Knowledge Regarding Domestic Waste Management among Women

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ABSTRACT

Domestic waste has become one of the most significant causes of severe damage to the rural eco-environmental because of the large amount of waste discharged and improper disposal. A community based descriptive study was conducted to assess the knowledge regarding domestic waste management among women at village NangalShahidan of district Hoshiarpur, Punjab.

Non- Probability purposive sampling technique was used to obtain a sample of 50 women for the research study. Analysis of data was done by using inferential statistic. ANNOVA test was used to mean score and relationship of knowledge toward domestic waste management among women at village NangalShahidan of district Hoshiarpur, Punjab, with selected demographic variables respectively.

The sample characteristics shows that majority of women belongs to age group 31-40 with 44%, 50% women done their secondary education, 76% are housewives, 74% belong Hindu religion, 58% women have open disposal of waste, 40% have monthly income between Rs 4,000-Rs 6,000 and 78% of women use television as source of information. The overall knowledge score sampling showed that 4% had an excellent knowledge whereas 50% had fair knowledge regarding domestic waste management.

KEYWORD: Assess, Knowledge, Domestic waste management, women

INTRODUCTION

Currently, India generates most of waste which is expected to raise by 2050 if appropriate action would not be taken. According to report, every day approximately 0.1 million tonnes of municipal solid waste is produced. The management of domestic waste continues to be a major challenge in rural areas throughout the India. A high rate of population growth and lack of knowledge has resulted in the generation of a domestic solid waste, which poses a serious threat to environmental quality and human health.

The domestic waste can be classified into various parts: recyclable waste, including plastic, paper, glass, etc, Kitchen waste , Hazardous waste for example waste batteries, fluorescent tubes, waste mercury thermometer, expired drugs, Other garbage like the brick and tile ceramics, dregs and other material, which need special and safe management.

Waste disposal is the collection of waste from home, processing of segregation, reduction, disposal and recycling or deposition of the waste materials. There are many methods of domestic waste disposal some of which are:

landfill, incineration and vermicomposting. Using these methods we can control the hazardous effect of domestic waste in our environment.

Problem Statement
A descriptive study to assess the knowledge regarding domestic waste management among women of village NangalShahidan, district Hoshiarpur, Punjab, India.

Objectives of the study
A. To assess the knowledge regarding domestic waste management among women of village NangalShahidan, district Hoshiarpur, Punjab, India.
B. To find the relationship between the knowledge regarding domestic waste management among women with selected variables.

HYPOTHESIS
H_1: There will be significant association between Knowledge scores of women with selected variables.

ASSUMPTION:
Most of women may have fair knowledge regarding domestic waste management.

RESEARCH METHODOLOGY
Research Approach:
A quantitative research approach was aimed to assess the knowledge on domestic waste management among women of village NangalShahidandistrictHoshiarpur, Punjab, India.

Research Design:
A non-experimental descriptive study was done to assess the knowledge on domestic waste management among women in village NangalShahidandistrictHoshiarpur, Punjab, India.

Independent variables: Independent variables in the study are-age in years, education, occupation, religion, types of disposal, type of family drainage system, monthly income in rupees and source of information.

Dependent variables: Dependent variable was knowledge regarding domestic waste management among women of village NangalShahidan, district Hoshiarpur, Punjab, India.

Research setting:
Village NangalShahidan is selected for the study. It is having a approximately 1500 population and 8KM away from Hoshiarpur city Bus Stand, Punjab. Most of the women in the village are housewives, few are working.

Target population:
Target population in this study were women in village NangalShahidan, district Hoshiarpur, Punjab, India.

Sample size and sampling techniques: The sample for the study consists of approximately 50 women of village NangalShahidanHoshiarpur, Punjab, India and purposive sampling technique were used for sampling selection.

Criteria for sample selection and development of tool:
➤ **Inclusion criteria:**
- Women who belong to village NangalShahidanHoshiarpur, Punjab, India.
- Women who were agree to participate in the study.

➤ **Exclusion criteria:**
- People who did not co-operate in the study project.
- People who did not give consent.

Description of tool:
Section 1: This part of a tool consists of 7 variables for obtaining demographic information of subject as age in years, education, occupation, religion, types of disposal, monthly income in rupees, source of information. **Section 2:** Itcontains self-structured questionnaire for the assessment of knowledge of domestic waste management. The content consists of 25 multiple choice questions having one correct answer among 4 options carrying 1 mark to assess the knowledge of domestic waste management among women at village NangalShahidan, district Hoshiarpur, Punjab, India.

Content validity:
The content validity of the tool was determined by the expert's opinion. The English version of tool was translated in Punjabi with the help of language experts.

Reliability of tool:
Reliability of tool was computed by split half method and thereafter by Karl Pearson's co-efficient of correlation. The reliability of tool was near about $r = 0.30$ which found reliable and feasible.

