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ENVIRONMENTALLY CONCERNED PRACTICES FOLLOWED BY THE HOMEMAKERS TO REDUCE THE NEGATIVE IMPACT ON THE ENVIRONMENT

Dr.Sarjoo Patel[*1]
[*1]Assistant Professor (Stage-III), Department of Family and Community Resource Management, and Associate Director, Post Graduate Diploma in Hotel Interiors, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara

Ms. Smita[*2]
[*2] Temporary Assistant Professor, Department of Family and Community Resource Management, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara

Ms. Fatema Dahodwala[*3]
[*3] Temporary Teaching Assistant (TTA), Post Graduate Diploma in Hotel Interiors, Department of Family and Community Resource Management, Faculty of Family and Community Sciences, The Maharaja Sayajirao University of Baroda, Vadodara

Abstract
Environmental protection is a practice of protecting the natural environment on the individual, organizational or governmental levels, for the benefit of both the environment and humans.The present study was carried out in Vadodara district of Gujarat State. Descriptive research design was used for conducting the study. The sample of the study comprised of 120 homemakers. Questionnaire was used as a tool for collecting the data. The questionnaire comprised of the background information of the respondents and the practices followed by them to reduce the negative impact on the environment. Analysis was done on the basis of the data received in which frequency and percentage were calculated. The results revealed that majority of the respondents hadlack of knowledgefor practices such as preparing kitchen compost, practicing kitchen gardening, segregating wet and dry waste, use of solar energy, rain water harvesting, use of durable goods etc. Hence, there was a need to enhance the knowledge of the homemakers and make them aware about the negative impact of the practices on the environment. Therefore, an online workshop was conducted for enhancing their knowledge regarding practices that can be followed at personal level to save the environment and the feedback received was positive.

Keywords: homemakers, environment concerned practices, impact on environment.

INTRODUCTION

The environment is critical, and any change in climate leads to an imbalance on the planet (1). Human actions have an impact on the environment, and the most common negative impacts are those that lead to environmental deterioration. Environmental degradation is the deterioration of the environment as a result of resource depletion, including poor soil, water, and air quality, ecosystem disruption, habitat loss, the extinction of animals, and pollution. (2)

In reaction to global awareness and environmental degradation, firms and businesses on a local and big scale have undergone unprecedented degrees of transformation during the last decade. The main causes for this include the chopping of trees for residential and commercial structures, the conversion of mountains into highways and bridges, the harm done to the natural environment for dam construction, and so on. Improper waste management at home is one of the leading causes of environmental pollution. Some of the garbage is generated by the home. Domestic waste comprises products such as packaging materials, yard garbage, old containers, vegetables, metals, outdated clothes, and so on. The disposal of home solid waste causes a variety of environmental and health issues(3). All of these activities contribute to important environmental issues such as climate change, pollution, land degradation, ozone layer depletion, deforestation, biodiversity loss, and global warming, which are mostly caused by the Earth's rapid exploitation (4).

Environmentally responsible manufacturing (ERM) is a relatively new concept of the 1990s, and is defined as: “a system which integrates product and process design issues with issues of manufacturing production planning and control in such a manner as to identify, quantify, assess and manage the flow of environmental waste with the goal of reducing and ultimately minimizing its impact on the environment while also trying to maximize resource efficiency” (5).To be effective, ERM systems must be used at every step of product development, from "cradle to grave." (6)

On the other hand, Sustainable development is undeniably one of humanity's most difficult concerns. Attaining sustainability necessitates tackling several basic challenges at the local, regional, and global levels, and meeting the aims and objectives of sustainability is a significant challenge for all segments of society. The goal of sustainable development is to promote human well-being and sustain it over time, but the effects of climate change and rising demand for energy and resources make this goal more difficult to achieve (7).

The issue with waste management techniques may be brought on by poverty and the lack of environmental education among homemakers, environmental awareness entails learning about the environment and its inhabitants, as well as working to remedy environmental concerns. In recent years, environmental awareness has become a critical problem. Lack of environmental awareness will result in the destruction of the earth and all living things. (8)

The scope of green operations (GO) also extends from product development to the management of the entire product life cycle, involving environmental practises such as eco-design, clean production, recycling, and reuse, with a focus on minimising costs associated with product manufacturing, distribution, use, and disposal (9). These practices are initiated right from the households, as one of the main concern of environmental pollution is waste management. Majority of the waste is generated from the homes known as domestic waste. The consequences of not following the right practices leads to various ecological and health problems.

