



“A Study To Assess Knowledge And Practice Regarding Health Hazards Of Burning Plastic Among Residents Of Selected Urban Community Ollukkara Block Panchayath, Thrissur”

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Abstract: Despite all of the economic problems and environmental discussions on the dangers and hazards of plastic materials, plastic production worldwide is growing at a rate of about 5% per year. However, a large fraction of plastics are still being discarded in landfills or subjected to intentional or incidental open-fire burning. The current study aims to assess the knowledge and practice regarding health hazards of burning plastic among residents of selected urban community. The objectives of the study are to assess the knowledge and practice regarding health hazards burning plastic among residents, and to find out association between knowledge and practice regarding health hazards of burning plastic with their selected demographical variable, to find out correlation between knowledge and practice regarding health hazards of burning plastic among residents of selected urban community. The study focuses on residents of selected urban community from Ollukkara block Panchayat of Thrissur district Kerala. The research approach adopted for the study is quantitative and the design is descriptive. For the study 100 residents from Pranavam Nagar were selected by using convenient sampling technique. Data was collected using a demographic sheet, standardized questionnaire regarding knowledge of health hazards of burning plastic and practice was assessed by a checklist. The results shows that out of 100 samples 31 samples(31%) had adequate knowledge and 65 samples(65%) had moderate knowledge and 4 samples (4%) had inadequate knowledge regarding health hazards of burning plastic. Regarding the practice 8 samples (8%) had X excellent practice, 39 samples (39%) had very good practice, 39samples(39%) had good practice and 4 samples(4%) had poor practice. The study also showed that a positive correlation between the knowledge and practice with “r” value is 0.265*. Significant association was found between knowledge and practice with their selected demographic variable like method of waste disposal ($\chi^2=35.1$).

Keywords: *knowledge, practice, burning plastic, correlation*

INTRODUCTION

A plastic material is a wide range of synthetic or semi-



synthetic organic solids used in the manufacture of industrial products. In modern era even though plastic is an inevitable substance, it is one of the major toxic pollutants of our time. Being a non-biodegradable substance, composed of toxic chemicals, plastic pollutes earth, air and water. More than half of the population in Kerala is aware of ill-effects of burning plastic, but a major share of Keralites dispose useless plastic by burning.. According to a survey conducted by Kerala state literacy mission authority. Survey result indicate that burning of plastic continues unabated in the state. 44.64% of population burns used plastic while 30.56% throw it outside and 24.79% abandon plastic waste on their house premises. This unscientific disposal of plastic waste happens in a state only 38.57% are aware of health hazards related to burning plastic. 88.37% people use carry bags and other plastic products. Only 11.63% people do not use plastic in the state. The status is not much better for household waste either. 32.32% people leave their household waste on house premises. 26.30% people burn household waste in far off places. 12.50% people burn household wastes. 14.38% people process waste using biogas plant while pipe compost is used by 6.77% and aerobic compost by 6.52%. Around 65% people still dump waste either on their own plots or on other plots. India is going to exceedingly influence and break down air quality due to the burning of the discarded plastic. India is currently where air quality is deteriorating and going to be worst by day by day. The world is producing twice as much plastic waste as two decades ago, with the bulk of it ending up in landfill, incinerated or leaking into the environment, and only 9% successfully recycled.

NEED AND SIGNIFICANCE OF THE STUDY

The open burning of plastic wastes-which we defines as the

burning of waste plastics in open fires without managing for the emission of byproducts, such as gases and ash, into the ambient or soil is widespread 6 across the globe. A survey was conducted on by Kerala State Literacy Mission Authority reported that more than half of the population in Kerala is aware of ill effects of burning plastics, but major share of Keralites dispose plastics by burning. A classic example of this is the Brahmapuram Waste Plant Fire incident, Kochi that happened recently in Kerala. So we selected this study to assess the knowledge and practice regarding 9 health hazards of burning plastics among the residents. Thereby to insist knowledge about the adverse effects of burning plastics.

STATEMENT OF THE STUDY

A study to assess the knowledge and practice regarding health hazards of burning plastic among residents of selected urban community Ollukkara Block Panchayath, Thrissur District.

