

Knowledge and Practice Regarding Household Waste Management among Women in Selected Rural Area at Puducherry

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Abstract

Introduction: Waste is generated as consequences of household activities such as the cleaning, cooking, repairing empty containers, packaging, huge use of plastic carry bags. Many times these waste gets mixed with biomedical waste from hospitals and clinics. The improper management and lack of disposal technique of the domestic waste pollutes to the environment. **Aims and objectives:** To assess the level of knowledge and practice of household waste management among rural women, and to identify the association between level of knowledge with selected socio demographic variables of rural women. **Materials and methods:** Cross sectional descriptive study was conducted among women (210) residing in the village Ramanathapuram, Pondicherry in the age group of 18-55 years. **Results:** The knowledge level of the rural women regarding disposal of waste was inadequate as mean score was less than 50% of the total score (13). The practice of waste disposal was inappropriate. **Conclusion:** The study concluded that the most of the women residing in the rural area were having inadequate knowledge, practice was inappropriate at most of the situation.

Keywords: Knowledge; Practice; Household waste management.

Introduction

Women residing in the rural area must have basic knowledge on segregation and disposal of household waste and the health professionals need to have awareness on household waste management of waste disposal.¹ Domestic waste management problem is drawing attention of the people as huge garbage is lying down uncollected beside the roads, streets dustbins and on the ground which is causing threat to the environment as well as endangering public health and this deteriorates the environment.² Uncollected waste and improper

disposal techniques get clogged in to drains which lead to mosquitoes by which various diseases like malaria, chikungunya, viral fever, dengue etc. arise and affect the health of people adversely.³ Poor domestic waste management also displays an ugly scenario of the environment. This can affect the tourism industry, as the tourist may not get attracted to visit the country.⁴ It is estimated by TERI that in 1997 India released about 7 million tons of methane into the atmosphere. This could increase to 39 million tons by 2047 if no efforts are made to reduce the emission through composting, recycling, etc.³ A Global Review of Solid Waste Management,



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estimated that cities currently generate roughly 1.3 billion tone of solid waste per year, due to current urbanization trends, this figure will grow to 2.2 billion tons per year by 2025 i.e an increase of 70 percent.⁵ In developing countries, 20–50% of recurring budgets of municipalities is often spent on solid waste management, although only 50% of urban population is covered by those services. In low income countries, collection alone drains 80–90% of total waste management budgets.⁶ Swachh Bharat Mission or Swach Bharat Abhiyan campaign was launched on 2nd of October (the birthday of the Mahatma Gandhi) in seeking the way to create a Clean India target by 2019, to complete the vision of the father of the nation.⁷

The accomplishment of this vision is impossible without cooperation of the public and most of the public still not aware about the proper household waste disposal methods. So this study was undertaken to assess the level of knowledge and practice of household waste management among rural women, and to identify the association between level of knowledge with selected socio demographic variables.

Materials and Methods

Cross-sectional descriptive study approach was conducted among the women (210) residing in

the village Ramanathapuram, Pondicherry in the age group of 18–55 years to assess the level of knowledge on house hold waste management and the practice regarding waste disposal. Women who were mentally disabled, bedridden and with severe systematic diseases were excluded. After obtaining informed consent, the semi structured questionnaire was used to collect the socio demographic variables and structured knowledge questionnaire which contains 28 items were used to collect knowledge related information. <50% indicated inadequate knowledge, 50–75% indicated moderate knowledge and >75% indicated adequate knowledge. structured check list was used to assess the practices regarding household waste management. House to house survey was done to collect the data for 3 days. Mean and SD was calculated for knowledge questioner and frequency distribution was assessed for the method of waste disposal practices.

Results

Table 1 represents the distribution of level of knowledge of women residing at rural area on household waste management, 206 women were having inadequate knowledge (98%), 4 women were having moderate knowledge (2%). The knowledge level of the rural women regarding disposal of waste was inadequate as mean score was less than 50% of the total score (13).

