THE IMPACT OF STRUCTURED TEACHING PROGRAMME ON HOUSEWIVES 'AWARENESS OF THE HEALTH HAZARDS ASSOCIATED WITH PLASTIC USE

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Abstract:

Background of the Study: There is a wide range of health risks associated with plastic bag use. Little is known about how well the average Indian housewives understands the risks they face to their health. Communities are seen as ideal places to promote health, reduce the spread of disease, and raise public awareness about the importance of health in the nation's development.

Objective: The objective of this study is to analyse how effective a structured teaching programme is at informing housewives about the health hazards of using plastics.

Methodology: A pre-experimental study was done to evaluate the impact of structed teaching programme on the health hazards plastic usage among housewives living in a specific neighbourhood of Lokipur, Odisha. The study samples were subjected to pre-test using a structured knowledge questionnaire, followed by a structured teaching programme. A post-test was performed seven days later. **Results:**During, the pre-test, the majority of the samples, 16 (53.1 %) had an average level of knowledge on health hazards associated with plastics, whilst 12 of the samples, (40.0 %) had a poor level of knowledge, at the time of the post-test, the majority of the study samples, 17 had an excellent level of knowledge; however, 10 of the study samples or 33. 3 % had an average level of knowledge.**Conclusion:** The community health nurse's primary focus should be on increasing women's awareness of the potential risks posed by everyday plastic use in the home through means such as health education, the media, the classroom instruction etc.

Keywords: *Impact, Structured teaching programme, Health hazards. Plastic use, Housewives*

Introduction:

Each year millions of tones of plastic enter the oceans, suffocating whales and other animals. Plastic trash has numerous negative effects on ecosystems and human health. Effects on human health include impaired immunological function, cataracts, kidney and liver damage. Changes in lung function, and the induction of obesity and diabetes , as well as irritation of the eyes, nose and throat.[1-2]

Plastic carry bags are typically employed for transporting or dispensing merchandise. There is an annual global production of 150 million tonnes. It employs around 30,000 processing units. The packaging industry is the greatest consumer of plastics (35 % of

total consumption). Each year, India generates 5.6 million metric tonnes of plastic garbage.[3]

When food is packed in plastic bags while it is still hot, the toxicchemicals in the plastic leach into the meal. These include the carcinogenic styrene, the hormone disrupting phthalates, and the organ failing Bisphenol A. Because of this, it is past due that we start using new materials for shipping and storage.[4]

The health of humans is being compromised by the widespread use of plastic, chemicals leach from plastic and end up in our bodies, accumulating in organs and blood. Malignant growths, birth deprivation, impaired immunity, endocrine disruption, and other problems all play a role in their presentation. For example some of the chemical added compounds used in plastic production have been linked to cancer and endocrine disruptions in humans.[5]

Plastic bags are notoriously challenging and expensive to recycle, which is why the vast majority of them wind up in landfills, where they take approximately three hundred years to photodegrade. These plastics breakdown into tiny poisonous pieces that pollute the soil and waterways and get into the food chain when animals eat them by accident. For a healthy environment in the future, everyone should know the basics how to deal with plastic trash.[6]

Educators and parents need to be made aware of the risks associated with plastic use so that they may help raise their children's understanding of these issues.[7] Research found that most students needed health education about plastic disposal since they did not know how to properly dispose of plastic and how to manage plastic waste.[8] A other study found that housewives knew less about the dangers of plastic garbage.[9] Recent research and statistics shed light on plastic garbage as a serious concern in the modern approach, with more rural community inhabitants affected than ever before, largely as a result of incorrect disposal methods and insufficient information among housewives regarding disposal tactics.

Methodology:

The effectiveness of structured teaching about the health hazards of plastic wastes among housewives in Lokipur, Odisha was evaluated using a quantitative research approach using pre-experimental one-group pre-test and post-test study design. The non-probability convenient sampling strategy was used to select 30 housewives. General demographic factors and a structured questionnaire regarding the health hazards of plastic thrash are utilised to obtain data. A pre-test was administered along with a structured teaching programme. A post-test was administered one week after the adoption of the organized structured teaching programme. Descriptive and inferential statistics were used to analyse the data.

Results:

Subjects' socio-demographic characteristics are described in Table – 1: In terms of age, the majority of 10 (33.00 %) were over 50 years old. In terms of educational attainment, the majority of the subjects, 13 (46.0%), had completed secondary school. Monthly family income of the subjects depicted, the majority of subjects 12 (40.00 %)

had a monthly family income of Rs. 5001 to Rs. 10,000. The subjects' religion revealed an overwhelming majority of Hindus (84.0 %). In terms of waste disposal methods, the majority of 22 (73.00 %) dispose of their plastic wastes through open land disposal.

