

**DISSERTATION ON
A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO
ASSISTED TEACHING ON KNOWLEDGE REGARDING ILL
EFFECTS OF PLASTIC USAGE AMONG HOMEMAKERS AT
KP.PARK ,CHENNAI-03.**

**M.Sc (NURSING) DEGREE EXAMINATION
BRANCH – IV COMMUNITY HEALTH NURSING**

**COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE, CHENNAI – 03**



A Dissertation submitted to

**THE TAMILNADU DR M.G.R. MEDICAL UNIVERSITY,
CHENNAI – 600 032**

In partial fulfillment of requirements for the award of degree of

MASTER OF SCIENCE IN NURSING

OCTOBER 2017

CERTIFICATE

This is to certify that his dissertation titled “**A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING ILL EFFECTS OF PLASTIC USAGE AMONG HOMEMAKERS AT KP.PARK, CHENNAI**” is a bonafide work done by **NISHA.P, M.SC (NURSING) II YEAR**, College of Nursing, Madras Medical College, Chennai – 600 003, submitted to **The Tamilnadu Dr M.G.R. Medical University, Chennai – 32**, partial fulfillment of the requirement for the award of Degree of **Master of Science in Nursing, Branch – IV, Community Health Nursing** under our guidance and supervision during the academic period **2015 – 2017**

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“A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING ILL EFFECTS OF PLASTIC USAGE AMONG HOMEMAKERS AT KP.PARK ,CHENNAI”

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ACKNOWLEDGEMENT

The power of god is with you at all times; through the activities of mind, senses, breathing and emotions; and is constantly doing all the work using you as a mere Instrument."

– Bhagavad Gita

First of all I praise and thank my God for his abundant blessings & graces all throughout my study. Great and mighty is our God, to whom all thanks and praise for all wisdom, knowledge, guidance and strength throughout this work.

I wish to express my sincere thanks to **Prof.Dr.R.NARAYANABABU, M.D, DCH**, Dean, Madras Medical College, and Chennai -03 for providing necessary facilities and extending support to conduct this study.

I am more privileged to thanks **DR.SUDHA SESHAYYAN ,MD.**,Vice principal, Institutional Ethics committee, Madras Medical college,Chennai-03 for expert guidance and encouragement of this study

I express my heartfelt thanks to **Dr.V.KUMARI, M.Sc(N)., Ph.D.**, Principal, College of Nursing, Madras Medical college, Chennai who tugs and pushes and leads me to the next plateau, sometimes pocking me with a sharp stick called truth's thank her for the perfect direction and valuable guidance offered to complete this study.

I deem it a great privilege to express my sincere gratitude and deep sense of indebtedness to my esteemed Madam **Mrs.L.SHANTHI, M.Sc (N).**, Reader, HOD, College of Nursing, Madras Medical College, Chennai –03. I thank her for patience, constant interest, guidance and continuous support throughout this study.

I thank **Dr. JOY PATRICIA PUSHPARANI, M.D**, Professor, Institute of Community medicine, Madras Medical College, and Chennai - for the support and assistance given by them according to their possible manner to complete this study.

I wish to express my special heartfelt thanks and sincere gratitude to **Dr.N.P.SENTHILNATHAN.,MBBS.,DPH.**Chennai for granting permission to conduct the study in Selected Urban Health Centre.

I also express my sincere my gratitude to **Miss B.Lingeshwari., M.Sc (N), Lecturer, and Mrs N.Sathayanarayananii.,M.Sc (N), Lecturer,**College of Nursing, Madras Medical College, Chennai for her elegant decision and suggestion to conduct this study.

I wish to express my gratitude **to all Lecturers and Faculty Members** of College of Nursing, Madras Medical College for their valuable guidance in conducting this study.

I extend my thanks to **Mr.Ravi., B.A, B.L.I.Sc.,** Librarian, College of Nursing, Madras Medical College, Chennai – 03 for his co-operation and assistance which built the sound knowledge for this study.

My heartfelt thanks to all Homemakers participating in this study, s in K.P.Park, Chennai for the fullest co-operation.

Words are beyond expression for the meticulous support of my beloved Husband **Mr. K.Agilan and my son Master A.Sri Priyan.,** my sister **Ms.P.Poorni** , my brother in law **Mr. and Mrs. K.Kamaraj** and my affectionate **brothers and sisters** for their timely help and encourage to complete this study.

I render my deep sense of gratitude to My heartily thanks to my beloved Mother **Mrs.P.Gunasundari** , my aunty **Mrs. R.Velvizhi and my family members** for their immense love ,support, prayers and encouragement that inspired me to reach this point in my life.

I express my deep sense of gratitude to my father **Mr.S.Punniyakotti (Late)** for his Blessings and mercies which enable me reach this step and complete my study without any interruptions.

Once again, I thank my **God** for his blessings, wisdoms and direction. Finally, my whole hearted thanks and gratitude to one and all, that helped me on my way to success.

ABSTRACT

Title

“A study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastic usage among homemakers at Kp.park, Chennai”

The global environment is changing day by day and now it has become challenge to living life forms due to very ugly fact that every nation is trying to develop their countries without taking into environmental impact of degradation. People are using plastic bag which are environmentally dangerous products and harmful to health..

Need for the study

The impact of plastics in their numerous desirable properties made diverse material properties of plastic such as resistance to chemicals and, ease of shaping and molding, has contributed to the development of high-volume manufacturing facilities enable of producing millions of tons of plastic products per year. Plastic waste in India is about 4.5 million tons a year and It take 500-1000 years to degrade.. In future, there is already a strong global movement to ban plastic as it can cause damage, not just to the environment but also human beings.

Objectives

- ❖ To assess the pretest and posttest level of knowledge regarding ill effects of plastic usage among women homemakers at KP.Park.
- ❖ To determine the effectiveness of the video assisted teaching on knowledge regarding ill effects of plastic usage among homemakers at KP.Park.

❖ To find out the association between post test knowledge level and selected demographic variables on knowledge regarding ill effects of plastic usage among homeworkers at KP.Park.

❖ **Key Words:** ill effects of plastics, video assisted teaching, Homemakers

Methodology

Research approach : Quantitative research approach

Study Design : Pre experimental one group pre-test post-test design

Study setting : Urban area KP .Park, Chennai.

Study Duration : 4 Weeks (18.11.16 – 20.12.16)

Target population : The target population of the study were homemakers in KP .Park, Chennai.

Accessible population : The accessible population of the study were homemakers belongs to age group 20-50 years

Sample size : The sample consist of 100 homemakers at urban area (K.P.Park) at Chennai.

Sampling technique : Non probability convenient sampling technique

Data collection procedure

Formal permission was obtained from the city health officer. The investigator selected 100 samples by non probability convenient sampling technique. After obtaining informed and written consent approximately 8-10 samples were selected everyday A pre-test was conducted by using a structure questionnaire, followed by video

assisted teaching program to the participants regarding ill effects of plastic usage. After 7 days post-test was conducted..

Data analysis

After the data collection the collected data was organized, tabulated, summarized and analysed, The data was analysed according to objectives of the study by descriptive statistics like Mean, Mode, Median, Standard deviation and inferential statistics like chi-square and paired t -test.

Results

The finding of the study revealed that video had improved the knowledge of homemakers regarding ill effects of plastic usage .Paired t- test; P value is 0.005. There is statistical significance in knowledge attainment on plastic shows effectiveness of the video assisted teaching.

Discussion

Hypothesis was proved by a statistical significance occurs in video assisted teaching programme. The chi square test shows that there is association between posttest knowledge and selected demographic variables.

Recommendations

- ❖ Comparative study may be conducted to find out the similarities or differences between the knowledge and practices of urban and rural people.
- ❖ Video Assisted Teaching programme on plastic use can be compared with other teaching Strategies.
- ❖ A similar study can be done by using various teaching methods.

Conclusion

The result study shows that Video assisted teaching was effective in improving the knowledge of homemakers on ill effects of plastic usage.

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LIST OF ABBREVIATIONS

Abbreviations	Expansion
CI	Confidence Interval
DF	Degrees of freedom
Fig	Figure
H1 and H2	Research hypothesis
M.Sc (N)	Master of science in nursing
SD	Standard deviation
VAT	Video assisted teaching
χ^2	Chi- Square test

CHAPTER-I

INTRODUCTION

*“Collect All Plastic You Ever Use and Take It to Your Grave And
Let Future Generations to Understand the Meaning of Heaven’*

– Anonymous

Plastics are used on a daily basis throughout the world. The global environment is changing day by day and now it has become challenge to living life forms due to very ugly fact that every nation is trying to develop their countries without taking into environmental impact of degradation. The word plastic is a common term that is used for many materials of a synthetic or semi-synthetic nature¹.

The term was derived from the Greek **Plastikos, which means “fit for molding.”** "Plastics" derived their name from their properties to be molded, cast, extruded or processed into a variety of forms, including solid objects, films and filaments. These properties arise from their molecular structure. Plastics are polymers, very long chain molecules that consist of subunits (monomers) linked together by chemical bonds. The monomers of petrochemical plastics are inorganic materials (such as styrene) and are not biodegradable¹.

People are using plastic bag which are environmentally dangerous products and harmful to health. They are mainly used for their daily needs mainly for shopping purposes, and therefore environment and agricultural lands are thereby being polluted².

Plastics are a wide variety of combinations of properties when viewed as a whole. They are used for shellac, cellulose, rubber, and asphalt. We also synthetically manufacture items such as clothing, packaging, automobiles, electronics, aircrafts, medical supplies, and recreational items. The list could go on and on and it is obvious that

much of what we have today would not be possible without plastics. The central government has recently passed a ruling under the provisions of the Environment Protection Act 1986, restricting the sale of some products in plastic carry bags. The Ministry of Environment, Forests and Climate Change has banned the manufacture and use of plastic carry bags less than 8 inches x 12 inches in size and 40 micron⁷ in width. The ministry has also directed state governments to register all plastic manufacturing³.

The Global Dimension

The Global production of 320 million ton of plastic is produced world-wide in 2015 -2016, representing 4 percent increase over 2014 and by 2020 Global production would reach 375 billion of plastics production⁽⁴⁾. Though plastics have opened the way for new inventions and devices it has also ended up clogging the drains and becoming a health hazard. Recovery and recycling remains insufficient and million tons of plastics accumulate in land fill and ocean leads to hazards to human being. Approximately 22-43% of plastics disposed in landfill and 10-20 million ton of plastics ends in ocean⁴.

While plastics are yet to be considered a significant disposal problem in much of the first world (largely because these materials are land filled--out of sight, out of mind), organizations in the global south have demonstrated considerable concern in regards to the detrimental effects of plastic products, notably the terminal waste generated by their disposal. Direct disposal (littering or dumping) and incineration (burning) of these wastes is a common practice in the global south. This is harmful to the health of people and the environment. Because dumping in rivers, streams and even urban drainage systems pollutes water courses and causes flooding. When these waters are unsanitary, they carry disease into the household⁵.

The burning of plastics encourages airborne pollution, the majority of which is extremely toxic and can cause a host of health

problems (cancer, asthma, etc.). Although land filling and recycling programs "vanish" the waste problem, each has considerably negative consequences: landfills leak and often contaminate the ground water with toxic liquids and residues. The recycling of plastic is often accomplished by exporting waste materials to Asian countries where recycling facilities are often likened to "sweatshops" where by laborers prepaid little for dangerous work. The increased push for unfettered trade and neo-liberal policy has scudded in intensifying these problems².

1.1 Need for the Study

The impact of plastics in their numerous desirable properties made diverse material properties of plastic such as resistance to chemicals and, ease of shaping and molding, has contributed to the development of high-volume manufacturing facilities enable of producing millions of tons of plastic products per year. Plastic bags are an environmental disaster; The per capita consumption of plastic in the country stood at 6 kg now and is expected to go up to 12 kg by 2011, by 2012; India is also projected to be the third largest consumer market for plastic goods with a consumption of 12.5 million tons per annum, behind US and China⁶.

The negative externalities of significant proportions are created by the difficulty of plastics recycling and the damaging decomposition mechanisms, biodegradable plastics. The waste materials collected are of all types including plastic materials, such as plastic bags, plastic cups, plastic bottles etc. Instead of carrying these wastes away, they are burnt on the road side polluting the area with thick smoke which produce toxic gases (because of burning of plastic material) posing a health hazard⁷.

A study conducted by the National Environmental Engineering Research Institute for the Brihan Mumbai Municipal Corporation, refers that 5,500 metric tons MSW per day showed that plastic waste is 0.75 %.The rest is made up of organic materials (33%),paper and paperboards (30%), glass and metals (16%) and others (13%) It has also been observed that some of industries even recycle the plastic waste/scrap which is totally unhygienic and, has health hazard for persons house items made from such plastics and even used at times for packaging of foodstuff⁸.

Current research indicates that backyard-burning of waste is far more harmful to our health than previously thought. It can increase the risk of heart disease, aggravate respiratory ailments such as asthma and emphysema, and cause rashes, nausea, or headaches, damages in the nervous system, kidney or liver, in the reproductive and development system. The burning of polystyrene polymers -such as foam cups, meat trays, egg containers, yogurt and deli containers -releases styrene. Styrene gas can readily be absorbed through the skin and lungs..Long term exposure to styrene can affect the central nervous system, causing headaches, fatigue, weakness, and depression⁹.

Plastic waste in India is about 4.5 million tons a year and It take 500 – 1000 years to degrade.. In future, there is already a strong global movement to ban plastic as it can cause damage, not just to the environment but also human beings.The researcher felt that since increase in the prevalence rate of ill effects of plastics use are more . Homemakers are using plastics bags in houses and they can reduce use of plastics by creating awareness to whole family. So the researcher conducted this research to assess the knowledge of homemakers about the ill effects of plastics¹⁰.

1.2. Statement of the problem

A study to assess the effectiveness of video assisted Teaching on knowledge regarding ill effects of plastic usage among women homemakers at KP.Park, in Chennai.”

1.3. Objectives of the study

- ❖ To assess the pretest and posttest level of knowledge regarding ill effects of plastic usage among women homemakers at KP.Park.
- ❖ To determine the effectiveness of the video assisted teaching on knowledge regarding ill effects of plastic usage among homemakers at KP.Park.
- ❖ To find out the association between post test knowledge level and selected demographic variables on knowledge regarding ill effects of plastic usage among homeworkers at KP.Park.

1.4. Operational definitions

- 1) *Assess* refers to measuring the knowledge of home maker regarding ill effects of plastic usage.
- 2) *Effectiveness* refers to the knowledge gain after the Video assisted teaching on ill -effects of plastic usage among homemakers at KP.Park.
- 3) *Ill effects of plastics* refers to the hazardous effects over the health because of the usage of plastics in daily life.
- 4) *Knowledge* refers to the awareness and response on ill effects of the plastic usage measured in terms of structured knowledge questionnaire.
- 5) *Video assisted teaching* is series of visual information given through video regarding the ill effects of plastics

- 6) **Homemakers** A woman who manages her own household as her main occupation between the age group of 20-50years

1.5. Assumptions

- ❖ Home makers in community may have inadequate knowledge ill effects of plastic usage.
- ❖ Video assisted teaching may improve the knowledge regarding ill effects of plastic usage among home makers.
- ❖ Structured knowledge questions will be able to answer as gain knowledge regarding ill effects of plastic usage.

1.5. Hypothesis

- ❖ H1-There will be a significant difference between the pre-test and post-Test level of knowledge, regarding ill effects of plastics usage on Health among women homemakers at KP.Park.
- ❖ H2- There will be a significant association between the post-test Knowledge and selected demographic variables of homemakers.

1.6. Delimitations

- ❖ The study is delimited to the urban area KP.Park,Choolai.
- ❖ The study is delimited to the 100 samples.
- ❖ The study is period delimited to 4 weeks

CHAPTER-II REVIEW OF LITERATURE

The review of literature in a research report is a summary of current knowledge about a particular problem and includes what is known and not known about the problem. The literature is reviewed to summarize knowledge for use in practice or to provide a basis for conducting a study. This chapter is divided into two parts

2.1.Part-I: Review of Literature Related to Study

2.2 PART-II: Conceptual framework

2.1 Part-I: Review of literature related to study

2.1.1 Environmental hazards due to plastics

2.1.2 Health issues due to plastics

2.1.3 Literature related to plastic waste management.

2.1.4 Literature related to Use of alternatives for plastic use:

2.1.5 Video Assisted Teaching

2.1.1 Environmental hazards due to plastics

Hammani M.B.A, et al., (2017) conducted a cross section study ,survey awareness and attitude of secondary school regarding plastic pollution ,implication for environment among 400 students 6 different secondary schools. Majority of the population understand how plastic waste environment (85.5%) .Student mean knowledge score was 53% with female (P=0.01) and student whose mother were more educated (P= 0.014) being more knowledgeable. They recommended to assure governmental support along with environment are needed to bridge the information gap. There is association between age and knowledge of mothers¹¹.

Lither D, Larson ,et al., (2011) Conducted a cross sectional study on environmental and health hazard ranking and assessment of plastic polymers based on chemical composition. Plastics constitute a large material group with a global annual production that has doubled in 15 years (245 million tons in 2008). The knowledge of human and environmental hazards and risks from chemicals associated with the diversity of plastic products is very limited. study has identified hazardous substances used in polymer production for which the risks should be evaluated for decisions on the need for risk reduction measures, substitution, or even phase out¹².

Legesse Adane and Diriba Muleta., (2011) conducted a study to educate the public serious environmental pollution and health problems due to plastic products. The objective of this survey was to assess usage of plastic bags and their environmental impacts in . A semi-structured questionnaire was used to collect data from 230 randomly selected respondents. The results indicated that the larger proportion (176, 76.52%) of the respondents used plastic bags more frequently than any other plastic products. The findings of the present study also indicated that the trend of utilization of plastic bags was Decreased and deal of awareness has improved knowledge of the residents about the adverse effects of these products¹³.

Amaral, Kimberly., (2010) conducted a research “Plastics in Our Oceans” reported that when plastics reach the rivers, seas and oceans, they pose a serious threat to marine animals like sea turtles, seabirds and fish. The marine animals mistaking them to be authentic food consume plastic objects and pellets; they can clog their intestines leading to death out of starvation or malnutrition. This discomfoting effect of plastics on marine life came to fore in the late 1970s when scientists from the National Marine Mammal Laboratory concluded that plastic entanglement was killing up to 40,000 seals a year¹⁴.

Gray, Hill, Feet., (2009) conducted a descriptive study work in use of random plastic bags for shopping purpose and its eventual riddance into the dust bins. This paper proposes a timely legal intervention by the respective governments of different countries to stop the production and the dominant use of plastic bags. It also proposes that the plastic bags which have already been manufactured and burnt to reduce its damaging impact on agricultural growth because of its non-biodegradable and toxic properties and harmful effects. However, we need to encourage the usage of alternatives to plastic bag, such as, jute bags and paper bags etc¹⁵.

