



# A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Ill Effect Of Plastic On Health Among The Community People At Andharua, Jagannath Prasad Bhubaneswar Khordha, Odisha

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## **ABSTRACT**

A study with quasi-experimental one group pre-test-post-test design was used to assess the effectiveness of structured teaching programme on knowledge regarding ill effect of plastic on health among the community people of Andharua, Jagannathprasad, Bhubaneswar. In this study community people were selected by using simple random sampling technique and data were collected by using self-structured questionnaire method. Demographic variables reveals that 23 community people were male whereas 7 community people were female.

From the pre-test and post-test knowledge scores, it was found that in pre-test 20% of people had poor level of knowledge whereas none of them in post-test. 70% of people had average level of knowledge in pre-test while 6.7% in post-test. 10% of people had good level of knowledge in pre-test whereas 33.3% in post-test. In pre-test none of them had excellent level of knowledge whereas almost i.e. 60% in post-test. At the end, it is concluded that maximum people had poor and average knowledge in pre-test whereas maximum people had good and excellent knowledge in post-test. Therefore, it is interpreted that post-test scores were astonishingly much more than the pre-test scores after implementing the structured teaching programme. The difference in paired pre-test and post-test is (-485). This indicates an increase in knowledge scores after implementing structured teaching programme and calculated value of 't' (29): 15.88 was found highly significant at 0.05 level of significance. Association between the level of knowledge among the community people was highly significant with their age and significant with their education and not significant with gender, family income, occupation, types of family, method of waste disposal and previous source of knowledge.

**KEY WORDS:-** STRUCTURE TEACHING PROGRAM ,ILL EFFECT, PLASTIC, COMMUNITY

## INTRODUCTION

*“Don't be elastic, Say “NO” to plastic.”*

Plastic comes from Greek word ‘Plastikos’ means to form. The plastic products have become an integral part of our daily live. Plastic is versatile, light weight, flexible, moisture resistant, durable, strong and relatively less expensive. It is everywhere convent, easy to use and usually inexpensive. In the last 60 years plastic has become a useful and versatile material with a wide range of application. Society has become completely dependent on plastic, yet we rarely stop and wonder how this material might be affecting our health. Toxic additives are often added to plastic in order to improve its properties.

Plastics are pervasive and dangerous likely hitting us harder than climate change ever will. If we don't figure out solution, or the severity of the issues, life as we know it faces an impending deathly threat. To tackle these challenges, we most first understand how plastic has harms human health and environment.

Plastic pollution has the potential to poison animals, humans, plants, ecosystem and environment. The manufacture of plastic which release waste material during its production, from the industry pollute the land, air and water.

Besides that, the recent emergence of the covid -19 pandemic also caused the increase in the usage of single. Use plastic PPE such as mask, gloves, contribute to macro and micro plastic pollution. India is emerging as a leader, given its one of the highest recycling rates in the world. Despite the effort to control the usages of plastic bags by the government of India, states, union territories have not been able to 1 effectively implement the ban of plastic bags. The best part of India, the bans have been ineffective. Plastic pollution imposes significant economic cost on communities and government. These include the expenses associate with clean-up efforts. Damage to industry such as tourism and fishing and impacts on human health care system.

### PROBLEM STATEMENT :

**“A study to assess the effectiveness of structured teaching program on knowledge regarding the ill effect of plastic on health among community people of Andharua, Jagannathprasad, BBSR, Odisha.”**

### OBJECTIVES

- ❖ To assess the pretest knowledge regarding the ill effect of plastic on health among community people.
- ❖ To implement the structured teaching program regarding ill effect of plastic on health among community people.
- ❖ To assess the post-test knowledge regarding the ill effect of plastic on health among community people.
- ❖ To evaluate the effectiveness of planned teaching program regarding the ill effect of plastic on health among community people.
- ❖ To find out the association between pre-test knowledge regarding the ill effect of plastic on health among community people with their selected socio-demographic variable.

