

KNOWLEDGE, ATTITUDES AND PRACTICES OF FEMALE COLLEGE STUDENTS REGARDING ENVIRONMENT

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ABSTRACT

The main aim of the study was to assess the knowledge, attitude and practices related to environment particularly among the female college students from first year and fourth year BS Home Economics. Both quantitative and qualitative questions were included. 100 students were given the questionnaires online, comprising of both open and close ended questions related to environmental and water issues. Their responses showed a varying degree of Knowledge, attitudes and practices regarding these environmental issues. There was a significant difference in the reported practices according to grade level of the students. A higher proportion of first year students reported practices following environmental friendly practices as compared to fourth year students. Overall only 58% had a view that environment affects our health. These findings indicate a dire need for raising awareness about the role of environment in human wellness and strategies for inculcating environment friendly habits.

Keywords: *Female college students, Knowledge, Resource conservation, Habits, Practices.*

1. INTRODUCTION

Importance of environmental concern has increased manifold in the past few decades. This worldwide concern has sought the attention of individuals, society in general, and various environmental organizations, industries and media groups. Significant stress has been paid to raise awareness among the general public related to preserving the ecological environment (Olalekan, Omidiji, Williams, Christianah, & Modupe, 2019). No considerable attention has been paid towards spreading awareness among the people and organization, regarding their attitudes and practices create, contribute or worsen the ecological problems, which in turn poses threat to our planet (Stern, 2018). In the past the studies have been focused on this potentially important aspect of environmental abuse, with a focus on college students mainly emphasizing on their knowledge, attitudes and practices (González-Timoneda, Ruiz Ros, González-Timoneda, & Cano Sánchez, 2018). Similar studies related to these problems with school children (Blanchet-Cohen, 2008; Lo, 2010; Said, Yahaya, & Ahmadun, 2007; Tuncer, Ertepinar, Tekkaya, & Sungur, 2005; Van Petegem & Blicke, 2006; Witt & Kimple, 2008). These surveys were based on findings from students enrolled in public and private colleges and universities. Water conservation behavior and attitudes depends on the perception of residents regarding water resource and usage (Daud, Sipan, Ali, Hashim, & Ishak, 2020).

The number of countries participated in these studies, showed their participation in researches related to environmental knowledge, attitudes and practices of young members of the society. The diverse number of countries, with their diverse population, have been the primary subjects who participated in these studies Belgium and Zimbabwe (Van Petegem & Blicke, 2006), Canada (Blanchet-Cohen, 2008) China (Lo, 2010) Malaysia (Said et al., 2007) Turkey (Tuncer et al., 2005) and the United States of America (Witt & Kimple, 2008).

In this research, to achieve maximum results, both open and close ended questions were included in the questionnaire for grade 5-9 students, related to knowledge, attitudes and practices of students regarding water use.

2. METHODS

Each student filled out the consent form agreeing to participate in the survey. The students were given the questionnaires online, comprising of both open and close ended questions related to environmental and water issues.

2.1. Instrument Development

The researcher developed seven qualitative questions in relation to environment e.g “what is environment”? And “how environment can affect us”? etc. The pilot testing was done on the students to check the reliability of

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the questionnaire. Final questionnaire was constructed based on the amendments made on the basis of the student's responses and recommendations. The researchers compiled the responses to the seven qualitative questions, studied these comments, and constructed a draft Version of the online survey using the web-based survey builder, SurveyMonkey.com. Pilot tests were performed with random students to determine readability, comprehension and completion time. Revisions were made to the survey based on students' comments. A final instrument was constructed incorporating their recommendations. Mixed method research design was used to evaluate the answers related to both qualitative and quantitative questions. Quantitative questions were based on the knowledge and practices concerning the environmental issues.

2.2. Statistical Analyses

SPSS version 16 was used for the analyses of the frequency counts and percentages were compiled of the student responses. Chi-square test was used to determine the year wise difference of the students in terms of knowledge, attitude and practices. Inter-comparison of the student's responses was also done. For open ended questions, coding process was used. Themes were also developed for the questions concerning environment. In an effort to ensure the accuracy of the qualitative analyses, the researchers validated the findings through the process of triangulation of data sources. "Triangulation is the process of corroborating evidence from different individuals, types of data, or methods of data collection in descriptions and themes in qualitative research" (Creswell, 2005). Through the process of triangulation, the researcher considers the coalescence of three essential data sources. In this study, the process was accomplished through (1) the survey responses themselves, (2) the researchers' notes, and (3) the corroboration of quantitative and qualitative findings.