Rhian Tough, (2007) conducted a comparative approach to investigate the environmental impacts of plastic shopping bags and consumption patterns, in relation..The mixed comparative approach used in this research was a combination of the philosophies underlying cost benefit analysis, case studies and policy analysis. However, due to strong public pressure for government intervention, and potential implications for future climate change and sustainability initiatives¹⁶.

Yuan-Tien Su., (2006) conducted a comparative study between environmental hazards due to plastic uses and respiratory health in young children in Dec 2006 the study period covered 11 years (1996-2006).640 documents were recovered from the United States accounted for 23.5% of articles. The factor most widely studied was air pollution the outdoor air pollution is (50%) and then indoor air pollution is (40%) predominated in children 3 years of age the study concluded environmental hazards is fundamental in the management and prevention of respiratory problems in childhood¹⁷.

Girum Bahri., (2005)conducted a study on environmental impacts of plastic bag waste .The need for such a study was justified as it was desirable to change the unsustainable pattern of consumption and

production associated with these materials. Plastic bag waste appears in very high proportion in the municipal solid waste stream in and was causing environmental problems. The results indicated that the problem was a consequence of externalities in production and consumption; ineffective by-laws on littering and illegal dumping; failure of garbage collection and disposal systems; and low public awareness and poor life-cycle considerations¹⁸.

Thiel, et al., (2003) conducted a cross sectional study disposed plastic bags have now found their way to everywhere including the remote areas. It is very unfortunate that although the plastic bags have been seen to have reduced the agricultural production worldwide, there has been no significant lobbying to undertake a proper, effective and concrete proactive action and no scientific serious investigation has been made by the international organizations and international community to reduce the ever increasing consumption of the plastic bags¹⁹.

Karliner, et al., (1997) conducted a cross sectional study damaging impacts of plastic bags on the environment and agriculture and its consumption pattern implicated therein. The research also looks for developing plastic bag alternatives, such as, jute bags, paper bags, etc., which are convenient for shopping purposes as well as not costly and above all not environmentally damaging. are able to supply adequate quantity of raw jutes to produce alternative jute bags. Hence, these countries are in a much better position to lobby for the much sought global alternatives of plastic bags²⁰.

2.1.2 Health issues due to plastic

Linc. C.Y, et al., (2015) conducted a cross sectional study to find association between level of serum bisphenolA, potentially harmful chemical plastic container cause cardiovascular disease (atherosclerosis)

in adolescent and young adults and to detect the relationship between serum level of bisphenol A, Mean SD of bisphenol A is 1.72 .After controlling the confounding factors Linear regression analysis show bisphenol sA has significantly associated with cardiovascular disease (atherosclerosis) $P= 0.001$.High serum of concentration of bisphenolA were associated with increased cardiovascular disease among adolescent and adult²¹ .

Wang J, Li.L, Lu.Y., (2014) conducted a cross sectional survey to investigate main influence factors affect health of children in plastic recycling among 9-17 years using questionnaire .by random household. The result is increased rate of respiratory symptoms (cough, nasal, congestion, and sore throat(78.4%) and digestive disease (14.8%) and in the waste processing area were significantly higher than those in the control area $p=0.05$ is analyzed²².

Nithin Joseph., (2013) conducted a cross sectional study in Mangalore and objective is to find out the awareness of health hazards associated with usage of plastics bags The results states that Mean age of 250 participants was 32-10.8 years. Awareness was significantly more among females $P=0.027$.Among participants 216 (86.4%) $P= 0.006$ aware of health hazards in plastic bags awareness has improved knowledge of usage of plastics bags²³ .

Heleal.SF, Elshafy.WS.,(2013) conducted a cross sectional study to detect the health effect styrene exposure among same group and compared with unexposed healthy individuals by laboratory investigations. The exposed group is 40 male workers and control group is 50 unexposed individuals .Mean (23.40. 0.45).The study show that statistically different between exposed and control group regarding the blood styrene level. They recommended premedical examination and health education²⁴ .

Calafat. AM ,et al.,(2012) conducted a study to assess the exposure to Biphenyl plastic used in plastic manufacture affect health measured by urinary concentration .Bisphenol = 92.6% mean is significantly lower in (P= 0.000) and were not statistically different (P=0.21) .Female had statistically higher than male (P= 0.043) .Children had higher concentration than adolescent, Biphenyl is different from race ,age and income²⁵.

Brophy JT, Keith, MM.,(2012) conducted a study to find mortality pattern among workers exposed to styrene in the reinforced plastic dot building industry revealed over all,860 deaths (standardized mortality ration (SMR)1.09, confidence interval 1.02-1.17). The excess mortality was accounted for esophageal cancer (n=12, smr 2.30, cl-1.19-4.02), and prostate cancer (n=24.SMR-1.71, CL-1.09-2.54) Accidents (N=94 smrl.26, CL 1.02-1.53). Among 2.062 highly exposed workers urinary tract cancer increased with duration of employment²⁶.

D Mello, Pamela.c., (2012) conducted a descriptive study on inefficient way of waste management causes severe health problem. It has been observed that due to an inefficient and faulty waste collection and transit system, a large amount of plastic waste fails to reach landfills or incinerators. Instead they are left behind to find their way into the soil, the sewage system and the water bodies. They choke the gutters and drains and during the monsoons flood streets causing severe health problems²⁷.

Mastrangelo G, et al., (2011) conducted a nested case-referent study and the aim of the study was conducted to determine whether PVC and/or vinyl chloride monomer (VCM) is the associated risk factor(s), in order to estimate lung cancer risk. The risk of lung cancer was estimated by odds ratios (OR) with 95% confidence intervals (CI), calculated using logistic regression models. The result shows that in PVC baggers

exposed to high levels of respirable PVC particles in the workplace, the lung cancer OR increases by 20% for each extra year of work (OR = 1.2003; 95% CI 1.0772 to 1.3469; p = 0.0010), when the influence of age and smoking habits is controlled. By this result, researcher concluded that in the VCM/PVC industry, an increased risk of lung cancer associated with exposure to PVC dust²⁸.

Rofl U, Halden., (2010) conducted a descriptive study on worldwide annual production of plastics will surpass 300 million tons. Plastics are indispensable materials in modern society, and many products manufactured from plastics are a boon to public health (egg., disposable syringes, intravenous bags). However, plastics also pose health risks. Of principal concern are endocrine-disrupting properties, as triggered for example by biphenyl A and di-(2-ethylhexyl)phthalate . This literature review summarizes information from more than 120 peer-reviewed publications on health effects of plastics and plasticizers in lab animals and humans²⁹.

Cathy Ryan, (2007) conducted a prospective cohort study by the national cancer institute (NCI) in 2007, includes 25,691 male and female workers enrolled from 10 different formaldehyde producing or using plants. The result were increased risk of sino nasal cancers were observed among male 2.3 (95%), 13 exposed causes and female 2.4 (95%), 4 exposed cases and 3 deaths one death from squamous cell sinonasal cancer and concluded no increase in risk was found among formaldehyde exposed workers. and reviewed 130 studies on the topic plastic and health hazards, Besophenol-A has been linked to breast and uterine cancer, an increased risk of miscarriage, and decreased testosterone levels³⁰.

Hanaoka T, et al., (2006) conducted a cross sectional study and objective is to assess the occupational exposure to high level of plastic phthalate and polyvinyl chloride leads to decreased serum testosterone .The result is compared to unexposed workers and exposed workers has significantly decreased testosterone level $P= 0.019$.Regression analyses shows decreases significantly and negatively correlated $r= -0.19$.he observed significant reduction of serum testosterone in workers in high exposure to plastic phthalate³¹ .

Swan. SH, et al., (2005) conducted a study to assess phthalate exposure impair testicular function. A standard measure significantly co-related with testicular impairment $P= 0.02$.The association between male genital exposure and phthalate score ($P= 0.001$).The study analyzed by urinary concentration and support hypothesis that prenatal phthalate exposure adversely affect male reproductive development .The median concentration phthalate metabolism associated with testicular impairment³² .

Lovekamp-swam T, Davis .BJ., (2003) conducted a study to find extraction of diethylhexyl phthalate (DEHP) from total protein nutrient (TPN) solution polyvinyl chloride bags showed a range 0.39/ml (depending on lipid concentration and storage condition) of DEHP (content of plastic) leaking from TPN is smaller than DEHP, leaking from PVC tubing during hemodialysis. DEHP toxicity in human reaches from blood transfusion and leads to pulmonary insufficient and pulmonary edema³³ .

2.1.3. Plastic waste management

Avfar Sverige (2015) conducted a study in Swedish Waste Management Annual Publication of RVF reported that the final stage in the life cycle of plastics is disposal. In India, there are three common ways of getting rid of plastics; by dumping them in landfills, by burning

them in incinerators or by littering them. In the case of littering, plastic wastes fail to reach landfills or incinerators. It is the improper way of disposing plastics and is identified as the cause of manifold ecological problems. Incineration is a process in which plastic and other wastes are burnt and the energy produced, as a result, is tapped³⁴.

Dr. Parveshbhawan (2012) conducted a study on Guidelines for recycling of plastics by the National Environmental Engineering Research Institute (NEERI) for the Brihan Mumbai Municipal Corporation, which handles more than 5,500 metric tons MSW per day shows that plastic waste is 0.75 %. The rest is made up of organic materials (33%), paper and paperboards (30%), glass and metals (16%) and others (13%). The methods of recycling and the technology used for the same at present are quite outmoded and are in need of up gradation³⁵.

Aline Marques Rolim, Luis Felip, Nascimento., (2010) conducted a descriptive study on post-consumer plastic recycling technological. The cases being studied were post-consumer plastic recycling companies and companies that manufacture end-use products from recycled plastics. This article describes their recycling technology and some market aspects. They have suggested on their study that post-consumer plastic recycling can be sustainable development tool which help to solve the problems of solid waste. "Postconsumer recycling was a technological trend that recovers the economic value from objects discarded by consumers (e.g. bottles and packaging)³⁶.

J .N Fobil , J. N Hogarh., (2009) conducted a study, they have suggested the producer of the plastic, the consumer of the plastic and appropriate authorities responsible for plastic waste management. they were locally recycled into coal-pots, metallic cooking pots and many other useful metallic equipment or utensils. Bottles were also limited in the waste stream because they were picked up and resold mostly for

reuse. It was, therefore, envisaged that if market value could be created in plastic waste, scavengers would start picking them as well. It was concluded that itinerant waste buyers would start moving from house to house to buy plastic waste.³⁷

Rann PM, HILL., (2005) conducted a study on plastic waste management in India, 60% of the plastic-waste collected and segregated gets recycled back into materials for further processing into consumer products, while the balance is left unutilized and new perspectives in plastic biodegradation, recycling has practically failed to provide a safe solution for disposal of plastic waste (only 5% out of 1 trillion plastic bags, annually produced are being recycled). Since the most utilized plastic is polyethylene (PE; ca. 140 million tons/year), any reduction in the accumulation of PE waste alone would have a major impact on the overall reduction of the plastic waste in the environment³⁸.

Reiss.A., (2005) conducted a descriptive study at 62 Zehrs shopping centre at Ontario to assess the knowledge of people of all groups regarding reuse of plastic bags .It is evident that majority of people knowledge using reusable bags. Hence efforts made to decrease or eliminate the behavior .and have to encourage the public foe using reusable bags. the study reveal that 100 subjects 64 % had poor knowledge and 36% had average knowledge .post test revealed 34% of good knowledge 18% with excellence knowledg³⁹.

Mercer. A, et al., (2005) conducted a descriptive study plastic waste management and recycling .The study revealed that plastic represent 7-8% of the residential waste stream .plastic packaging represents 31% of total plastics, recycle flim at 19% .polyethylene bottles are collected from 91% of house hold recycle device. other plastics such as wide mouth tube polystyrene are collected from 1.3 million of house hold .Hence the investigator concluded that the plastics

from municipal commercial and industrial resources are managed by recycling program⁴⁰.

Shah, Priya., (2001) conducted a study “The Plastic Devil: Ecological Menace” that, the rate of recycling in India is extremely high. About 40 percent of the total plastics manufactured are sorted, collected and recycled as opposed to only 10-15 percent in developed countries. Of the types of plastics recycled in India, PVC (polyvinylchloride) accounts for 45 percent, LDPE (low density polyethylene) for 25 percent, HDPE (high density polyethylene) for 20 percent, PP (polypropylene) for 7.6 percent and other polymers such as PS (polystyrene) for 2.4 percent. According to manufacturers, almost all these types of waste can be recycled up to four or five times. However, the quality of the recyclate deteriorates as additives and virgin material are added to give it strength⁴¹.

2.1.4. Use of alternatives for plastic use

Amrutha Pretty (2014) conducted a study in An article by Times of India, October, reported that The Delhi High Court tightened norms for regulating use and recycling of plastic bags in the Capital to check their indiscriminate use as they pose a serious health hazard and pollute the environment. They stated that 100-room hotels, 100-bed hospitals, shopping malls, liquor shops and 50-seat restaurants and milk booths can use biodegradable bags and the other establishments can use non-biodegradable and recycled plastic bags. It also mentioned that there will be big fines on those who are against to the law⁴².

Dr.Kemp (2008) conducted a descriptive study Directorate of Department of Environment and Heritage, stated that a growing list of communities and countries are beginning to think their dependence on plastic bags. Already a complete or partial ban on the bags has been approved in many countries like Australia, South Africa, Europe, China,

Italy, Bangladesh, and parts of India like Himachal Pradesh, Mizoram, Pondicherry, GOA, Tripura, Delhi, Kanyakumari, Jaipur, Ahmadabad, and Punjab⁴³.

2.1.4 Video Assisted Teaching

Sheetal udaykar, Markarand Udayka, (2015) conducted a quasi experimental study to assess the knowledge on swine flu among students. The result is Average knowledge (13-22) and their frequency is 31 where 9 samples belong to good knowledge .The post mean score of video assisted teaching programme 26.13 was higher than the pretest mean score 13,the paired t test value 14.591.so video assisted teaching was highly knowledge in increasing the knowledge regarding prevention of swine flu⁴⁴.

Pushpakala K.J, Abraham Chako (2015) conducted a study to assess the effectiveness of video assisted teaching on knowledge regarding plastic hazards .The results shows that mean posttest score 8.50 was higher than mean pretest score .There is significant association with posttest score at 0.01 level and moderately positive co relation between Knowledge and demographic variable. so video assisted teaching was highly knowledge in increasing the knowledge regarding impact of plastic usage⁴⁵.

Pushpamala Ramaiah, A A Noor siah,(2015) conducted a study to assess the effectiveness of video assisted teaching regarding obstetrics emergencies among nursing students. The results states that pretest score regarding management of obstetrics emergencies is 36.38 with SD of 5.52.The pretest score regarding management of obstetrics emergencies is 87.16 with SD of 3.81There is significant association between the posttest knowledge score and demographic variables⁴⁶.

PART – II

CONCEPTUAL FRAMEWORK

The present study is based on the concept of J.W. Kenny's open system model(1990) .According to J.W. Kenny's all living system are open, they are in a continuous exchange of matter, energy and information ,which results in varying degree of interaction with the environment from which the system receives input and gives output in the form of matter, energy and information.

Input

Input can be matter, energy and information from the environment .In the present study the environment refers to community set up (K.P.Park) and input refers to the collection of demographic data from samples and assessing the level of knowledge on ill effects of plastics usage among homemakers by using questionnaire.

Throughput

The matter, energy and information are continuously processed through the system which is also called complex transformation ,known as throughput process is used for input (ie) energy and information for the maintenance of homeostasis of the system .In the present study it refers to video assisted teaching regarding ill effects of plastic usage among homemakers.

Output

After processing the input and throughout ,the system returns to the output matter ,energy and information to the environment in an altered state .change in feature of the process that is observable and measurable as output ,which should be different from that which is entered into the system .In this present study gain in level of knowledge

regarding ill effects of plastic usage among homemakers is considered as output and measured by posttest.

Feedback

Feedback gives information of environmental responses to the system ,output is utilized by the system in adjustment ,correction and accommodation to the interaction with the environment .In this study It refers to analysis of the posttest.

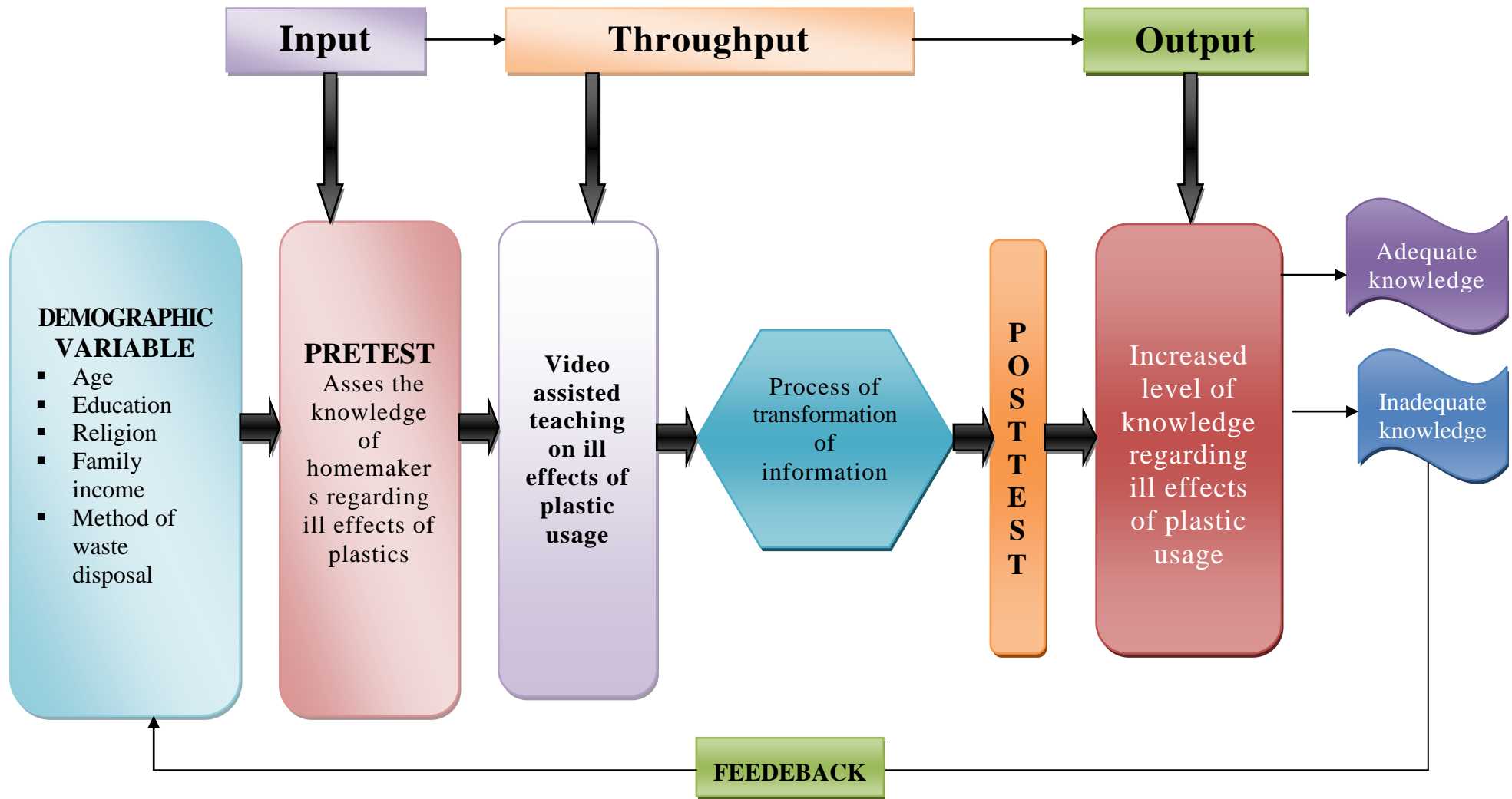


Fig-2.1: Conceptual framework based on J. W. Kenny's Open System Model (1990)

CHAPTER-III METHODOLOGY

This chapter deals Methodology to” assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastic usage among home makers”.

