



# EFFECTIVENESS OF IEC PACKAGE REGARDING CLIMATE CHANGE ON KNOWLEDGE AMONG ADOLESCENTS IN SELECTED SCHOOL AT TIRUVANNAMALAI.

1. Dr. S. Vijayalakshmi, Principal, Vignesh Nursing College, The Tamilnadu Dr.M.G.R. Medical University, Chennai

2. Mrs. K. Nisamasoothini, Assistant Professor, Vignesh Nursing College, The Tamilnadu Dr.M.G.R. Medical University, Chennai

3. Dr. R. Jayalakshmi, Professor, Vignesh Nursing College, The Tamilnadu Dr.M.G.R. Medical University, Chennai

## ABSTRACT

Climate change is a process of changing the climate system over a long period and over a wide area due to natural processes or as a consequence of human activity, has become a global issue. Natural processes have as a small contribution to climate change whereas human activity is the most significant contributor. This study was conducted to assess effectiveness of IEC package regarding climate change on knowledge among adolescents in Mount Saint Joseph Higher Secondary School at Tiruvannamalai, Tamil Nadu and India. This study was conducted in one group pre and posttest only design which comes under pre experimental research design. 160 adolescents were selected in experimental group by using convenience sampling technique. The knowledge level was assessed by structured knowledge questionnaire. The findings revealed that the mean pre test score was 24.5 and the post test score was 32.06. The calculated t value was 16.5 which found to be statistically significant at  $p < 0.05$  level. This clearly shows that the implementation of IEC package had improvement in knowledge score of post test climate change among adolescents.

Keywords: climate change, IEC package, knowledge, adolescents.

## INTRODUCTION:

**Adolescence** is a vital stage of growth and development and marks the period of a transition from childhood to adulthood with a change from complete dependence to relative independence. In Indian society, adolescent's period begins from 10 years and ends up to 19 years (WHO).

**Climate change** has increased levels of uncertainty about our future. Climate change affects the social and environmental determinants of health – clean air, safe drinking water, sufficient food and secure shelter. Between 2030 and 2050, climate change is expected to cause approximately 2, 50,000 additional deaths per year, from malnutrition, malaria, diarrhea and heat stress. The direct damage costs to health ( i.e. excluding costs in health

determining sectors such as agriculture, water and sanitation) is estimated to be between USD 2-4 billion/ year by 2030. Areas with weak health infrastructure mostly in developing countries will be the least able to cope without assistance to prepare a respond. Reducing emissions of greenhouse gases through better transport, food and energy use choices can result in improved health particularly through reduced air pollution (WHO-2021).

Assessing adolescents understanding related to climate change impact on health is a critical section for some reasons. First, it is important to have a better adaptive capacity for teenagers. Second, a teenager or adolescent is a proper agent of change whose possible role is a climate change message carrier. Some researchers have successfully engaged adolescents as a message carrier.

**IEC package** was used widely especially in the improvement of contents, readability and aesthetics. These attributes are important because they enhance the understandability of the materials and have the potential to promote positive health practices regarding climate change.

Considering the whole background, the perception of adolescents regarding climate change impact on health is important to observe. In order to give better understanding of climate change, researcher is interested to conduct a study on effect of IEC package regarding climate change on knowledge among adolescents.

## STATEMENT OF THE PROBLEM

A study to assess the effectiveness of IEC package regarding climate change on knowledge among adolescents in selected school at Tiruvannamalai.

## OBJECTIVES

To assess the pre and post test level of knowledge regarding climate change among adolescents.

To compare the pre and post test level of knowledge regarding climate change among adolescents.

To associate the posttest level of knowledge regarding climate change among adolescents with their selected demographic variables.

## NULL HYPOTHESIS

- $NH_1$  there is no significant difference in pre and post test level of knowledge regarding climate change among adolescents at  $p < 0.05$  level.
- $NH_2$  there is no significant association of post test level of knowledge regarding climate change among adolescents with their selected demographic variables at  $p < 0.05$  level.

## CONCEPTUAL FRAMEWORK:

The framework adopted for the study is **Imogene King Goal Attainment Theory**.

## CRITERIA FOR SAMPLE SELECTION:

### Inclusive criteria

The adolescents who

- were in age group of 15 to 18 yrs

- can able to speak Tamil and English
- were available during the study period
- are willing to participate in this study

### **Exclusion criteria**

Adolescents who

- were sick/ absent on the day of data collection
- were already attended educational programmes on climate change.

### **MATERIAL AND METHODS:-**

The study was conducted at Mount Saint Joseph Higher Secondary School at Tiruvannamalai, Tamil Nadu, India. The data was collected for a period of one week in the month of January 2020. Prior permission from the authorities was sought by the investigator after explaining the purpose of study. The research design was adopted for this study was one group pre and post test design which comes under pre experimental design. 160 adolescents were selected based on sample selection criteria through convenience sampling technique. Rapport was established with selected subjects & a brief introduction about the research purpose was given. Written consent for participation in the study was obtained. The pre test level of knowledge was assessed by using structured knowledge questionnaire. IEC package (including poster presentation and slide show presentation) was given through lecture cum discussion for 45 minutes in each group (4 groups). Post test was conducted in adolescents by using same knowledge questionnaire on seventh day.

