

## **Promoting environmental sensitization among the homemakers of Vadodara city through educational program**

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### **ABSTRACT**

All basic needs of human beings are fulfilled by the earth. All human being relies on nature for a range of services and resources. Therefore, it becomes immensely important to appreciate and respect mother Earth and its environment. However, man's growing need and greed has substantially altered the environment. Environmental degradation, global warming, recession of glaciers, water scarcity, rise in sea level and increasing pollution are some of the consequences of human interference with nature. This urgently calls for paying emphasis on inculcating human values in the growing seeds of nation and dealing sensitively with issues related to environment degradation. It is high time for man to realize that nature has nothing to lose, but it is his own survival which is threatened. Thus, human beings need to be aware of the consequences of their action on environment. Individuals who are environmentally aware would make their purchases and consumption in the manner which does minimum harm to the environment. Hence, it is most important to increase awareness in people. Since the women are the backbone of the family and the nation, it is important that women are given environmental education to increase the awareness so that they can influence their family mindful consumption. Keeping this philosophy in mind a research study was undertaken with two objectives, firstly to assess the environmental awareness of Homemakers with special reference to environmental condition, renewable and non-renewal resources and eco-friendly certification marks and secondly to develop a need based educational program to enhance the environmental awareness followed with post-test to assess the impact of educational program. The research study was conducted on homemakers of Vadodara city. A sample of 192 homemakers were selected through snow ball technique. Their Environmental awareness was assessed on a summated rating scale developed for the purpose. The major findings of the research showed that on the overall scale two third of respondents had high level of environmental awareness, whereas more than one fourth had moderate level of environmental awareness. The information gathered regarding awareness about environment related certification marks, depicts that more than three fourth of homemakers were aware about "star rating" on equipment but none of them were aware about

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eco-logo to be provided India. To test the efficacy of the educational program paired t-test was computed which established that there was a significant difference in the level of awareness of homemakers regarding general environment condition before and after their exposure to the educational program developed for the present research purpose.

**Key Words :** Environment education, Environmental awareness, Home makers

## INTRODUCTION

Since time immemorial human being live in the realm of nature by which they are constantly surrounded and with which they constantly interact. All basic needs of human beings are fulfilled by the earth. Each one of relies on nature for a range of services and resources. Therefore, it becomes immensely important to appreciate and respect mother Earth and its environment. However, man's growing need and greed has substantially altered the environment. He has long enjoyed the benefits of industrialization and has become the culprit of ecological and environmental catastrophe which the planet is facing today. Globalization and urbanization has led to economic and social development at the cost of public health and environment. Environmental degradation, global warming, recession of glaciers, water scarcity, rise in sea level and increasing pollution are some of the consequences of human interference with nature. Beside these, man himself is being attacked by a silent killer *i.e.* moral decay. This urgently calls for paying emphasis on inculcating environment friendly human values and dealing sensitively with issues related to environment degradation. It is high time for man to realize that nature has nothing to lose, but it is his own survival which is threatened. Thus, human beings need to be aware of the consequences of their action on environment and also about sustainable consumptions habits. Individuals who are environmentally aware would make their purchases and consumption in the manner which does minimum harm to the environment. Since women are the backbone of the family and considered to be an important link in the goal of achieving a satisfactory balance nature, natural resources and human activities because of their central role in the family, it is important that women are given environmental education to increase the awareness. If women are environmentally aware they can inspire their family in environment friendly consumption.

### Review of literature:

The role of women in environment protection and natural resources management is not a new phenomenon. In 1992, the issue of Women and Environment was officially put forward in the Declaration on the Human Environment approved in Rio de Janeiro of Brazil. The claim of the issue and the conduction of a series of subsequent actions indicated that women's special function and potential power for the domain of environmental protection cannot be ignored. The traditional female virtues are favourable for the cultivation of the life-style with less aggressiveness and more abilities for sustainable development. Therefore, it is necessary to fully recognize this underlying relevance between women and environment (Yanqin, 2010). Many researchers at national and international level have contributed their researches on women and environment protection, Gupta *et al.* (2014), carried out a research work on "Awareness, Attitude and Practices toward Environment among Women in Rural Areas of

Rajouri district of Jammu and Kashmir”. The researcher suggested that there would be a wide scope for women to realize their potential and strength in the field of environment protection so that they can transform themselves from effective home managers to effective environmental managers. Kumar (2013), critically examined on “environmental awareness among rural folks of Hamirpur district in Himachal Pradesh.” The study showed that, still a lot of work needs to be done for creating awareness among people on the major environmental problems because people seemed to be irresponsible. Tiwari (2004) studied “Environmental Literacy and Awareness among the Women of Mountain Region of Uttaranchal, India; A Situational Analysis.” The results showed that only 47% women of the region were environmentally literate. Another comparative Study was conducted by Hoerisch (2002) on “Environmental Awareness and Environmentally Beneficial Behaviour in India.” The study depicts that, the role of media in creating environmental awareness was definitively a dominant one and media, in principle, were able to reach a vast percentage of India’s complex society. Therefore, the present study focuses on development of educational program to enhance the environmental sensitization among the women in Vadodara city of Gujarat and to check its efficacy.