Data collection procedure:
Data collection for final study was conducted in the month of October 2020 from village NangalShahidan, district Hoshiarpur, Punjab. Approximately 50 women were taken as subject along with written consent taken from them. The researcher first introduced herself to the subject. Subjects were assured that their responses would be kept confidential and used only for research study.

Ethical considerations:
Written permission was taken from Sarpanch of village NangalShahidan, district Hoshiarpur. Written consent was taken from the selected 50 women of village to gain their confidence. They were assured that their data will be kept confidential.

Difficulties faced by investigator:
The difficulties faced by the investigator was the availability of subjects. They were available at fixed timings.

Analysis and Interpretation:
1. Frequency distribution of demographic variables.
2. Frequency and percentage distribution of knowledge score.
3. Association between level of knowledge score with their selected demographic variable.

ANALYSIS AND INTERPRETATION
SECTION-I Distribution of socio-demographic variables of women

Table no.1: Frequency and percentage distribution of sample characteristics among women of village NangalShahidan, District Hoshiarpur, Punjab, India

N=50

S.NO.	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1.	Age in years a) 20-30 b) 31-40 c) 41-50 d) Above 50	08 22 11 09	16 44 22 18

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2.	**EDUCATION** a) Primary b) Secondary c) Graduation d) Post-graduation		11 25 11 03	22 50 22 06
3.	**OCCUPATION** a) Housewife b) Government Employee c) Private Employee d) Self-Employee		38 03 07 02	76 06 14 04
4.	**RELIGION** a) Hindu b) Sikh c) Christian d) Muslim		37 13 00 00	74 26 00 00
5.	**TYPE OF DISPOSAL** a) Open b) Closed c) Dumping d) Incineration		29 14 06 01	58 28 12 02
6.	**MONTHLY INCOME IN RUPEES** a) Less than 4000 b) 4000-6000 c) 6000-8000 d) Above 8000		11 20 10 09	22 40 20 18
7.	**SOURCE OF INFORMATION** a) Television b) Radio c) Mobile phones d) Newspaper		39 01 05 05	78 02 10 10

SECTION- II Objective 1: To assess the knowledge regarding domestic waste management among the women of village NangalShahidan, District Hoshiarpur, Punjab, India.

Table 2: Depicts frequency and percentage distribution of knowledge score regarding domestic waste management among the women

N=50

S. NO.	LEVEL OF KNOWLEDGE	CRITERIA FOR KNOWLEDGE SCORE	FREQUENCY	PERCENTAGE
1.	Poor	0-6	11	22 %
2.	Fair	7-12	25	50 %
3.	Good	13-19	12	24 %
4.	Excellent	20-25	02	4 %

Maximum Score = 25
Minimum Score = 0

Figure 1 - Level of Knowledge regarding domestic waste among women

■ Poor ■ Fair ■ Good ■ Excellent
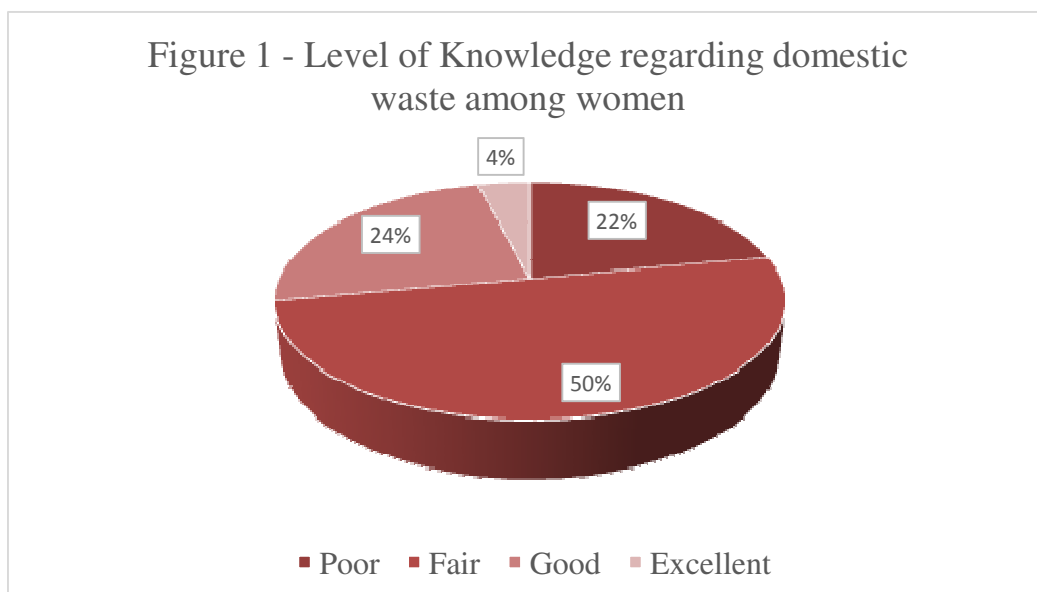
Figure 1: Depicts that majority of subjects i.e. 50% had fair knowledge followed by 24% good knowledge followed by 22% poor knowledge and 4% had an excellent knowledge. Hence, assumption was proved true.

