

Consciousness, Approach And Training of College Students Concerning Household Waste Management In District Budgam

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Abstract- *People around the globe are conscious of the impact of improper waste disposal practices, but the negative attitude of implementation gives rise to chaotic situations. Household waste is an environmental and public health problem, especially for the large cities. In order to know the awareness, attitude and practice of students of district Budgam towards household management, a well designed and validated questionnaire was used to collect the information from a sample of 400 college going students selected randomly from different colleges of district Budgam of Kashmir valley. The data collected was analyzed using standard statistical tools. The results obtained from our study reveal that students are aware about household waste management but lack in practice. Students report that shortage of storage bins, absence of waste segregation, inefficient collection and large stray dog population has severely damaged the environmental condition of the area. The lack of governance, unplanned urban settlement and encroachments, inadequate infrastructures for waste collection, transportation and management are the main constrains in designing a suitable waste management plan for the district. Finally, it is concluded that there is an urgent need of giving mass awareness of solid waste and e-waste disposal practices.*

Keywords- Environment, Waste Management, Awareness, Practice, e-waste, Budgam District

I. INTRODUCTION

The growing concern with environmental issues and their impact on general awareness is one of the most noticeable phenomena in recent years globally but the practices of basic concepts waste disposal are often neglected. We are born from the earth, we return to the earth and we sustain by the earth. Hence the environment in which we live is very important and it directly affects our lives. It is said that

man is the product of his environment. Environmental problem is a global concern and it has no boundary. There is a fundamental link between all natural elements and if a man abuses or exhausts one element, the natural world as a whole will suffer. Holy Prophet Muhammad (PBUH) acknowledges that God's knowledge and power covers everything. Therefore, abusing one of his creations, whether it is living being or a natural resource, is a sin. He (PBUH) considered all of God's creations to be equal before God and he believed animals, land, forests and water resources have rights. Recently, Bilal et al (2016) discussed attitude of students towards environmental awareness and protection in Kashmir valley. Around the world; efforts are being made to make people aware about environmental protection. One of the main causes of environmental degradation is improper management in the disposal of solid waste and it is observed as a major cause of pollution and outbreak of diseases in many parts of the world. There is no permanent solution for environmental problems but we can reduce and control waste generation by proper awareness and practice. Proper management of the waste generated is most important in this matter. The proportion of different constituents of waste varies from season to season and place to place, depending on the lifestyle, food habits, standards of living, the extent of industrial and commercial activities in the area, etc (Katju, 2006). Solid wastes comprise all the wastes arising from human and animal activities that are normally solid, discarded as useless or unwanted. The solid waste generation sources are mainly residential, commercial slaughterhouses, institutions, organization like hospitals, hotels and restaurants, small scale industries, construction and demolition waste (debris) etc. Improper transport and disposal of solid wastes pollutes all the vital components of the living environment (i.e., air, land and water) at local and global levels. There has been a significant increase in solid waste generation throughout valley in the last few decades. This is largely due to rapid population

growth and economic development. Poor collection and inadequate transportation are responsible for the accumulation of solid waste at nearly every nook and corner of the valley. It is estimated that around 60000 MT (Metric Tonne) of municipal solid waste is generated daily in India.

Nowadays more and more people are taking interest in environmental issues, as they have started to experience the ill-effects of ecological issues. Now environmental education is welcomed by all categories of people. Environmental problems are many. It is mounting high with new problems like disposal of e-waste. E-waste is a collective terminology for the entire stream of electronic equipment such as TV, refrigerators, telephones, air conditioners, computers, mobile phones etc. that has reached its End of Life (EOL) for its current



Figure 1: E-waste e.g., TV, Radio, telephones, air conditioners, computers, mobile phones etc.

user. Such devices are generally considered toxic when disassembled or incinerated and are typically targeted for hazardous disposal or are slated for necessary recovery and reuse (MF, 2009). Most of the Bulk consumers, viz., Hospitals, Banks, Educational institutions and other

Govt. Offices in Kashmir valley are not aware of the disposal of E-waste. Our household waste accounts for major amount of solid rubbish. Some are reusable and others non-reusable. All these constitute megatons of municipal wastes. If it is not properly disposed off, the consequences are dangerous (Yadav & Mishra, 2004). So there is an urgent need to streamline and sensitize young minds to the environmental problems and concerns. It is the education which makes human beings knowledgeable to environment and problems related to it. Hence this study was an attempt to know how far the students are aware and practicing proper waste management?

II. MATERIAL AND METHODS

In the present study a well designed questionnaire was given to 400 students selected randomly from different Colleges of district Ganderbal of Kashmir valley. The study was carried out at SKUAST-Kashmir, Kashmir university and

Central University Kashmir in Kashmir valley of Jammu and Kashmir State. Purpose and method of the study undertaken was explained to the students to get their consent. The instrument of research was a validated self administered questionnaire based on literature available on the topic. The questionnaire was designed to assess students' knowledge, attitude and practice on waste management at home. The questionnaire besides basic information included ten questions related to awareness, five questions each regarding practice and attitude in waste management. The data collected from the respondents under study was tabulated and analyzed using standard statistical tools.