2.3. Sample

Out of the total 115 students participated 100 students successfully completed this survey. The number of students and their response rate is given in Table 1:

Table 1. Year Wise Percentage of Student Participation.

	N	%
Total number of students	115	92
Level of Students		
First year	19	16.5
Second Year	25	21.7
Third Year	24	20.9
Fourth Year	24	20.9
Fifth Year	23	20

3. RESULTS

As to the question, what they think is the environment, 43 % of the students answered college is the part of environment. 68% of the students discuss environment in their classes. Students opinion related to environment are given in Table 2:

Table 2. Effect of Environment on Health.

	Yes	No	Don't Know
Environment affects your health	583%	13.9%	27.8%
Smoking can make your environment polluted.	93%	2.6%	4.3%
Molds and Fungus in the environment is bad for health	77.4%	2.6%	20%

3.1. Conservation Practices

Majority of the students agreed i.e 93% to the fact that our habits and practices affect the environment. Students participated in the conservation practices as given in Table 3. While taking shower, 79% of the students shower normally only 12% turn their showers off while applying soap. Further, 70% turned off their water taps while brushing teeth.

Table 3. Conservation Practices.

Which gadget do you switch off at night?	%	N
T. V	72%	83
Video Games	72%	83
Light bulbs	90%	104
Computer	50%	57

74% of the students believe that it is against the law to litter while 97% keep environment clean, still 31% are of the opinion that they litter sometimes. 37% students said that they throw trash in the bins, whereas 34% asked their fellow students not to litter.

3.2. Concerns for the Environment

Majority of students (88%) believed that they care about environment. Almost all students i.e 97%, were of the opinion that they like to spend time outdoor. 52% students were concerned about the global warming. 90% agreed that pollution is damaging our planet. How they can help save their environment is shown in Table 4.

Table 4. Percentage of Students Concerned About the Environment.

	%	N
Picking up wrappers from the ground	94%	108
Tree plantation	89%	102
No smoking restaurants	76%	87
Solar power	76%	87
Discouraging the use of insecticides	52%	60

Table 5. Percentage Variation in Knowledge and Practices.

Knowledge	First yr	Fourth yr	X2	Df	P value
Molds/ Fungus can make you sick	68%	92%	9.3	2	.009
People harm the environment	100%	92%	6.0	1	.026
Practices					
Picking up Wrappers	47%	23%	10.5	2	.005
Turning tap off while brushing teeth	78%	60%	4.5	1	.028
Asking class fellows not to throw trash	44%	20%	7.6	2	.021

3.3. Differences in Student Level

There was a significant difference of opinion, between the students of first year and fourth year, regarding knowledge about environment. Fourth year students were found to be more knowledgeable than first years while first year students were involved more in eco-friendly activities as evident in the Table 5.

3.4. Qualitative Results

The three open ended questions about the environment in the questionnaire, were collapsed by coding of the students responses which resulted in the development of six themes. Presentation of themes for each of the three questions is as follows:

What is worrisome about the environment? Two themes and three sub-themes came out when the students were asked about "what is worrisome" for them as far as the environment is concerned. Pollution is the first theme that emerged. The students were genuinely upset about the trash being thrown on the grounds and not picking them up. The sub theme that emerged from this was "cigarette smoking". Student showed their dismay at people throwing cigarette butts here and there.

THE second theme that emerged was "Global Warming", the students were really concerned about this. The sub theme emerged from this was "what will happen after 20 years?" first year students were more concerned about this issue whereas the fourth year students were mainly worried about the water scarcity and human insensitivity towards the affects of pollution.

The answers to the question "what they feel good about the environment?" the students were of the opinion that natural beauty, no pollution and outdoor activities are the good things about the environment and make them happy. The students of first year were more interested in the safety of plants and animals as they are a part of nature. The fourth year students stressed the need of recycling and its importance for a clean and greener environment.

How can I help the environment? Yet another important theme that emerged. The answers to the questions if “I pick wrappers and trash from the ground” or “stop cigarette smoking” is bad for the environment” were the important questions under this theme. Almost all the students of both years were unanimously agreed upon cleaning the environment and eradicating all pollution causing activities. Promoting car pools and turning lights and computers off at night, were some of the major activities which were mutually agreed upon by the students.

4. CONCLUSION

This study gave an insight into the knowledge, attitudes and practices of the students regarding environment. About 60% students responded that environment can have an adverse affect on our health like molds and smoke from the cigarettes. Half of the students were clear about the concept of global warming but since for many years now Lahore city is facing the menace of Smog, students were aware that this phenomenon is the result of increased pollution in the air. A great number of fourth year students were aware of the fact that molds and fungus is bad for healthier environment. First year students were more involved in the activities like no littering and saving water in various water consuming activities like teeth brushing and bathing. The inclusion of environment as a subject needs to be mandatory in the curriculum of junior classes so that the students are well aware of this important aspect right from the start.

