



## Assess the knowledge regarding global warming impact on health among III Year B.Sc. nursing students in Narayana Medical College Hospital, Nellore

<sup>1</sup> I Priyanka, <sup>2</sup> Anjani Devi, <sup>3</sup> Somesula Suchitra, <sup>4</sup> Arumugam Indira

<sup>1</sup> Staff Nurse, NMCH, Nellore, Andhra Pradesh, India

<sup>2,3</sup> Assistant Professor, Department of Mental Health Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, India

<sup>4</sup> Principal, Narayana College of Nursing, Nellore, Andhra Pradesh, India

### Abstract

**Background of the study:** Global warming is all about adverse climate change caused by trapping of green house gases (CO<sub>2</sub>) in the earth atmosphere that affects biodiversity and causes a serious health hazards. Counter measures to facilitate living in hotter temperature like air conditioning and refrigeration will unfortunately consume more electricity from power plants that burn coal, releasing CO<sub>2</sub>. This will further spike global warming and have a seriously damaging influence on human health. External forces refer to processes external to the climate system that influence climate.

**Objectives:** To assess the Level of knowledge regarding Global warming and its impact on health among the III rd year B.Sc (N) students. To find the association between the level of knowledge regarding Global warming and its impact on health among III rd year B.Sc. (N) and with their selected Socio demographic variables.

**Material and Method:** The present study was conducted by using quantitative research approach and descriptive design was adopted. The Samples were selected by using non -probability convenience sampling technique.

**Result and Discussion:** Level of knowledge nursing students regarding global warming impact on health. Among 30 students 27(90%) has got "D" grade and 3(10%) got C grade.

**Conclusion:** Majority of nursing students having inadequate knowledge regarding global warming impact on health having students are C grade 3(10%) & D grade 27(90%).

**Keywords:** global warming and its impact on health and III year B.sc (N) students

### Introduction

The term global warming was probably first used in its modern sense on 8 august 1975 in a science paper by Wally "Broecker" in the journal science called "Are we on the brink of a pronounced global warming". Global warming is the increase of earth's average surface temperature due to effect of greenhouse gases, such as carbon dioxide emission from burning fossil fuels or from deforestation, which trap heat that would otherwise escape from earth. This is a type of green house effect.

Global warming is all about adverse climate change caused by trapping of green house gases (CO<sub>2</sub>) in the earth atmosphere that affects biodiversity and causes a serious health hazards. Counter measures to facilitate living in hotter temperature like air conditioning and refrigeration will unfortunately consume more electricity from power plants that burn coal, releasing CO<sub>2</sub>. This will further spike global warming and have a seriously damaging influence on human health. External forces refer to processes external to the climate system that influence climate. Climate responds to several types of external forcing, such as Radioactive forcing due to changes in atmospheric composition, change in solar luminosity, volcanic eruption and variation in earth's orbit around sun.

Policy makers about climate change and its potential impact on the environment and human health. The potential impact of

climate change on population health is enormous has already caused the loss of 150,000 human lives and about 5 million DALYs (Disability Adjusted Life Years) throughout the world. Accelerating demographic, social, economic, environmental and ecological changes as a result of increasing globalization and the inability of many developing countries and their populations to make the necessary adaption changes to mitigate the effect of climate change, renders Africa particularly vulnerable to the effects of climate change.

### Need for the study

Now a day's global warming is considered as a burning problem and it is being a challenge to the entire world and its scientific society. Global warming is a worldwide environmental problem by which there is an abnormal increase to the level of temperature, particularly in a natural environment. Global Warming is the observed and projected increase in the average temperature of earth's atmosphere and oceans due to greenhouse gas emissions like CFC, CH<sub>4</sub>, N<sub>2</sub>O, CO, Hydro carbons on account of human activities. The effects of Green house gas due to increase in Green House Gas warms the planet; decrease in Green House Gas cools the planet. Unfortunately there is a steep increase of the temperature in the last three decades. Global warming is not only affecting the nature, but it affects the life and homes of

millions of people.