Since women are the family's backbone and are regarded a key link in the objective of attaining an acceptable balance of nature, natural resources, and human activities due to their central role in the family, it is critical that women get environmental education to raise awareness. Women who are environmentally conscious can inspire their families to make more ecologically responsible choices. (10).

This impact is growing by the day as the population has grown substantially in recent years. As a result, there is a need for environmental awareness. It is highlighted that more research is required to identify the household behaviours that encourage behaviour that is environmentally responsible.

OBJECTIVES

1. To find out the background information of the respondents.
2. To assess the Environmentally concerned practices followed by the homemakers to reduce the negative impact on the environment.
3. To find out the relationship between independent and dependent variable.
4. To conduct an online workshop for making the homemakers aware aboutEnvironmentally concerned practicesto be followed to save the environment.

HYPOTHESIS

HO1: The practices followed by the respondents to reduce the negative impact on the environment will vary will their independent variable viz: age, education, family type, family income, number of family members, and occupation.

METHODOLOGY

The present study was carried out in Vadodara district of Gujarat State. Descriptive research design was used for conducting the study. The sample of the study comprised of 120 homemakers. Questionnaire was used as a tool for collecting the data. The questions comprised of the background information of the respondents and the practices followed by them to reduce the negative impact on the environment. Analysis was done on the basis of the data received in which frequency and percentage were calculated.

RESULTS AND FINDINGS

Section I: Background information of the respondents

Table 1: Frequency and percentage distribution of respondents according to their age.
(n=120)

Age of the respondents (in years)	***f* (n=120)**	**%**
21-30	23	19.17
31-40	59	49.17
41-50	28	23.33
51 and above	10	8.33

The data revealed that a little less than 50% respondents fall under the category of 31-40years of age followed by 23.33% respondents were in between 41-50 years, 19.17% respondent's age was in between 21-30 years whereas only 8.33% respondent's age was above 51 years. The mean age of the respondents was found to be 37.5 years.

Table 2: Frequency and percentage distribution of respondents according to monthly income of the family.
(n=120)

Monthly income of the family (in rupees)	**f**	**%**
Less than ₹30000	13	10.84
₹30001-45000	51	42.50
₹45001-60000	37	30.83

₹60001 and above	19	15.83

The average monthly family income of the respondents was found to be 51,500. The highest percentage of the respondents I.e. 42.50% fall under the category of ₹30001-45000, 30.83% respondents' family income was in between ₹45001-60000, 15.83% respondents fall under the category of 60001 and above whereas only 10.84% respondent's monthly income was ₹30000 and less respectively.

Table 3: Frequency and percentage distribution of respondents according to type of family.

(n=120)

Type of family	**f**	**%**
Nuclear	86	71.66
Joint	34	28.34

It was found that, 71.66% of the respondents were from nuclear families and 28.34% of the respondents belonged to joint families.

Table 4: Frequency and percentage distribution of respondents according to the education level.

(n=120)

Level of Education	**f**	**%**
Upto 10^{th}	7	5.84
Upto 12^{th}	16	13.33
Diploma	12	10.00
UG	58	48.33
PG	27	22.50

It was found that, (5.84%) of the respondents were 10^{th} pass, (13.33%) of the respondents were 12^{th} pass, (10.00%) of the respondents had diploma, (48.33%) of the respondents were Under Graduate and (22.50%) of the respondents were Post Graduates.

Table 5: Frequency and percentage distribution of respondents according to the size of the family.

(n=120)

Size of family	**f**	**%**
Small (>3 members)	59	49.17
Medium (3-6 members)	24	20.00
Large (<6 members)	37	30.83

It was found that (49.17%) of the respondents belonged to small sized families, (20.00%) of the respondents belonged to medium sized families and (30.83%) of the respondents belonged to large sized families.

Table 6: Frequency and percentage distribution of respondents according to the marital status.

(n=120)

Marital status	**f**	**%**
Single	26	21.67
Married	94	78.33

It was found that (21.67%) of the respondents were single and (78.33%) of the respondents were married.

Section II: Practices followed by the homemakers to reduce the negative impact on the environment.