3.1. Research approach

The research approach adopted for this study is a quantitative approach.

3.2 Research design

The research design selected for the present study was pre experimental one group pretest post test design. The design may dramatically represent as below.

Table 3.1 Assessment of pretest and post test knowledge

Group	Pretest	Intervention	Posttest
Pre experimental group	O1	X	O2

Table 3.1 shows Assessment of pretest and post test knowledge

O₁= pretest assessment of knowledge of group

X = Administration of Video Assisted Teaching on the ill effects of plastics usage among homemakers.

O₂ = Post test to evaluate the level of knowledge about the ill effects of plastics usage among homemakers.

3.3 Study setting

Urban area KP .Park, Chennai.

3.4. Study Duration

4 Weeks (18.11.16 – 21.12.16)

3.5 Study population

3.5.1 Target population : The target population of the study were homemakers in KP .Park, Chennai.

3.5.2 Accessible population: The accessible population of the study were homemakers belongs to age group 20-40 years who are

3.6 Sample size

The sample consist of 100 homemakers at urban area (K.P.Park) at Chennai.

3.7 Sampling criterion

3.7.1 Inclusion criteria

- 1) The homemakers who are residing in K.P.Park..
- 2) The homemakers who are belong to age group 20-50 years.
- 3) The homemakers who are able to understand Tamil and or English

3.7.2 Exclusion criteria

- 1) The homemakers who are not willing to participate.
- 2) The homemakers who are not available at the time of data collection.

3.8 Sampling technique

Non probability convenient sampling technique

3.9 Research variable

Independent Variables – It refers to Video assisted teaching improving knowledge regarding ill effects of plastics usage among homemakers.

Dependent Variable – It refers to Knowledge of homemakers residing at K.P.Park, chennai.

3.10 Development and description of tool

3.10.1 Development Of The Tool

Appropriate structured Questionnaire tool has been developed after extensive review of literature and obtained opinion, content validity from medical , Nursing expert and statistical experts. Construction and presenting of tool was done during pilot study. Direct assessment of study participants was performed during data collection.

3.10.2 Description of the Tool

The structured questionnaire has two sections I and II

Section I- Demographic data of home makers which include age, education, religion, Monthly family income and method of waste disposal.

Section II - Structured Questionnaire. It consists of 20 structured questionnaires to assess the knowledge on ill effects of plastics usage. Each correct answer was given a score of one (1) and wrong answer was scored as zero (0). The total scores were 20.

Subsections are

- 1) Plastic
- 2) Plastic types
- 3) Ill effects of plastic on environment

- 4) Ill effects of plastic on animals
- 5) Ill effects of plastic on human
- 6) Measures for reduction of plastics.

3.10.3 Score Interpretation

A structured questionnaire was used to assess the knowledge of homemakers regarding ill effects of plastic usage. It consists 20 multiple choice questions with 6 subdivisions.

Table-3.2 Score interpretation of the structured questionnaire

S. No	Knowledge Aspects	Total No. of items	Score
1.	Plastic	4	4
2.	Plastic types	2	2
3.	Ill effects of plastic on environment	5	5
4.	Ill effects of plastic on animals	2	2
5.	Ill effects of plastic on human	5	5
6	Measures for reduction of plastics	2	2
Total		20	20

The score is given as follows

- ❖ For correct answer - 1
- ❖ For wrong answer - 2

Based on the score the level of knowledge on ill effects of plastic usage among homemakers interpreted as follows

- ❖ Inadequate Knowledge - <50%
- ❖ Moderate adequate knowledge - 51-75%
- ❖ adequate knowledge - 76- 100 %

3.10.4 Intervention Protocol

Table-3.3 Intervention protocol for homemakers.

Sl. No.	Protocol	Pre Experimental Group
1.	Place	Sample home
2.	Intervention	Video assisted teaching
3.	Duration	4 weeks
4.	Frequency	Morning / evening
5.	Time	20 min
6.	Administrator	Investigator

3.11 Ethical considerations

The study was proposed and submitted to the ethics committee, Madras Medical College and the committee approved the study. All respondents were carefully informed about the purpose of the study and their part during the study. Informed consent for the study was obtained from all participants. Confidentiality of the subject's information was maintained. Thus the investigator followed the ethical guidelines, which were issued by the research committee. Necessary permission to conduct the study was requested and obtained from the City Health Officer of Chennai Corporation, Department head of Community Health nursing, college of nursing, Madras Medical College. The study was done without any violation of human rights.

3.12. Content validity

Content validity of the tool was assessed by obtaining an opinion in the field of community medicine, community health nursing and statistical experts. The experts were an Associate professor and Reader respectively. There was uniform agreement to the tool adopted for conducting the study. Hence, the investigator proceeds with the same tool.

3.13. Reliability of the tool

After pilot study reliability of the tool was assessed by using Test retest method. The knowledge score reliability correlation coefficient 'r' value was

0.83. This correlation is very high and it is good tool for assessing the effectiveness of video assisted teaching about ill effects of plastic usage among the homemakers residing at selected urban area, K.P.Park

3.14. Pilot Study

The pilot study is a trial run for the main study to test the reliability, practicability, appropriateness and flexibility of the tool for the study. A formal permission to conduct the study in the K.P.Park. Community area, Chennai was obtained from City Health officer of Chennai corporation. A pilot study was done for a period of 6 days. Samples were selected from K.P.Park. area. The purpose of the study was informed to the samples. Confidentiality of the information was assured. The consent was obtained from the samples. Samples were selected using Non probability convenient Sampling technique. Pretest, video assisted conducted and after that posttest was conducted. Analysis of the finding showed high consistency and feasibility of the study and after which the plan for the actual study was made. I excluded these samples in main study.

3.15. Data collection procedure

The data collection procedure for the study is as follows:

- ❖ Permission has obtained from the Institutional Ethics Committee, Formal permission was obtained from the City Health Officer, Corporation of Chennai.
- ❖ Samples were drawn using Non probability, Convenient Sampling Technique, during the 1st visit, the researcher introduced herself and explained the purpose of the study and confirmed the willingness of the homemakers to participate in the study by getting consent from them as per the inclusion criteria. I assured that confidentiality is maintained

- ❖ Data collection procedure was done for a period of four weeks and the time taken for each subject was 10-15 minutes. Pre assessment was done using structured questionnaire, Subsequently Video Assisted Teaching was given on same day for 20 minutes. In between study subjects doubts were clarified.
- ❖ On the seventh day post assessment was conducted using same structured questionnaire.
- ❖ Based on the criteria 8-10 subjects were selected each day. The subjects were assured of confidentiality of data collected.

3.16 Data Entry and Analysis

Data Entry: Entered the data in the excel sheet and coding the data

Analysis: Collected data were analyzed by using descriptive and inferential statistics.

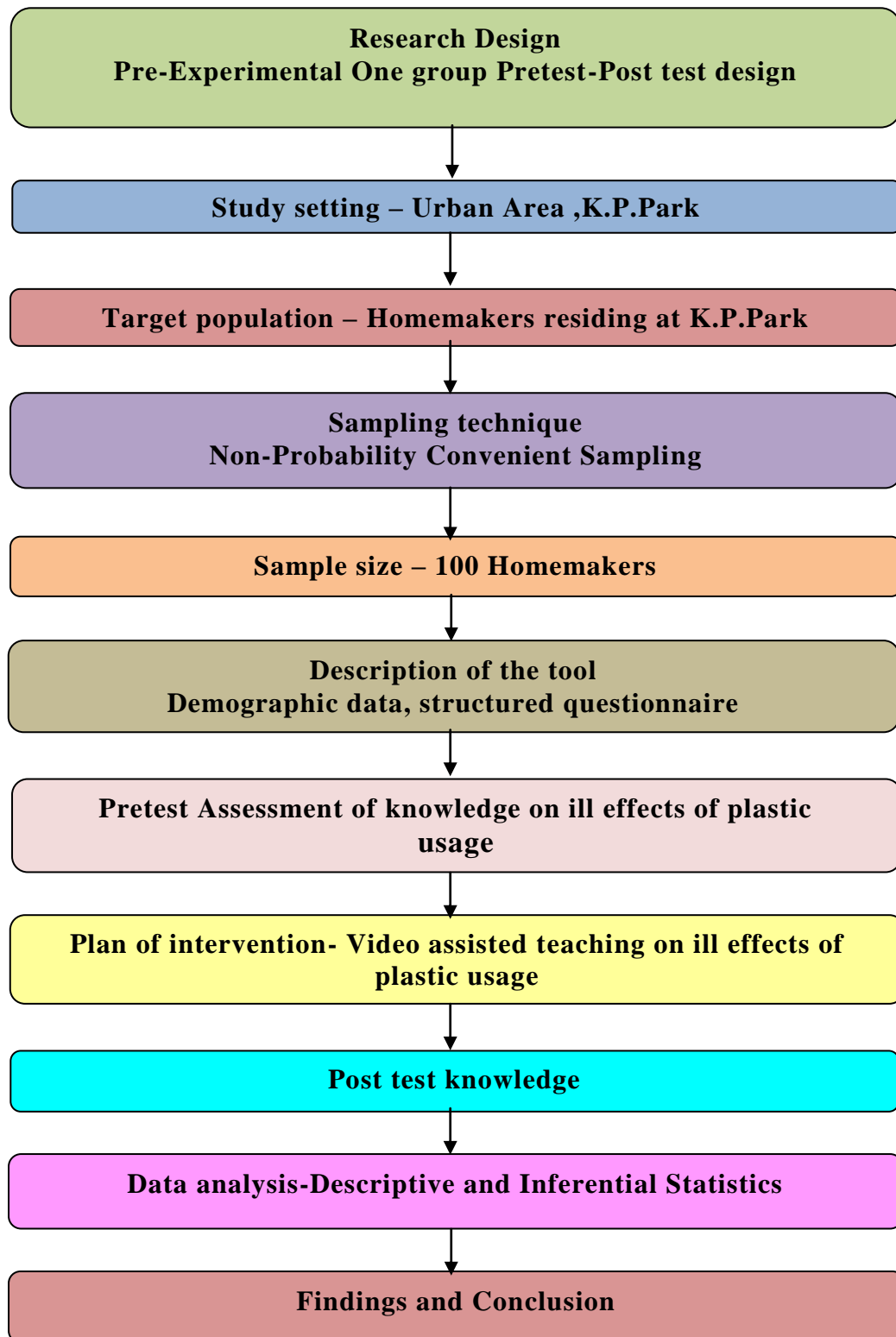
1. Descriptive analysis

- ❖ Frequency and percentage analysis were used to describe demographic characteristic of homemakers.
- ❖ Range, Mean and standard deviation were used to assess the knowledge of homemakers.

2. Inferential analysis

- ❖ Paired t-test were used to test to compare the pre-test and post-test knowledge.
- ❖ Chi-square analysis were used to find out the association between the pre-test knowledge scores and demographic variable.
- ❖ P value 0.05 and < 0.05 was considered statistically significant

Fig-3.1: SCHEMATIC REPRESENTATION OF THE STUDY



CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the study were based on the data collected through structures multiple choice question to assess the knowledge regarding ill effects of plastics usage.

The collected data were tabulated and presented according to the objectives under the following headings.

Organization of data

- Section–A** : Distribution of Demographic variables of study participants.
- Section – B** : Pretest level of knowledge among homemakers regarding ill effects of plastic usage
- Section – C** : Post test level of knowledge among homemakers regarding ill effects of plastic usage
- Section – D** : Comparison of pretest and posttest level of knowledges
- Section - E** : Effectiveness of Video Assisted treaching.
- Section – F** : Association of post test knowledge with selected demographic variables of homemakers.

Section – A: Distribution of Demographic variables of study participants.

TABLE 4.1: Frequency distribution and % of study participants according to their variable n = 100

Demographic variables		No. of house wives	%
Age	20-30 yrs	41	41.0%
	31-40 yrs	43	43.0%
	41-50 yrs	16	16.0%
Educational Status	Noformaleducation	20	20.0%
	1-12th std	55	55.0%
	Graduate	25	25.0%
Family	Nuclear Family	70	70.0%
	Joint Family	30	30.0%
Family Income Per Month	Rs.1000 – 10000	48	48.0%
	Rs.10000 – 20000	49	49.0%
	>Rs.20000	3	3.0%
Religion	Hindu	61	61.0%
	Christian	37	37.0%
	Muslim	2	2.0%
Method of waste disposal	Open land	23	23.0%
	Dustbin	10	10.0%
	Burning	67	67.0%

- ❖ The above table reveals that **age** of study group of 16% of homemakers were in the age group of 41-50 yrs, 43% of homemakers were in the age group of 31-40 yrs and 41% of homemakers were in the age group of 20-30 yrs.
- ❖ **Educational status** of the study group reveals that 25% of homemakers had education up to degree, 55 % had education up to 1-12thstd and 20% of homemakers are No formal education..

- ❖ **Type of family** of the study group reveals that 30% of them are in joint family and 70% of them are in nuclear family.
- ❖ **Monthly income** of study group reveal that 48% of homemakers were in Rs.1000-10000 income, 49% were Rs.10000-20000 income and 3% of homemakers were >Rs.20000.
- ❖ **Religion** most of the study group (ie). 61% of them were Hindus,37% were Christian and 2% of them were other type of religion
- ❖ **Method of waste disposal** of study group illustrate that 23% were using open land,10% were using dustbin and 67% were burning the waste.