Table 1: Frequency distribution of level of knowledge among women residing in the rural area

N = 210

Level of knowledge	Frequency (no)	Percentage (%)	Mean	SD
Inadequate (<50%)	206	98	13	2.3
Moderate (50–75%)	4	2		
Adequate (>75%)	-	-		

The Table 2 represents that the most of the women 184 (87.4%), were preferred dustbin method, 189 (90%) were removing the waste one-day interval, 169 (80.5%) were expressed that waste contain veg matter and 165 (78.6%) were having the practice of

throwing thewaste at the backyard.

The Table 3 shows there was a significant association between the income and the level of knowledge on household waste management.

Table 2: Frequency distribution of practice among women residing in the rural area

N = 210

Level of practice	Frequency (no)	Percentage (%)
How much quantity of waste segregated in your house per day?	<1 kg	201
	1–2 kg	9
How often do you dispose the waste?	Once a day	189
	Twice a day	17
	Once in 2 days	4

(Contd.)

Level of practice		Frequency (no)	Percentage (%)
Method used to dispose	Dumping at Govt dustbin	184	87.6
	Burning	9	4.3
	Burying	10	4.8
	Throwing	7	3.3
What is the distance to go for disposing the waste?	<500 m	163	77.6
	>500 m	47	22.4
How often panchayat remove the waste?	Once in 2 weeks	4	1.9
	Once a month	192	91.4
	Never	14	6.7
Who removes waste from your location?	Gram panchayat	12	5.7
	Municipality	198	94.3
Do you segregate the waste?	No	210	100.0
Do you have the practice of Composting?	Yes	202	96.2
	No	8	3.8
How do you store the waste?	Closed container	58	27.6
	Open container	91	43.3
	Polythene bags	60	28.6
	Pile in the yard	1	0.5
Which is common waste of your disposal.	Veg matter	169	80.5
	Plastic waste	20	9.5
	Papers	21	10.0
Whether do you have reusable items in your waste?	Yes	205	97.6
	No	5	2.4
Who takes wastes to common dustbin?	Father	24	11.4
	Mother	22	10.5
	Children	15	7.1
	All by turn	149	71
Where do you throw your household waste?	Backyard	165	78.6
	Municipality area	40	19.0
	Outside	5	2.4
Reason for throwing out side ?	No dumping area	157	74.8
	Far dumping area	53	25.2
Do you get Government help for disposal?	No	205	97.6
	No idea	5	2.4

Discussion

The focus of the study was to assess the level of knowledge and practice of household waste management among women residing in the selected rural area at Puducherry. The result revealed that among 210 subjects 206 (98%) women were having inadequate knowledge, 4 (2%) women were having moderate knowledge, most of the women 184 (87.4%) were preferred dustbin method, 189 (90%) were removing the waste once a day at one-day interval, 169 (80.5%) were expressed that most of the waste contain veg matter and 165 (78.6%) were having the practice of throwing of the household waste at the backyard. There was a significant association between the income and the level of knowledge on household waste management ($p < .005$). the mean knowledge score was 13 ± 2.3 .

The findings were supported by (Ehrampoush MH) shows that 66% of men having good Knowledge, comparatively 51.4% females had low Knowledge. The difference between the knowledge of males and females was significant ($p < 0.016$), 72.1% believed that the segregation at home was best method and 9.6% deemed that the segregation must be done in the place of disposal and 66% not done any action in segregating and recycling of solid waste.⁸ Haider A et al conducted a study on knowledge, perception, Attitude of common people towards solid waste management in Pakistan revealed that solid waste management practices have been improved, but still unsatisfactory. Source separation and recycling were hardly practiced and people occasionally sweep their places when throwing the wastes in the streets and 78.5% people were willing to pay for recycling.⁹

Conclusion

The study concluded that the most of the women residing in the rural area were having inadequate knowledge regarding household waste management and among rural women half of the waste disposal practices was upto the expectation and half of the practices was inappropriate due to lack of facilities provided by the government, lack reinforcement for proper disposal of waste and also lack awareness. So, health education and community awareness programs can improve their knowledge as well as practices.

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