OBJECTIVES OF THE STUDY

- To assess the knowledge regarding health hazards of burning plastic among residents of selected urban community.
- To assess the practice regarding health hazards of burning plastic among residents of selected urban community.
- To find the correlation between knowledge and practice regarding health hazards of burning plastic among residents of selected urban community.
- To find the association between knowledge regarding health hazards of burning plastic among the residents with their selected demographic variables.
- To find the association between practice regarding health hazards of burning plastic among the residents with their selected



demographic variables.

- To prepare and distribute an information booklet regarding health hazards of plastic burning

Hypothesis

H1: There is a significant correlation between knowledge and practice of the subjects regarding health hazards of burning plastic among the residents, with their selected demographic variables.

H2: There is a significant association between knowledge regarding health hazards of burning plastic among residents with their demographic variables. H3: There is a significant association between practice regarding health hazards of burning plastic among residents with their selected demographic variables.

METHODOLOGY

Research approach: In this study quantitative research approach was used.

Methods of data collection

Data collection procedure are the means of gathering information to address the research problem. Data collection was done from 16-08-2023 to 17-08-2023. A formal permission was obtained from the Principal, Aswini College of Nursing and from the President of ollukara block panchayat Mr Ravi for conducting the study. The researcher assumed that the study will not interfere with

the daily and academic schedule of students. The researcher establish good rapport with residents of Panchayat by taking informed consent from the subject to take part. Confidentiality was assumed to all samples to get their good cooperation. Structured questionnaire is given in sample were cooperated well during the time of data collection. Socio demographic variables, practice, knowledge on selected accept of health hazards of burning plastic for collected by administering tool.

Research Design: In this study non experimental descriptive survey design was used.

Demographic variable: In this study, the demographic variables are age, gender, type of family, type of house, number of family members, educational status, Area of land, previous information about plastic burning.

Population: In this study, the population comprises all the residents of Ollukkara block panchayth. Total population is 2,24,751 . Among this male population is 110527 and female population is 114224.

Target Population: It include all the residence of ollukkara block panchayath.

Accessible population: In this study accessible population is all the residents of Pranavam Nagar (ward 15), Ollukkara block panchayat, Thrissur district.

Sampling technique: The samples were collected through convenient sampling technique.

Sample size: Sample size of the study was 100 people residing in Pranavam Nagar (ward 15) Ollukkara block panchayat Thrissur district



Sample criteria

Inclusion criteria:

Residents who are;

- residing in Ollukkara block panchayat
- able read and write Malayalam

Exclusion Criteria:

Residents who are ;

- not present during the data collection.
- chronically ill • unwilling to participate in the study

DESCRIPTION AND SCORING

SECTION A: A description of demographic data of the samples.

SECTION B: A description of the level of knowledge among residents regarding health hazards of burning plastic.

SECTION C: A description of practice among respondents on burning plastic.

SECTION D: Description of correlation between knowledge and practice regarding health hazards of burning plastic among respondents.

SECTION E: Description of the association between knowledge regarding health hazards of burning plastic among residents with their selected demographic variables.

SECTION F: Description of the association between practice regarding health hazards of burning plastic among residents with their selected demographic variable.

RESEACH FINDINGS:

SECTION A :- A Description of the demographic profile of the respondents.

Sl.No.	Deographic variable	Frequeny	Percentage
1	Age in years 20-40	19	19
	41-60	41	41
	>60	40	40
2	Gender	32	32
	Male Female	68	68
3	Type of family	30	30
	Joint	70	70
	Nuclear Extended	0	0
4	Type of house	95	95
	Own	4	4
	Rent	1	1
	Lease		



5	Number of family members	33	33
	One	23	23
	Two	17	17
	>Three	27	27
6	Area of land	10	10
	<5 cent	52	52
	5-10 cent	28	28
	10-15 cent	10	10
7	>15 cent		
	Education status	14	14
	Primary education	39	39
	High school education	36	36
8	Diploma/degree	21	21
	Post graduation		
	Method of waste disposal	1	1
9	Burial	1	1
	Dump in open space	26	26
	Burning	72	72
	Hand over to panchayath authority		
9	Previous knowledge	95	95
	Yes	5	5
	no		

SECTION B: Description of the level of knowledge among the respondents regarding health hazards of burning plastic.

LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
Inadequate	4	4
Moderate	65	65
Adequate	31	31

SECTION C: Description of practice of the respondents regarding health hazards of burning plastic.

LEVEL OF PRACTICE	FREQUENCY	PERCENTAGE
Excellent practice	8	8
Good practice	39	39
Moderately good practice	39	39
Poor practice	4	4



SECTION D: Correlation between knowledge and practice regarding health hazards of burning plastic among the respondents

VARIABLES	n	r Value	p Value
Knowledge practice	100	0.265	0.05

SECTION E: Description of association between knowledge regarding health hazards of burning plastic among the respondents with their selected demographic variables

N=100

SI.NO	DEMOGRAPHIC VARIABLE	χ^2	TV
1	Age in years	5.92	9.49
2	Gender	3.11	5.99
3	Type of family	4.22	9.49
4	Type of house	0.83	9.49
5	Number of family members	4.49	12.59
6	Educational status	6.23	12.59
7	Area of land	2.72	12.59
8	Method of waste disposal	35.1*	12.59
9	Previous knowledge	0.02	5.99

*significant at 0.05 level

Section F: Description of association between practice regarding health hazards of burning plastic among the respondents with their selected demographic variables

SI.NO	DEMOGRAPHIC VARIABLE	χ^2	TV
1	Age in years	8.39	12.59
2	Gender	0.88	7.82
3	Type of family	2.54	12.59
4	Type of house	8.78	12.59
5	Number of family members	8.04	16.92
6	Educational status	0.001	16.92
7	Area of land	4.23	16.92
8	Method of waste disposal	29.15*	16.92
9	Previous knowledge	5.30	9.49

*significant at 0.05 level



DISCUSSION

The first objective of the study was to assess the knowledge regarding health hazards of burning plastic among the residents of selected urban community. The analysis of the study shows that

among 100 residents, 65(65%) had moderate knowledge, 31(31%) had adequate knowledge and 4(4%) had inadequate knowledge regarding health hazards of plastic burning.

The second objective of the study was to assess the practice regarding health hazards of burning plastic among residents of selected urban community. The analysis of the study shows that among 100 residents 8(8%) had excellent practice, 39%(39) had very good practice, 39(39%) had good practice and 14(14%) had poor practice regarding health hazards of plastic burning

The third objective of the study was to find out the correlation between knowledge and practice regarding health hazards of plastic burning. The present study depicts there is correlation between knowledge and practice regarding health hazards of plastic burning. The 'r' value is 0.265* which is significant at the level of 0.05 and it is concluded that there is a positive correlation found between knowledge and practice regarding health hazards of burning plastic among respondents.

The fourth objective of the study was to find out the association between knowledge regarding health hazards of burning plastic among residents with their selected demographic variables. The study findings revealed that there is a significant association between the knowledge regarding health hazards of burning plastic among the residents with their selected demographic variables such as method of waste disposal (χ^2 value=35.1*,

TV=12.59). Hence the research hypothesis was accepted and null hypothesis was rejected.

The fifth Objective was to find out the association between practice regarding health hazards of burning plastic among the residents with their selected demographic variables. The study findings revealed that there is a significant association between the practice regarding the health hazards of burning plastic among residents with their selected demographic variables such as method of waste disposal ($\chi^2=29.145^*$, TV=16.92). So the research hypothesis of the present study was accepted and null hypothesis was rejected.

CONCLUSION: Most of the respondents had moderate knowledge on health hazards of burning plastic. The practice of the residents concerning the health hazards of burning plastic may improve as their knowledge increases. Hence the study identified the need for education regarding health hazards of burning plastic for increasing awareness. Thus the questionnaire method of data collection helped the respondents gain awareness about the health hazards of burning plastic and acquaint themselves with the practices they are supposed to follow in day to day life.

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