III. RESULTS AND DISCUSSION

The sample represented 200 (50%) male and 200 (50%) female students between the age group of 19-25 years. The data presented in Table 1, shows the distribution of study population as per the characteristics Residence, Family status, Family type and Family size. It is observed that majority of the respondents both male as well as female were from urban areas, from middle class families, nuclear type family and having family size 5-6 members. Statistically, non-significant difference was observed between the male and female respondents ($p > 0.05$).

Table 1: Characteristics of the studied population

Characteristics		Male Students (n1=200) No. (%)	Female Students (n2=200) No. (%)	X ²	p-value
Residence	Urban	128 (64.0)	139 (69.5)	1.36	>0.05
	Rural	79 (39.5)	66 (33)		
Family Status	Low	17 (8.5)	19 (9.5)	0.22	>0.05
	Middle	177 (88.5)	182 (91)		
	High	0 (0)	0 (0)		
Family Type	Joint	52 (26)	59 (29.5)	0.61	>0.05
	Nuclear	148 (74)	141 (70.5)		
Family Size	Upto 4	15 (7.5)	12 (6)	4.76	>0.05
	5-6	134 (67)	131 (65.5)		
	Above 6	51 (25.5)	57 (28.5)		

The data presented in Table 2, reveals that statistically there is a non-significant association in awareness of household waste management issues and gender in all the items ($p > 0.05$). It was observed that majority of the respondents both male as well as female never attended any awareness programme conducted by local authority or any institute regarding household waste management, were not aware of principle of waste management and do not know the complications of improper waste management, do not know how to dispose the e-waste. Further, majority of the respondents male as well as female accepted that local authorities have a role to play in the management of household

waste, know the effective mechanism for household waste management, know the complications of improper waste management, were not aware of disposal of e-waste, agreed to have environmental topics in curriculum and were eager to know about environmental problems. Here, it is important to note that we have examined students irrespective of their subject. It is reported that e-waste is the fastest growing segment of the solid wastes in India (0.01-1%). This rate is growing at an alarming pace and a high percentage of electronics are ending up in the waste stream releasing dangerous toxins into the environment. So it is the need of the time to review this serious situation. There is no difference in students' practice about waste management based on type of family they belong. This shows the growing trend of negative attitude to social commitment which was existing since long back in joint families. Our study showed that there is a serious lack of awareness about e-wastes and its management among both the groups. In this era of cybernetics, young generation is being influenced by cyberphilia. As a result, worldwide e-wastes are generated uncontrolled and unchecked.

Table 2. Awareness of students towards household waste management

Question Asked	Male		Female		X ²
	Yes (%)	No (%)	Yes (%)	No (%)	
1. Did you ever attend any awareness programme conducted by local authority/Institute regarding household waste management?	05 (2.5)	195 (97.5)	4 (2)	196 (98)	0.1 1 NS
2. Do you know the principle of waste minimization?	24 (12)	176 (88)	27 (13.5)	173 (86.5)	0.2 0 NS
3. Do you think that local authorities have a role to play in the management of household waste?	183 (91.5)	17 (8.5)	189 (94.5)	11 (5.5)	1.3 8 NS
4. Do you know about segregation of waste?	41 (20.5)	159 (79.5)	48 (24)	152 (76)	0.7 1 NS

5. Do you know the effective mechanism for household waste management?	97 (48.5)	103 (51.5)	101 (50.5)	99 (49.5)	0.1 6 NS
6. Do you know the complications of improper waste management?	37 (18.5)	163 (81.5)	42 (21)	168 (79)	0.1 5 NS
7. Are you aware of e-waste?	41 (20.5)	159 (79.5)	38 (19)	162 (81)	0.1 4 NS
8. Do you know how to dispose the e-waste?	9 (4.5)	191 (95.5)	11 (5.5)	189 (94.5)	0.2 1 NS
9. Do you have environmental topics in your curriculum?	119 (59.5)	81 (40.5)	123 (61.5)	77 (38.5)	0.1 7 NS
10. Are you eager to know about environmental problems?	179 (89.5)	21 (10.5)	182 (91)	18 (9)	0.2 6 NS

NS= Non-significant, S and HS= Significant at 5% and 1% at l.o.s.

