

Effectiveness of Structured Teaching Programme on Knowledge regarding Health Hazards of Plastic Usage among Housewives in Selected Rural Areas, at Karimnagar, Telangana

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Abstract: Background: Health is a condition quality of the human organism expressing in the adequate of the human organism. In given conditions, genetic and environmental manipulations or interventions in much safer, cheaper and a more effective approach than all the others means of control. Accumulation of plastic wastes causes environmental pollution. That can be manifested in number of ways due to non - biodegradable nature. They cause hazardous negative impact on the environment. Disposal of plastic waste which is major cause of environmental pollution becomes carcinogenic to human birth defects, impaired immunity, endocrine disruption, development and reproductive effect. In addition to dumping of plastic material into marine, a large number of species are known to be harmed or killed which could jeopardize their survival, especially since many are already endangered by other forms of androgenic activities. A range of chemicals that are used in the manufacture of plastic are known to be toxic. The toxic chemicals along with its carcinogenicity will cause social and health impact by affecting the respiratory, nervous and reproductive system. On the day of international plastic bag free day its for to make the choice planet or plastic. Plastic pollution presume that only cows, goats, doll fins, seals and the like die of ingesting plastic and also human lungs liver spleen and kidneys contain microscopic bits of plastic in fact human being swallowing and breathing about 2, 000 tiny pieces of plastic each week. Objectives: assess the level of knowledge regarding health hazards of plastic usage before and after structured teaching programme among housewives. determine the effectiveness of structured teaching programme on knowledge regarding health hazards of plastic usage among housewives. find out the association of the post test knowledge regarding health hazards of plastic usage among housewives with their selected demographic variables. Materials and Method: Pre experimental design was used to assess the knowledge. The sample size for this study consists of 30 housewives, in Nagunur, at Karimnagar. Demographic variables and the level of knowledge among housewives concerning health hazards of plastic usage were collected by using structured questionnaire. Results: The pre test knowledge level of housewives revealed that the mean of knowledge score in pretest 60% of housewives had below average knowledge, 40% of housewives had average knowledge. whereas in post test 23.33% of housewives had average knowledge and 76.67% of housewives had above average knowledge. Conclusion: The findings revealed that most of the housewives were present with inadequate knowledge regarding health hazards of plastic wastage. After conducting awareness teaching programme their knowledge level is improved about health hazards of plastic usage.

Keywords: Plastic waste, Health hazards

1. Introduction

‘Say no to plastic, let this planet alive reduce, reuse, and recycle’

The Seattle times

Better health is central to human happiness and well being and also marks an important contribution to economic progresses. Healthy population live longer are productive and save more, many factors influences health status and a country’s ability. Health is the level of functional and the metabolic efficiency of an organisms. Community health education services are an economic and powerful means of raising standard of community health especially for the future generations. Community considered as the best setting for the positive health, prevention of diseases and awaking health consciousness in which country grows and develops. The term ‘Plastic’ is derived from the Greek word ‘Plastikos’ meaning fit for moulding and ‘plasto’ meaning moulded. Plastic is the common term used for a wide range of synthetic or semi - synthetic materials. It is used in a huge, growing, range of application from packaging to building, from cars to medical devices, Fogs and clothes. This synthetic material composed of carbon, hydrogen,

nitrogen, chlorine and sulfate which have high molecular weight. Macro molecules by polymerization makes plastic. The side material impressionability, during manufacturing allows it to be cast, pressed or extruded into a variety of shapes like film fibers, plates, tubes, bottles, boxes and much more by application of heat and pressure or force. In terms of health risk, the evidence is growing that the chemicals from plastic used in cooking and food drink storage are harmful to human health. The health risk of plastic are more vulnerable and significantly amplified in children whose immunity and organ systems are developing. The chemical such as chlorine which are used in the manufacture of plastic to make them softer are more sensible and additives may include lead cadmium, phthalates, bisphenol and fungicides. The waste material released during manufacturing pollutes the air, water to carcinogens at risk of suffering from cancer.

2. Research Methodology

Research methodology is a systematic method to resolve a research problem through data.

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Research Design: pre experimental research design was used to assess the knowledge.

Setting of the Study: The study was conducted at Nagunur village, Karimnagar District.

Population: The study population comprises of housewives at Nagunur village, Karimnagar District.

Sample and Sample Size: The sample size for this study consists of 30 housewives, in Nagunur, at Karimnagar, Telangana.

Sampling Technique: Non probability, convenient sampling technique was used for selection of samples in this study.

