41.67%) of them adequate knowledge and no one with inadequate knowledge.

Section D: Relationship between pre-test knowledge scores and post-test knowledge scores.
Table 4: Correlation between the pre-test knowledge scores and post-test knowledge scores.

Study variables	Pre-test Scores		Post-test scores		Pearson's 'R' Correlation
	(Mean)	(SD)	(Mean)	(SD)	
Correlation between the pre-test knowledge scores and post-test knowledge scores regarding hazards of plastic waste and its safe disposal.	22.37	1.119	84.47	3. 228	-0.281,significant at p<0.05,df=58

N=60
P<0.05 – Significant

Table 4 discusses about the correlation between the pre-test knowledge scores and post-test knowledge scores on hazards of plastic waste and its safe disposa**l** among community people which depicts the overall mean and standard deviation of pre-test knowledge scores were 22.37 and 1.119 respectively whereas the overall mean and the standard deviation of post-test knowledge scores were 84.47 and 3.228 respectively. The Pearson's`R' Correlation value was found to be -0.281 which is significant at p <0.05 with negative correlation of degree of freedom 58 which states that as the knowledge of community people towards hazards of plastic waste and its safe disposa**l** increases by the structured teaching programme.

Section E: Association between the level of knowledge and selected socio-demographic variables

The results subjected to statistical chi square test established the non significant association between education of nurses and knowledge scores ; as obtained value of $\chi 2$ (0.216) is less than table value at 0.05 and 0.01 level of significance and the obtained P value 0.130. The association between the level of knowledge and selected demographic variables which signifies that the calculated value was less than the table (book) value which states that there is no statistically significant association between the level of knowledge and selected socio-demographic variables. Thus the null hypothesis is accepted.

Chi square test was used to find out the association between demographic variables with the level of knowledge of people about hazards of plastic waste and its safe disposal.

BIBLIOGRAPHY

1. Elias, Hans-Georg" An Introduction to Plastics"4th edition. Wiley & Weinheim Publishers, 2003; 121.
2. Andrady, Anthony." Plastics and the Environment" 6th edition. John Wiley & Sons, 2003; 222.
3. Callan, Scott and Thomas." Environmental Economics and Management" Environmental Health Journal, 2006; June 4(2): 59.

4. Vipin m vasighte.” Multitude of plastic users”. Indian Journal of Medical Sciences, 2010 Nov; 48(8): 46-55.
5. Kalpana Sunder “Plastics a Menace”. The Indian Journal On Environmental Health, 2009 Jan; 37(3): 119-137.