The data presented in Table 3, reveals that statistically there is a non-significant association in attitude of students towards minimizing household waste and gender in items (i), (ii), (iii), (iv) and (v) (p>0.05). Both groups male as well as female are committed to minimize the wastes, segregate household waste and to avoid throwing the wastes outside their premises. Regarding practice of proper waste management, students male as well as female do not have proper ideas and practice of waste segregation, conversion of waste to kitchen compost (p>0.05). A large amount of solid wastes are generated from homes and its major source is Household waste. The quantity of solid waste grows faster than population and our results obtained in this study are in agreement with the earlier studies (Vinod & Venugopal, 2010). Solid waste disposal has been identified as a major cause of pollution and environmental threat globally and very specially to Kashmir valley, globally known as Paradise on earth. In spite of the higher literacy rate and well developed educational systems and status in the valley, there is lack of practicing proper waste management among people of the valley, whether young or old. The findings of our study have made it clear that students are well aware of the importance of waste management. But they are lacking in the practice of proper waste management. This study findings support the studies conducted by Ifegbesan (2008). Another significant

finding of our study is that 93% (male) and 87.5% (female) participants responded that they are seeing garbage on roadside while coming to College from their residence, which proves the filthiest condition of the roads and the severity of improper waste management in the district.

Table 3. Attitude of study population towards minimizing the household waste

Question Asked	Males		Females		X ²
	Yes (%)	No (%)	Yes (%)	No (%)	
1. Are you committed to minimize the waste?	157 (78.5)	43 (21.5)	161 (80.5)	39 (19.5)	0.62 NS
2. Do you segregate household wastes?	105 (52.5)	95 (47.5)	97 (48.5)	103 (51.5)	0.64 NS
3. Do you use kitchen waste as compost?	21 (10.5)	179 (89.5)	23 (11.5)	177 (88.5)	0.10 NS
4. Do you throw your household waste outside your home?	83 (41.5)	117 (58.5)	91 (45.5)	109 (54.5)	0.65 NS
5. Do you see garbage on roadside while coming to college/University?	131 (65.5)	69 (34.5)	137 (68.5)	63 (31.5)	0.41 NS

NS= Non-significant, S and HS= Significant at 5% and 1% at l.o.s.

The data presented in Table 4, reveals that statistically there is a non-significant association in attitude of students towards practice regarding minimizing household waste and gender in items (i), (iii) and (v) ($p > 0.05$). However, statistically, there is a significant difference between male and female respondents when question (ii) and (iv) was asked ($p < 0.05$). A large amount of solid wastes are generated from homes. Household waste is a major source of solid waste. The quantity of solid waste grows faster than population (Vinod & Venugopal, 2010). We found that there are serious drawbacks in the practicing of proper waste management among students of Kashmir valley irrespective of gender. It is important that everyone understand that he/she has to play an important role in minimizing household waste.

Table 4. Attitude of students towards practice of minimizing household waste

Question Asked	Males		Females		X ²
	Yes (%)	No (%)	Yes (%)	No (%)	
1. Improper waste disposal is a threat to environment.	189 (94.5)	11 (5.5)	192 (96)	8 (4)	0.50 NS
2. Household waste management is the sole responsibility of my parents.	129 (64.5)	71 (35.5)	79 (39.5)	121 (60.5)	25.04 HS
3. Household waste disposal is the sole responsibility of the local authorities.	177 (88.5)	23 (11.5)	164 (82)	36 (18)	3.36 NS
4. I am also responsible for the generation of household waste.	174 (87)	26 (13)	159 (79.5)	41 (20.5)	4.03 S
5. I also have a role to minimize the household waste.	171 (85.5)	29 (14.5)	182 (91)	18 (9)	2.92 NS

NS= Non-significant, S and HS= Significant at 5% and 1% at l.o.s.

IV. CONCLUSION AND SUGGESTIONS

This study conducted in Budgam district of Kashmir valley tries to look at the crucial aspect of household waste management awareness among college students. In conclusion giving social duty awareness along with waste management awareness may improve the practice of waste management. Awareness program of waste management is greatly needed for students as well as parents. This can be given in the schools/colleges during parent teacher meetings or in community based programs. For this purpose, education departments of the states/country can implement environmental education programs to the teachers at all levels of education. Whether students are from joint family or nuclear family there is no significant difference in their awareness, practice and attitude ($p > 0.05$). The findings of the present study have made it abundantly clear that waste management is a serious environmental problem in Kashmir valley, and students are aware of it. Throwing household waste outside home is a selfish attitude and an environmental abuse which need to be corrected. With collective efforts from the part of government, educational institutions and NGOs, proper guidance can be given in this neglected area of waste management. It is the birth right of every citizen to live in a pollution free environment, to get good air to breathe and to have safe water to drink. As long as these basic rights are denied or a conducive atmosphere is not created, a nation cannot claim of its amazing and sustainable development. To conclude, the study throws a light on the existing knowledge,

attitude and practice of the College going students in District Budgam of Kashmir valley. All this means that we have to look at our waste management holistically and draw up an integrated plan for sustainable waste management of our pristine valley. The most important returns of household waste management are; improvement in health, promotion of hygiene, contribution to conservation of resources. It may require the foundation of a board-based interagency committee included authorities to establish a mechanism for consensus on waste management issue. This study indicates that there is an urgent need to train the people in general regarding the same. The world belongs to all of us. We must co-operate and work together for a better world, a better future, and a better environment.

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