Table – I: Frequency and Percentage Distribution of Samples According to Demographic Factors

(n = 30)

S. No	Demographic Variables		Frequency	Percentage
1.	**Age (Years)**	**18 – 28 years**	5	16.00
		29 – 38 years	7	23.00
		39 – 49 years	8	26.00
		> than 50 years	10	33.00
2.	**Educational Status**	**Primary**	4	13.00
		Secondary	13	43.00
		Higher Secondary	7	23.00
		Graduation	6	21.00
3.	**Monthly Family Income**	**< than 5000**	4	14.00
		Rs 5001 – 10000	12	40.00
		Rs 10,001 – 20,000	8	26.00
		> Rs 20,001 and above	6	20.00
4.	**Religion**	**Hindu**	25	84.00
		Muslim	2	6.00
		Christian	2	6.00
		Others	1	4.00
5.	**Methods of Waste disposal**	**Open land**	22	73.00
		Burial	4	14.00
		Burning	1	3.00
		Other types	3	10.00

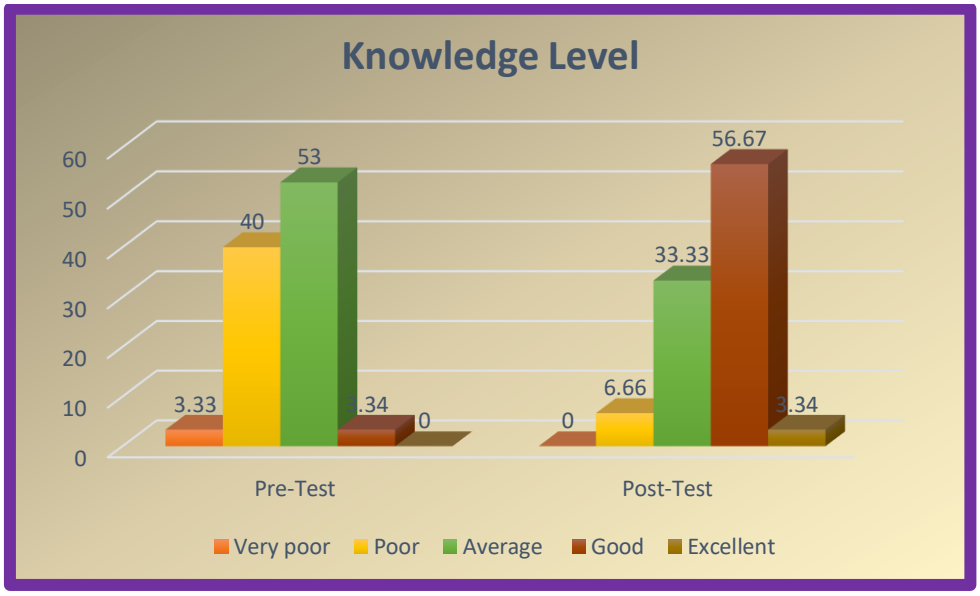

Figure -1: Percentage distribution of subjects according to level of knowledge

Figure – I depicts the percentage distribution of subjects according to level of knowledge regarding health hazards of plastic wastes.

At the time of the pre-test, the majority of the respondents (16, 53.00 %) had an average level of knowledge about the health hazards of plastic wastes. However, at the time of the post-test, majority of the subjects, (17, 56.67 %) had an excellent level of knowledge about these hazards.

Table – II: Mean, Mean Difference, Standard Deviation and Paired 't' test values related to knowledge regarding health hazards of plastic waste

(n = 30)

Knowledge	Mean	Mean Difference	Standard Deviation	Paired 't' test	'P' value
Pre-test	12.18	13.04	4.1	21.35	0.001***
Post-test	25.22		2.5	(df = 29)	

Level of significance at 'P' value < 0.05

The results of the mean, mean difference, standard deviation, and paired 't' test can be found in table – II. These numbers pertain to the individual's level of knowledge of the dangers that plastic wastes pose to human health. The pre-test knowledge mean and standard deviation scores were 12.18 + 4.1, similarly, the post-test knowledge mean and standard deviation scores were 25.22 + 2.5. The mean difference score was 13.04. For a degree of freedom of 29, the paired "t" test score was 21.35. It shows that the difference in subjects' knowledge between pre- and post-test assessments was statistically significant at 'p' < 0.001.

Discussion:

Both the manufacturing and disposal of plastic products are extremely harmful to the surrounding environment. As a result, the only approach to lessen the risks posed by plastic is to cut back on our consumption of the material., which will in turn lead to a reduction in the amount of plastic that is manufactured. The purpose of this study was to evaluate the impact of structured teaching programme designed to educate housewives of Lokipur. Odisha, about the dangers posed by plastics and the correct way to dispose them.

Post-test results from research conducted by R. Regi. Bai (2021) to evaluate the efficiency of a structured training programme on the dangers of plastic waste among rural housewives reveal an overall knowledge score of 94%. 20% of the housewives had moderate knowledge on the post-test, whereas 80% had adequate knowledge.[9]

Kaur S, Jeganathan J and Kaur M. (2019) conducted a study in Sirmour, Himachal Pradesh, and found that during pre-test, 60 % of experimental group participants had poor knowledge and 40 % have average knowledge regarding the health hazards of plastic use. During the post-test, 40 % of the subjects had excellent knowledge and 60 % had average knowledge.[11]

Malik H. and Roy K. (2017) investigated the knowledge and attitudes of adolescents in Neelamangala's designated community area on the mishandling of plastic garbage and its environmental hazards. The majority of adolescents, 37 (61.67%), had poor understanding of plastic waste management and its environmental dangers, while 23 (38.33%) had moderate awareness.[12]

Conclusion:

Plastic toxicity is a major concern on a global scale. As a result of exposure to hazardous chemicals used in the production of plastics, the usage of plastics can have determined effects on human health and the environment. The negative impacts of plastic can be mitigated by housewives' instruction.The study most crucial results showed that participants' average knowledge increased from 12.18 to 25.22 points between the first and second tests. To put it another way, the average difference score was 13.04. the mean difference between the two groups' paired t-test scores was 21.35, indicating a statistically significant gap in housewives' knowledge.

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