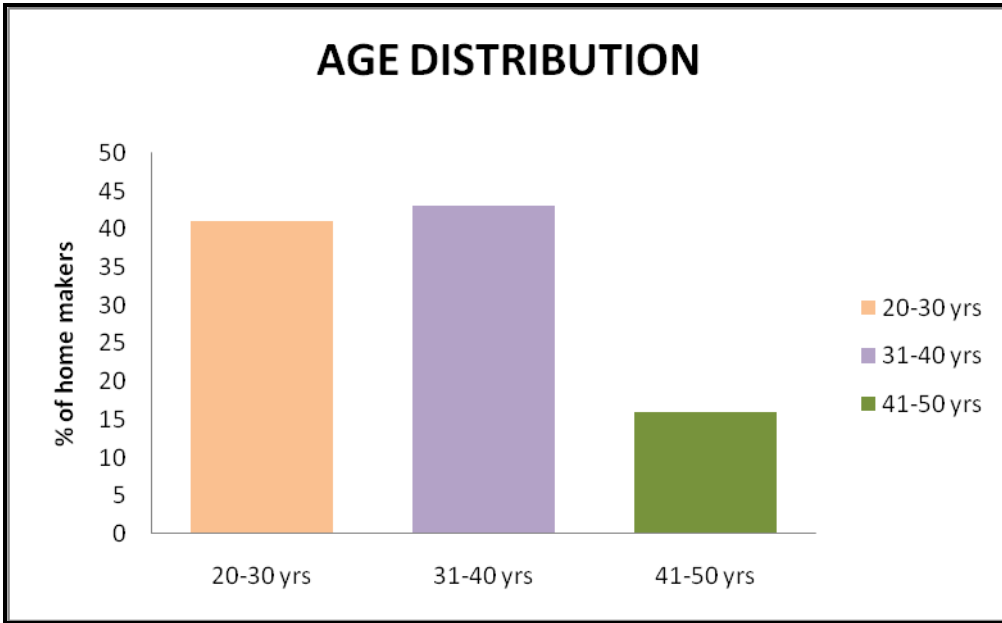


Fig – 4.1: Age wise distribution of study participants

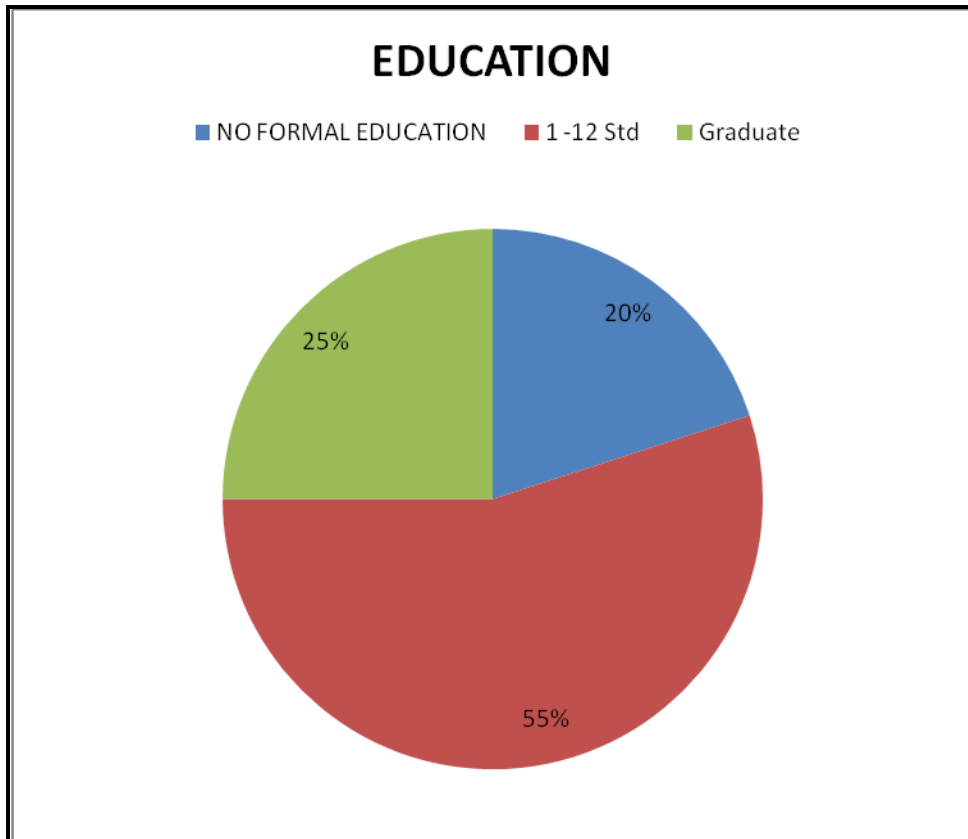


Fig-4.2: Education wise distribution of study participants

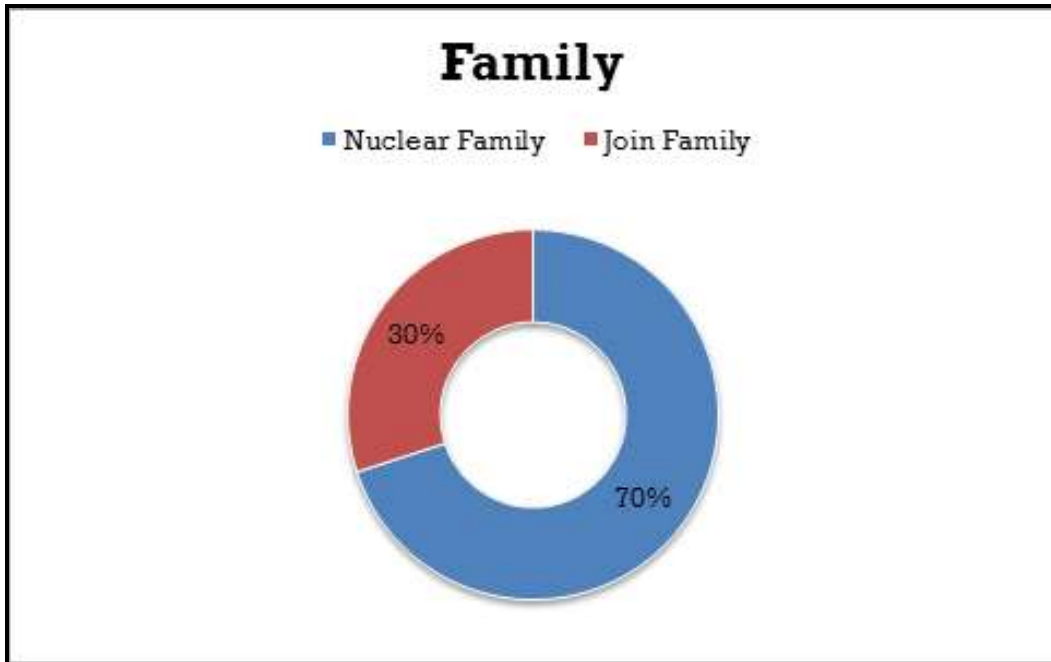


Fig- 4.3:Types of family wise distribution of study participants

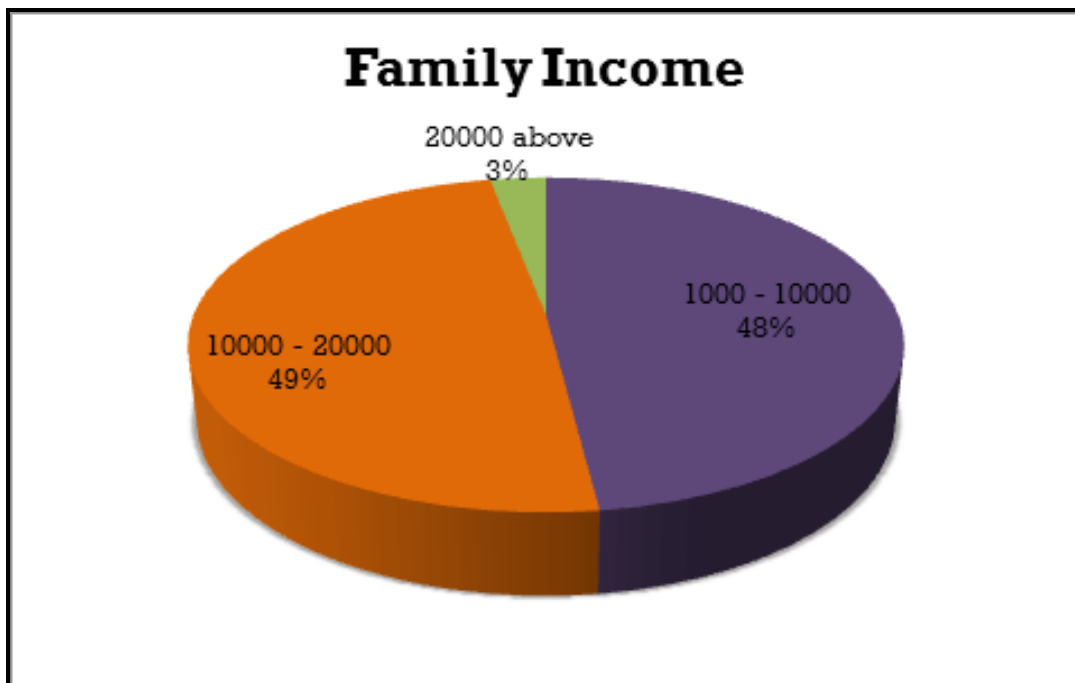


Fig-4.4 Family income wise distribution of study participants

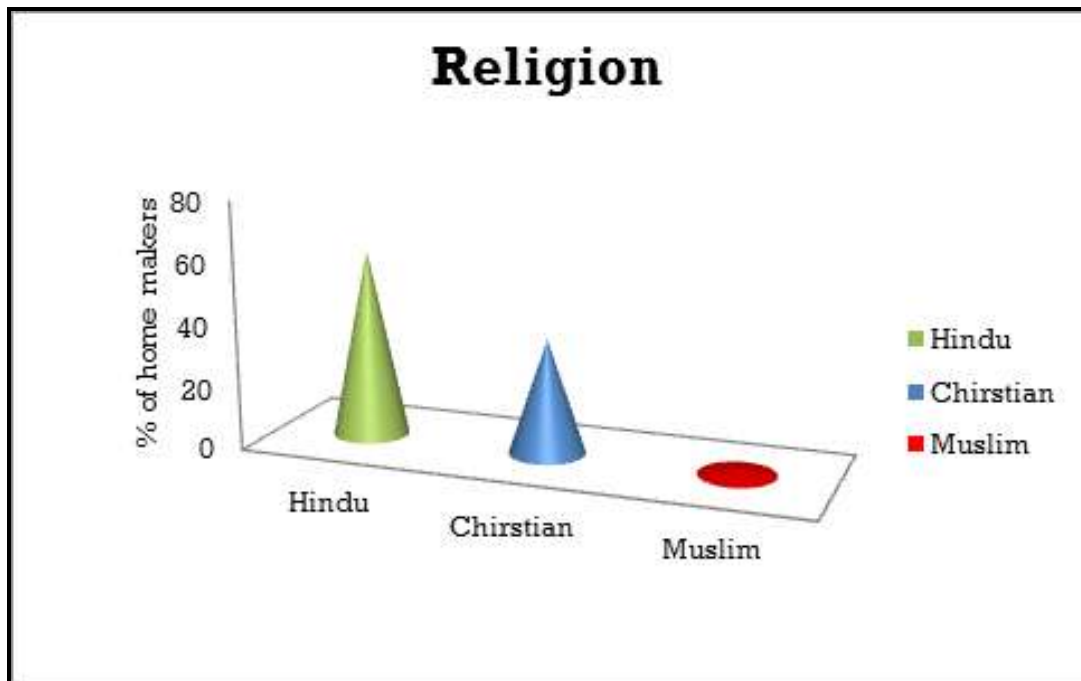


Fig-4.5 Religion wise distribution of study participants

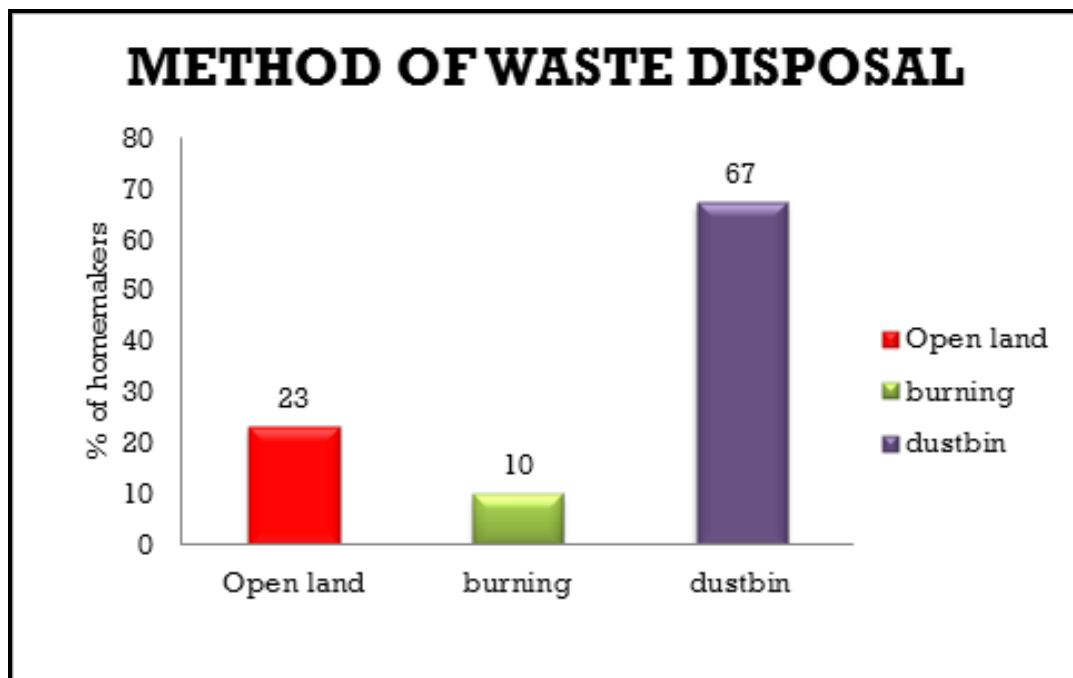


Fig-4.6 Method of waste disposal wise distribution of study participants

Section -B- Pretest knowledge among homemakers regarding ill effects of plastics usage

Table-4.2: Domain wise percentage of pretest knowledge score on ill effects of plastic usage among homemakers

Knowledge On	Ill effects of plastic usage	No. of questions	Min-Max score	Pretest score		
				Mean score	SD	%
General aspects on ill effects of plastic usage	Plastic	4	0-4	1.9	0.7	47.5%
	Plastic types	2	0-2	0.6	0.4	30%
Other ill effects of plastic usage	Environment	5	0-5	2.1	0.8	42%
	Animals	2	0-2	0.6	0.5	30%
	Human	5	0-5	2.2	1.1	44%
	Measures for Reduction of plastics	2	0-2	1.0	0.5	50%
Total		20	0-20	8.5	4.0	42..5%

Table 4.2 shows domain wise percentage of pretest knowledge score on ill effects of plastic usage among homemakers. In pretest they having more knowledge in a Reduction to plastics(65%) and minimum knowledge in in effects of plastic on environment(30%),over all they gain 42.5 % of knowledge score.

Table-4.3: Pretest Level of Knowledge

Knowledge Level	No of homemakers	%
Inadequate (0 - 9)	70	70.0%
Moderate(10-14)	30	30.0%
Adequate (15-20)	0	0
Total	100	100%

Table 4.3 shows the pretest knowledge about the ill effects of plastics usage among the homemakers. In pretest 70% of the homemakers are having low level of knowledge and 30 % of them are having moderate knowledge and 0% of them having adequate knowledge.

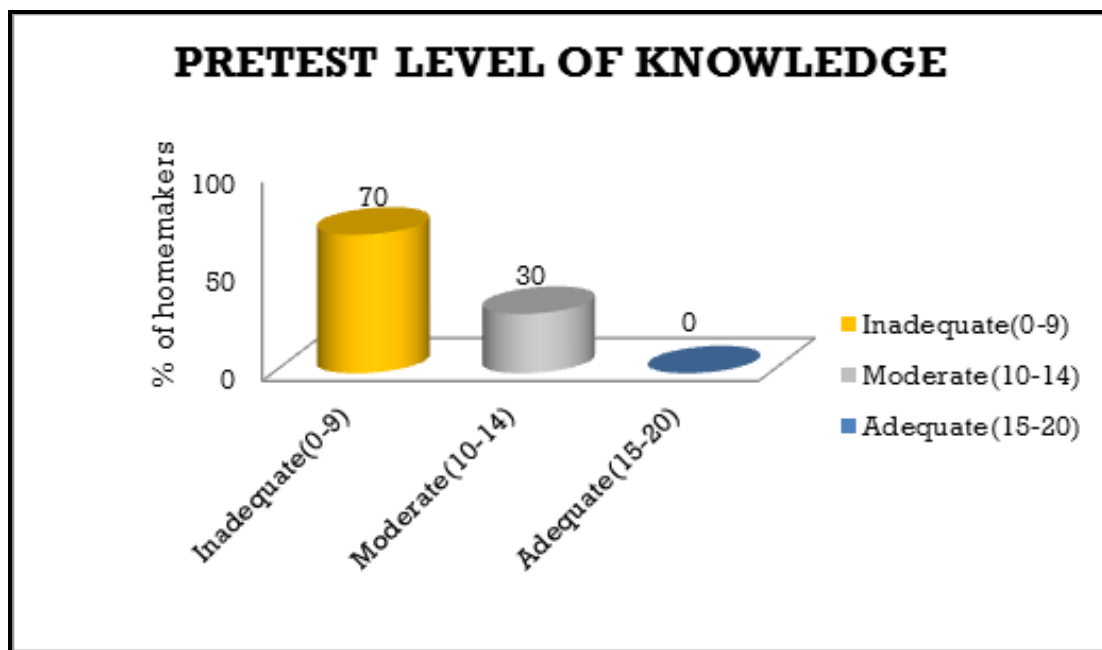


Fig-4.7:Pretest level of knowledge among homemakers

Table 4.4: Score Interpretation

Knowledge Level	Percentage
Inadequate (0 - 9)	<50%
Moderate(10 - 14)	51-75%
Adequate(120 - 9)	76- 100

This table shows the score interpretation used to assess the level of knowledge among the homemakers who were participating in the study.

Section –C: Post test level of knowledge among homemakers regarding ill effects of plastics usage.

Table-4.5: Domain wise percentage of posttest knowledge score

Knowledge On	Ill effects of plastic usage	No. of questions	Min-Max score	Posttest score		
				Mean score	SD	%
General aspects on ill effects of plastic usage	Plastic	4	0-4	3.8	0.5	95%
	Plastic types	2	0-2	1.8	0.5	90%
Other ill effects of plastic usage	Environment	5	0-5	4.3	0.7	86%
	Animals	2	0-2	1.6	0.5	80%
	Human	5	0-5	4.6	0.6	92%
	Measures for Reduction of plastics	2	0-2	2.0	0.2	100%
Total		20	0-20	18.1	3.0	90.5%

Table 4.5 shows domain wise percentage of pretest knowledge score on ill effects of plastic usage among homemakers. In pretest they having more knowledge in a Reduction to plastics (100%) and minimum knowledge in ill effects of plastic on animals (80%),over all they gain 90.5 % of knowlsedge score.

Table-4.6: Posttest Level of Knowledge

Knowledge Level	No	%
Inadequate (0 - 9)	0	0.0%
Moderate(10-14)	2	2.0%
Adequate (15-20)	98	98.0%
Total	100	100%

Table 4.6 shows the post test knowledge about the ill effects of plastics usage among homemakers. In posttest none of the homemakers are having inadequate knowledge, 2% of them are having moderate knowledge and 98% of them are having adequate knowledge.

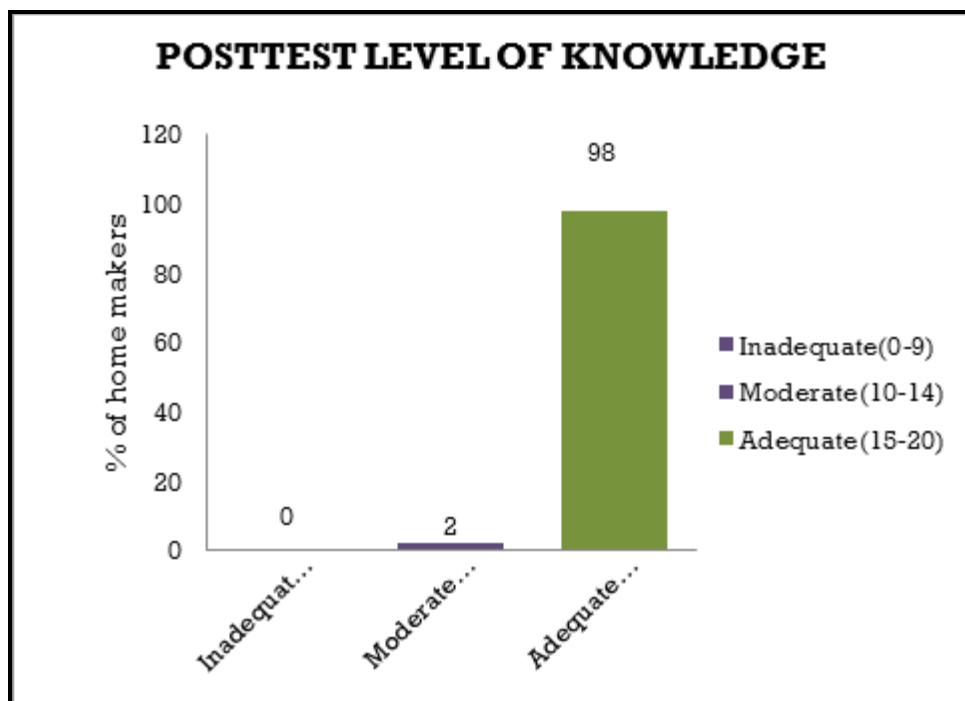


Fig-4.8 :Posttest level of knowledge

Section – D: Comparison of pretest and posttest level of knowledge

Table-4.7: Comparison of pretest and posttest mean knowledge Score

Knowledge On	Ill effects of plastic usage	Pretest Score (N=100)		Posttest Score (N=100)		Student paired t-test
		Mean	S.D	Mean	S.D	
General aspects on ill effects of plastic usage	Plastic	1.9	0.7	3.8	0.5	t = 9.35 P=0.001***
	Plastic types	0.6	0.4	1.8	0.5	t = 13.56 P=0.001***
Other ill effects of plastic usage	Environment	2.1	0.8	4.3	0.7	t = 9.56 P=0.001***
	Animals	0.6	0.5	1.6	0.5	t = 14.15 P=0.001***
	Human	2.2	1.1	4.6	0.6	t = 13.40 P = 0.001***
	Measures for Reduction of plastics	1.0	0.5	2.0	0.2	t = 8.34 P = 0.001***

*significant at $P \leq 0.05$ **highly significant at $P \leq 0.01$ ***very high significant at $P \leq 0.001$

Table 4.7 compares pretest and posttest mean knowledge score

- ❖ In pretest homemakers had 1.9 score where as in posttest they had 3.8 score regarding **plastic** ,so the mean difference is 1.9 There is a statistical significant difference between pretest and posttest.

