



A STUDY OF AWARENESS AND ATTITUDE OF COLLEGE STUDENTS TOWARDS ENVIRONMENTAL POLLUTION

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Abstract

The proper awareness and right attitude towards the protection of natural resources is of great concern in the modern world. The major concern among environmental pollution is plastic pollution. Plastic serves plethora of uses in our society due to its durability, but the toxicity caused by plastics in the environment is inevitable as it is non-biodegradable. The purpose of environmental education is to acquaint and sensitize college students to the environmental problems and concern, in order to instil upon them, the apt social attitude and healthy approach towards environmental protection. Therefore, it is required to measure their level of awareness and attitude towards environmental concerns. This study was aimed to investigate the environmental awareness among graduate students and to evaluate the attitude and behaviours related to environmental concerns. The survey had 22 questions that tested their knowledge, awareness, behaviour and attitude of college students on environmental pollution. The data was statistically analysed by IBM SPSS 20. The study enabled the students to analyse, evaluate and draw inference about issues related to environment. However, the students had high levels of concern, awareness and knowledge about the environmental pollution and understood how harmful human activities are to the environment. But their attitude and behaviour for the betterment of environment is not much promising. This study provides a framework on which more in-depth examination of factors influencing positive behaviours and attitude can build.

Keywords: Environment Awareness, Pollution, Student attitude.

Introduction

Environment is the combination of living and non-living substances. Raising environmental awareness is an absolute necessity to protect the nature for all living beings in our ecosystems. Local and international environmental issues need to be kept in mind so that everyone feels the need to fulfil their obligations. The main reason for raising environmental awareness is to change the perspective of how humans conceive the idea of nature to create a sense of responsibility towards the cause (Onder, 2006). As human beings; we are responsible for the environmental pollution caused as a result of violating the laws of nature. Increased knowledge about the environment is assumed to a precondition for the attitude towards environment which can influence environmental policy (Oğuz and Kavas, 2010). The importance of environmental education must be encouraged in higher education curricula (Arcury, 1990). Although people seem to be aware of the consequences that are existent in nature at a given time, yet people are hesitant to change their lifestyle even when the consequences are right around the corner.

However, little research has done so far on the relationship between environmental awareness and environmental attitude of college students. The aim of this study is to examine the level of environmental awareness and attitude towards environment pollution among college students, to study the relation between them and to find out whether socio-demographic factors like gender and living spaces (rural and urban areas) could influence it.

Objectives

To analyse the level of environmental awareness and attitude among college students with respect to their gender and their living spaces (rural and urban areas). To study the relationship between environmental awareness and attitude towards environment and plastic pollution

Materials and Methods

Sample

The study sample consisted of 200 participants who were graduate and postgraduate students of various colleges around Kothamangalam, a town in Ernakulam District, Kerala, India.

Research Hypothesis

Hypothesis 1: There will be no significant difference in awareness about environment pollution among college students with respect to gender and locality (urban and rural).

Hypothesis 2: There will be no significant difference in attitude towards environment among college students with respect to socio-demographic factors (gender and locality).

Hypothesis 3: There will be no significant linear relationship between awareness about pollution and attitudes towards environment among college students.

Measuring Tools

The survey was conducted among college students studying in various departments belonging to different colleges. The questionnaire was delivered as Google forms as per the tools developed by Environmental Awareness Ability Measures (EAAM) by Praveen Jha For complete collection

of data, participants were requested to fill the questionnaire completely. The survey was mainly categorized into two components; they are socio-demographic factors, such as gender category (Male and Female), Area category (Urban and Rural). The questionnaire consisted of various questions about environmental awareness and questions to determine their awareness about the environment problems and to evaluate their attitude towards environment. The questionnaire was based on a 5-point Likert-type scale (1stronglydisagree; 2 disagree; 3 neither agree nor disagree; 4 agree; 5 strongly agree) was designed for awareness and a 5-point Likert-type scale (1 never; 2 rarely; 3 sometimes; 4 often; 5 every time) was designed for scaling of attitude towards environmental pollution. The total number of questions used in the questionnaire was 22. The questionnaire was divided into 3 sets. The initial five questions were used to measure the demographics of the participant. The set of eleven questions helped to analyse their environmental awareness. The following were the questions to test the awareness.

1. I realise one person can bring a huge impact in reducing the amount of plastic used.
2. I think that young people should have a good environmental awareness for sustainable environment.
3. I am well aware of the health issues with littering the environment.
4. Why is recycling an important factor in environmental aspects.
5. I turn off unnecessary lights and fans to conserve energy.
6. I consciously reduce the amount of water I use.
7. Plastic pollution leads to health problems.
8. Plastic Pollution Affect Other Living Organisms Like Trees And Fishes.
9. Do you agree that burning plastic is not a remedy to reduce landfills?
10. It is better to buy eco-friendly products rather than cheap plastic products.
11. As responsible human beings, we have to take appropriate action to lessen the amount of plastic to save life on earth

The last set of eleven questions was prepared to test their attitude towards protection of environment by preventing pollution.