### HYPOTHESIS

- ❖ H1 - There is a significant difference between the pre-test and post-test knowledge score among community people after a structured teaching program regarding the ill effect of plastic on health.
- ❖ H2 - There is a significant association between the pre-test knowledge score among community people with their selected socio-demographic variable.

### MATERIAL METHOD

Quantitative research approach was found to be most suitable for this purpose and quasi experimental one group pre-test-post-test design will be used for the study. The study was conducted among the community people of Andharua, Jagannathprasad, Bhubaneswar. The sample of the present study was community people of Anadharua, Jagannathprasad, Bhubaneswar. and it comprised 30 numbers of community people

at Andharua, Jagannathprasad, Bhubaneswar. Simple random sampling technique was used for the study. The tool consists of two sections: - Section-A: - demographic variables Section-B: - Self structure questionnaire.

## DATA COLLECTION PROCEDURE

Written permission was obtained from the principal of AMRI College of Nursing, Bhubaneswar. Prior to established questionnaire informed consent was obtained from Sarpanch of Andharua and self-introduction was given to the people of Andharua, Jagannathprasad, Bhubaneswar. Prior to data collection permission to be obtained from the authority. The subject was informed about the purpose of the study and permission was obtained from them. Cooperation was readily obtained from the Sarpanch after explaining the purpose of the present work. Data was collected from 30 people of Andharua, Jagannathprasad, Bhubaneswar. During data collection privacy was maintained. Data collection and responses from items were collected by the written questionnaire method.

## RESULT AND DISCUSSION:-

- Findings related to level of knowledge regarding ill effect of plastic on health among the community people.
- Categorizing people according to their level of knowledge:
- The total knowledge regarding ill effect of plastic on health among the community people are grouped into four categories, i.e., 0-10, 11-20, 21-30, 31-40.
- The scoring is classified into poor, average, good, excellent.
- **Scoring procedure: -**
- The questionnaire contains total 40 questions. Each question carries 1 mark. The scoring is categorized according to their level of knowledge: into **poor (0-10)**, **average (11-20)**, **good (21-30)**, **excellent (31-40)** that is presented below:

**Table-1**

LEVEL OF KNOWLEDGE	PERCENTAGE OF SCORE
<b>POOR</b>	<b>1-10</b>
<b>AVERAGE</b>	<b>11-20</b>
<b>GOOD</b>	<b>21-30</b>
<b>EXCELLENT</b>	<b>31-40</b>

**Table -2:** Level of knowledge regarding ill effect of plastic on health among the community people in pre-test.

LEVEL OF KNOWLEDGE	PRE-TEST	
	f	%
Poor	6	20%
Average	21	70%
Good	3	10%
Excellent	0	0%
Total	30	100

**Table– 2,** percentage wise distribution of level of knowledge regarding ill effect of plastic among the community people shows that in pre-test 20% of people had poor level of knowledge and 70% of people had average level of knowledge whereas only 10% of people had good level of knowledge.

**Table-3:** Level of knowledge regarding ill effect of plastic on health among community people in post-test.

LEVEL OF KNOWLEDGE	POST-TEST	
	f	%
Poor	0	0%
Average	2	6.7%
Good	10	33.3%
Excellent	18	60%
Total	30	100%

**Table-3,** Percentage wise distribution of level of knowledge regarding ill effect of plastic on health among the community people indicates that in post-test 6.7% of people had average level of knowledge and 33.3% had good level knowledge whereas maximum i.e, 60% of people had excellent level of knowledge

**Findings of comparison of level of knowledge regarding ill effect of plastic on health among the community people with their pre-test and post-test scores.**

**Table-4;** Percentage wise distribution and comparison of level of knowledge regarding ill effect of plastic on health among the community people.