- ❖ In pretest homemakers had 0.6 score where as in posttest they had 1.8 score regarding **plastic types** ,so the mean difference is 1.2 . There is a statistical significant difference between pretest and posttest
- ❖ In pretest homemakers had 2.1score ,where as in posttest they had 4.3 score regarding **ill effects of plastic on environment** ,so the mean difference is 2.2. There is a statistical significant difference between pretest and posttest.
- ❖ In pretest homemakers had 0.6 score, where as in posttest they had 1,6 score ,so the mean difference is 1.0 regarding. **ill effects of plastic on animals**.There is a statistical significant difference between pretest and posttest.
- ❖ In pretest homemakers had 2.2 score ,where as in posttest they had 4.6 score ,so the mean difference is 2.4 reagrding **ill effects of plastic on human**. There is a statistical significant difference between pretest and posttest
- ❖ In pretest homemakers had 1.0 score where as in posttest they had 2.0 score ,so the mean difference is 1.0 regarding **Measures for reduction of plastics** There is a statistical significant difference between pretest and posttest.

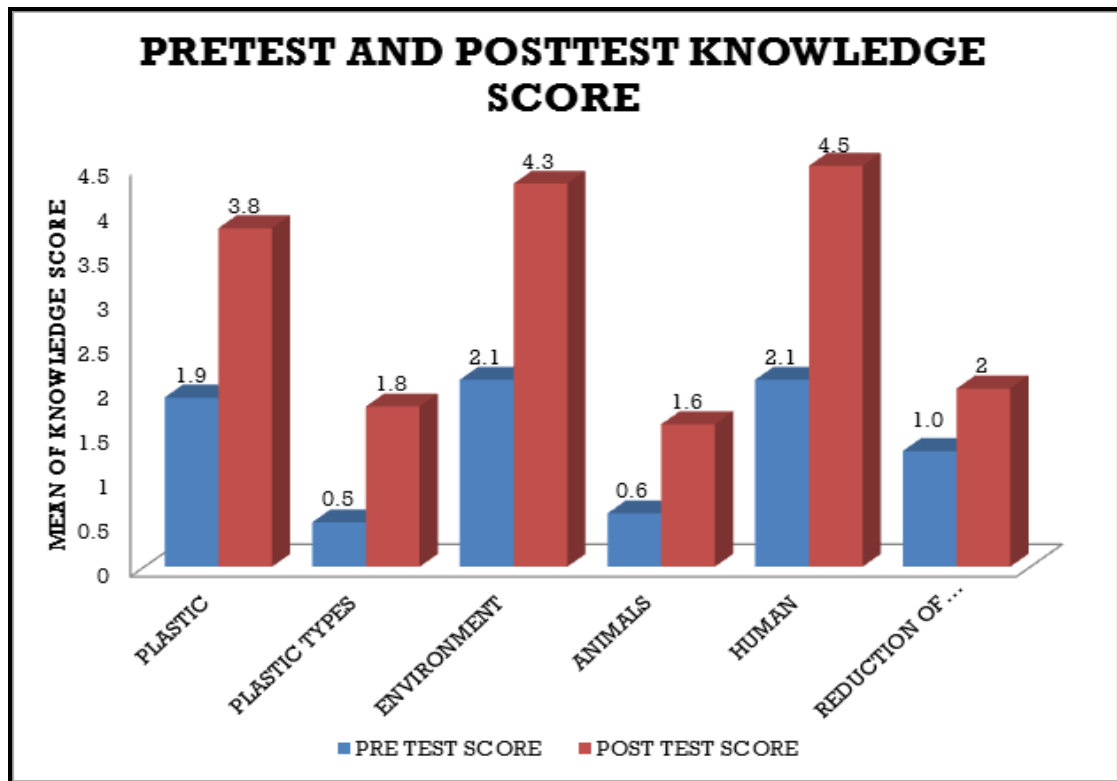


Fig-4.9 :pretest and Posttest mean knowledge score

Table-4.8 : Comparison of overall knowledge score

	Maximum Score	Mean knowledge score	Mean difference in knowledge with 95% confidence interval	Percentage of Knowledge gain with 95% confidence interval
Pretest	20	8.5	9.4	48%
Posttest	20	18.1	(8.89 -10.24)	(44.2 – 50.01)

TABLE 4.8 Comparison of overall knowledge gain Score between pretest and posttest.

On an average, After Video assisted teaching .homemakers gained 48% of the knowledge than posttest. Difference between pretest and posttest score was analyzed using proportion with 98% and mean difference with 95% CI.

Section- E - Effectiveness of Video assisted teaching

Table-4.9 : Effectiveness of Video Assisted Teaching

	Pre Test Score	Post Test Score	Increase (Post – Pre Score)	Students paired t-test
No's	100	100	100	*** 48.5 P=0.001
Mean	8.7	18.1	9.4	
SD	2.1	1.6	1.9	

Table 4.9 shows effectiveness of video assisted teaching between pretest and posttest knowledge .

Overall, In pretest homemakers had 8.7 mean score and in post test homemakers had 18.1 mean score . The difference is 9.4 score . There is a statistical significant difference between pretest and posttest . Difference between pretest and posttest score was analyzed using paired t-test.

In pretest homemakers are had 42.5% of knowledge score on the ill effects of plastics usage, In posttest homemakers are had 90.5% of knowledge score on the ill effects of plastics usage. This is the net benefit of video assisted teaching.

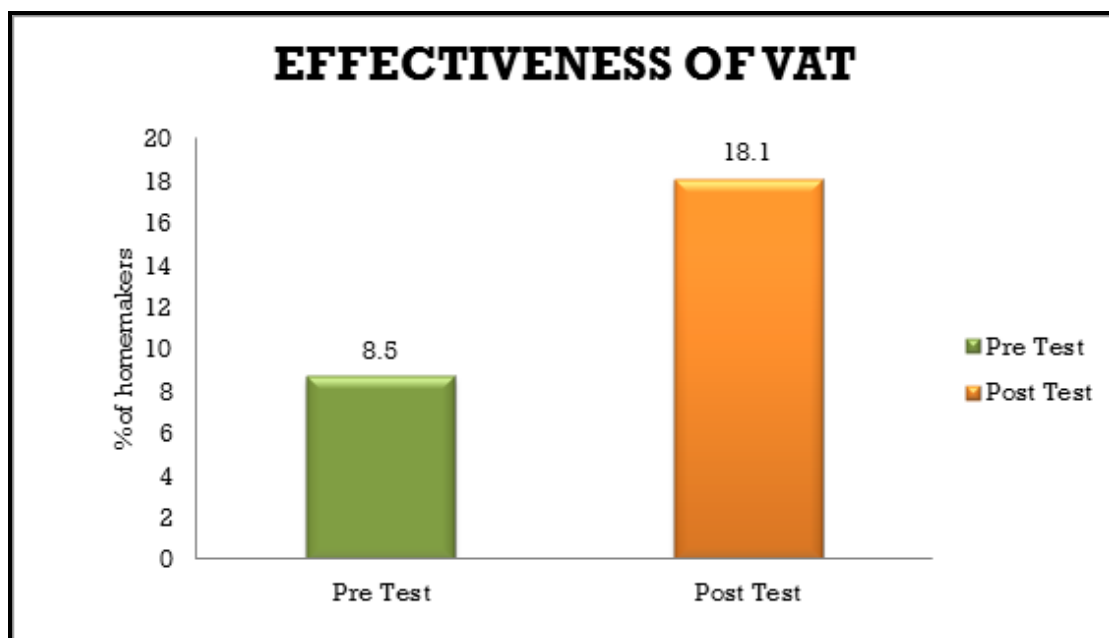


Fig-4.10: Effectiveness of video assisted teaching

Table 4.10 Pretest and posttest percentage of knowledge gain

Domain	Pretest Knowledge	Posttest Knowledge	Percentage of Knowledge Gain
Plastic	47.5%	95%	47.5%
Plastic Types	30%	90%	60%
Environment	42%	86%	44%
Animals	30%	80%	50%
Human	44%	92%	48%
Reduction of plastics	64%	100%	35%
Total	42.5%	90.5%	48%

Table 4.10 shows each domain Pretest and posttest percentage of knowledge gain

In pretest homemakers are had **42.5%** of knowledge score on ill effects of plastics usage. In posttest homemakers had **90.5%** of knowledge score on ill effects of plastics usage Over all homemakers gained 48% of knowledge on ill effects of plastic usage.

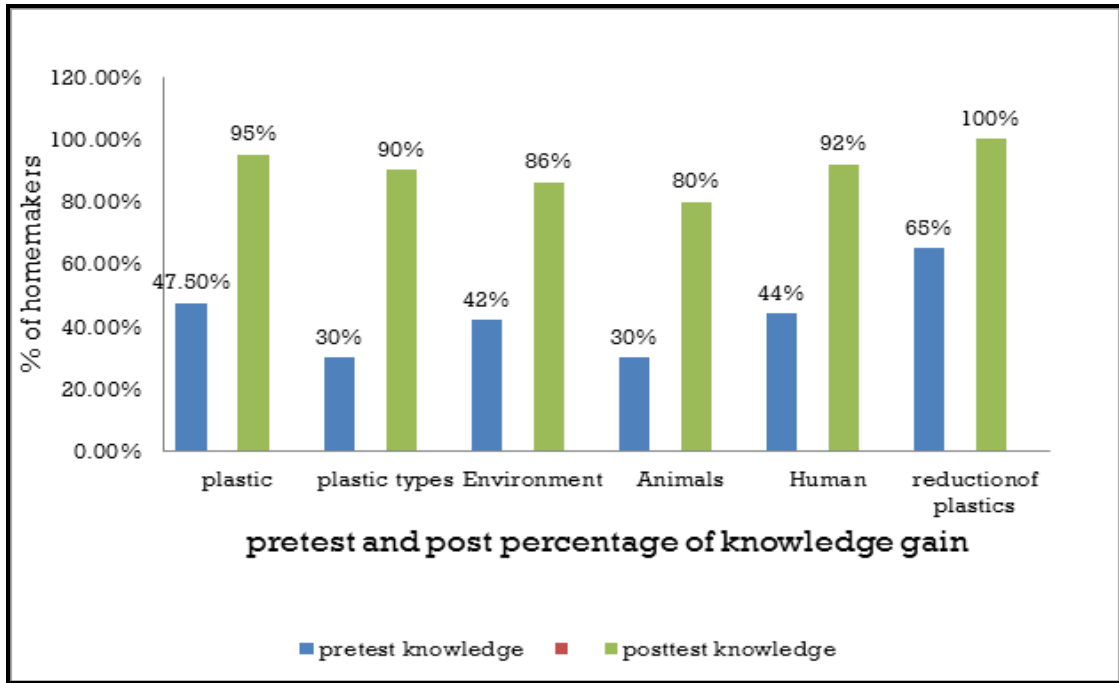


Fig-4.11: Effectiveness of Video assisted teaching

Section – E: Association of post test knowledge with selected demographic variable

Table-4.11: Association Between Posttest Knowledge Level and Demographic Variable

Demographic variable		Post test knowledge				Total		χ^2	Df	Significant
		Moderate		High						
		n:2	%	n:98	%	No	%			
Age	20-30 yrs	-	-	41	100.0	41	100	10.7	2	P=0.05*
	31-40 yrs	-	-	43	97.0	43	100			
	41- 50 yrs	2	12.5	14	87.5	16	100			
Educational Status	No formal education	2	10.0	18	90.0	20	100	8.2	2	P=0.05*
	1-12th std	-	-	55	100.0	55	100			
	Degree	-	-	25	100.0	25	100			
Family	Nuclear Family	1	1.4	69	98.6	70	100	0.4	1	P = 0.50
	Family	1	3.3	29	96.7	30	100			
	Joint Family									
Family Income Per Month	1000 – 10000	-	-	48	100.0	48	100	2.1	2	P = 0.68
	10000 – 20000	2	4.1	47	95.9	49	100			
	>20000	-	-	3	100.0	3	100			
Religion	Hindu	1	1.6	60	98.4	61	100	0.2	2	P = 0.40
	Christian	1	2.7	36	97.3	37	100			
	Muslim	-	-	3	100.0	2	100			
Method of waste disposal	Open land	1	4.3	22	95.7	23	100	0.9	2	P = 0.54
	Burning	-	-	10	100.0	10	100			
	Dustbin	1	1.5	66	98.5	67	100			

*significant at $P \leq 0.05$ **highly significant at $P \leq 0.01$ ***very high significant at $P \leq 0.001$

Table no 4.11 shows the association between level of knowledge gain and their demographic variables

1. Association between level of knowledge and homemakers age, it reveals that none of them had inadequate knowledge and moderate knowledge and 100% had adequate knowledge among the age group between 21-30 years. About none of them had inadequate knowledge, 3.0% had moderate knowledge and 97% had adequate knowledge among the age group 31-40 years. And none of them had inadequate knowledge, 12.5% had moderate knowledge and 87.5% had adequate knowledge among the age group 41-50 years

2. Association between the level of knowledge and homemakers education With respect to educational status none of them had inadequate knowledge, 10% had moderate knowledge and 90% had adequate knowledge among no formal education. About none of them had inadequate knowledge, and moderate knowledge and 100% had adequate knowledge among 1-12th std. And none of them had inadequate knowledge and moderate knowledge and 100% had adequate knowledge among Graduate. Chi square value is 8.2.

3. With respect to Family type none of them had inadequate knowledge and 1.4% moderate knowledge and about 98.6% had adequate knowledge among the Nuclear family. About none of them had inadequate knowledge, 3.3% had moderate knowledge and 96.7% had adequate knowledge among Joint family. Chi square value is 0.4.

4. With respect to Family income none of them had inadequate knowledge and moderate knowledge and about 100% had adequate knowledge among the family income of Rs 1000-10000. About none of them had inadequate knowledge, 4.1% had moderate knowledge and 95.9% had adequate knowledge among family income of Rs 1000-10000. And none of them had inadequate knowledge and moderate knowledge and 100% had adequate knowledge among >20000. Chi square value is 2.1.

5. With respect to Religion none of them had inadequate knowledge and 1.6% moderate knowledge and about 98.4 % had adequate knowledge among Hindu. About none of them had inadequate knowledge, 2.7% had moderate knowledge and 97.3% had adequate knowledge among Christian. And none of them had inadequate knowledge and moderate knowledge and 100 % had adequate knowledge among Muslim. Chi square value is 0.1.

6. With respect to Method of waste disposal none of them had inadequate knowledge and 4.3% moderate knowledge and about 95.7% had adequate knowledge among openland method. About none of them had inadequate knowledge and moderate knowledge and 95.9% had adequate knowledge among family income of Rs 1000-10000. And none of them had inadequate knowledge and moderate knowledge and 100 % had adequate knowledge among >20000. Chi square value is 0.9.

The study concluded that there is a good correlation between pre test and posttest knowledge score and the score is statistically significant ($p=0.05$) with the age of the homemakers ($\chi^2= 10.7$ $p=0.05^*$), education of the homemakers ($\chi^2=8.2$ $p=0.05^*$). It means adequate education which increases the adequate education which increases the knowledge among the samples.

