



A STUDY OF ENVIRONMENTAL AWARENESS AMONG INDIAN ADOLESCENTS

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ABSTRACT

Environmental education is basic to environmental awareness. Finding a solution to the current environmental problems as well as preventing the future problems is possible by means of environmental education. The study made an attempt to evaluate environmental awareness and related attitudes among secondary school students residing in urban areas of Gonda district of Uttar Pradesh. Gender based environmental awareness as well as the effects of families, being joint or nuclear was investigated. An existing questionnaire was used for data collection. The findings revealed no significant gender differences in the level of awareness. Approximately 80% of adolescents showed high level of awareness. Girls from joint families were found to be more aware as compared to girls from nuclear families. Such difference was not observed among boys from both families.

Keywords : Environment, Awareness, Attitude, Nuclear, Gender

A systematic, organized effort to teach and train people about the environment may be referred to as environmental education. It centrally rests on the knowledge about environmental conservation. Different disciplines address environmental issues which shows its wide importance. UNESCO (2014) emphasized that environmental education plays a vital role in



imparting an inherent respect for nature. All efforts to educate people by means of print materials, media campaigns etc., come under environmental education. Environmental awareness and attitude towards environment, refers to the sum total of responses that people make to various thematic aspects of the construct, environmental education. Such aspects are related to the basic knowledge and understanding of facts and concepts related to environment and environmental problems. Pollution, population explosion, ecological disruption, energy crisis, deforestation etc. are issue addressed through environmental education and thus it stimulates knowledge on environmental matters. The three basic aspects of environmental awareness are- basic belief about the environmental problems, factual and scientific knowledge about the problems and, commitment to solve the problems. Hence, it seems relevant to take measures by individuals, government agencies, and non-governmental organization to spread awareness about environmental problems.

Environment is a general term which denotes the physical as well as the social and cultural aspects of an surroundings. Physical environment comprises of all the natural and physical aspects of environment. Social and cultural environment indicates the norms, customs, rituals and values prevailing in a society. It has been observed that when the environment is hot and humid, people get irritable and aggressive. Different type of pollutions, as air, water, noise have a negative impact on human performance. Crowding also has a negative effect on human beings. Thus, it is necessary to maintain the quality of our environment in order to reduce its negative effects on human mind and behaviour.

Social scientists including psychologists are becoming day by day concerned about how the environment effects human-beings. Our physical, mental and social health are all effected by environment. Human-beings have lived long in balance with ecology. But, now it has been observed that mankind has radically altered the natural environment. Agriculture was developed in such a way that it lead to soil depletion, deforestation and soil erosion. Though medical care improved the longevity and physical well-being of humans and other organisms, it contributed to increase in population and overcrowding as well. As the food and shelter improved, the



esthetic need for natural beauty and open space was ignored. With the improvement in quality of life, the habitability of humans decreased. The widespread concern towards ecology today is not limited to the physical and biological environment rather it extends upto social institutions within which human live. Such themes are addressed within environmental psychology (Proshansky, Ittelson & Rivlin, 1970 ; Stokols & Altman, 1987) ; ecological psychology (Barker, 1968, 1969) ; social ecology (Moos & Insel, 1974) and, an ecological orientation to community mental health (Kelly, 1966, 1968). One of the major paradigms emerging in psychology is the ecological perspective. This perspective puts an emphasis upon the socio-cultural characteristics of groups and behaviour of individuals as forms of adaptations to their ecological context (Berry, 1976 ; Misra & Tripathi, 1980 ; Sinha, 1979, 1992). The impact of ecological perspective on psychological thinking has been that both, culture of groups and behaviour of individuals, are being considered to be developed in such a manner so as to best meet the requirements of their ecology. Some social and cultural psychologists have studied the importance of ecological perspective on competence (Anandlakshmi, 1975 ; Anandlakshmi & Bajaj, 1981 ; Berry, 1976, 1984). They indicated that the referants of competence vary considerably across societies. Each society deliberately train their children to meet the demands of their ecology. Thus, by means of socialization process, parents inculcate various competencies among children. Competence indicates the ordering of means to ends (Anandlakshmi, 1975 ; Fowler, 1972). If there has been no failure in socialization, each child would grow as a competent adult in society.