Criteria for Selection of the Sample:

Inclusion criteria:

- Housewives living in selected rural areas.
- Housewives who are willing to participate in the study.

Exclusion criteria:

- Housewives who are not available during study.
- Housewives who are unable to understand and communicate.

3. Description of the Tool

It consists of two sections.

Section A: It deals with demographic variables such as age, religion, education, socioeconomic status, type of family, number of living children, hobbies, type of house, drainage system and source of information.

Section B: A structured questionnaire consist of 30 multiple questions and each question has four choices, each correct response carries one mark and wrong response carries zero marks.

Procedure for Data Collection:

Data was collected from the housewives after obtaining a formal written permission from the sarpanch of nagunur village. Each housewives was assured for the data collection from them the data was utilized only for the purpose of study and was kept confidential. The investigator used structured questionnaire to collect the data.

Plan for Data Analysis

Descriptive and inferential statistics was used to analyze the collected data.

Section - I: - The demographic data was analyzed by using frequency and percentage.

Section - II: - Distribution of respondents or samples according to pre test and post test score was analyzed by mean and standard deviation.

Section - III: Effectiveness of structured teaching programme was analyzed by paired “t” test.

Section - IV: Association of post test knowledge score among housewives regarding health hazards of plastic usage with their selected demographic variables was analyzed by chi - square test.

4. Results

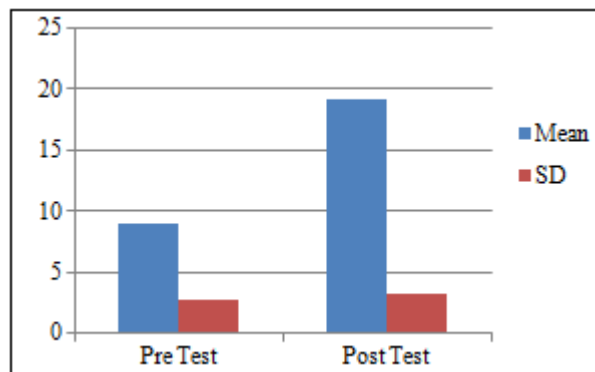
Frequency and percentage distribution on knowledge regarding health hazards of plastic usage among housewives according to their demographic variables.

S. No	Variables	Frequency	Percentage %
1	Age		
	a) 21 - 30 years	8	26.67
	b) 31 - 40 years	10	33.33
	c) 41 - 50 years	10	33.33
	d) 51 years and above	2	6.67
2	Religion		
	a) Hindu	20	66.67
	b) Christian	3	10
	c) Muslim	5	16.67
	d) Others	2	6.67
3	Education qualification		
	a) Illiterate	0	0
	b) Primary education	6	20
	c) Secondary education	9	30
	d) Intermediate	8	26.67
	e) Graduation	5	16.67
	f) Post Graduation	2	6.67
4	Family Income		
	a) Rs.5000/- only	4	13.34
	b) Rs 5001/- 10, 000/- only	12	40
	c) Rs 10, 001/- 15, 000/- only	10	33.33
	d) Rs 15, 001/- and above	4	13.34
5	Type of family		
	a) Joint family	9	30
	b) Nuclear family	21	70
6	Hobbies		
	a) Watching television	8	26.67
	b) Cooking	15	50
	c) Reading books	3	10
	d) Gardening	4	13.34
7	Number of living children		
	a) One child	10	33.33
	b) Two children	16	53.33
	c) Three children	4	13.34
8	Type of house		
	a) Katcha house	9	30
	b) Pakka house	21	70
9	Drainage system		
	a) Open	8	26.67
	b) Closed	22	73.33
10	Source of information		
	a) Family members	7	23.34
	b) Friends and neighbours	10	33.33
	c) Health Professionals	10	33.33
	d) Mass media	3	10

According to age of the housewives (26.67%) were in the age group 21 - 30 years of age, (33.33%) were 31 - 40 years, (33.33%) were 41 - 50 years and (6.67%) were 51 years and above. were Muslim and (6.67%) were others. On the basis

of education (0%) were illiterate, (20%) were studied up to primary education, (30%) were secondary education. (26.67%) were intermediate, (16.67%) were graduation and (6.67%) were post graduation. While considering family income, (13.34%) were included under Rs <5000only. (40%) were Rs 5001/10,000/only and (33.33%) were Rs 10001/ - 15000/only. (13.34%) were Rs 15001/only - and above. While considering type of family, (30%) were joint family and (70%) were nuclear family. On the basis of number of living children, (33.33%) having 1 child. (53.33%) were having 2 children, (13.34 %) were having three children and above. On the basis of hobbies of housewives, (26.67%) were watching television, (50%) were cooking, (10%) were reading books, (13.34%) were gardening On the basis of type of house, (30%) were kacha house, (70%) were having pakka house. According to drainage system available, (26.67%) were having open drainage system, (73.33%) were having closed drainage system. On the basis of source of information, (23.34%) were through family members, (33.33%) were through friends and neighbors, (33.33%) were through health professionals and (10%) were through mass media.