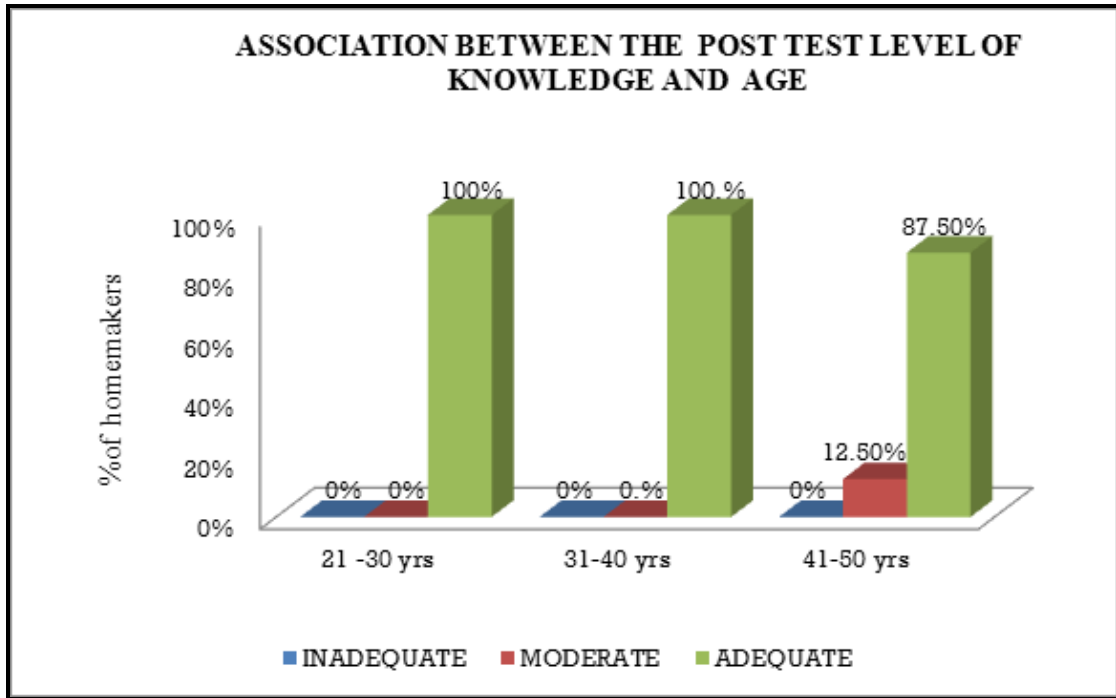


Fig-4.12: Association between level of knowledge and homemakers age

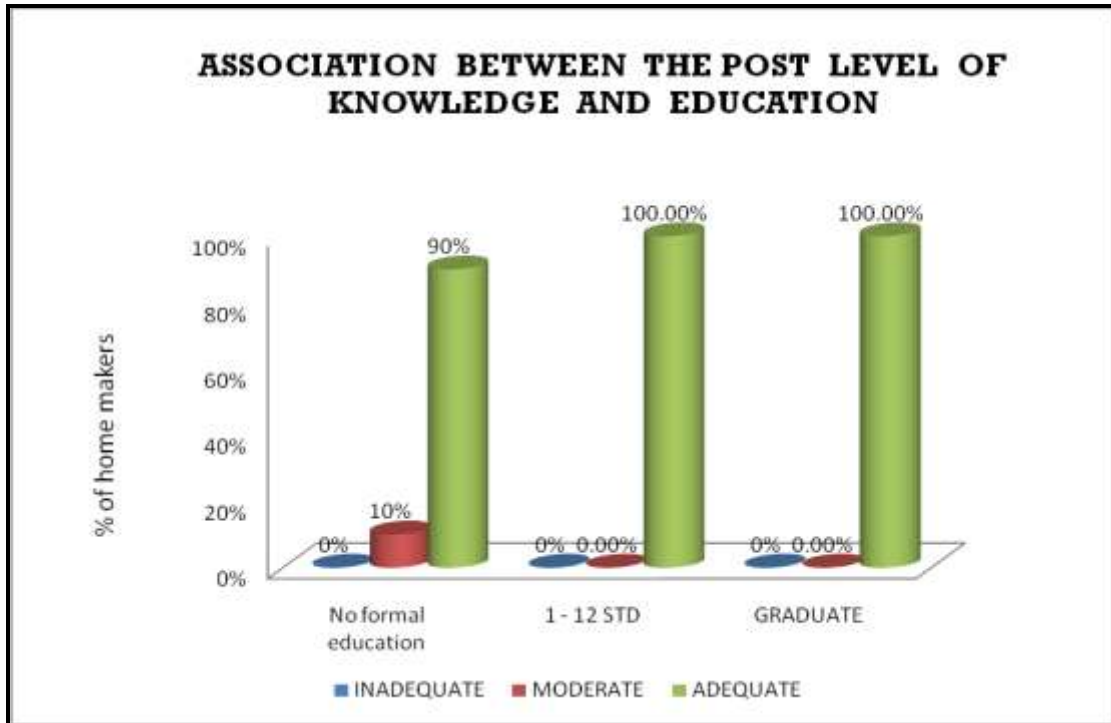


Fig-4.13: Association between the post test level of knowledge and homemakers education

CHAPTER V SUMMARY

5. Summary of the study results

This chapter deals with the summary of the study. The study was conducted to ascertain the effectiveness of video assisted teaching about the ill effects of plastics usage among the homemakers residing in selected urban area at K.P.Park. in Chennai.

5.1. Based in demographic data findings

- ❖ 43% of homemakers were in the age group 31-40 years.
- ❖ Majority of homemakers (55%) had education upto 1-12th std.
- ❖ Maximum homemakers (70%) were at nuclear family .
- ❖ Maximum homemakers (49%) were at Rs 10000-20000 income
- ❖ Regarding religion most of the study group (ie). 61% of them were Hindus.
- ❖ Majority of method of waste disposal of the study group illustrates that 67% were in disposing in open land.

5.2. Based on knowledge score on homemakers before and after Video assisted teaching

In assessing the pre-test level of knowledge 70.0% of the homemakers had inadequate knowledge, 30.0% of them had moderate knowledge and 0% of them had adequate knowledge.

- ❖ In posttest none of the homemakers are having inadequate knowledge, 2% of them had moderate knowledge and 98% of them had adequate knowledge.

- ❖ On an average, After VAT, homemakers are gained 48% of the knowledge than pretest.
- ❖ There is a good correlation between post test knowledge and the score is statistically highly significant ($p=0.001$)
- ❖ There is significant improvement in the level of knowledge after the video assisted teaching programme.

5.3 Findings based on effectiveness of Video assisted teaching

Overall, In pretest homemakers had 8.7 mean score and in post test homemakers had 18.1 mean score . The difference is 9.4 score . There is a statistical significant difference between pretest and posttest. Difference between pretest and posttest score was analyzed using paired t-test.

In pretest homemakers had 42.5% of knowledge score on the ill effects of plastics usage, In posttest homemakers had 90.5% of knowledge score on the ill effects of plastics usage. This is the net benefit of video assisted teaching.

5.4. Findings based on Association between posttest knowledge and selected demographic variable

The post test knowledge score has significant association with the age of homemakers, Chi square value is 10.7. $P= 0.05$, education of the homemakers Chi square value is 8.2. There is significant improvement in the level of knowledge after video assisted teaching.

CHAPTER-VI DISCUSSION

This chapter deals with discussion of the results of effectiveness of video assisted teaching about the ill effects of plastics usage among the homemakers

Objective -1

The first objective was to assess the pre test and post test knowledge regarding ill effects of plastic usage among homemakers residing at K.P.Park..

- ❖ In assessing the pre-test level of knowledge 70 % of the homemakers had inadequate knowledge , 30 % of them are having moderate knowledge and 0 % of them are having adequate knowledge.
- ❖ In assessing the post test level of knowledge, none of the homemakers had inadequate knowledge, 2% of them are having moderate knowledge and 98% of them are having adequate knowledge.
- ❖ Overall, homemakers gained 42.5% of knowledge score

Objective-2

The second objective was to determine the effectiveness of video assisted teaching about the ill effects of plastics usage among homemakers residing at K.P.Park.

- ❖ In pretest homemakers are having 42.5% of knowledge score on the ill effects of plastics usage, In posttest homemakers are having 90.5% of knowledge score on the ill effects of plastics usage.
- ❖ Overall, they gained 48 % of knowledge on ill effects of plastics and its safe disposal after having video assisted teaching.

Pushpakala K.J, Abraham Chako(2015) conducted a study to assess the effectiveness of video assisted teaching on knowledge regarding plastic hazards .The results shows that mean posttest score 8.50 was higher than mean pretest score .There is significant association with posttest score at 0.01 level and moderately positive co relation between Knowledge and demographic variable. so video assisted teaching was highly knowledge in increasing the knowledge regarding impact of asthma and practice of inhaler ⁴⁵.

Nithin Joseph., (2013) conducted a cross sectional study in Mangalore and objective is to find out the awareness of health hazards associated with usage of plastics bags The results states that Mean age of 250 participants was 32-10.8 years. Awareness was significantly more among females $P=0.027$.Among participants 216 (86.4%) $P=0.006$ aware of health hazards in plastic bags awareness has improved knowledge of usage of plastics bags.²³

Objective-3

The third objective was to find out the association between pretest and posttest knowledge with the selected demographic variables.

- 1) Age chi square 10.7 which has significant .It is inferred that there was significant association between age and knowledge on ill effects of plastic usage.
- 2) Education chi square 8.2 which significant .It is inferred that there was significant association between education and knowledge on ill effects of plastic usage.

Hammani M.B.A,et al.,(2017) conducted a cross section study ,survey awareness and attitude of secondary school regarding plastic pollution ,implication for environment among 400 students 6 different secondary schools. Majority of the population understand how plastic waste environment (85.5%) .Student mean knowledge score was 53%

with female ($P=0.01$) and student whose mother were more educated ($P=0.014$) being more knowledgeable. They recommended to assure governmental support along with environment are needed to bridge the information gap. There is association between age and knowledge of mothers¹¹.

H₁ - There will be a significant difference between the pre-test and post-Test level of knowledge, regarding ill effects of plastics usage on Health among women home makers at KP.Park.

The difference between pretest and posttest was statistically significant. Hence the Hypothesis stated is accepted.

H₂ - There will be a significant association between the post-test Knowledge and selected demographic variables of homemakers.

The association between posttest knowledge and selected demographic variable of homemakers was statistically significant. Hence the Hypothesis stated is accepted.

CHAPTER-VII IMPLICATIONS, RECOMMENDATIONS & CONCLUSION

This chapter deals with the conclusion, implications, for nursing practice, education, nursing research, administration and recommendations for future research.

7.1 Implications of the study

The findings of the study have implication for the nursing profession. The implications drawn from the study were of vital concern for community nursing practice, nursing education, nursing research and nursing administration.

Nursing practice

- ❖ The study findings related that there is a relationship between the knowledge on ill effects of plastics usage among the homemakers residing in K.P.Park..
- ❖ The community health nurse can be resource personnel for the community area and they can also educate them at the gross root level in imparting knowledge regarding ill effects of plastics usage among the homemakers.
- ❖ The community health nurse has to educate the community people regarding ill effects of plastics usage both in urban and rural areas.
- ❖ Health education regarding the importance of environmental sanitation should be provided to the community people.
- ❖ Training and in-service education to the school teachers to utilize the knowledge in hazards of the community.

- ❖ Not only nurses, but all the health care providers such as auxiliary nurses and midwives, village health guides, nurses working in community center should provide in-service education regarding ill effects of plastics usage.

Nursing education

- ❖ To provide the knowledge, the nursing personnel need to be equipped with adequate knowledge and conduct mass health education program on ill effects of plastic usages.
- ❖ The community health nursing curriculum needs to be strengthened and should include more content towards school based health services, which should enable the students to know about the importance of environmental hygiene.
- ❖ The female health workers curriculum needs to be strengthened and should include more content regarding effects of plastic use.
- ❖ The study also emphasizes the special needs for the preparation of health education material among nursing students who were engaged in school health services.

Nursing administration

The health administration of nursing at the national, state, district, institutional and local level should focus their attention on making the public aware regarding ill effects of plastic usage.

- ❖ The nurse administrator should arrange the appropriate training and teaching material regarding hazards of plastic use and its safe disposal for the school children, parents and its safe disposal for the school children and teachers.

- ❖ The administrator can organize educational programs in schools and community areas to provide knowledge regarding importance of effects of ill effects of plastic use.
- ❖ The nurse administrator should motivate the students and make arrangements for periodic health education to the school children regarding environmental hygiene in the school children regarding environmental hygiene in the school and in their area.
- ❖ The nurse administrator should recommend to the superior for the supply of suitable posters, pictures related to plastic use, which can be displayed in the school premises, temples, and in all public areas.

Nursing research

- ❖ The findings of the study help the professional nurses and the students to develop inquiry by providing a base.
- ❖ The study provides baseline for conducting similar studies in different settings.

7.2 Recommendations for further study

On the basis of the present study the following recommendations have been made for further study.

- ❖ The study can be repeated on the large scale sample to validate and for better generalization of the findings.
- ❖ Descriptive study can be conducted to assess knowledge to assess knowledge, attitude and practice of homemakers regarding ill effects of plastic usages.

- ❖ Comparative study may be conducted to find out the similarities or differences between the knowledge and practices of urban and rural people.
- ❖ Video Assisted Teaching programme on plastic use can be compared with other teaching Strategies.
- ❖ A similar study can be done by using various teaching methods.
- ❖ School syllabus may include topic related to plastic use and environmental hygiene.

7.3 Limitations

- ❖ The study was confined to homemakers and shorter period
- ❖ Control group can be included in the study to assess the effectiveness.

7.4 Conclusions

The finding of the study showed that the video assisted teaching was very effective in improving the level of knowledge. This study will help the health care professionals to develop appropriate teaching materials.. There is good between pretest and posttest knowledge score is statistically significant with the age of homemakers ($\chi^2=1.5$) $p= 0.05$, education of homemakers ($\chi^2=3.8$) $p= 0.05$. Video assisted teaching is proven method to improve the knowledge of the homemakers which will help to facilitate the healthy growth and development and healthy practices in day to day activities.

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APPENDIX- I

Respected people ,

I am the student of college of nursing ,Madras Medical College conducting research “**A study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastic usage among homemakers at KP.Park ,Chennai ”** so please kindly co-operate with us and put Tick (√) in the box.

SECTION – A

DEMOGRAPHIC DATA

1) Age

- a) 20-30 yrs
- b) 31-40 yrs
- c) 41- 50 yrs

2) Educational Status

- a) No formal education
- b) 1st – 12th std
- c) Graduate

3) Family

- a) Nuclear Family
- b) Joint Family

4) Family Income Per Month

a) 1000 – 10000

b) 10000 – 20000

c) >20000

5) Religion

a) Hindu

b) Christian

c) Muslim

6) Method of waste disposal

a) Open land

b) Burning

c) Dustbin

SECTION B

Part -I plastics

1) Plastic means

- a) not usable
- b) able to mould in to different shapes
- c) decomposable

2) people use plastics because

- a) good for health
- b) expensive
- c) easy to carry

3) Plastics currently using is

- a) Polyvinylchloride
- b) Polyethylene
- c) Polycarbonate

4) The acceptable standard thickness of plastic bags

- a) Above 40 microns
- b) Below 40 microns
- c) 20 microns

Part-II Types of plastics

5) Thermoplastic means

- a) Strong plastic
- b) Can be melted and reshaped
- c) Used for ever

- 6) Thermosetting means
- a) Cannot be reshaped
 - b) Degradable
 - c) Easily disposable

Part-III III effects of plastics on environment

- 7) The decomposition of plastic takes place
- a) 100-200 years
 - b) 500-100 years
 - c) 300-400 years

- 8) Landfill plastics releases the harmful chemicals which affects
- a) Birds
 - b) Animals
 - c) Soil and underground water

- 9) Burning of Plastics releases methane leads to
- a) Global warming
 - b) Soil erosion
 - c) Water pollution

- 10) Bio- degradable plastics means
- a) Non –Decomposable
 - b) Decompose by bacteria
 - c) Harmful to health

- 11) Plastic pollution occurs due to
- a) Increase in plastic use
 - b) Drainage water
 - c) Decrease in plastic use

Part IV- ill effects of plastics on Animals

12. Ingestion of plastic by seashore animals leads to

- a) Brain damage
- b) vomiting
- c) Death

13) ----- of animals died due to ingestion of plastic

- a) 3 million
- b) 1.5 million
- c) 2 million

Part V- ill effects of plastics on health

14) Plastic water bottle can be used for

- a) Single use
- b) More than 2 times
- c) Used for ever

15) Plastic has numerous ill effects because

- a) Bio –degradable
- b) Non degradable
- c) Unable to melt

16) The ill effects of plastics on human leads to dangerous disease

- a) AIDS
- b) Hypertension
- c) Cancer

17) Intake of plastic packed food will cause

- a) Increase in weight
- b) Nutritious to health
- c) Injurious to health

18) Biodegradable plastic is made up of

- a) Chemicals
- b) Vegetable oil and starch
- c) Metals

Part VI – Measures for reduction of plastics

19) The Environment friendly alternative to plastics bags

- a) Cotton and jute bags
- b) Rubber bags
- c) Biodegradable plastics.

20) Reduction of plastics can be done by

- a) Reduce the use and recycle
- b) Burning of plastics
- c) Proper disposal

Key answers

Question No	Answer key
1.	b
2.	c
3.	b
4.	a
5.	b
6.	a
7.	b
8.	c
9.	a
10.	b
11.	a
12.	c
13.	b
14.	a
15.	b
16.	c
17.	c
18.	b
19.	a
20.	a

மதிப்பிற்குரியமக்களே!

நான் சென்னை செவிலியர் கல்லூரியில் படிக்கும் மாணவி "பிளாஸ்டிக்கின் தீயவிளைவுகள்" பற்றி ஆராய்ச்சிசெய்கிறேன். ஆகையால் பிளாஸ்டிக் கேடுகளைப் பற்றி உங்களுடையபொது அறிவை அறிய கேள்விகள் கொடுக்கப்பட்டுள்ளது. ஆதை படித்து ஏற்ற பதிலை (✓) செய்துபதில் அளிக்கவும்.

பகுதி-அ

சொந்த விவரங்கள்:

- 1) வயது வரம்பு
அ) 20-30
ஆ) 31-40
இ) 41-50

- 2) படிப்பு
அ) முறையான கல்வி இல்லை
ஆ) 1முதல் 12ஆம் வகுப்பு
இ) பட்டபடிப்பு

- 3) குடும்பம்
அ) தனிகுடும்பம்
ஆ) கூட்டுகுடும்பம்

- 4) குடும்ப வருமானம்
அ) 1000 – 10000
ஆ) 1000- 20000
இ) 20000 மேல்

- 5) மதம்
அ) இந்து
ஆ) கிறிஸ்துவ மதம்
இ) முஸ்லிம்

6) குப்பை கொட்டும் முறை

அ) திறந்த நிலத்தில்

ஆ) எரிக்கும் முறை

இ) குப்பைத் தொட்டி

பகுதி - ஆ

I-பிளாஸ்டிக்

1. பிளாஸ்டிக் என்றால் என்ன?

அ) உபயோகிக்க முடியாது

ஆ) உருகும் தன்மையுடையது

இ) அழியக் கூடியவை

2. மக்கள் பிளாஸ்டிக் பயன்படுத்தக்காரணம்

அ) உடல் நலத்திற்கு நல்லது

ஆ) விலைஉயர்ந்தது

இ) எளிதில் பயன்படுத்தக் கூடியவை

3. நாம் அன்றாடம் பயன்படுத்தும் பிளாஸ்டிக்கின் பெயர்

அ) பாலிவினைல் குளோரைடு

ஆ) பாலிஎத்திலின்

இ) பாலிகார்பனேட்

4. பிளாஸ்டிக் பயன்படுத்த அனுமதிக்கப்பட்ட தடிமனின் அளவு

அ) 40 மைக்ரான்ஸ் மேல்

ஆ) 40 மைக்ரான்ஸ் கீழ்

இ) 20 மைக்ரான்ஸ்

II- பிளாஸ்டிக் வகைகள்

5. தெர்மோபிளாஸ்டிக் என்றால் என்ன?

அ) கடினமானபிளாஸ்டிக்

ஆ) இலகும் தன்மையுடையது,உருமாற்றம் செய்யக் கூடியது

இ) நெடுநாள் உபயோகப்படுத்தலாம்

6. தெர்மோசெட்டிங் என்றால் என்ன?

- அ) உருகிஉருமாற்றம் செய்ய இயலாது
ஆ) மக்கும் தன்மையுடையது
இ) அப்புறப்படுத்த கூடியது

III. சுற்றுகுழல் பாதிப்பு

7. பிளாஸ்டிக் நிலத்தில் மக்கும் காலம்

- அ) 100 – 200 வருடங்கள்
ஆ) 500 – 1000 வருடங்கள்
இ) 300 – 400 வருடங்கள்

8. நிலத்தில் மக்கும் பிளாஸ்டிக் வேதிப் பொருள்களை வெளியேற்றுவதால் முதலில் பாதிக்கப்படுவது?

