

A Study to Evaluate the Effectiveness of Structure Teaching Programme on Knowledge Regarding Hazards of Plastic use and it's Safe Disposal among the Housewives Residing at Selected Rural Area of Surat, Gujrat

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Abstract

Background of the Study: The term “plastic” is derived from a Greek ward “plastikos” which means “fit for molding”. Plastics are used on a daily basis throughout the world. The “plastic” is a common word that is used for many materials that are synthetic and semi synthetic in nature. Plastic bags are light, sturdy and easy to carry. They are cheaper than paper. From the mid 1980s, the use of plastic bags became common for carrying daily groceries from the store to vehicles and homes. Plastic is not biodegradable. When buried plastic will choke the drainage and when burnt plastics will emit poisonous gas.

Aim of the Study: To evaluate the effectiveness of structure teaching programme on knowledge regarding hazards of plastic use and its safe disposal among the housewives.

Material and Methods: A Pre-experimental, one group pre-test & post-test design with a quantitative research approach was utilized to test the proposed hypotheses. For structured teaching programme, lesson plan was prepared regarding hazard of plastic use and its safe disposal. Pilot study was done under the 3 women at Dihen, Olpad. Pilot study revealed that the tools were feasible for conduction of the study and the structured teaching programme was effective. The main study sample consisted of 30 Housewives residing in a rural area at Kudiyana, Olpad. The research setting was Dihen and Kudiyana, Olpad, Surat, Gujarat. The Non-Probability convenience sampling technique was used for the study. The data were analyzed and hypothesis was tested using descriptive and inferential statistics.

Conclusion: The findings of the study showed that the structured teaching programme was very effective in improving the level of knowledge.

Keywords: Hazards of plastic use and its safe disposal; Housewives.

Introduction & Background of the Study

Plastic has become a part of every aspect of human living. It Plastic waste is recycled in India in an “unorganized” way. 60% of the plastic-waste collected and segregated gets recycled back into materials for further processing into consumer products, while the balance is left unutilized.

Regulations and legislations are being enforced in some States of India, but it is not found in the majority of the states of India. Moreover, we have not come to a stage where we can tackle issues related to plastic production, use and its disposal.

Plastic is everywhere in today's lifestyle. It's used for packaging, protecting, serving, and even disposing of all kinds of consumer goods. Through

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industrial revolution, mass production of goods started and plastic seemed to be a cheaper and effective raw material. Today, every vital sector of the economy starting from agriculture to packaging, automobile, building construction, communication or InfoTech has been virtually revolutionized by the applications of plastics. Use of this non biodegradable (according to recent studies, plastics can stay as long as 4500 years on earth) product is growing rapidly and the problem is what to do with plastic-waste.

The major chemicals that go into the making of plastic are highly toxic and pose serious threat to living beings of all species on earth. Some of the constituents of plastic such as benzene and vinyl chloride are proven to cause cancer, and other gases and liquid hydrocarbons spoil earth and air. The noxious substances emitted during the production of plastic are synthetic chemicals like ethylene oxide, benzene and xylenes. Besides hitting hard the ecosystem. Which is already fragile, these chemicals can cause an array of maladies ranging from birth defects to cancer, damage the nervous system and the immune system and also adversely affect the blood and the kidneys. And, many of this toxic substance are emitted during recycling of plastic too.

Plastic has become a part of every aspect of human living. It is made important from birth by its use in the form of Kitchenware, Basket, polythene bag, toys, and bucket. Till the grave with its multiple facets of application. It is being used for packaging, carrying, storing and wearing, that which made the life more risky to its expose. It has become the health and environmental hazards.

The increasing awareness of the environment has contributed to concerns regarding our lifestyles and our indiscriminate disposal of wastes. During the last decade, we have been trying to address this complex problem, more aggressively. The municipal solid waste (MSW) produced annually, has begun to decrease, e.g. from 211.5 million tons in 1995 to 209.7 million tons in 1996. Recycling rates and composting rates are increasing. Disposal in landfills is decreasing (from 60.9 to 55.5% in 1996). Waste disposal by combustion is also increasing. This is primarily due to the increased efficiencies of the new incinerators and their ability for the removal of particulates and harmful gases.

It is very hard to dispose of used plastic. You can't throw them in the open. Disposed plastic will affect the environment for many years to come. The burning of plastics produces persistent organic

pollutants (POPs) known as furans and dioxins. These pollutants circulate globally and have been associated with adverse effects in humans, including immune and enzyme disorders. They are classified as possible human carcinogens but you should find a way to dispose the plastic that are already in use. The best and most popular way to dispose of plastic without affecting the environment is to recycle it. Plastic can be recycled any number of times. You can give your plastic bags to many stores who will give it to recycling companies. The only problem with this method of plastic disposal is that the various types of plastics have to be segregated before reusing them.

Plastic waste is a major environmental and public health problem in India, particularly in the urban areas. India is the fourth highest Asian importer of plastic waste behind Honk Kong, Philippines, and Indonesia. 20% of solid municipal wastes in India are plastic.

Objectives

- To assess the knowledge regarding hazard of plastic use and its safe disposal among housewives before and after administration of Structure Teaching Programme.
- To compare the pre test and post test knowledge score of housewives regarding hazard of plastic use and its safe disposal.
- To find out the association between post test knowledge score of housewives regarding hazard of plastic use and its safe disposal with the selected demographic variable.

Assumptions

- Housewives May have some knowledge regarding hazard of plastic use and its safe disposal.
- Structure Teaching Programme is an Acceptable method of improving the information regarding hazard of plastic use and its safe disposal.
- Knowledge is varies from Individual to individual.