This difference of knowledge score is found to statistically significant. The computed ‘t’ value is 29.1 that are more than the table value of 1.699 at 0.05 level. This reveals standard deviation between pre test and post test.



Level of knowledge

Association between post test knowledge score regarding health hazards of plastic usage among housewives with their selected demographic variables.

Comparison of pre test and post test knowledge score regarding health hazards of plastic usage among Housewives:

Parameters	Time interval	No. of subjects	Mean	Standard Deviation	t value	Critical value
Knowledge regarding health hazards of plastic usage among housewives	Pre test	30	9.1	2.8	29.1*	1.699
	Post test	30	19.3	3.3		

S. no	Variables	1 - 10 Below average	11 - 20 Average	21 - 30 Above average	Chi Square value	Df	Critical value
1	Age				22.32 S*	6	12.592
	a) 21 - 30 years	0	7	1			
	b) 31 - 40 years	0	0	10			
	c) 41 - 50 years	0	0	10			
	d) 51 years and above	0	0	2			
2	Religion				5.6 NS	6	12.592
	a) Hindu	0	2	18			
	b) Christian	0	1	2			
	c) Muslim	0	3	2			
	d) Others	0	1	1			
3	Education				7.63 NS	1	18.307
	a) Illiterate	0	0	0			
	b) Primary education	0	0	6			
	c) Secondary education	0	4	5			
	d) Intermediate	0	3	5			
	e) Graduate	0	0	5			
	f) Post graduate	0	0	2			
4	Family Income				2.63 NS	6	12.592
	a) Rs.5000/ -	0	2	2			
	b) Rs.5001/ - 10, 000/ -	0	3	9			
	c) Rs.10, 001/ - 15, 000/ -	0	1	9			
	d) Rs.15, 001/ - and above	0	1	3			
5	Type of Family				1.09NS	2	5.991
	a) Joint Family	0	1	8			
	b) Nuclear Family	0	6	15			

6	Number of living children				0.24 NS	4	9.488
	a) One child	0	2	8			
	b) Two children	0	4	12			
	c) Three children and above	0	1	3			
7	Hobbies				21.88S*	6	12.592
	a) Watching T. V	0	2	6			
	b) Cooking	0	1	14			
	c) Reading Books	0	2	1			
	d) Gardening	0	2	2			
8	Type of House				21.33S*	2	5.991
	a) Katcha house	0	7	2			
	b) Pakka house	0	0	21			
9	Drainage System				0.035NS	2	5.991
	a) Open	0	2	6			
	b) Closed	0	5	17			
10	Source of Information				21.99S*S*	6	12.593
	a) Family members	0	6	1			
	b) Friends and neighbours	0	0	10			
	c) Health Professionals	0	0	10			
	d) Mass media	0	1	2			

*significant

NS=Not significant

Above table shows that age, hobbies, source of information, and type of house had significant association with knowledge score as the chi - square value is greater than critical value and there is no significant association between knowledge score and other demographic variables such as religion, education, family income, type of family, number of living children and drainage system.

5. Discussion

Housewives were assessed regarding health hazards of plastic usage. In this study findings revealed that the mean of knowledge score in pretest 60% of housewives had below average knowledge, 40% of housewives had average knowledge whereas in post test 23.33% of housewives had average knowledge and 76.67% of housewives had above average knowledge. Pushpakala KJ, Abraham chacko, 2015 Conducted a quasi experimental study to assess the effectiveness of video assisted teaching programme regarding health hazards of plastic usage among housewives. The study was concluded that the educational programme was highly knowledge increasing regarding health hazards of plastic usage.

6. Conclusion

People have highest prevalence of hazards which are associated with improper usage of plastic, very less people have awareness about health hazards of plastic usage. This indicates there is a need to educate the housewives regarding health hazards of plastic usage so, being a community health nurse conducting educational program for the public and teaching about the prevention of health hazards of plastic usage thus the structure teaching programme was significantly improving the knowledge among housewives regarding health hazards of plastic usage.

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