## METHODOLOGY

The research design of the present investigation was descriptive cum experimental. A sample of 192 homemakers was selected through snowball technique from various parts of Vadodara city. An interview schedule was prepared as was assumed that the educational level of sample would vary from illiterate to highly educated people. The schedule contained environment awareness scale which was subjected to establishment of content validity and reliability through test-re-test method. The environmental scale was administered on the selected sample and the data were collected. Further, a need based educational program was developed for those respondents who scored low on the environmental awareness scale. To test the efficacy of the educational program paired t-test was computed and it was found that there was a significant difference in the level of awareness of homemakers regarding general environment condition before and after their exposure to the educational program developed for the present study.

## RESULTS AND DISCUSSION

The age of the homemakers selected as the sample ranged from 21 to 55 years with a mean of 41 years. About half of the respondents were graduate and more than one third had education below graduation. More than three fourth of the women were non-employed. Majority had small sized family. The mean of total monthly income of the family was found to be Rs. 31,540. The income ranged from Rs. 9500 to 52,000. Amongst the sources of information they used to gather knowledge about various products, television ranked first with newspaper as second.

### **Overall level of awareness on general environmental condition :**

The level of environmental awareness was assessed in two section wherein section 1

consisted of topics related to general environment condition which includes statements related to Pollution, Resources of earth, Ozone layer, etc., Ecological Balance, Quality of environment and Eco-friendly products. The second section dealt with environment related certification marks. Regarding awareness of homemakers with respect to general condition of environment it was observed that amongst 192 respondents, more than half of the respondents had high level of awareness regarding problems and causes of environmental pollution (68.75 %), problems and causes of ozone layer depilation (65.62%) and Eco-friendly products (61.98%). Whereas majority of the respondents had high level of awareness regarding Ecological Balance of earth (76.04%). Whereas, regarding Quality of environment slightly more than half (56.25%) of the respondents were aware about the situation (Table 1).

Table 1 : Overall level of environmental awareness				
Sr.	Level of awareness on various aspects of environment	Range of Scores	Total n=192	
			f	%
1.	<b>Pollution</b>			
	(1) Low level	17-28	2	3.1
	(2) Medium level	29-40	56	29.17
	(3) High level	41-51	134	69.80
2.	<b>Resources of the Earth</b>			
	(1) Low level	9-14	18	9.37
	(2) Medium level	15-20	51	26.56
	(3) High level	21-27	132	68.75
3.	<b>Ozone layer, etc.</b>			
	(1) Low level	9-14	36	18.75
	(2) Medium level	15-20	30	15.53
	(3) High level	21-27	126	65.62
4.	<b>Ecological balance</b>			
	(1) Low level	5-7	11	5.73
	(2) Medium level	8-10	35	18.23
	(3) High level	11-15	146	76.04
5.	<b>Quality of environment</b>			
	(1) Low level	6-10	20	10.41
	(2) Medium level	11-14	64	33.33
	(3) High level	15-18	108	56.25
7.	<b>Eco-friendly products</b>			
	(1) Low level	3-4	48	25
	(2) Medium level	5-7	25	13.02
	(3) High level	7-9	119	61.98
8.	<b>Total E.A.S scale</b>			
	1) Low level	49-79	7	3.64
	2) Medium level	80-115	57	29.69
	3) High level	116-147	128	66.66

**Level of awareness regarding environmental certification marks :**

Across the world now there are many certification marks seen on various product/ service because the world has realized to have stringent application of measure to follow production processes which are least harmful to the environment. The certification marks ensure that the production are least harmful to the environment .It was thought important and interesting to find out the level of awareness regarding these aspects. The respondents were asked to state whether they were aware about the symbols. It is observed that respondents were unaware about the eco mark of India (earthen pot). Majority were aware about “energy rating star” mark. Many (about 41 %) were aware about recycling mark (Table 2).

