



Prompt Practice of Organized Teaching and Awareness of Domestic Waste Management among Rural Communities

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Background: Waste disposal and collection, processing, transportation and dumping of waste - the 'waste management process' - is important for both public health and aesthetic and environmental reasons. The study uncontrolled hazards waste from the industry after mixing with municipal waste create potential risk to human health.

Objectives: 1. A Study to Assess An Immediate Effectiveness of Planned Teaching on Knowledge and Practice Regarding Household Waste Management among the Rural Community People in Selected Area of Wardha District. 2. To associate the knowledge and practice among the community people in a selected area of Wardha district regarding household waste management.

Materials and Methods: This study was based on one group pre-test post-test experimental research study. The population was the rural community people from Sawangi and Salod in the

Wardha district. The subject consisted of 50 community people of 18-50 years of age in the selected rural community of Wardha district.

Results: The minimum score in the posttest was 13 and the maximum score was 18, the mean score for the posttest was 16.04 ± 1.10 with a mean percentage score of 89.11 ± 6.14 . The tabulated value for $n=50-1$ i.e. 49 degrees of freedom was 2.00. The stated value of 't' is much higher than the value tagged at a value level of 5% at the general public knowledge level which is a statistically acceptable level of value.

Keywords: Assess; Effectiveness; planned teaching; knowledge; practice.

1. INTRODUCTION

Household waste management is defined as pollution caused by general household chores. Household waste is a daily waste of household chores. It can include everything from mowing the lawn to heating the light [1-5]. A busy city can produce a lot of garbage and the amount of household waste can greatly increase a developed country that relies heavily on packing a variety of products [6-8]. A range of health problems have been documented for waste workers which were caused by hazardous household waste or mismanaged household waste. Work-related disorders and injuries have been detected among the waste collectors around the world, such as respiratory problems, infectious diseases, gastrointestinal issues, muscle pain, fever, headache, fatigue, irritation of eyes and skins, mechanical trauma, pulmonary problems, chronic bronchitis, musculoskeletal damage and hearing loss, poor emotional well-being, and other specific types of injuries [9-11]. Furthermore, Moy et al [12] reported that waste-to-energy treatment is a better option than landfilling due to the differences in non-cancer and cancer health risks and it should be noted that more expensive technology currently exists in landfilling that would make the waste-to-energy emissions even lower, thus further favoring this option from a health risk perspective.

With the increase of cities and changes in lifestyle and diet, the amount of household waste is growing rapidly and its composition is changing [13,14]. In 1947, India's cities and towns produced an estimated six million solid waste; in 1997 it was 48million tons. More than 25% of household waste is not collected at all; 70% of India's cities do not have sufficient transportation capacity and there are no landfills [15,16]. Existing landfill sites are poorly equipped and poorly managed and poorly designed to prevent soil or groundwater contamination [17]. Certain types of household waste are also dangerous and can be highly toxic to humans,

animals, and plants. India produces about 7 million tons of hazardous waste annually, most of which are concentrated in 4 provinces (Andhra Pradesh, Bihar, Uttar Pradesh, Tamilnadu) [18-19,1].

2. ASSUMPTIONS

1. Community members are aware of household waste management.
2. People in the community have good habits with regard to household waste management

3. HYPOTHESIS

H1: There may be a significant increase in post-test knowledge regarding household waste management among the community people in a selected area of Wardha district.

4. MATERIALS AND METHODS

This study was based on one group pre-test post-test experimental research study. The population was the rural community people from Sawangi and Salod in the Wardha district. The subject consisted of 50 community people of 18-50 years of age in the selected rural community of Wardha district. Study Design: One group pre-test post-test experimental research study. Population: Rural community people from Sawangi and Salod in Wardha district. Sample size: 50.

4.1 Inclusion Criteria

Both males and females are included, Age group 18-50 years. People available during the period of data collection. Who is willing to participate in the study is included. Who can read and write Marathi.

4.2 Exclusion Criteria

The people who are attained the classes on household waste management. The mental and physical disabled people.

5. RESULTS

Section A: This section deals with the distribution of rural community people in a selected area of Wardha district concerning knowledge and practice regarding household waste management with regards to their demographic characteristics. A convenience sample of 50 subjects was drawn from the study population, who were from the selected area of Wardha district. The data obtained to describe the sample characteristics including age, educational status, type of family, no of family members, type of house, occupational status, monthly family income (Rs) religion and source of information regarding health respectively.

