

A Study to Assess the Knowledge Regarding Domestic Waste Management and Its Impacts on Health of People Living in a Selected Urban Area at District Jaipur, Rajasthan

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Abstract

Background :

Waste management and water, sanitation are important driving forces for community health in India. But the practices of basic concepts waste disposal are often neglected. People around the globe are aware of the impact of improper waste disposal practices, but the negative attitude of implementation gives rise to confusing situations.

Material & Methods : A non-experimental descriptive survey research design was used for this study and the study was conducted in a selected urban area at Jaipur. A total of 80 samples of households were selected by using non-probability purposive sampling technique. A structured knowledge questionnaire was prepared to assess the knowledge regarding domestic waste management and its impacts on health among people at Jaipur. The conceptual framework of the present study was developed based on health belief model based on Rosenstoch's and Becker's Model

Result :- Descriptive and Inferential statistics were used to analyse the data. The analysis revealed that 52.5% of the sample had moderate knowledge regarding domestic waste management with total mean and SD of 10.05 ± 3.9 .

Conclusion : The overall findings of the study revealed that more than half of the people had moderate knowledge regarding domestic waste management and its impacts on health. Hence, it is concluded that further improvement of knowledge on domestic waste management is needed in this area.

Keywords : Knowledge; domestic waste management; people.

Introduction :

Solid waste management (SWM) has emerged as one of the most massive development challenges in urban India. Numerous studies indicate that the unsafe disposal of waste generates dangerous gases and leachates, due to microbial decomposition, climate conditions, refuse characteristics and land-filling operations. Moreover, finding new landfill sites is a difficult task as local officials are averse to setting aside land in their jurisdiction for waste that come from other areas.¹

Various legislations have been passed for regulating the manner of waste disposal. The Ministry of Environment, Forest and Climate Change (MoEFCC) and the Ministry of Housing and Urban Affairs (MoHUA) have together rolled out policies and programmes to address these issues. However, most of these have failed to achieve their objectives due to a lack of clarity and awareness amongst the stakeholders, and poor enforcement by the regulators.²

With the growing population, solid waste management (SWM) is becoming a significant environmental challenge and an emerging issue, especially in the eco-sensitive Indian Himalayan region (IHR). Though IHR does not host high local inhabitants, growing tourist footfall in the IHR increases solid wastes significantly. SWM is challenging in the highlands due to the remoteness, topographical configuration, increasing urbanization, and harsh climate compared to plain areas.

Despite governments' effort to revise SWM; measures like proper collection, segregation, treatment, and solid waste disposal needs more attention in the IHR. Door-to-door collection, segregation at source, covered transportation, proper treatment, and disposal are the primary steps to resource recovery across the IHR. This review highlights the current status of waste generation, the current SWM practices, and SWM challenges in the IHR. The review also discusses the possible resource recovery from waste

in the IHR, corrective measures introduced by the government specific to IHR and, the way forward for improved SWM for achieving sustainable development of the IHR.³

Material & Methods :

Research approach : Evaluative quantitative approach is considered as appropriate one for present study

Research design : non- experimental descriptive survey research design was used for this study

Setting of the study : This study has been conducted at Ward No. 40, Jhotwara, Jaipur. The area is at a distance of 10 km from Upchar College of Nursing, Jaipur.

Population : In the present study the target population comprises of people of Ward No. 40, Jhotwara, Jaipur.

Sample : Sample consists of a subject of a population selected in a research study. The samples selected for the present study comprises of people of Ward No. 40, Jhotwara, Jaipur.

Sample size : The sample size for present study consists of 80 people in the age group of above 20 years of Ward No. 40, Jhotwara, Jaipur.

Sampling technique : Sampling technique is used in research when it is not feasible to study the whole population from which it is drawn. The process of sampling makes it possible

to accept a generalization to the intended population based on careful observation of variables, within a relatively small proportion. In this study, samples were selected by using Non- probability purposive sampling method.

Results : The analysis of data is done based on the objectives of the study. Organization of the findings the data collected from the subject is organized, analyzed and presented under the following headings.

- ✓ Section I : Demographic variables of the subjects.
- ✓ Section II : Knowledge scores of the subjects regarding domestic waste management and its impacts on health.
- ✓ Section III : Association between levels of knowledge with demographic variables.