<b>Table 2 : Distribution of respondents according to level of awareness about environment certification marks/symbols</b>		
Certification marks and their symbols	<i>n=192</i>	
	<i>f</i>	<i>%</i>
1. Symbols of Eco Mark	00	00
2. Symbols of Indian Organic Products	00	00
3. Symbols of Recyclable Plastic	80	41.66
4. Symbols of Eco label for energy	105	54.68
5. Symbols of BEE Energy Star Label	148	77.03
6. Symbols of Agmark	2	1.04
7. Symbols of Recyclable Products	79	41.14

**Development of educational program:**

On the basis of data, a need based educational program was developed for the women homemakers scoring low on the environmental awareness scale. The educational program consist of two materials *viz.*, resource manual and audio-visual aids. During the data collection it was observed that the most of the homemakers spent their leisure time in watching TV programs in the afternoon. Thus, the basic purpose of selecting audio-visual aid for imparting intervention program was to give easy method of learning which can be used by the homemakers in their leisure time. The Audio-visual films developed were 6 each containing one module, having duration ranging between 15 to 30 minutes. The narration was in Hindi for better understanding amongst the viewers. The women homemakers scoring low on the environmental awareness scale were exposed to educational program followed with post-test.

**Establishment of efficacy of the educational program:**

After the exposure to the educational programme, the respondents were given the Environmental Awareness Scale to fill up again. The scores of this scale were compared with the scores of the same scale administered previously. This helped to establish efficacy (effectiveness) of the educational programme through statistical analysis. The results clearly reflected that there was enhancement in the level of environmental awareness of the respondents. This established the effectiveness of the educational program developed for the present research.

**Testing of hypotheses :**

**HO<sub>1</sub>:** There exists no relationship between selected personal and family variables of the homemakers and their environment awareness.

Coefficient of Correlation were computed to test this hypothesis. It was found that education, total monthly family income and extent of use of sources of information by the homemakers had a significant positive relationship with their environment awareness. Thus, the null hypothesis was rejected in these cases (Table 3).

**Table 3: Relationship between environmental awareness and selected personal and family variables of homemakers**

Sr. No.	Environmental awareness and selected variables	Calculated r value	df	Significance
1.	Age of the respondents	0.077	190	NS
2.	Education of the respondents	0.222	190	0.01
3.	Employment status	0.058	190	NS
4.	Total monthly income of the family	0.338	190	0.01
5.	Extent of use of sources of information	0.211	190	NS

NS = Non-significant

**HO<sub>2</sub>:** There exists no significant difference in the level of awareness of homemakers regarding general environmental condition before and after their exposure to the educational program developed for the present research.

The present study aimed to develop an educational program to enhance knowledge of homemakers regarding general environmental condition. The knowledge of homemakers was assessed through a scale. Those who were low and moderate scorers, they were exposed to the educational program and their knowledge was assessed again. The pre and post test score were subjected to statistical analysis

To test the hypothesis, paired t-test was computed. The result resolved a highly significant difference between the two administrations. ( $t=6.91$ ,  $df. 57$ ) on the overall scale. Each of the sub aspects also reflected a significant difference in pre and post-test. Thus, the null hypothesis was rejected and the alternative hypothesis was accepted that there exists a significant difference in the level of awareness of homemakers regarding general environment

**Table 4 : Distribution of respondents on the level of environmental awareness before and after exposure to educational program**

Pair		Paired differences				t	df	Sig. (2-tailed)	
		Mean	Std. deviation	Std. Error Mean	95% confidence interval of the difference				
					Lower				Upper
Pair	Over all environmental awareness scale pre and post	26.24138	28.8853	3.79283	18.64637	33.83639	6.919	57	0.01

condition before and after their exposure to the educational program developed for the present research purpose (Table 4). This established the efficacy of the educational programme.

### **Conclusion and recommendation for future research:**

Environment is the sum total of all social, economic, biological, physical and chemical factors which constitute the surroundings of human being. Ever increasing human population has exploited the resources from the environment which are so essential for the substance of all life on the earth. The environment has been deteriorating constantly. Its present status has come due to the industrialization, urbanization, and un-restrained growth of human population and the mismanagement of the world's environment. If individuals are aware of environmental problems would make their purchases and consumption in the manner which does minimum harm to the environment. Hence it is important to increase awareness in people. Environment education is one of the ways in which widens the awareness amongst people. If individuals are environmentally educated, the society will automatically get educated. It is important that women are given environment education because they influence the entire family circle, especially the children, in their perception, values, attitudes, behaviour and ethnical consideration. Generally this kind of education is provided in the formal education set-up. But as the homemakers are already out of the formal set-up. They need to be educated through non-formal education. This covet for development educational programs focusing which women homemakers can take benefit at their own leisure time.

Similar, kind of studies can be undertaken, like, a comparative study can be conducted to find out whether there are any differences in environmental awareness of urban and rural population, an in-depth study can be conducted to find out the volume and constituents of household solid waste material in various residential localities, and people belonging to various income groups. This will create awareness in people for the need of reducing waste, reusing and recycling many of the waste material. This will help to some extent in reducing the deterioration of environmental quality. Purchase behaviour related to generation of waste can be studied to find out the influence of purchase choice of certain goods, such as food, on the amount and type of waste generated in the households.

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