The UN Intergovernmental panel on climate change [IPCC] which draws upon the collective wisdom of many hundreds of scientist from around the world. The IPCC projects global temperature increases of 3-10 degree F in the next 100 years and says that human activity is the cause of most of the observed and projected warming. Warmer temperatures lead to greater concentrations of ground level ozone, which forms on hot, sunny days when pollution from cars and sources mix. Higher temperature over the coming decades are expected to cause more smoggy days and heat waves, contributing to a greater number of illness and deaths in the united states, according to international climate scientist. Smog can damage lung tissue, increasing respiratory and heart disease and death. Even modest increase in smog can cause asthma in children. Smog related death from climate change is projected to increase by about 4.5 % from the 1990s to 2050s, According studies at Columbia and Johns Hopkins universities. A scientist at Yale University, Michelle Bell, looked at the 50 largest cities in eastern United States and found that the health alert days would go up by 68 percent over the next decades.

### Statement of the problem

“A study to assess level of knowledge regarding global warming and its impact on health among III rd year B.sc(n) students in Narayana college of nursing, at Nellore”.

### Objectives of the study

1. To assess the Level of knowledge regarding Global warming and its impact on health among the III rd year B.Sc. (N) students.
2. To find the association between the level of knowledge regarding Global warming and its impact on health among III rd year B.Sc. (N) and with their selected Socio demographic variables.

### Assumptions

1. III rd year B.Sc. (N) students in Narayana College of nursing may have inadequate knowledge regarding Global warming and its impact on health.
2. Knowledge regarding Global warming and its impact on health can be measured by questionnaire.
3. Knowledge regarding Global warming and its impact on health will be enhanced among B.Sc. (N) students in Narayana College of nursing.

### Delimitations: Study is limited to

1. III rd year B.Sc. (N) students available at time of data collection
2. Sample size of 30 III rd year B.Sc. (N) students
3. One week of data collection Period only

### Methodology

**Research Approach:** Quantitative approach

### Research Design

descriptive design

### Setting

The setting selected for the study was Narayana College of Nursing, Nellore

### Population

#### Target Population

Target population includes III year nursing students at Nellore, who fulfilled inclusion criteria.

#### Accessible Population

Accessible population includes III year B.Sc. nursing students studying in Narayana College of Nursing.

#### Sample

The sample for the present study includes the III year BSC nursing students who full fill the inclusion criteria.

#### Sample Size

The sample size for the present study was 30 III year BSC nursing students.

#### Sampling Technique

Non probability convenience sampling technique was adopted for this study.

#### Variables

Variables of this study were research variables and demographic variables.

**Research Variable:** Knowledge regarding global warming and impact of the health.

**Demographic Variables:** Includes age, religion, language, state, course, source of information etc.

#### Criteria for Sample Selection

##### Inclusion criteria:

III rd year BSC nursing students who are:

1. available at the time of data collection
2. Studying in Narayana College of Nursing
3. Willing to participate in the study

##### Exclusion criteria

III rd year BSC nursing students who are:

1. on leave
2. Studying in other colleges
3. Not willing to participate in the study.

#### Discription of Tool

The tool was adopted with the help of related literature from varies text books, journals, web site, discussion, and guidance from experts.

#### The tool consists of two Parts:

**Part I:** Consists of age, religion, language, course, state, source of information and have you attend any work shop on global warming and impact of the health

**Part II:** Consists of semi structured questionnaire to assess the knowledge regarding global warming and impact of the health

#### Scoring Key

**Part II:** Scoring system was developed by ‘1’ mark to each correct answer and ‘0’ mark to wrong answer.

**Interpretation**

**Table 1**

Grade	Score
A+	More than 85%
A	More than 75%
B+	More than 65%
B	More than 55%
C	More than 50%
D	Less than 50%

**Plan for data analysis**

**Table 2**

Sl. No	Data analysis	Method	Remark
1	Descriptive statistics	Frequency, percentage distribution. Mean and standard deviation	Distribution of socio demographic variables, To assess the knowledge regarding global warming and impact of the health
2	Inferential statistics	Chi- square test	To associate between socio demographic variables and knowledge of iii rd year b.sc nursing students