Apart from eco-cultural analysis of socialization process, numerous studies have demonstrated negative consequences of crowding on mental health. Crowding is found associated with anxiety, poor self-esteem, depression and other psychiatric symptoms (Jain, 1987; Kamal, 1988 ; Lapore, Evans & Palsane, 1991). Sinha (1992) observed that adolescents from high crowding perception group were found to be less intelligent and less emotionally stable, reserved, undemonstrative, uncontrolled, tense and more group oriented. Dense environment make human being uncertain, unpredictable and they lack control. Also, excessive stimulation, intense and



inappropriate intimacy and behavioral restrictions are associated with dense environment(Altman, 1976, Proshansky et al, 1970). Arora, Sinha & khanna (1995) found that adolescents from low crowding perception groups showed significantly modern attitudes towards home, religion and traditional attitude towards education as compared to high and moderate crowding perception groups.

The current scenario shows our environment in danger. This is due to rapid development in science and technology as well as industrialization and urbanization. Moreover, deforestation, flood, green house effect, remnants of nuclear energy are all hazardous to human life. Such problems exist because humans are crossing their limits with respect to environment. So, it is the need of time to conserve our environment and save the natural resources. Today environmental conservation is a global issue. Educationists, scientists, intellectuals, planners and government, all have their important roles in this direction. After 1960s, the work of UN World conference on Environment (1972), Earth Summit in Rio de Janerio (1992), the Global Forum, are all indicators of increasing environmental awareness. World Environment Day on 5th June is celebrated every year, just to increase environmental awareness. Mahatma Gandhi was of the opinion that "the earth provides enough to satisfy everyman's needs, but not everyman's greeds"; (Khoshoo 1995a). This statement has deep social, cultural, economic and social consequences. Environment is a precious gift by nature to human-beings. By means of environmental education we can understand that how unchecked and unplanned development is hazardous to human life. Relationship of man with natural and man made surrounding is to be understood. It includes population, population resource allocation and depletion, conservation, transportation, technology, energy, urban and rural planning to the total biosphere. Environmental awareness means to help individuals to acquire an awareness of and sensitivity towards the total environment and its allied problems. It is related to different pollutions as well as elimination of diseases, hunger, malnutrition and poverty, destruction of forests, extermination of wild life, erosion of soil and accumulation of waste. Hence there exists an urgent need of environmental management and conservation.



Pro-environmental behaviour is relevant to environmental conservation. Today, due to rapid technological advancement, environmental degradations is at rise. Different pollutions-air, water and soil, crowding, natural and man-made disasters are all posing threat to human life. Carbon monoxide, nitrogen dioxide, sulphur dioxide present in the air are creating serious physical and mental problems. Noise pollution is leading to memory loss, anxiety and traumatic effects. Crowding is a subjective feeling which may lead to discomfort. Natural disasters, as, earthquakes, flood, cyclones have a long lasting effect on human life. Thus, a pro-environmental attitude must be developed by means of environmental education. An environmental ethics is needed to save the environment. The concept of environment now extends to the very mind and spirit of human beings. It places emphasis on need versus greed and comfort versus luxury. We must voluntarily restrict desires only upto what is essential for human welfare. The principle of ‘maximum of well-being with the minimum of consumption’ must be obeyed and maintained. In India, environmental awareness seems a bit low due to lack of scientific knowledge and the will to act. Indian society needs to realize the fact that the way we live, will determine our future. Some pro-environmental behaviours can be taught to create environmental awareness –

- Living simple life voluntarily which means reducing our needs in using natural resources and technology.
- Promoting such ideas as using apparatus that consume less energy, using less number of vehicles to control air pollution, using less resources and recycling of waste.
- Government should make environmental norms to guide public behaviour. Some of them are, using fuel without lead, pollution free vehicle certificate, less CFC production etc.
- Following fuel norms, stopping the use of old vehicles, using CNG in big vehicles, cleaning of rivers, positive use of media to spread environmental knowledge.