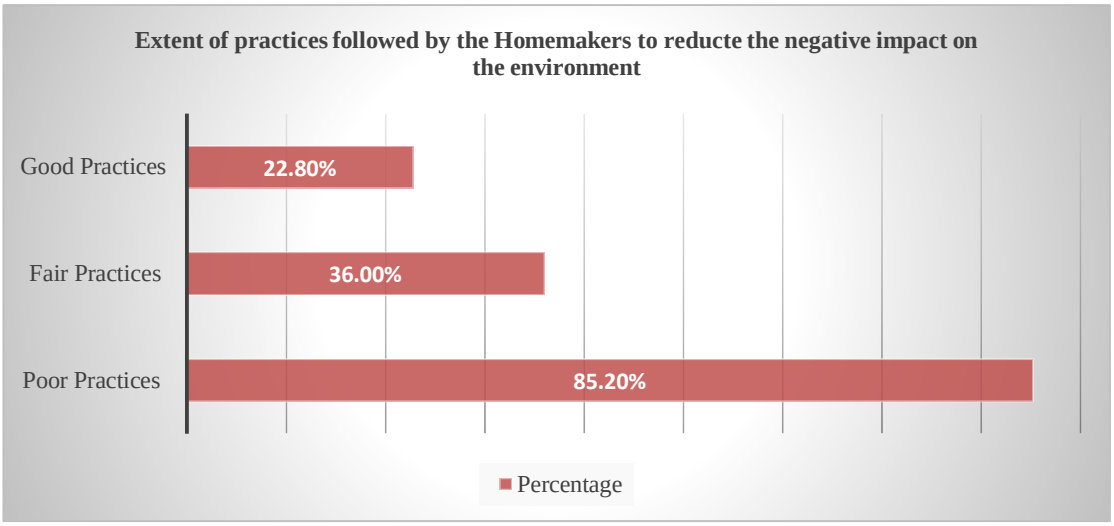
The respondents were asked to respond on 3-point scale in terms of "always", "sometimes" & "never", for which the scores of 3, 2, and 1 were assigned respectively. The minimum item for the entire practice scale was 30 and hence the minimum score was 30 and maximum score was 90. Minimum and maximum possible score were divided into 3 categories on the basis of equal interval to determine the extent of practices into poor, fair and good category. It was determined for the entire practice scale. This reflected the extent to which the respondents followed the practices to save environment.

Table7: Extent of practices followed by the homemakers to reduce the impact of climate change on the environment.

Sr. No.	**Extent of practices followed by the homemakers**	**Range of Scores**	**Respondents (n=120)**	
			f	**%**
1.	Poor	30-49	71	85.20
2.	Fair	50-69	30	36.00
3.	Good	70-90	19	22.80

The results obtained depicted that majority of the respondents (85.2%) followed poor practices, few of the respondents (36%) followed fair practices and very few of the respondents (22.8%) followed good practices to reduce the negative impact on the environment.

Figure 1: Graphical Representation of the respondents according to the extent of Knowledge of the homemakers regarding the practices followed to reduce the negative impact on the environment.



Major highlights of the practices followed by the homemakers weresuch that 95.83% were not following the water conservation and rain harvesting practices, 94.17% respondents do not make compost out of kitchen waste, 90.83% respondents use single use plastics, and do not segregate wet waste and dry waste, 88.83% do not prefer walking using cycle to work, 78.83% respondents were not following kitchen gardening and composting practices, 65.83% respondents do not buy energy efficient light bulbs and appliances whereas only 34.17% respondents prefer buying it. 59.17% respondents do not prefer public transport whereas only 40.83% respondents prefer it. A little more than one-half of the respondents i.e. 51.67% do not have a habit of turning off the lights when not in use and only 48.33% respondents do. Only few per-cent respondents were following public transport, energy efficient bulbs, approximately 41% respondents choose eco-friendly products and 58% don not, a little more than 56% respondents do not use water efficiently whereas only 43% do. It was also found that only 13.33% respondents use solar energy at home respectively.

TESTING OF HYPOTHESES

ANOVA was computed to find out the variation in practices followed by the respondents to reduce the negative impact on the environment according to their personal variables namely age, occupation, education and size of family and monthly family income of the respondents.

Table 7: Analysis of variance showing variation in the practices followed by the respondents to reduce the negative impact on the environment due to their independent variables.

Variables of respondents	df	Sum of squares	Mean square	"F" Ratio	Level of Significance
Age					
Between Groups	2	2804.909	1402.455	1.645	0.05
Within Groups	117	99726.291	852.361		
Education					
Between Groups	2	358.778	179.389	0.205	N.S
Within Groups	117	102172.422	873.269		
Size of family					

Between Groups	2	1619.481	809.741	0.939	N.S
Within Groups	117	100911.719	862.493		
Monthly family income					
Between Groups	2	1517.481	851.721	0.812	N.S
Within Groups	117	100812.718	861.492		

Note:*N.S.= Not Significant, d.f. = Degree of freedom

The computed analysis of variance depicted that practices followed by the respondents to reduce the negative impact on the environment varied with the age. The 'F' ratio was found significant for age and practices followed by the respondents to reduce the negative impact on the environment 0.05 level. Hence the null hypothesis was rejected. It was concluded that thepractices followed by the respondents to reduce the negative impact on the environment vary with age of the respondents. It was not found significant for education and size of family and monthly family income. Hence the null hypotheses was accepted.