1. I pay attention to the water consumption when using sink and toilet.
2. I try to protect the environment, as it is my responsibility.
3. I share links related to nature and environmental awareness on social networks.
4. I try to share my knowledge on environmental awareness.
5. I separate out biodegradable and non-biodegradable waste products.
6. I keep waste material until I find a waste bin.
7. I avoid using plastic bags.

8. I reuse as much as possible.
9. I separate out biodegradable and non-biodegradable.
10. I always avoid single use pens.
11. I inspire or motivate others to reduce plastic utilization.

Statistical Analysis

Data was collected in MS Excel 2013 Spreadsheet and was studied using IBM SPSS version 20 software. The data was analyzed by non parametric independent sample test, Kruskal–Wallis Test using SPSS software, for testing hypothesis 1 and 2 in order to find whether there exist any significant variation in awareness and attitudes towards environment due to gender or locality. The mean scores of awareness and attitudes towards environment were used for comparison. In order to test whether any relationship exists between environment awareness and attitudes among students, correlation analysis was conducted at level of significance (α), 0.05.

Result

Demographic Results

There were 200 students who took part in this research survey, whose ages vary between 17-25. Among the population of 200 students, 26.6 percentage of students were below 20, the 59.3 percentage of the population were 20-22 age groups and 14.1 percentage of the population was above the age of 22. The population consisted of 19 percentage of males (38 males) and 81 percentage of females (162 females). The distribution of the study based on their living spaces (rural and urban areas) showed that 77.5 percentage (155 students) of the population was from rural background and 22.5 percentage of the population was from an urban setup (45 people). Furthermore, the students had varied levels of degree in education, the population consisted of 46.5 percentage graduate students, from which, 20.5 percentage in Bachelors First year, 7.5 percentage in Bachelors Second year, 18.5 percentage in Bachelors Third year. 53.5 percentage of the population were postgraduate students, out of which, 25 percentage of the population was undergoing their Masters, first year and 28.5 percentage of the population was pursuing their Masters, second year. The data was presented in Table 1.

Effect of demographical parameters like gender and locality on awareness and attitude of college students towards environment

Environmental awareness and attitude of students were evaluated by providing eleven questions each and were sorted on the basis of male and female as well as on the basis of their living spaces (urban and rural). The selected questions provided an overview on awareness and the attitude of students towards environment pollution. Answers were categorized in to different scores 1-5.

The mean score of each question was sorted on the basis of male and female as well as on the basis of their living spaces (urban and rural). The mean score of environment awareness and attitude were calculated for each different category.

The statistical comparison of the mean score of awareness and attitude of students towards environment with respect to gender and locality were carried out using independent sample test (Mann-Whitney U test). The result

indicated that the distribution of mean awareness and attitude towards environment was found to be same across categories of gender and place at level of significance, 0.05 (Figure.1 (a), (b)), (Table 2). This revealed that there is no significance difference in the awareness of environment due to demographic parameters like gender and locality. The college students under study were aware of the environmental issues of the present world irrespective of their gender and locality. Our results were supported by various reports which revealed that there were no significant differences between males and females in their environmental attitudes (Bhawana, 2011; Shobeiri *et al.*, 2015). This can be explained by the fact that behaviour as the demographic variables have less explanatory power than the psychographic variables (Sabah, 2016).

Although there was no significant difference in attitude towards environment across male and female students, the attitude of students from rural and urban areas differed significantly (Table 3). The study revealed that students were aware about issues of environment irrespective of their gender and locality. However, they do not have proper attitude to implement actions against plastic pollution. Our results were supported by various reports, which revealed that there was significant difference in attitude of students due to locality (Mukesh *et al.* 2015).

Relationship between awareness and attitude towards environment

The correlation analysis conducted using IBM SPSS Statistic version 20, indicated that among the selected group of college students, a significant difference was found in the relationship between awareness and their attitudes towards

environment. In the analysis, mean of awareness about environment was used as independent variable and mean of attitudes as dependent variable. The result showed that there exist a positive association between environment awareness and attitude towards environmental pollution with Pearson's correlation coefficient of 0.345 at a p value, 0.01 (Table 4) This result suggested that although the relationship was positive, the strength of the relationship was not strong. Our results were in agreement with previous such reports on the relationship between environment awareness and attitude of school students (Bradley *et al.*, 1999; Aminrad *et al.*, 2013; Hooda, 2016; Hammami *et al.*, 2017) and college students Eren, Yaqub, 2015).

Conclusion

The study assessed the level of environmental awareness and attitude of college students towards environment. It can be concluded that college students were much aware on the consequences of environmental pollution and its impact on life. Moreover, the relationship between knowledge and attitude among students about environment was not so promising. Appreciable level of positive attitude towards environment is necessary to establish a better future. So the study recommended that environment issues and prevention methods necessarily might be considered as an independent subject in the higher education curriculum. Also the government laws must be strict to decrease pollution (Corcoran PB. and Wals AE, 2004). Responsible environmental behaviour must be developed among young generation to minimize environmental problems in a sustainable manner.