- அ) பறவைகள்
ஆ) விலங்குகள்
இ) மண் மற்றும் நிலத்தடிநீர்

9. பிளாஸ்டிக் எரிப்பதால் உருவாகும் நச்சுபுகையால் (மீத்தேன்) ஏற்படுத்தும் பாதிப்பு

- அ) புவிவெப்பமயமாதல்
ஆ) மண் அரிப்பு
இ) நீர் மாசுபடுதல்

10. மக்கக் கூடிய பிளாஸ்டிக் என்பது

- அ) சிதைக்கமுடியாது
ஆ) பாக்டீரியாவாலசிதைக்க கூடியது
இ) உடல் நலத்திற்குகேடு

11. பிளாஸ்டிக் மாசுபாடு ஏற்படக் காரணம்

- அ) பிளாஸ்டிக் பயன்பாட்டை அதிகரித்தல்
ஆ) கழிவுநீர்
இ) பிளாஸ்டிக் பயன்பாட்டை குறைத்தல்

IV- விலங்குகள் பாதிப்பு

12. கடல்வாழ் உயிரினங்கள் (மீன்,கடற்பறவை) பிளாஸ்டிக் உட்கொள்வதால் ஏற்படும் விளைவு

அ) மூலை பாதிப்பு

ஆ) வாந்தி

இ) இறப்பு

13. பிளாஸ்டிக் உட்கொள்வதால் விலங்குகள் இறக்கின்றன.

அ) 3 மில்லியன்

ஆ) 1.5 மில்லியன்

இ) 2 மில்லியன்

V- மனிதனுக்குபாதிப்பு

14. குடிநீர் பாட்டில்களை எத்தனை முறைபயன்படுத்தலாம்

அ) ஒருமுறை

ஆ) இரண்டுமுறை

இ) நெடுநாள்

15. பிளாஸ்டிக் அதிகவிளைவுகளை ஏற்படுத்தக்கூடியது ஏனெனில்

அ) மக்கும் தன்மையற்றது

ஆ) மக்கும் தன்மையுடையது

இ) உருகும் தன்மையற்றது

16. பிளாஸ்டிக்கால் மனிதனுக்கு ஏற்படக்கூடிய ஆபத்தான நோய்

அ) எய்ட்ஸ்

ஆ) இரத்தகொதிப்பு

இ) புற்றுநோய்

17. பிளாஸ்டிகில் அடைக்கப்பட்ட உணவுகளை உட்கொண்டால்

அ) எடை கூடும்

ஆ) ஆரோக்கியமானது

இ) உடல் நலத்தைபாதிக்கும்

18. மக்கக்கூடியபிளாஸ்டிக் எதனால் ஆனது

அ) வேதிபொருட்கள்

ஆ) தாவரஎண்ணெய், ஸ்டார்ச்

இ) உலோகங்கள்

VI- பிளாஸ்டிகை குறைக்க வழிமுறைகள்

19. சுற்று சூழலுக்கு ஏற்ப பிளாஸ்டிக்கிற்கானமாற்று

அ) துணி பைகள் மற்றும் சணல் பைகள்

ஆ) இரப்பர் பைகள்

இ) மக்கும் பிளாஸ்டிக்

20. பிளாஸ்டிக் உபயோகிப்பதை எவ்வாறு தடுக்கலாம்

அ) பிளாஸ்டிக் உபயோகிப்பதை குறைக்கலாம் மற்றும் மறுசுழற்ச்சி

ஆ) எரிக்கும் முறை

இ) சரியான முறையில் அப்புறப்படுத்துவது

**LESSON PLAN ON ILL
EFFECTS OF PLASTIC
USAGE**

INTRODUCTION:

The global environment is changing day by day and now it has become challenge to living life forms due to very ugly fact that every nation is trying to develop their countries without taking into environmental impact of degradation. People are using plastic bag which are environmentally dangerous products and harmful to health. They are mainly used for their daily needs mainly for shopping purposes, and therefore environment and agricultural lands are thereby being polluted.

It is said that people began to use plastic bags to carry groceries and goods by hands and these bags become popularized rapidly in last quarter of 20th century. No accurate statistics have been seriously made on the total number of plastic bags produced so far, but today trillion plastic bags are being used worldwide.

The plastic is fully growing disaster and most plastics are made from petroleum, a non-renewable resource that destroys fragile ecosystem and these toxic manmade chemicals have been shown to be accumulating in the bodies of both humans and animals.

Plastic is made from petroleum by-products. Raw materials used in the manufacture of plastics are petroleum, natural gas, coal, and some salts. Plastic makes around 4% of all oil products. It is extracted in the process of oil refining in petrochemical plants, which is a major and complex process also a lot of contaminating material.

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.V aids
1	2min	The group will be able to define plastic and meaning of plastic	<p>Meaning of Plastic:</p> <p>The term ‘plastic’ is derived from the Greek word "plastikos" meaning fit for moulding, and "plastos" meaning moulded. Plastic is the common term used for a wide range of synthetic or semi-synthetic materials</p> <p>Definition:</p> <p>Plastic are synthetic polymers that are made up of long chains by repeating molecular units called monomers. Monomers such as Vinyl chloride styrene and acrylonitrile are produced by petrochemicals.</p>	defining plastic	listening	Video
2	3min	list out the types of plastics	<p>Types of Plastics:</p> <ol style="list-style-type: none"> 1. <u>Thermoplastic:</u> Thermoplastic materials are polymers that can be repeatedly softened and reshaped with the application of heat and pressure. It can be return to their original form. Examples include polyethylene(PE), 	listing out the types of plastics	Listening	Video

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.V aids
			<p>Polypropylene(PP) and polyvinyl chloride(PVC)</p> <p>2. <u>Thermosetting</u>: Thermosetting materials undergo a chemical reactions that results in permanent product that cannot be softened reshaped. They are hard and durable. Thermosets can be used for auto parts, aircraft parts and tires. Examples include polyurethanes, polyesters, epoxy resins and phenolic resins.</p> <p>Common Plastics:</p> <ul style="list-style-type: none"> • Polythene • Polypropylene • Polycarbonate • Polyvinyl chloride(PVC) • Polytetrafluoroethylene 			

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	Evaluation
3.	5min	illustrate the ill effects of plastics on environment	<p>Ill Effects of Plastics:</p> <ul style="list-style-type: none"> • Effects on Environment • Effects on Human health • Effects on Animals <p>Effects on Environment:</p> <p>The distribution of plastic decries is highly variable as a result of certain factors such as wind and ocean currents, coastline geography, urban areas, and trade routes.</p> <p>Land Pollution:</p> <p>When plastic is dumped in landfills, it interacts with water and form hazardous chemicals. When these chemicals seep underground, they degrade the water quality.</p> <p>Wind carries and deposits plastic from one place to another, increasing the land litter. It can also get stuck</p>	illustrating the ill effects of plastic on environment	Lisenting	Video

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.V aids
			<p>on poles, traffic lights, trees, fences, tower etc. and animals that may come in the vicinity and might suffocate them to death.</p> <p>Air Pollution:</p> <p>Burning of plastic in the open air, leads to environmental pollution due to the release of poisonous chemicals. The polluted air when inhaled by humans and animals affect their health and cause respiratory problems.</p> <p>Ocean:</p> <p>In 2012, it was estimated that there was approximately 165 million tons of plastic pollution in the world's oceans.</p> <p>Groundwater Pollution:</p> <p>Water is in great danger because of leaking plastics and waste and this pollutes the drinking</p>			

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.Vaids
4	5min	explain the ill effects of plastic on human health	<p>water. Groundwater and reservoirs are susceptible leaking environmental toxins.</p> <p>Effects on Human health:</p> <p>Due to the pervasiveness of plastic products, most of them human population is constantly exposed to the chemical components of plastics. Exposures to chemicals have been correlated with disruptions in fertility, reproduction, sexual maturation, and other health effects.</p> <p>Polyvinylchloride (#3PVC) –(Food packaging, plastic wrap, water pipes,) cause</p> <ul style="list-style-type: none"> • cancer, • birth defects, • genetic changes, • chronic bronchitis, • ulcers, skin diseases, • deafness, vision failure, • indigestion, and liver dysfunction 	explaining the ill effects of plastics on human health	Lisenting	Video

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.Vaids
			<p>Polycarbonate with Bisphenol –(Water bottles)</p> <ul style="list-style-type: none"> • impaired immune function, • early onset of puberty, • obesity, diabetes, • and hyperactive <p>Phthalates (DEHP)-</p> <p>(toys and children's products, product packaging and food wrap, heat-sealed plastic packaging, kitchenware, plastic bags)</p> <ul style="list-style-type: none"> • Endocrine disruption, • linked to asthma, • developmental • reproductive effects., • birth defects, 			

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.V aids
			<p>BPA, a low grade estrogen was until recently found in plastic bottles labeled with the number of 7 recycling symbol, and is still used as an internal coating for aluminum cans. BPA exposure has also been associated with various health problems including,</p> <ul style="list-style-type: none"> • Learning and behavioral problems • Altered immune system function • Early puberty in girls and fertility problems • Decreased sperm count in boys • Prostate cancer for boys and breast cancer in girls • It affects gender development in male offspring • Cardio vascular disease, neurological disorder 			

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.V aids
5.	3min	describe the ill effects of plastics on animals	<p>Effects on Animals:</p> <p>Plastic pollution has potential to, which can then poison animals, which can then adversely affect animals. Entanglement in plastics debris has been responsible for the deaths of many marine organisms, such as fish, seals, turtles, and birds.</p> <p>These animals get caught in the debris and end up in suffocating or drowning. Because they are unable to untangle themselves.</p> <p>Marine Animals:</p> <ul style="list-style-type: none"> ➤ Sea turtles are affected by plastic pollution. This plastic debris can kill the sea turtle by upsetting the esophagus ➤ So too are whales, large amounts of plastics have been found in the stomachs of whales. ➤ Some of the tiniest bits of plastic are being consumed by small fish, in a part of the pelagic zone in the ocean. 	describing the ill effects of plastics on animals	listening	Video

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	Evaluation
			<p>Birds:</p> <p>Plastic pollution does not only affect animals that live solely in oceans.</p> <ul style="list-style-type: none"> • plastic obstruct and damage a bird's digestive system, reducing its digestive ability and lead to malnutrition, starvation and death. • Toxic chemicals called polychlorinated biphenyls also become concentrated on the surface of plastics at sea and are released after seabirds eat them. • These chemicals can accumulate in body tissues and have serious lethal effects on a bird's reproductive ability, immune system, and hormone balance. • Floating plastic debris can produce ulcers, infections and lead to death. 			

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	A.V aids
6.	2min	explain the alternatives to plastic product	<p>Alternatives to Plastic products:</p> <ul style="list-style-type: none"> • Buy food in glass or metal containers, avoid polycarbonate drinking bottles with Bisphenol. • Avoid heating food in plastic containers, or storing fatty foods in plastic containers or plastic wrap. • Do not give young children plastic teethers or toys. • Use natural fiber clothing, bedding and furniture. • Avoid all PVC and Styrene products. <p>MEASURES FOR REDUCTION OF PLASTICS USAGE</p> <p>➤ SHOP FRIENDLY</p> <p>Plastic are were once a modern convenience but can be efficiently replaced by reusable bags which fold up compactly in order to be portable.steels and glasses.</p>	explain the alternatives to plastic product	Lisenting	Video

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	Evaluation
			<p>There are many environment friendly alternative to plastic bags such as jute bags, paper bags bio - degradable bags and reusable.</p> <p>➤ GET RID OF BOTTLED WATER :</p> <p>People are meant to drink lots of water each day and plastic water bottle have become a greater way to stay hydrated.</p> <p>It is recommended for single use so only after using a water bottle you have to trash it.</p> <p>Many companies now sell reusable water bottles as a substitute reducing plastic water.</p> <p>➤ FORGOT TO GET CONTAINERS:</p> <p>Avoid use of food in containers . If we had tea in paper cup , it is coated with plastic cup it is coated With plastic to prevent damage .</p> <p>The heat is observed by plastic cup it releases the chemicals and affects health.so we can use metals,</p>			

S.No	Time	Specific Objective	Content	Teacher's Activity	Learner's Activity	Evaluation
4			<p>➤ RECYCLE EVERYTHING</p> <p>Try and select items that come in non plastic recycled and recyclable packaging to do the best to properly handle items that cannot reused.</p> <p>Check everything before you put in the trash,as more and more item are able to be recycled these days.</p> <p>CONCLUSION</p> <p>Finally I conclude my topic that plastics should be avoided to make our future generation to have a healthy life. As a housewives you have to take steps to reduce the use of plastics. By educating and creating awareness in proper management of plastic wastes, the ill effects can be reduced.</p>		Lisenting	

பிளாஸ்டிக் கின்
விளைவுகளைப் பற்றிய
பாடத்திட்டம்

முன்னுரை:

பிளாஸ்டிக் பொருட்களை உபயோகப்படுவதினால் கழிவு மற்றும் மழை நூர் அதில் தேங்கி நோய் வருவதற்கு முக்கியமான காரணியாக உள்ளது. பிளாஸ்டிக் பைகள் தேவைக்கேற்ற அளவிலும் வடிவத்திலும் எளிதில் உபயோகப்படத்தக்க கூடியதாகவும் உள்ளதால், மக்கள் அதை அதிக அளவில் பயன்படுத்துகிறார்கள் இன்றைய இல்லத்தரசிகள் சமூகத்தில் முக்கியமான அங்கத்தில் உள்ளனர் எனவே பிளாஸ்டிக் பொருட்களை உபயோகப்படுத்துவதினால் உண்டாகக்கூடிய எதிர்விளைவுகளைப்பற்றி அவர்களிடம் எடுத்துக்கூறுவதன் மூலம் மாற்றத்தைக் கொண்டுவந்து வளமான எதிர் காலத்தை உருவாக்க முடியும். நாம் பயன்படுத்தும் பிளாஸ்டிக் நமது உடலுக்கு பாதிப்பை ஏற்படுத்துகிறது, விலங்குகளின் உயிருக்கு ஆபத்து ஏற்படுத்துகிறது மற்றும் சுற்றுச் சூழலை பாதிக்கிறது.

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி-யாளரின் செயல்	கில்லத்தர-களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
1.	2நிமி	பிளாஸ்டிக் வரையரை	<p>பிளாஸ்டிக்</p> <p>பிளாஸ்டிக் என்பது ஒரு செயற்கையான முறையில் தொழிலக பயன்பாட்டிற்காக பயன்படுத்தும் ஒரு வகை திண்ம பொருள் ஆகும்.</p>	பிளாஸ்டிக் வரையரை-த்தல்	கவனித்தல்	ஒலிஉரு காட்சி
2.	3நிமி	பிளாஸ்டிக் வகைகள்	<p>பிளாஸ்டிக் வகைகள்</p> <p>1. தெர்மோ பிளாஸ்டிக்</p> <p>2. தெர்மோ செட்டிங்</p> <p>1.தெர்மோ பிளாஸ்டிக்</p> <p>தெர்மோ பிளாஸ்டிக் என்பது என்பது ஒரு வகையான பாலிமர் நெருப்பின் மூலம் உருக்கி உருமாற்றம் செய்யப்படும்.</p> <p>2.தெர்மோ செட்டிங்</p> <p>தெர்மோ செட்டிங் இராசயண பொருட்கள் மூலம் செய்யப்படுவது, அதை உருக்கி உருமாற்றம் செய்ய இயலாது.</p>	பிளாஸ்டிக் வகைகளை வரிசைப்படுத்தல்	கவனித்தல்	ஒலிஉரு காட்சி

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி-யாளரின் செயல்	இல்லத்தர-களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
3.	5நிமி	பிளாஸ்டிக் கின் விளைவுகள்	<p>பிளாஸ்டிக்கின் விளைவுகள்:</p> <ol style="list-style-type: none"> 1. சுற்றுசூழலில் ஏற்படும் விளைவுகள் 2. மனிதர்களுக்கு ஏற்படும் விளைவுகள் 3. விலங்குகளுக்கு ஏற்படும் விளைவுகள் <p>சுற்றுசூழலில் ஏற்படும் விளைவுகள்:</p> <ul style="list-style-type: none"> • பிளாஸ்டிக்கை மண்ணில் புதைப்பதினால் நீர்தாறைகளில் நீரோட்டத்தைத் தடுக்கிறது. • பிளாஸ்டிக் பைகள் அங்கும் இங்குமாக பறந்து விவசாய நிலத்தை அடைந்து விதைகளை வளர விடாமல் தடுக்கிறது. • பிளாஸ்டிக் பைகள் 500-1000 ஆண்டுகள் வரை மக்காமல் மண்ணில் புதைந்திருக்கும். இதனால் மணவளம் குறைந்து நிலத்தடிநீர் சரிவிகித அளவைக் குறைக்கிறது இயற்கையை சீரழிக்கிறது. 	பிளாஸ்டிக் கின் விளைவுகள் விவரித்தல்	கவனித்தல்	ஒலிஉரு காட்சி

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி-யாளரின் செயல்	கில்லத்தர-களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
4.	5நிமி	மனிதர்க ளுக்கு ஏற்படும் தீங்கு விளைவுகள்	<ul style="list-style-type: none"> பிளாஸ்டிக்கை எரிப்பதனால் அதிலிருந்து வெளியேறும் மீத்தேன் எண்ணும் நச்சுப்புகை, பூமியை வெப்பமையாக்குகிறது. இதனால் காற்று மாசுப்படுத்துகிறது. சுமார் 165 மில்லியன் பிளாஸ்டிக் கடலில் கலந்து கடலை மாசுப்படுத்துகிறது. <p>மனிதர்களுக்கு ஏற்படும் தீங்கு விளைவுகள்</p> <p>பிளாஸ்டிக் தயாரிப்பதற்கு பிஸ்பினைல் என்னும் ஒருவகை வேதிப்பொருள் பயன்படுத்தப்படுகிறது. அந்த வேதிப்பொருளானது</p> <ul style="list-style-type: none"> ❖ புற்றுநோய் ❖ இதயநோய் ❖ சர்க்கரை நோய் ❖ கல்லீசர்க்கரை நோய், மாறுபாடுகள் 	மனிதர்களு க்கு ஏற்படும் தீங்கு விளைவுகளை விவரித்தல்	கவனித்தல்	ஒலிஉரு காட்சி

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி -யாளரின் செயல்	இல்லத்தர -களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
			<ul style="list-style-type: none"> • வளரும் குழந்தைகளிடையே முளை நோய்கள் ஏற்பட காரணமாக உள்ளது. • பிளாஸ்டிக் பொருட்களில் சமைக்கக்கூடிய உணவுப்பொருட்களில் சூடு காரணமாக பிளாஸ்டிக் உருகி நோய் வரக்கூடிய அபாயம் உள்ளது. • பிளாஸ்டிக் பாடடில் இருக்கும் தண்ணீரை உட்கொள்வதால் நோய் எதிர்பு சக்தி குறையும். தோலில் மாற்றம் ஏற்படும் மற்றும் சரியான பிரச்சனை ஏற்பட வாய்ப்புள்ளது. • பெண்களுக்கு மார்பக புற்றுநோய், கர்ப்பப்பை பாதிப்பு ஏற்படவும் காரணமாக உள்ளது. 			