Section-I Description of demographic variables of the subjects

This section deals with distribution of demography characteristics of peoples. The obtained data on sample characteristics are described under the sub-heading of Age, Gender, Educational qualifications, Religion, Type of employment, Family income (per month in Rs.), Type of family and Source of information about domestic waste management at selected urban area, jaipur

Section ii (a) knowledge scores of the subjects regarding domestic waste management and its impacts on health

Table 1: Frequency and percentage distribution of subjects according to the level of knowledge

Grading of knowledge	Range	N=80	
		Frequency	Percentage (%)
Adequate	19-27	2	2.5
Moderate	10 - 18	42	52.5
Inadequate	0 - 9	36	45.00
Total		80	100

Section II (b): Table 2: Area-wise analysis of the knowledge score

Knowledge area	Max. possible score	Mean	SD	Median	Std. Error	Mean%
Definition	2	0.9	0.7	1.00	.08	43.1
General aspects of domestic waste	6	2.7	1.3	3.00	.15	44.3
Methods of waste disposal	6	1.8	1.3	2.00	.15	29.3
Method of waste utilization	4	1.2	1.2	1.00	.13	30.9
Tips to reduce domestic waste	4	1.6	0.9	1.00	.10	39.3
Impacts of domestic waste on health	5	1.9	1.2	2.00	.14	39.0
Total	27	10.01	6.6	10.00	0.75	37.65

Section III Association between mean knowledge score with selected demographical variables

Table 3: Chi-square test to find out association between mean knowledge score and selected demographic variables Knowledge score N=80

S.No.	Demographic variables	< Median	? Median	P value	2 Value
1	Age (In years)			0.758	1.178
	20-25 Years	7	6		
	25-30 Years	12	12		
	30-35 Years	7	11		
	Above 35 Years	5	10		
2	Gender			0.193	1.696
	Male	12	9		
	Female	14	35		
3	Educational Qualifications			0.014	8.516
	Graduation or above	16	16		
	Higher Secondary	12	17		
	Secondary	5	10		
	Illiterate	2	1		
4	Religion			0.415	0.665
	Hindu	26	28		
	Muslim	2	1		
	Christian	8	14		
	Sikh	0	1		
5	Type of Employment			0.014	8.516
	Service (Government/private)	2	1		
	Business	5	10		
	Housewife	12	17		
	Others	6	16		
6	Family Income (Per month in Rs.)			0.875	0.025
	Below 5000	5	4		
	5001-10000	14	20		
	10001-15000	10	13		
	Above 15000	7	7		
7	Type of family			0.014	8.516
	Nuclear family	28	32		
	Joint family	6	10		
	Extended family	2	2		
8	Source of information			0.523	5.000
	Family Members	9	16		
	Friends and relatives	9	3		
	Mass media	18	25		

There will be a significant association between knowledge score and educational status of subjects selected for the study. 8.516 (cal value) < 7.81 (table value).

It also reveals that there is no significant association between knowledge score and selected demographic variables like Age, Gender, Educational qualifications, religion, type of employment, family income, type of family and Source of information about domestic waste management.

Discussion :

Discussion of the study with appropriate literature review, statistical analysis and findings of the study based on objectives of the study.

The aim of the present study was to assess the knowledge regarding domestic waste management its impacts on health in a selected urban area at Jaipur. A total of 80 peoples from urban area were selected for the study by using non-probability purposive sampling method. Questions were asked by using structured questionnaire.

Conclusion :

The following conclusions were drawn from the findings of the study:

- ✓ Most of the subjects had moderate knowledge on domestic waste management and its impacts on health.
- ✓ There is no significant association between knowledge score of subjects and selected demographic variables except educational qualification.

References : -

1. Satpal Singh, "Solid Waste Management in Urban India: Imperatives for Improvement," ORF Occasional Paper No. 283, November 2020, Observer Research Foundation.
2. Shyamala Mani and Satpal Singh, "Sustainable Municipal Solid Waste Management in India: A Policy Agenda," *Procedia Environmental Sciences* (2016): 206
3. Aman Thakur, et al Solid Waste Management in Indian Himalayan Region: Current Scenario, Resource Recovery, and Way Forward for Sustainable Development, *Front. Energy Res.*, 23 March 2021
4. Addo, H.O., Dun-Dery, E.J., Afoakwa, E. et al. Correlates of domestic waste management and related health outcomes in Sunyani, Ghana: a protocol towards enhancing policy. *BMC Public Health* 17, 615 (2017)
5. Fobil JN, Armah NA, Carboo N: The influence of institutions and organizations on urban waste collection systems: An analysis of waste collection systems in Accra, Ghana (1985-2000). *J Environ Manage.* 2008, 86: 262-271. 10.1016/j.jenvman.2006.12.038
6. Sunil kumar, et al, Challenges and opportunities associated with waste management in India, Published by: Royal Society ISSN:2054-5703, March 2017 Volume 4 Issue 3