Such pro-environmental behaviours can create an optimum level of environmental awareness among people. Knowledge about the causes of pollution, conservation of soil, forest, energy,



wildlife and animal husbandry are basic dimensions of environmental awareness. Last but not the least, conservation of human health with respect to environmental aspects is important for a peaceful life.

Rationale

Numerous environmental problems have a local dimension, both in rural and urban areas. People can be made aware of the use of water, electricity, detergents, chemicals, plastic, steel, wood etc. They should be encouraged to plant trees and maintain them. In industrial towns, the problems of industrial waste and effluents on the one hand and growth of slums on the other hand, assume importance. It is the need of time to pay a reasonable attention to our environment. The present study aims to investigate the level of environmental awareness among secondary school students. Since environmental education is being imparted in schools by different mediums, so an adolescent sample was taken for study. The students were selected randomly and the number of boys and girls were equal.

Objectives

- To study the level of environmental awareness among adolescents studying at secondary school level.
- To explore the difference in environmental awareness and attitude based on gender.
- To explore the difference in environmental awareness level of adolescents from joint and nuclear families.

Sample

The present study was a simple survey conducted on 216 adolescent students, ranging between 16-18 years of age with an average of 17 years, 108 students were boys and 108 students were girls who served the purpose of study. All these students were studying in urban schools of Gonda city of Uttar Pradesh. Moreover, 62 boys were from nuclear families and 46 boys were from joint families, and, 79 girls were from nuclear families whereas 29 girls were from joint families.



Measures

- **General Information Questionnaire –**

A questionnaire was prepared to get information about the age, gender and type of family in which the student resided.

- **Environmental Awareness Scale -**

Constructed by Dr. Praveen Kumar Jha (1998), the scale purports to measure the extent and degree of awareness of people about environmental pollution and its protection. Also, the scale explores the understanding of people about the importance of environment in which they live. The scale has 51 items, 43 of them are positive and 08 of them are negative. The response to each item is in the form of 'agree' or 'disagree' and the respondent has to put a tick mark on any one of them. For positive items, a response to agree was scored 1 and a response to disagree was scored 0. For negative items, a response to disagree was scored 1, whereas a response to agree was scored 0. Scores obtained on all items were summed up to get the final score. A high score showed high environmental awareness. The norms were 37-51 (high level), 16-36 (average level) and 0-15 (low level). The scale gives a composite score of environmental awareness ability of the participants.

The psychometric properties of the scale were – validity 0.83 ; split-half reliability, .61 ; k – R method based reliability, .84, test-retest reliability (after 3 months). .74 and after 6 months, it was found to be .71.

Procedure

Participants of the study were contacted in their schools for the purpose of study. Permission and prior appointment by principal was taken. The scale was administered in group setting in morning session. A general information questionnaire was used to get the general information about the participants. A group of 20 participants were administered the scale in one session and thus, the data collection took place.



Analysis

Based on the objectives of the study, descriptive data included mean, standard deviation (SD), t-test was calculated to see the significance of difference between means.

Results :

The data analyzed showed the following results –

All participants showed a higher level of environmental awareness. This is shown in Table I.

Table I : Level of Awareness Among Adolescents

	Level of Awareness			
	High	Percentage	Average	Percentage
Boys (N = 108)	86	80	22	20
Girls (N = 108)	84	78	24	22

Table I indicates that 80% of boy and 78% of girls had high level of environmental awareness. 20% of boys and 22% of girls had an average level of awareness. The results are depicted in Fig. I.