Section B: This section deals with the assessment of knowledge and practice before planned teaching regarding household waste management among the community people in a selected area of Wardha district. The level of knowledge and practice is divided under the following heading of poor, average, good, and excellent. pre-test 5(10%) of the community people were having poor knowledge, 66% of them had average, 22% had good and only 2% of them had an excellent level of knowledge score. The minimum score in pretest was 4 and the maximum score was 21, the mean score for the pretest was 10.50 ± 2.92 with a mean percentage score of 43.75 ± 12.17 . pretest practice score 15(30%) of the community people were having average practice, 64% of them had good and only 6% of them had an excellent level of practice score. The minimum score in pretest was 8 and the maximum score was 14, the mean score for the pretest was 10.42 ± 1.60 with a mean percentage score of 57.88 ± 8.91

Section C: The post test knowledge score and practice regarding household waste management among the community people in a selected area of Wardha district. The level of practice is divided under the following heading of poor, average, good, and excellent. In posttest 11(22%) of the community people were having average knowledge, 68% of them had good and 10% of them had an excellent level of knowledge score. The minimum score in the posttest was 8 and the maximum score was 21, the mean score for the posttest was 14.22 ± 2.80 with a mean percentage score of 59.25 ± 11.67 .

Post-test practice score: In posttest 49(98%) of the community people were having excellent practice and only 2% of them had good practice

scores. The minimum score in the posttest was 13 and the maximum score was 18, the mean score for the posttest was 16.04 ± 1.10 with a mean percentage score of 89.11 ± 6.14 .

Section D: This section examines the impact of the proposed education program on rural community awareness and home management experience in a particular ward in the Wadiha region. With the distribution of the definition of deception and the follow-up and general deviation, as well as the average rating point, the theory has been mathematically tested. To indicate the feasibility of the proposed training curriculum, professional standards before and after the assessment are compared. The 't' test is used to determine the value of the variance at the 5% value level, and the 'tab' value listed is used for the estimated value of 't'. The p values are rated and therefore compared to the correct p value, which is 0.05.

The analysis shows that 34% study subject was in the group of 36-45 years. Most of the sample 56% had education up to the higher secondary. The majority of the sample 68% were from a nuclear family. Most of the sample 54% having 2-4 family members. The majority of the sample 64% were lived in the pakka house. Majority of sample 74% were a farmer. The majority of 64% of the sample had 3000-6000 Rs per month. The majority of the sample 82% were to Hindu. The majority of the sample 50% got health information from a health worker.

6. DISCUSSION

The finding shows that in pretest 5 (10%) of the community people were having poor knowledge, 66% of them had average, 22% had good and only 2% of them had an excellent level of knowledge score. The minimum score in pretest was 4 and the maximum score was 21, the mean score for the pretest was 10.50 ± 2.92 with a mean percentage score of 43.75 ± 12.17 whereas in posttest 11(22%) of the community people were having average knowledge, 68% of them had good and 10% of them had excellent level of knowledge score. The minimum score in the posttest was 8 and the maximum score was 21, the mean score for the posttest was 14.22 ± 2.80 with a mean percentage score of 59.25 ± 11.67 .

In pretest 15(30%) of the community people were having average practice, 62% of them had good and only 8% of them had an excellent level of

practice score. The minimum score in pretest was 8 and the maximum score was 14, the mean score for the pretest was 10.42 ± 1.60 with a mean percentage score of 57.88 ± 8.91 whereas in posttest 49(98%) of the community people were having excellent practice and only 2% of them had good practice score. The minimum score in the posttest was 13 and the maximum score was 18, the mean score for the posttest was 16.04 ± 1.10 with a mean percentage score of 89.11 ± 6.14 .

In the study “Environmental and economic assessment of Domestic solid waste management in rural areas, concluded that the success of decentralized or village/ ward level SWM mechanism should not be determined in the form of net monetarily benefits only. It must be evaluated in terms of recycling of important plant nutrients in the form of valuable compost, recovery of recyclables, land saving, health improvement, reduction in air, water, soil pollution, reduction in emission of greenhouse gases, and reduction in day to day street quarrels due to dumping of wastes here and there.

In the present study all public knowledge is a statistically acceptable level of importance. It is therefore statistically explained that a systematic program of general information on household waste management for the community in a designated area in the Wadiha region was effective. H1 was therefore adopted.

7. CONCLUSION

The following conclusion can be drawn from the study finding, which is supported by evidence from other literature. Rural people have a moderate knowledge about home waste management there was an increasingly important academic knowledge after the planned teaching management. Paired and unpaired t-tests are included in pre-test knowledge, practice and post-test information, practice points show significant differences in knowledge and score in all areas. It is therefore concluded that the formal doctrine of domestic waste management is effective in improving knowledge and practice.

CONSENT

As per international standard or university standard, respondents’ written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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