LEVEL OF KNOWLEDGE	PRE-TEST		POST-TEST	
	F	%	F %	%
Poor	6	20	0	0
Average	21	70	2	6.7
Good	3	10	10	33.3
Excellent	0	0	18	60
Total	30	100	30	100

**Table -4:** Percentage wise distribution of level of knowledge regarding ill effect of plastic on health among the community people shows that in the pre-test and post-test scores it was found out that in pre-test 20% of the people had poor level of knowledge whereas in post-test none of the people had poor level of knowledge. In pre-test 70% of the people had average level of knowledge while in post-test 6.6% of them had average level of knowledge. In pre-test 10% of the people had good level of knowledge whereas in post-test 33.3% of them had good level of knowledge. In pre-test none of the people had excellent level of knowledge whereas maximum i.e.60% of the people had excellent level of knowledge. It reveals that maximum people were poor and average in pre-test whereas that maximum people were good and excellent in post test.

Hence it is interpreted that post-test scores were noticeable much more than the pre test scores.

### Findings for Hypothesis testing:

**Table-5:**

Paired 't' test of pre-test and post-test knowledge scores regarding ill effect of plastic on health among the community people.

The	KNOWLEDGE SCORE	DIFFERENCE IN PAIRED TESTS (d=A-B)	SQUARE OF DIFFERENCE (d <sup>2</sup> )	PAIRED 't' test Value	data
	Pre-test(A)	$\Sigma d = (-485)$	$\Sigma d^2 = 8,743$	<b>15.88</b>	
	Post-test(B)				

presented in the table-5 shows that, the difference between paired pre-test and post-test is (-485). This indicates an increase in knowledge score after undergoing structured teaching programme. To find out the significance in knowledge in paired 't' test value was computed. ▪ Degree of freedom (df) for the paired sample is 29 where n is 30. ▪ By using the formula of paired 't' test, calculated 't' value is 15.88 and tabulated value for 0.05 level of significance is 2.05. ▪  $15.88 > 2.05$  i.e. calculated 't' value is greater than tabulated 't' value. Therefore, calculated value of 't' (29) :15.88 was found highly significant at 0.05 level of significance.

**Table-6:** Association between level of knowledge among the community people with their socio-demographic variables.

Demographic variables	X <sup>2</sup> values	Level of significance
Age	<b>13.075</b>	<b>HS</b>
Gender	2.8	NS
Education	<b>12.715</b>	<b>S</b>
Family income	4.438	NS
Occupation	3.89	NS
Types of family	3.93	NS
Method of waste disposal	3.72	NS
Previous source of knowledge	4.32	NS

**Chi-square** was calculated to find out the association between level of knowledge among the community people with their socio-demographic variables reveal that there was no significant association between the level of knowledge when compared to gender, family income, occupation, types of family, method of waste disposal and previous source of knowledge, **whereas there was significant association between level of knowledge when compared to people's education and highly significant association was found between level of knowledge among the community people when compared to their age.**

### CONCLUSION

Based on the findings of the study the level of knowledge regarding ill effect of plastic on health among the community people of Andharua, Jagannathprasad, Bhubaneswar, it can be concluded that among all the people majority were male, in which maximum people are in the age group of 15-25 year. Most of the

people had completed their secondary education. Maximum people are business person. Most of the people's family income is between 10,000 -15,000/- per month. Maximum of them are from nuclear family. A large number of people throw the plastic waste into the dustbin. Maximum number of people have previous knowledge from mass media. From the pre-test and post-test score it was interpreted that post-test results was remarkable much more than the pre-test which indicates that the structured teaching programme that was effective and successful.

Chi-square was calculated that there was significant association between level of knowledge when compared to people's education and highly significant association was found between level of knowledge among the community people when compared to their age.

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## ETHICAL CLEARANCE:

Study was approved by PRINCIPAL, AMRI COLLEGE OF NURSING, BBSR ODISHA. Prior to established questionnaire informed consent was obtained from Sarpanch of Andharua Jagannathprasad, Bhubaneswar.

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