### **DATA ANALYSIS:**

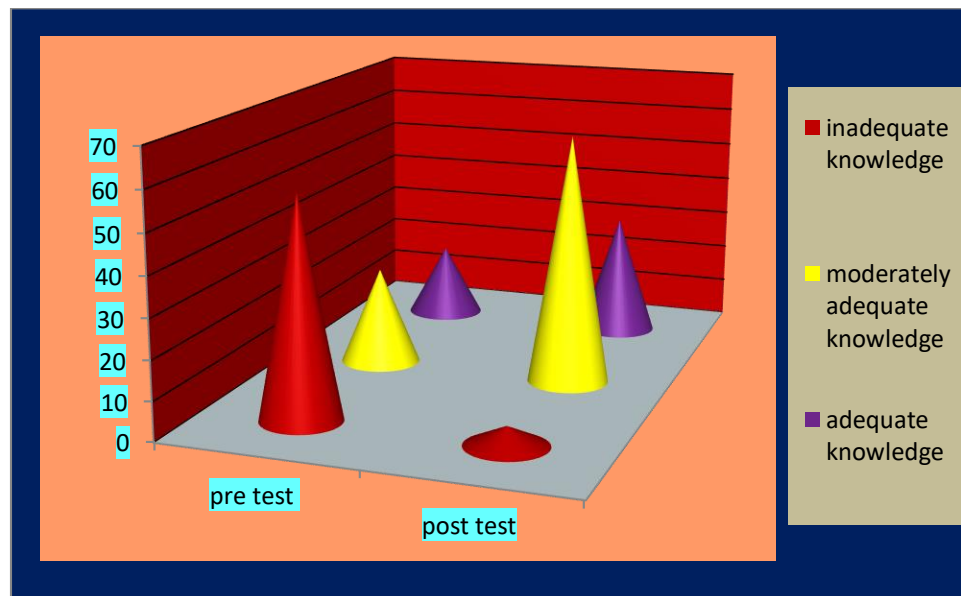
Both descriptive and inferential statistics were used to analyze the data

### **RESULTS AND DISCUSSION**

The major findings of the study are

**Frequency and percentage distribution of demographic variables**, majority of subjects 60(37.5%) were in age group of 15 yrs, 88(55%) were males, 60(37.5%) were studying in 10<sup>th</sup> standard, 70(43.7%) of them family income is Rs. 10,000-20,000, 112 (75%) living as a nuclear family, 98 (61.25%) had transport like bike at their home and 148(92.5%) had closed type of latrine.

### **ASSESSMENT OF THE LEVEL OF KNOWLEDGE REGARDING CLIMATE CHANGE AMONG ADOLESCENTS**



## COMPARISON OF THE LEVEL OF KNOWLEDGE REGARDING CLIMATE CHANGE AMONG ADOLESCENTS

Level of the knowledge	Pre test		Post test		T test
	Mean	SD	Mean	SD	
	24.5	5.7	32.06	1.36	16.5 S**

This clearly show that the implementation of IEC package had improvement in posttest regarding climate change among adolescents

Hence the null hypothesis  $NH_1$  stated earlier that there is no significant difference of pre and post test level of knowledge regarding climate change among adolescents at  $p < 0.05$  was rejected.

## ASSOCIATION OF POST TEST LEVEL OF KNOWLEDGE WITH THEIR SELECTED DEMOGRAPHIC VARIABLE AMONG ADOLESCENTS.

There is a statistical significant association of level of knowledge with **age** (19.4) and **drainage system** (17.1) at  $p < 0.05$  level. There was no statistically significance association was observed with other demographic variable such as **sex**, **educational status**, **family income**, **family structure**, **use of vehicles**.

## IMPLICATIONS

Implication for nursing practice

- Nursing personnel should develop in depth knowledge and skills in ecosystem and biodiversity especially on climate change
- Nurse should collaborate with other health team members providing education to community people regarding impact of climate change which help nurses to prepare for disaster mitigation.

## CONCLUSION

This study was done to assess the effectiveness of IEC package regarding climate change on knowledge among adolescent in selected school at Tiruvannamalai. Climate change knowledge is essential for the society, including adolescents, because it determines the social adaptive capacity. So providing proper information

regarding climate change and health for young people is a valuable investment in disaster risk reduction. The findings revealed that the experimental group means pre test score was 24.5 and the post test score was 32.06. The calculated t value was 16.5 was found to be statistically significant at  $p < 0.05$  level. This study finding concludes that there was statistically significant difference in pre and post test level of knowledge after implementing IEC package.

## BIBLIOGRAPHY

### BOOK REFERENCE

1. Adarsh pal vig, Sonia Sharma, Sartaj Ahmed Bhat & Namita Khana. **“Environmental Hygiene”** Jaypee publications, 2017.
2. Park .K **“text book of preventive and social medicine”** Bhanot publication, 24<sup>th</sup> edition
3. Robert H. Friis. **“Essentials of environmental health”** (3<sup>rd</sup> edition). Kindle eBook.

### JOURNAL REFERENCE

1. Houghton JT, **“climate change 2001”** the scientific basis, Cambridge University, England, 2001.
2. Kusumasari B, **“climate change and health teenager’s perceptions as a basis for interventions”** IJPHS, vol.5, no.3, pp. 267-273.
3. Partil, Nethravathi ashok, Tirlapur, Laxmi N. and Patil Bheemanagouda.O. (2015). **“Natural disasters due to climate change in india”** Asian J Environ, Sci., 10(2): 142-149.