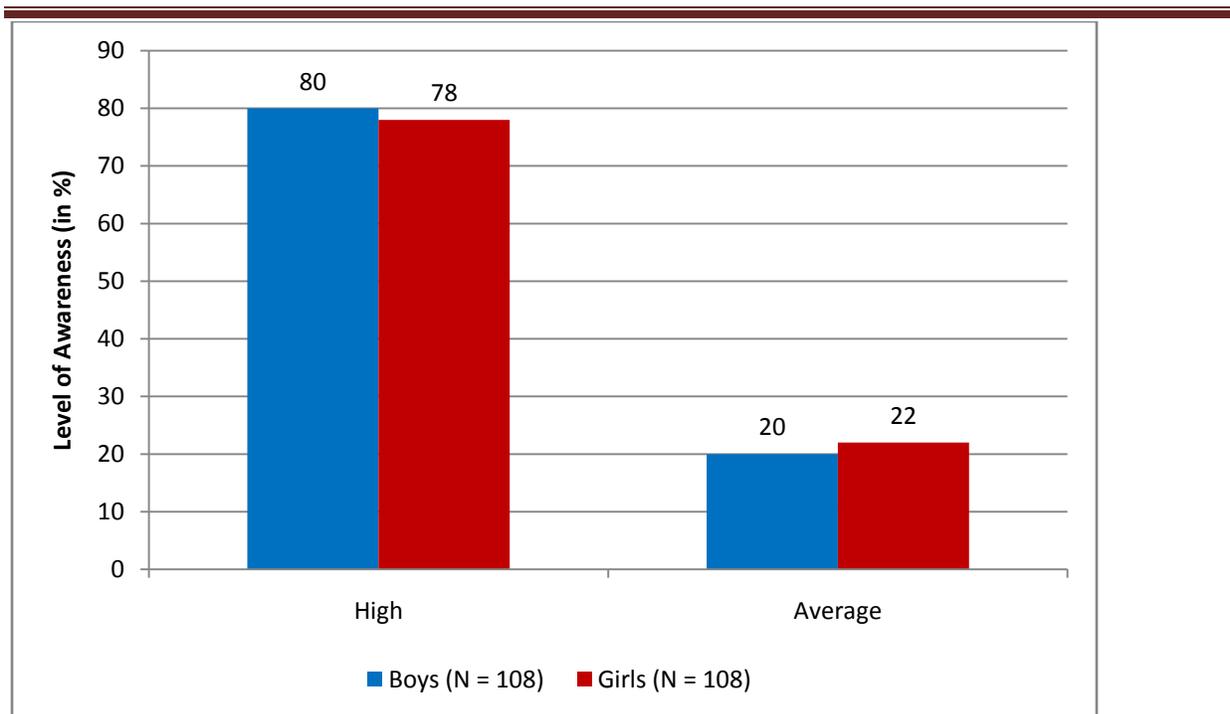


Fig. I. Percentage of Level of Awareness of boys and girls

To see the level of environmental awareness on gender basis, t-test was conducted. Table II shows the results.

Table II : Gender differences in Environmental Awareness

	Mean	SD	t
Boys (N = 108)	40.50	4.84	0.303 (n.s)
Girls (N = 108)	40.48	5.06	

It is clear from Table II that the mean value of environmental awareness of boys and girls do not show a significant difference and thus the t – value obtained is non-significant. The results are depicted in Fig. II.