SECTION-III

Objective 2: To find out the association between the knowledge of domestic waste management and selected demographic variables.

Table 3: Mean distribution of socio-demographic variables according to level of knowledge

N=50

S. no.	Socio-demographic variables	N	Mean	SD	DF	p-value
1.	**AGE IN YEARS** a) 20-30 b) 31-40 c) 41-50 d) Above 50	08 22 11 09	9.25 9.95 9.82 11.56	3.62 2.97 5.78 4.07	3/46	0.541[NS]
2.	**EDUCATION** a) Primary b) Secondary c) Graduation d) Post-graduation	11 25 11 03	7.55 9.44 13.64 12.00	2.77 3.01 4.84 2.00	3/46	6.59[S]
3.	**OCCUPATION** a) Housewife b) Government Employee c) Private Employee d) Self-Employee	38 03 07 02	9.00 15.67 14.14 12.00	3.42 4.04 2.67 0.71	3/46	7.77S
4.	**RELIGION** a) Hindu b) Sikh c) Christian d) Muslim	37 13 00 00	9.92 10.62 00 00	3.74 4.65 00 00	2/47	0.143[NS]
5.	**TYPE OF DISPOSAL** a) Open b) Closed c) Dumping d) Incineration	29 14 06 01	9.72 11.29 9.50 8.00	3.83 4.89 1.87 00	3/46	0.63[NS]
6.	**MONTHLY INCOME IN RUPEES** a) Less than 4000 b) 4000-6000 c) 6000-8000 d) Above 8000	11 20 10 09	8.09 9.70 10.60 12.67	3.08 3.21 4.86 4.64	3/46	2.48[NS]
7.	**SOURCE OF INFORMATION** a) Television b) Radio c) Mobile phones d) Newspaper	39 01 05 05	9.36 9.00 11.27 11.50	3.91 3.00 4.05 4.21	3/46	1.06[NS]

S - Significant, **NS** - Non-Significant

Education and occupation of women are found significant at p value < 0.05%.whereas age in years, religion, type of disposal, monthly income and source of information are found non-significant. Hence ,H_1 hypothesis is accepted for variables of education and occupation.

Conclusion:

The overall knowledge score of the sample showed that majority of women i.e. 50% had fair knowledge, 24% women had good knowledge, 22% had poor knowledge, 4% had an excellent knowledge regarding domestic waste management. In addition, education and occupation are found significant impact on domestic waste management among women whereas religion, type of disposal, monthly income and source of information have no impact on domestic waste management among women. Hence, assumption, women may have less knowledge regarding domestic waste management, is proved true.

Recommendations

Future educational interventions is recommended on large samples to raise public awareness regarding Domestic waste management and should be focus on community area where lacking of information and facilities. Educational massages should be more simplified, understandable in their regional languages. Frequent communication is recommended between health care providers and the public to help them to manage domestic waste at lower level to avoid less harm to community health and environmental hazards. More research can be done to recycle or reuse the domestic waste in public utilization and same should be followed among people.

REFERENCES

[1] Kaza, Silpa; Yao, Lisa C. et al . What a Waste 2.0 : A Global Snapshot of Solid Waste Management to 2050. Urban Development;. Washington, DC: World Bank. © World Bank. 2018. Available at - https://openknowledge.worldbank.org/handle/10986/30317 License: CC BY 3.0 IGO.

[2] Jaganmohan M, Amount of MSW generated in India 2001-2041,Nov 16, 2020. Available at - https://www.statista.com/statistics/1009110/india-msw-generation-amount/.

[3] PPCB (Punjab Pollution Control Board). Status report on municipal solid waste in Punjab, Punjab Pollution Control Board, Patiala. 2010. Available at - http://www.ppcb.gov.in/Attachments/Annual%20Reports/AR201011.pdf (accessed 1 July 2015).

[4] Census of India.. Ministry of Home Affairs, Government of India, New Delhi, India. 2011. Available at - http://censusindia.gov.in/ (accessed 27 June 2015).

[5] Kumar S, Stephen R. et al, Challenges and opportunities associated with waste management in India, R Soc Open Sci. 2017 Mar; 4(3): 160764. Published online (2017) Mar 22. doi: 10.1098/rsos.160764.

[6] 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. 2017. BMC Public Health 17, 615. Available at - https://doi.org/10.1186/s12889-017-4537-8.

[7] Yoada, R. M., Chirawurah, D. & Adongo, P. B. Domestic waste disposal practice and perceptions of private sector waste management in urban Accra. 2014. BMC Public Health 14, 697. Available at - https://doi.org/10.1186/1471-2458-14-697.

[8] *Nivya N K, Karunakaran,U,* Study on attitude of household waste management in a rural area of Northern Kerala. 2019. IJCMPH, Vol 6 No. 5. Available at https://www.ijcmph.com/index.php/ijcmph/issue/view/50.