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி-யாளரின் செயல்	கில்லத்தர-களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
5.	3நிமி	விலங்குக ளுக்கு ஏற்படும் விளைவுகள்	<p>விலங்குகளுக்கு ஏற்படும் விளைவுகள்</p> <ul style="list-style-type: none"> • வீட்டு விலங்குகளான மாடு மற்றும் ஆடு புற்களோடு சேர்ந்து பிளாஸ்டிக் பொருட்களை உண்பாதால் அது கிறந்து விடுகிறது. • கடலில் வாழும் உயிரினங்களான மீன், கடல் ஆமை திமிங்கலம் மற்றும் பறவைகள் பிளாஸ்டிக் பைகளை உணவு என நினைத்து உட்கொள்வதால் தொண்டையில் சிக்கி.அடைப்பு ஏற்பட்டு கிறந்து விடுகிறது. • விலங்குகள், பறவைகள் உட்கொள்ளும் பிளாஸ்டிக்கிலிருந்து வெளியேறும் கிரசாயண பொருள் உடல் நலத்தை பாதிக்கிறது. 	<p>விலங்குக- ளுக்கு ஏற்படும் விளைவுகளை விளக்குதல்</p>	<p>கவனித்தல்</p>	<p>ஒலிஉரு காட்சி</p>
6.	2 நிமி	பிளாஸ்டிக் கினால் ஏற்படும் விளைவுகளை தடுக்கும் முறைகள்	<p>பிளாஸ்டிக்கினால் ஏற்படும் விளைவுகளை தடுக்கும் முறைகள்</p> <ul style="list-style-type: none"> • மிகவும் மெல்லிய பிளாஸ்டிக் பொருள்களை உபயோகிப்பதை தடுக்க வேண்டும். 	<p>பிளாஸ்டிக்கி னால் ஏற்படும் விளைவுகளை தடுக்கும் முறைகள் விளக்குதல்</p>	<p>கவனித்தல்</p>	<p>ஒலிஉரு காட்சி</p>

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி- யாளரின் செயல்	இல்லத்தர -களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
			<ul style="list-style-type: none"> • அதனால் 40 மைக்ரான்ஸ்-க்கு இருக்கும் பிளாஸ்டிக் பைகளை உபயோகிக்கலாம். • துணி சணல் பை மற்றும் கண்ணாடியிலான பொருட்களை பயன்படுத்த வேண்டும் • உலோகத்தால் ஆன பாத்திரங்களில் மட்டுமே உணவுப்பொருட்களை சமைத்து உண்ணவேண்டும் • பிளாஸ்டிக் பாட்டில்களில் உள்ள தண்ணீர்க்கு பதிலாக கண்ணாடி பாட்டில்களில் உள்ள தண்ணீர்க்கு பதிலாக கண்ணாடி பாட்டில்களில் தண்ணீரை பருக வேண்டும் • சூடு நிறைந்த உணவுகளை பிளாஸ்டிக் பாத்திரங்களில் உண்பதை தவிர்க்கவேண்டும். 			

வரிசை எண்	நேரம்	குறிப்பான குறிக்கோள்	பொருளடக்கம்	ஆராய்ச்சி -யாளரின் செயல்	இல்லத்தர -களின் செயல்	ஒளி-ஒலிச் சாதனங்கள்
			<ul style="list-style-type: none"> • குழந்தைகளுக்காக பிளாஸ்டிக் பாட்டில் பதிலான கண்ணாடி பாட்டில் பயன்படுத்தலாம். • மறுசுழற்சிக்கு அனுப்புவதன் மூலம் பிளாஸ்டிக்கினால் ஏற்படும் விளைவுகளை தடுக்கும். • மக்கும் தன்மை இல்லாத பிளாஸ்டிக்கிற்கு பதிலாக மக்கும் பிளாஸ்டிக்கை பயன்படுத்தலாம். • பிளாஸ்டிக் விளைவுகளை பற்றி மக்களுக்கு விழிப்புணர்வு ஏற்படுத்தலாம். 			

முடிவரை:

இதுவரை நாம் பிளாஸ்டிக் பற்றியும் அதனால் உண்டாகும் விளைவுகளை மற்றும் நோய்களை பற்றி அறிந்தோம். அதனால் பிளாஸ்டிக் உபயோகிப்பதை தடுத்தால் நம் எதிர்கால வாழ்க்கை வளமாக இருக்கும். ஆகவே இல்லத்தரசிகள் அகிய நூங்கள் பிளாஸ்டிக் உபயோகிப்பதை தடுக்க முயற்சிகளை மேற்கொள்ள வேண்டும். குடும்பத்தினர்க்கு பிளாஸ்டிக் பற்றிய விளைவுகளை கூறி மற்றும் விழிப்புணர்வு ஏற்படுத்துவதன் மூலம் பிளாஸ்டிக்கின் துங்குகளை குறைக்கலாம்.

INFORMATION TO PARTICIPANTS

Title of the study: “A study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastic usage among homemakers at KP.Park Chennai.”

The Purpose of the Research (explain briefly): This research is conducted to evaluate the effectiveness of video assisted teaching among college students on raising their knowledge scores regarding preconception care for their success study.

Confidentiality of the information obtained from you:

You have the right to confidentiality regarding the privacy of your personal details. Your privacy in the study will be maintained throughout the study in the event of any publication or presentation resulting from the research, no personally identifiable information will be shared. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

How will your decision not to participate in the study affect you?

Your decisions not to participate in this research study will not affect your activity of daily living, medical care or your relationship with investigator or the institution.

Can you decide to stop participating in the study once you start?

The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during course of the study without giving any reasons.

However, it is advisable that you talk to the research team prior to stopping the treatment.

Signature of Investigator

Signature of Student

Date:

Date:

INFORMED CONSENT

Title of the study: “A study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastic usage among homemakers at KP.Park Chennai.”

”

Investigator : Nisha.P

Name of Participant :

Age/sex :

Date :

Name of the institution :

Documentation of the informed consent: (legal representative can sign if the participant is minor, unconscious or incompetent).

- I _____ have read/it has been read for me, the information in this form. I was free to ask any questions and they have been answered. I am over 20 yrs of age and exercising my free power of choice, hereby give my consent to be included as a participant in the study.
- I have read and understood this consent form and the information provided to me.
- I have had the consent document explained in detail to me.
- I have been explained about the nature of my study.
- My rights and responsibilities have been explained to me by the investigator.
- I agree to cooperate with the investigator
- I have not participated in any research study at any time.
- I am aware of the fact that I can opt out of the study at any time without having to give any reason

- I hereby give permission to the investigators to release the information obtained from me as a result of participation in this study to the regulatory authorities, government agencies and Institutional ethics committee.
- I understand that they are publically presented; my identity will be kept confidential.
- I am aware that I have any question during this study; I should contact the concerned investigator.

Signature of Investigator

Signature of Student

Date:

Date:

சுய ஒப்புதல் படிவம்

ஆய்வு தலைப்பு : காணொலி மூலம் பிளாஸ்டிக்கின் தீயவிளைவுகள்” பற்றி
இல்லத்தரிசிகளுக்கு கற்பித்தல்

ஆய்வாளர் பெயர் : நிசா. பு

பங்கேற்பாளர் பெயர் :

ஆய்வு நடைபெறும் இடம் :

.....என்பவராகிய நான் இந்த ஆய்வின் விவரங்களும் அதன் நோக்கங்களும் முழுமையாக அறிந்து கொண்டேன். எனது சந்தேகங்கள் அனைத்திற்கும் தகுந்த விளக்கம் அளிக்கப்பட்டது. இந்த ஆய்வில் முழு சுதந்திரத்துடன் மற்றும் சுயநினைவுடன் பங்கு கொள்ள சம்மதிக்கிறேன்.

1. நான் இந்த ஒப்புதல் தகவல் தாள்படித்து புரிந்து கொண்டேன்.
2. இச்சுய ஒப்புதல் படிவத்தை பற்றி எனக்கு விளக்கப்பட்டது.
3. எனக்கு விளக்கப்பட்ட விஷயங்களை நான் புரிந்து கொண்டேன். நான் எனது சம்மதத்தை தெரிவிக்கிறேன்.
4. இந்த ஆய்வினை பற்றிய அனைத்து தகவல்களும் எனக்கு தெரிவிக்கப்பட்டது.
5. இந்த ஆய்வில் ஏற்படும் பாதிப்புகள் பற்றி எனக்கு விளக்கம் அளிக்கப்பட்டது.
6. இந்த ஆய்வில் எனது உரிமை மற்றும் பங்கினை பற்றி அறிந்து கொண்டேன்.
7. நான் ஆய்வாளருக்கு முழு ஒத்துழைப்பு அளிப்பேன், மேலும் எனக்கு பக்கவிளைவு ஏதாவது ஏற்பட்டால் ஆய்வாளருக்கு உடனடியாக தெரிவிப்பேன்.

இந்த ஆய்வில் பிறரின் நிர்பந்தமின்றி என் சொந்த விருப்பத்தின் பேரில் தான் பங்கு பெறுகிறேன் மற்றும் நான் இந்த ஆராய்ச்சியிலிருந்து எந்த நேரமும் பின் வாங்கலாம் என்பதையும் அதனால் எந்த பாதிப்பும் ஏற்படாது என்பதையும் நான் புரிந்து கொண்டேன்.

இந்த ஆய்வின் முடிவினை வெளியிடும் போது எனது பெயரோ, அடையாளமோ வெளியிடப்படாது என்பதை அறிந்து கொண்டேன். இந்த ஆய்விற்ரு தேவைப்பட்டால் இரத்தப் பரிசோதனையும் செய்துக் கொள்ள சம்மதிக்கிறேன்.

இந்த ஆய்வில் பங்கேற்கும் பொழுது ஏதேனும் சந்தேகம் எற்பட்டால், உடனே ஆய்வாளரை தொடர்பு கொள்ள வேண்டும் என்பதை அறிந்து கொண்டேன்.

இச்சுய ஒப்புதல் படிவத்தில் கையெழுத்திடுவதன் மூலம் இதிலுள்ள அனைத்து விவரங்களும் எனக்கு தெளிவாக விளக்கப்பட்டது என்பதை தெரிவிக்கிறேன். இச்சுய ஒப்புதல் படிவத்தின் ஒரு நகல் எனக்கு கொடுக்கப்படும் என்று தெரிந்து கொண்டேன்.

பங்கேற்பாளர் கையொப்பம்:
தேதி:

ஆய்வாளர் கையொப்பம் :
தேதி:





**INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE, CHENNAI 600 003**

EC Reg.No.ECR/270/Inst./TN/2013

Telephone No.044 25305301

Fax: 011 25363970

CERTIFICATE OF APPROVAL

To
Nisha.P.
I Year M.Sc.(Nursing) Student
College of Nursing
Madras Medical College
Chennai 600 003

Dear Nisha.P.,

The Institutional Ethics Committee has considered your request and approved your study titled **"A STUDY TO ASSESS EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING ILL EFFECTS OF PLASTIC USAGE AMONG HOME MAKERS AT KP PARK, CHENNAI "** NO. 27072016.


The following members of Ethics Committee were present in the meeting hold on **12.07.2016** conducted at Madras Medical College, Chennai 3

1.Prof. C. Rajendran, MD.	Chairperson
2.Prof. Isaac Christian Moses,MD.,Dean(FAC)MMC ,Ch-3	Deputy Chairperson
3.Prof. Sudha Seshayyan, MD., Vice Principal, MMC.Ch- 3.	Member Secretary
4.Prof. B.Vasanthi,MD.,Prof of Pharmacology, MMC,	Member
5.Prof. P.Raghumani.MS., Professor of Surgery, Inst. of surgery	Member
6.Prof. Md Ali, MD.,DM., Prof & HOD of MGE, MMC,Ch-3.	Member
7.Prof. Baby Vasumathi.,MD, Director. Inst. of O&G,	Member
8.Prof. K.Ramadevi.,MD, Director, Inst of Bio-Chemistry, MMC,	Member
9.Prof. R.Padmavathy,MD., Professor, Inst.of Pathology, MMC,Ch	Member
10.Prof.S.Tito, MD, Director, Inst.of Inter Med, Ch-3.	Member
11.Tmt.J.Rajalakshmi, Junior Administrative Officer,MMC,Ch	Layperson
12.Thiru.S.Govindasamy., B.A.B.L., High Court, Chennai-1	Lawyer
13.Tmt.Arnold Saulina, MA., MSW.,	Social Scientist

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

Member Secretary - Ethics Committee


**MEMBER SECRETARY
INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE
CHENNAI-600 003**

From

The City Health Officer
Public Health Department,
Corporation of Chennai
Ripon Building
Chennai – 600 003

To

P. Nisha

The Nursing Students,
M.Sc (Nursing) Ist year
College of Nursing
Madras Medical College
Chennai – 600 003

H.D.C.No: (77011 / 2016)

Date: 25.11.2016

- Sub: Corporation of Chennai – Public Health Department – Requisition for permission to conduct research study in chooolai, chennai – Reg
- Ref: 1. Letters received from 2 students studying M.Sc (Nursing) Ist Year, College of Nursing, Madras Medical College, Chennai – 600 003, Dated :
2. Orders of the Deputy Commissioner, Dated :

As per the orders of the Deputy Commissioner in the reference 2nd cited above 2 Nursing students studying M.Sc (Nursing) Ist year, College of Nursing, Madras Medical College, Chennai – 600 003 are permitted to conduct Research study on their topics.

The names of the students and their topics are mentioned below:

Sl.No	Name of the Students	Topic
1	Tmt.Chidambaram Gayathiri	Effectiveness of Structured Teaching Programme on Knowledge of Bio Medical Waste Management among the Community Health Care Personnel in Selected urban Health Centre at chennai
2	Tmt P.Nisha	A study to assess the effectiveness of video assisted Teaching on knowledge regarding ill effects of Plastic usage among women homemaker at K.P.Park in chennai

Deputy Commissioner (Health) has permitted the 2 students with the conditions as detailed below

1. All Publications should have reference to Corporation of Chennai, Public Health Department and the city Health officer as Co- Author
2. Reports Should be well informed to the Deputy Commissioner (Health) and City Health Officer
3. Negative Reporting about corporation will be viewed seriously as per the relevant acts.

Copy Submitted to:
Deputy Commissioner (Health)
City Health Officer

Copy to:

1. Individuals
2. The Zonal Officers, Zone I to XV
3. Zonal Health Officers, Zone I to XV


City Health Officer
Dr. N.P. SENTHILNATHAN, M.B.B.S., D.P.H.,
City Health Officer,
Public Health Department,
Corporation of Chennai,

CERTIFICATE OF VALIDATION

This is to certify that the tool,

Prepared by Nisha.P, II year M.Sc (N) student of College of Nursing, Madras Medical College, Chennai-03, who has under taken the study field titled" A Study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastics usage among home makers at K.P.Park, Chennai".



SIGNATURE OF THE EXPERT

NAME:

DESIGNATION:


DATE: 9.11.16

Inst of Community Health
Madras Medical College
Chennai-03.

CERTIFICATE OF VALIDATION

This is to certify that the tool, Prepared by **Nisha.P**, II year M.Sc(N) student of college of nursing, Madras Medical College, Chennai-03, who has under taken the study field title **"To assess the effectiveness of video assisted teaching on Knowledge regarding ill effects of plastics usage among Home makers at KP.park in Chennai"** has been validated by the under signed. Then she can proceed to do the research.

NAME: **M-HELEN**
DESIGNATION: **READER**
DATE: **8.11.2016**


SIGNATURE OF THE EXPERT _____
Mrs. M. HELEN, MSc.,(N), MBA., Ph.D.,
READER
DEPARTMENT OF COMMUNITY HEALTH NURSING,
APOLLO COLLEGE OF NURSING,
CHENNAI-600 095

CERTIFICATE OF VALIDATION

This is to certify that the tool, Prepared by **Nisha.P**, II year M.Sc(N) student of college of nursing, Madras Medical College, Chennai-03, who has under taken the study field title **“To assess the effectiveness of video assisted teaching on Knowledge regarding ill effects of plastics usage among Home makers at KP.park in Chennai”** has been validated by the under signed, Then she can proceed to do the research.

NAME: **A - MAYAA**
DESIGNATION: **VICE PRINCIPAL**
DATE: **11.11.2016**

A. Mayaa
SIGNATURE OF THE EXPERT
Mrs. A. MAYAA, M.T., M.N., Ph.D.
VICE-PRINCIPLE
DEPARTMENT OF COMMUNITY HEALTH NURSING
SRI BHARANI COLLEGE OF NURSING
SALEM

CERTIFICATE OF ENGLISH EDITING

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the dissertation work "A study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastics usage among homemakers at K.P.Park ,Chennai" done by Nisha.P M.Sc (Nursing) II year student of college of nursing ,Madras Medical College, Chennai-3 is edited for English language appropriateness by

Mrs. J. CHRISTINA YAKKAL SAROJNI

Date : 6.7.17

Place : VELLORE

Signature:



Mrs. J. CHRISTINA YAKKAL SAROJNI, M.A., M.Phil.,
ASSISTANT PROFESSOR
DEPT. OF ENGLISH
VOORHEES COLLEGE, VELLORE-1

CERTIFICATE OF TAMIL EDITING

TO WHOM SO EVER IT MAY CONCERN

This is to certify that the dissertation work " A study to assess the effectiveness of video assisted teaching on knowledge regarding ill effects of plastics usage among homemakers at K.P.Park ,Chennai" done by Nisha.P M.Sc (Nursing) II year student of college of nursing ,Madras Medical College, Chennai-3 is edited for Tamil language appropriateness by

Dr. D. MANIVANNA PANDIAN

Date : 17.07.2017

Place : VELLORE - 1

Signature:



Captain. Dr. D. MANIVANNAPANDIAN
M.A., M.Phil., Ph.D.,
Associate Professor in Tamil &
Coy. Commander, 10(TN) BN, NCC
VOORHEES COLLEGE, Vellore - 632 001.