Table 8: 't' value showing difference in the practices followed by the respondents to reduce the negative impact on the environment.

Variables of the respondents	**Mean**	**'t value'**	**df**	**Level of Significance**
Marital Status				
Others	66.67	2.95	118	*N.S
Married	78.39			
Type of Family				
Nuclear	78.45	0.200	118	*N.S
Joint	77.25			

Note: *N.S.= Not Significant, d.f. = Degree of freedom

't' test was applied to find out the difference in between the practices followed by the respondents to reduce the negative impact on the environment due to the personal variables viz; marital status and type of family. The computed t-value depicted that the practices followed by the respondents to reduce the negative impact on the environment did not differ significantly due to marital status and type of family. Hence, the null hypothesis was accepted. Therefore, it was concluded that marital status and type of family did not have an effect on the practices followed by the respondents to reduce the negative impact on the environment.

Table 9: Scheffe's test showing the difference between the age, with the practices followed by the respondents to reduce the negative impact on the environment.

Sr. No.	**Age**	**Mean**	**df**	**Level of Significance**
1	24-36	81.95	119	0.05
2	37-49	79.02		
3	50-62	69.15		

Note: *N.S.= Not Significant, d.f. = Degree of freedom

The findings of Scheffe's test confirmed statistically that the respondents differed significantly in their sanitation, hygiene and safety practices in organizing events during COVID-19 Post lockdown due to the age of respondents. The result of Scheffe's test revealed that the respondents aged between 24-36 years had adopted sanitation, hygiene and safety practices to a high extent as compared to the respondents aged between 37-49 years and 50-62 years.

Therefore, for enhancing their knowledge regarding the harmful effects of these on the environment, an online workshop was conducted in which homemakers were given training regarding kitchen compost, waste disposal methods and techniques and gardening and plantation and some daily practices which should be followed such as to prefer walking or cycling instead of taking two-wheeler and four-wheeler which uses petrol or diesel which will not only reduce environmental pollution but also helps to attain a healthy lifestyle and good physical as well as mental health, to make use of public transport to travel to longer distances, to adopt the practice of car-pooling, prefer buying energy efficientlightbulbs and appliances (such as LEDs),switch off the lights and all the equipment's when left unattended, practice kitchen gardening because it is eco-friendly and it ensures proper utilization of domestic waste, recycling and reusing of waste plastic bottles and containers for growing plants and making useful accessories, making kitchen compost out of food waste which helps in waste reduction and it also reduces the need of chemical fertilizers and enriches soil which has a lot of benefits to the environment.

Some of which are: helps in preventing soil erosion, reduces waste and results in healthier plant growth and also provide fresh and healthy fruits and vegetables, always segregate wet and dry waste by keeping two different dustbins, waste segregation helps in simplifying the process of converting the leftover food into compost, avoid single use plastics and go for long lasting containers and products which are of good quality instead of disposable products. These disposable products not only accumulate a lot of waste but are also not good for the health.Water conservation through rainwater harvesting is another practice that should be followed. It decreases the need for water, improves the quality of groundwater and results in water and energy conservation.

The training was found to be very effective and the homemakers got to learn a lot of new information which they can incorporate in their daily life. By following good practices, each and every individual can contribute in protecting the environment. This will be a benefit for the entire community as well.

CONCLUSION

From the present study "Environmentally concerned practices followed by the homemakers to reduce the negative impact on the environment" it can be concluded that majority of the respondents were having very less concern about the environment and they were not following such practices which helps in improving thequality of the environment. Homemakers were the sample of the study because they are the key member the house.If the homemaker is aware about these practices, then only they can spread it to the family members and this can have an impact on the society as well. The results revealed that they did not follow practices such as preparing kitchen compost, practicing kitchen gardening, segregating wet and dry waste, use of solar energy, rain water harvesting, use of durable goods etc. because they had lack of knowledge regarding the following practices which were affecting the environment adversely.Hence, there was a need to enhance the knowledge of the homemakersand make them aware about the negative impact of the practices followed by them in their daily life onthe environment.

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