Material and Methods

A Pre-experimental, one group pre-test & post-test design with a quantitative research approach was utilized to test the proposed hypotheses. For structured teaching programme, lesson plan was prepared regarding hazard of plastic use and its safe

disposal. Pilot study was done under the 3 women at Dihen, Olpad. Pilot study revealed that the tools were feasible for conduction of the study and the structured teaching programme was effective. The main study sample consisted of 30 Housewives residing in a rural area at Kudiyana, Olpad. The research setting was Dihen and Kudiyana, Olpad, Surat, Gujarat. The Non-Probability convenience sampling technique was used for the study. The data were analyzed and hypothesis was tested using descriptive and inferential statistics.

Ethical Consideration

The study was proposed and submitted to the ethical committee, Vibrant Nursing College and experts on the committee approved the study. All respondent were carefully informed about the purpose of the study and their part during the study. Informed consent for the study was obtained from all participants.

Thus, the investigator followed the ethical guidelines, which issued by the research committee. Necessary permission to conduct the study was requested and obtained from the Vibrant Nursing College Surat, Medical officer of primary Health care Center, surat. The study was done without any violation of human rights.

Results

Table 1: Classification of Overall knowledge of antenatal mothers.

Know- ledge score	M	MD	SD	SDD	T- test		Signi- ficance
					Tabu- lated value	Calcu- lated value	
Pre test	13.8		1.32				
Post test	18.36	4.56	0.88	0.44	2.05	18.43	S

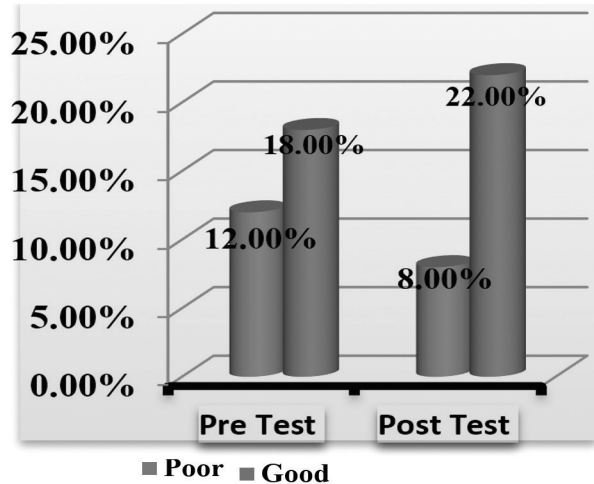


Fig. Comparison of Pre test and Post test knowledge.

Table 2: Association of knowledge score with selected Sociodemographic variable.

Socio demographic variable	Level of Knowledge		df	Chi square	Level of Significance
	Poor Knowledge	Good Knowledge			
Age					
18 - 22	0	1	3		Not significant
23 - 27	8	5		0.8	
28 -32	20	20			
Above 32	2	2			
Religion					
Hindu	22	21	3	10.27	S
Muslim	7	8			
Christian	1	1			
Any other	0	0			
Family income					
Below 10,000	2	1	3	2.7	Not significant
10,000-20,000	20	21			
20,000-30,000	5	6			
Above 30,000	2	1			

Before, Structured teaching program In pre-test 12.0% of the Housewives are having poor knowledge, 18.0% of them are having good knowledge. After Structured teaching program, In post test 8.0% of the housewives are having poor knowledge, 22.0% of them are having good knowledge. Chi square test was used to test statistical significance.

Discussion

The study sample consisted of 30 housewives selected through the convenient sampling technique. The investigator found that the housewives were co-operative in the study. The investigator collected the demographic data from the housewives. The study findings Reveal that study group of 40% of housewives were in the age group of 28-32yrs, 32% of housewives were in the age group of 23-27 yrs, 23% of housewives were in the age group above 32 yrs, and 5% were in 18-22 yrs of age.

A majority of housewives were in Rs 10,000-20,000 family income. With regard to the religion 82% of them were Hindus, 10% were Muslim, 5% of them were Christian. In assessing the pre-test level of knowledge 40.0% of the housewives are having poor knowledge and 60% of them are having Good knowledge. In assessing the post-test level of knowledge 20.0% of the housewives are having Poor knowledge and 80% of them are having Good knowledge.

After comparing the pretest and the post test mean score of knowledge, there is a significant difference between the pre-test and the post test mean score and it is statistically significant. It was assessed by using a paired t-test The finding was the overall mean score of pre-test was 13.8% with the S.D 1.32%, where as in post-test the overall mean 18.36% with the S.D 0.88%. The t test value was -18.43%* which is statistically significant at $p < 0.005$ level of significance. The study finding implied that the education had a vital role in improving the knowledge of housewives regarding plastic management. The study concluded that there is a good correlation between post test knowledge score and the score is statistically highly significant ($p = 0.001$) with the age of the housewives ($X^2 = 9.33, p = 0.02^*$), education of the housewives ($X^2 = 10.71, p = 0.01^{**}$) and income of the housewives ($X^2 = 9.77, p = 0.02^*$).

The researcher found that structured teaching programme is effective teaching strategy to improve the knowledge of house wives. The

discussion about the study findings were presented in this chapter to arrive at a conclusion based on the objectives, the related literatures and hypothesis.

Conclusion

The study was conducted to assess the effectiveness of Structured Teaching programme on level of knowledge of housewives regarding hazards of plastic use and its safe disposal in selected urban area at Kudiyana, Olpad. The finding of the study showed that the Structured Teaching programme was very effective in improving the level of knowledge. This study will help the health care professionals to develop appropriate teaching materials. Structured Teaching programme is a proven method to improve the knowledge of the housewives which will help to facilitate the healthy growth and development and healthy practices in day to day activities.

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