Parent’s education does play an important part in the grooming of their children especially when it comes to awareness regarding environment, as the awareness starts from homes. While asking the question about recycling, students knew about the benefits of this process but very few households actually practice this at homes. By initiating the environmental education, the awareness regarding recycling at home, school and community can be promoted.

Environmental education should be a core of any curriculum, the objective of which should be to allow students to express themselves and by practically applying that knowledge. Preschool is the most suitable time for teaching environmental education (Witt & Kimple, 2008). Learning at this level, may be retained throughout their lives. However, all grade levels should be formally educated about the importance of environment and its effect on their health and wellbeing (Lo, 2010). So much so that (Blanchet-Cohen, 2008) emphasized on the need for students to have a personal contact with nature and the need for a mature training. In another study by (Lo, 2010) students involved in experiencing nature, developed a genuine liking for the environment. In this study, students exhibited some very positive attitude and behavior towards, environmental issues. More formal interactive participation by the parents, students and schools could ensure better understanding of and spreading awareness of the basic environmental issues. Newsletters and arranging special programs for their participation should be encouraged.

This study, by using mixed method research design, gives a detailed insight into the environmental knowledge, attitudes and practices of the college students. Future researches would take up from here to further promote the school classroom environment, to inculcate the environmental knowledge and education, into their students on a daily basis. Thus promoting sustainable knowledge and practices among the students at an elementary level, how to love the mother earth and respect the environment in which they breathe.

5. LIMITATION OF THE STUDY

The study is limited to one college only but similar studies could be carried out in other institutions.

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CONFLICT OF INTEREST

The author declares that there are no conflicts of interests regarding the publication of this paper.

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REFERENCES

Blanchet-Cohen, N. (2008). Taking a stance: Child agency across the dimensions of early adolescents' environmental involvement. *Environmental Education Research*, 14(3), 257-272. Available at: <https://doi.org/10.1080/13504620802156496>.

- Daud, S. Z., Sipan, I., Ali, H. M., Hashim, H. A., & Ishak, M. H. (2020). *Determination of water consumption behavioural pattern of student resident at public university: University of technology Malaysia*. Paper presented at the In IOP Conference Series: Materials Science and Engineering. IOP Publishing.
- González-Timoneda, A., Ruiz Ros, V., González-Timoneda, M., & Cano Sánchez, A. (2018). Knowledge, attitudes and practices of primary healthcare professionals to female genital mutilation in Valencia, Spain: Are we ready for this challenge? *BMC Health Services Research*, *18*(1), 1-13. Available at: <https://doi.org/10.1186/s12913-018-3396-z>.
- Lo, E. (2010). Environmental education in Hong Kong kindergartens: Environmental health 50. *Journal of Research Environmental Health What Happened to the Blue Sky? Early Child Development and Care*, *180*(5), 571-583. Available at: <https://doi.org/10.1080/03004430802181361>.
- Olalekan, R., Omidiji, A., Williams, E., Christianah, M., & Modupe, O. (2019). The roles of all tiers of government and development partners in environmental conservation of natural resource: A case study in Nigeria. *MOJ Ecology & Environmental Sciences*, *4*(3), 114-121. Available at: <https://doi.org/10.15406/mojes.2019.04.00142>.
- Said, A. M., Yahaya, N., & Ahmadun, F. I.-R. (2007). Environmental comprehension and participation of Malaysian secondary school students. *Environmental Education Research*, *13*(1), 17-31. Available at: <https://doi.org/10.1080/13504620601122616>.
- Stern, M. J. (2018). *Social science theory for environmental sustainability: A practical guide*: Oxford University Press.
- Tuncer, G., Ertepinar, H., Tekkaya, C., & Sungur, S. (2005). Environmental attitudes of young people in Turkey: Effects of school type and gender. *Environmental Education Research*, *11*(2), 215-233. Available at: <https://doi.org/10.1080/1350462042000338379>.
- Van Petegem, P., & Blicek, A. (2006). The environmental worldview of children: A cross-cultural perspective. *Environmental Education Research*, *12*(5), 625-635. Available at: <https://doi.org/10.1080/13504620601053662>.
- Witt, S. D., & Kimple, K. P. (2008). 'How does your garden grow?' Teaching preschool children about the environment. *Early Child Development and Care*, *178*(1), 41-48. Available at: <https://doi.org/10.1080/03004430600601156>.