Table 1 : Distribution of students in the survey based on their demographic characteristics.

Demographic Characteristics	Demographic Features	Number of Students	Percentage (%)
Age	17-19	53	26.60
	20-22	119	59.30
	above 22	28	14.10
Gender	Female	162	81
	Male	38	19
Living Space	Rural	155	77.50
	Urban	45	22.50
Degree Level	Bachelors, First year	41	20.50
	Bachelors, Second year	15	7.50
	Bachelors, Third year	38	18.50
	Masters, First year	50	25
	Masters, Second year	56	28
	Total	200	100

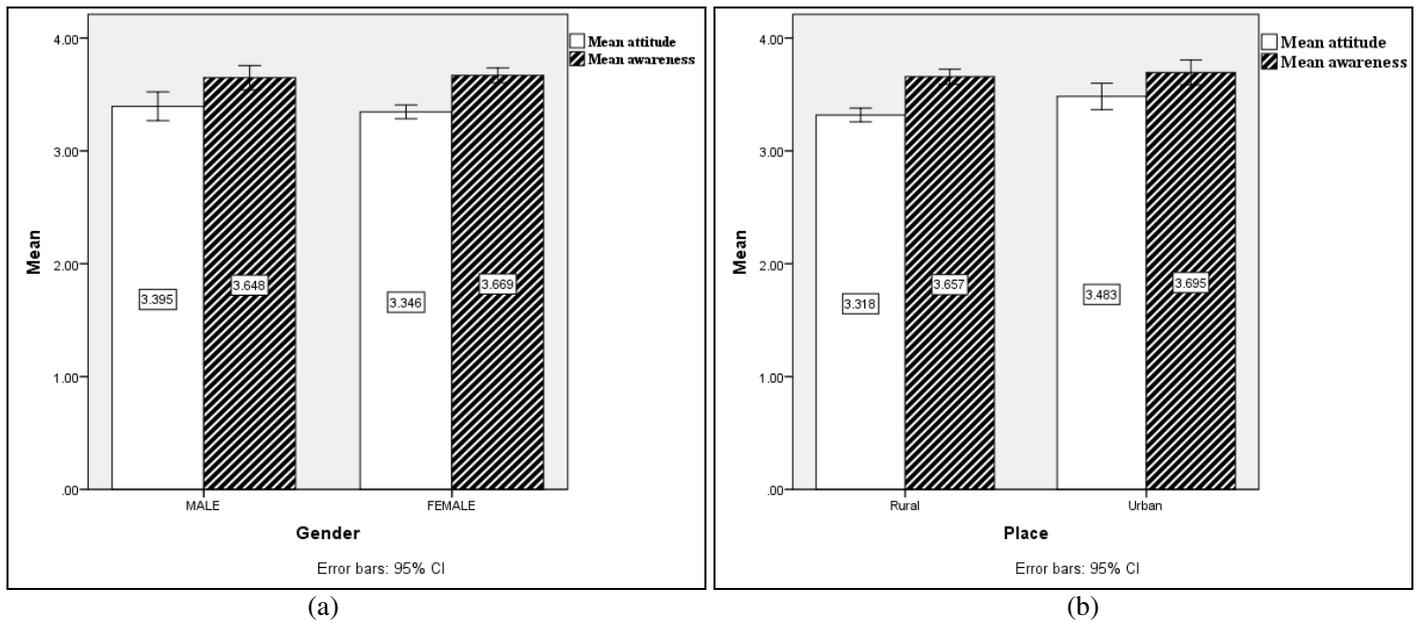


Fig. 1 : Comparison of mean environmental awareness and attitude towards environment with respect to Gender (a) and Locality(b).

Table 2 : Hypothesis test summary of mean awareness and attitude of students between gender

Null Hypothesis	Test	P Value	Decision
The distribution of mean attitude is the same across categories of gender	Independent sample Mann-Whitney U test	0.492	Retain the null hypothesis
The distribution of mean awareness is the same across categories of gender	Independent sample Mann-Whitney U test	0.724	Retain the null hypothesis

Table 3 : Hypothesis test summary of mean awareness and attitude of students between locality

Null hypothesis	Test	P value	Decision
The distribution of mean attitude is the same across categories of place	Independent sample Mann-Whitney U test	0.022	Reject the null hypothesis
The distribution of mean awareness is the same across categories of place	Independent sample Mann-Whitney U test	0.364	Retain the null hypothesis

Table 4 : Correlation analysis

		Mean attitude	Mean awareness
Mean attitude	Pearson Correlation	1	.345**
	Sig. (2-tailed)		.00
	N	200	200
Mean awareness	Pearson Correlation	.345**	1
	Sig. (2-tailed)	.00	
	N	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

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