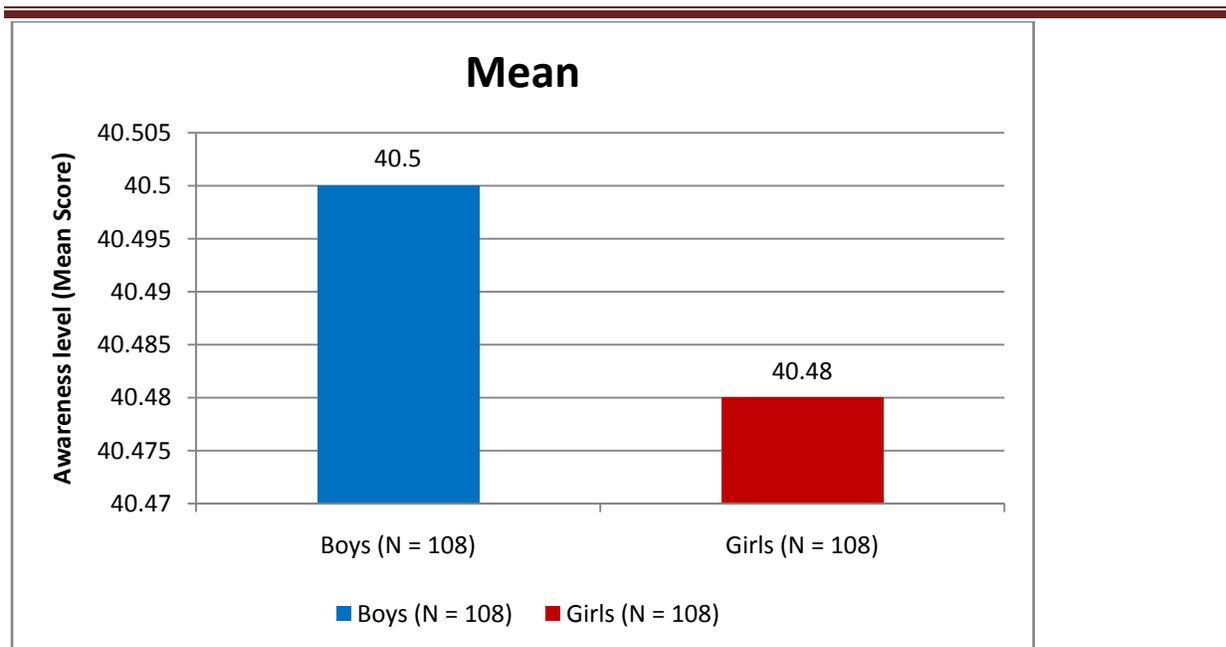


Fig. II : Awareness level (Mean) of boys and girls.

A – t-test was conducted to see the difference in environmental awareness of boys and girls with respect to belonging to joint and nuclear families. The results are shown in Table III.

Table III : Environmental Awareness of Adolescents from Joint and Nuclear Families

Boys/Girls	Joint/Nuclear Family	N	Mean	SD	t
Boys (N=108)	Joint	46	41.04	5.45	1 (n.s)
	Nuclear	62	40.12	4.04	
Girls (N=108)	Joint	29	42.37	4.2	2.36**
	Nuclear	79	39.86	6.3	

** P < 0.01

Table III indicates that there was no significant difference found in the level of environmental awareness of boys from joint and nuclear families. A significant difference was found in the level of environmental awareness of girls from joint and nuclear families. Girls from joint

families were seen to be more aware as compared to girls from nuclear families. (joint family mean = 42.37 ; nuclear family mean = 39.06) The t-value calculated was also found to be significant ($t = 2.36^{**}$). The results are depicted in Fig. III.

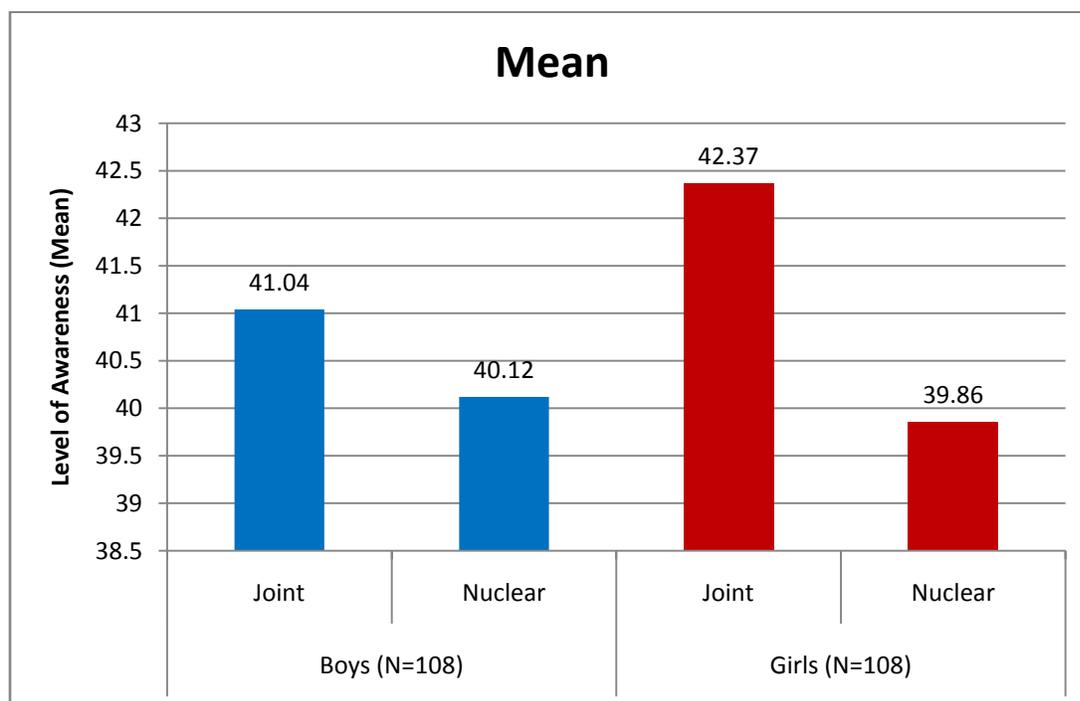


Fig. III : Awareness level (means) of boys and girls from Joint & Nuclear Families
Discussion

The present study made an attempt to investigate the environmental awareness level among Indian adolescents. In general, approximately all adolescents exhibited high level of environmental awareness. Since adolescents today are getting environmental education by a number of mediums, their awareness level was assumed to be at rise. Some adolescents showed an average level of awareness, but, none of them showed a low level of awareness. Such finding leads to a hope that these adolescents would take up a positive role in future to manage environmental problems and conservation of environment.

Boys and Girls showed almost an equal level of awareness and thus, no gender difference was



observed with respect to environmental awareness. Since nowadays, girls are also getting the same education as boys, so they were equally aware of the environmental issues. These girls are assumed to contribute a lot from home to society in environmental management and conservation. Moreover with respect to adolescents belonging to joint and nuclear families, there was no significant difference observed in the awareness level of boys. Girls did show such difference, as girls belonging to joint families were found to be more aware than girls belonging to nuclear families. May it be that girls belonging to joint families were having more information about environment from other familial sources except parents. This can be strong reason about their higher awareness level. All adolescents, either from joint or nuclear family, were found near about equally aware of environmental issues.

Conclusions

1. Generally, adolescents showed higher level of environmental awareness.
2. Some adolescents showed an average level of awareness but none of them were found at low level of awareness.
3. No gender difference was observed between the environmental awareness level of boys and girls.
4. Girls from joint families were found to be more aware of environmental issues as compared to girls from nuclear families.
5. Overall, high level of awareness can be seen as a positive outcome in future with respect to environmental protection.

Limitations & Suggestions

Though environmental issues are being studied widely, a study about environmental awareness gives a glimpse of attitude towards environment today as well as it is indicative of the future of environmental protection and management. In the present study, information about environmental awareness and attitude towards environment was gathered by means of a scale only and the subjective experiences of adolescents could not be recorded due to lack of time. A



deep insight on the awareness related issues could not be developed which seems to be a limitation of this study.

Another limitation of the study is that it lacks a communication with adolescents about the way to manage and conserve the environment with reference to their awareness level. So, the applied aspect of high awareness level of adolescents could not be ascertained.

Since the study was conducted by purposive sampling, so the results obtained could be generalized well. If it would have been a culturally diversified sampling, it could have yield more broad results.

Results obtained can be useful for future policies and researches in the field of study of environmental issues. Moreover, in the light of such results, adolescents can be provided more systematic environmental education so they could be more and more aware about the environmental issues. Environmental awareness indicate practicing of pro-environmental behaviour consistently. These results are interesting for educationists, environmentalist, and parents alike.

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