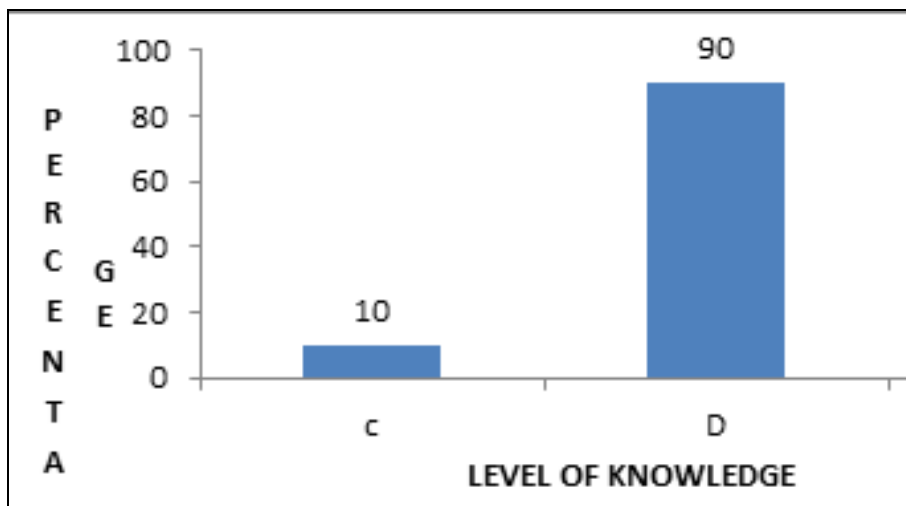
**Data analysis and interpretation**

**Section-I:** Frequency and percentage distribution of socio demographic variables of III rd year B.Sc. (N) students.

**Section-II:** Frequency and percentage distribution of III rd year B.Sc. (N) students based on knowledge regarding global warming impact on health.

**Section-III:** Mean and standard deviation of knowledge score among III rd year B.Sc. (N) students

**Section-IV:** Association between level of knowledge of III rd year B.Sc. (N) students regarding and selected socio demographic variables.



**Fig 1:** Section-II percentage distribution based on level of knowledge among nursing students.

**Table 3:** Section-III Mean and standard deviation regarding global warming impact on health among III rd year B.Sc. (N) students. (n=30)

Category	Mean	Standard deviation
Knowledge	11.9	3.78

**Section-IV: Association on level of knowledge regarding global warming impact on health among IIIrd year B.Sc. (N) students and selected socio-demographic variables. (N=30)**

There is a significant association between the demographic variables such as age, source of information and attended work shop and level of knowledge at  $P < 0.05$  level.

**Summary, conclusion, nursing implications and recommendations**

**Major findings of the study**

- With context to age, most of the nursing students 13(43.4%) are belongs to age group of 19-20 years.
- Regarding to source of information, most of the nursing students 18(60%) of them got information from curriculum.
- With regarded to attended work shop, most of the nursing students 22(73.3%) of them attended work shop on global warming
- Among 30 nursing students, 27(90%) got D grade knowledge.

### Recommendations for future research

On the basis of the findings of the study, recommendations are:

- A similar study can be replicated as a large sample to generalize findings.
- A similar study can be done in different settings.
- The intervention can be made as regular, global impact on health.

### Conclusion

Majority of nursing students having inadequate knowledge regarding global warming impact on health having students are C grade 3(10%) & D grade 27(90%).

### References

1. Park K. A Text Book of Preventive and Social Medicine, 2 Edition Published By M/s Banarsidas Bhanot, 486.
2. Hymavathi S. A Text Book of Essential of Community Health Nursing 1 Edition Published By Frontline, 433.
3. Narendra Nagapal. A Text Book Of Community Health Nursing 2 Edition; Published By Sujana, 337.
4. Kasthuri Sundar Rao. A Text Book of Community Health Nursing 3 Edition; Published By B.I., 87.
5. Burke J. Guardian 30 May. Hundreds Die in Indian Heatwave. Available: <http://www.guardian.co.uk/world/2010/may/30/india-heatwave-deaths>, 2010.
6. India Meteorological Department. India Meteorological Department, Pune. Available: <http://www.imdpune.gov.in/2010>.
7. Indian Institute of Tropical Meteorology. IITM: A World Centre of Excellence in Basic Research on the Ocean-Atmosphere Climate System Required for Improvement of Weather and Climate Forecasts. Available: <http://www.tropmet.res.in>, 2010.
8. Intergovernmental Panel on Climate Change. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change Core Writing Team, Pachauri RK, Reisinger A, eds. Geneva: Intergovernmental Panel on Climate Change, 2007.
9. International Institute for Population Sciences and Macro International 2007. National Family Health Survey NFHS-3, India. Mumbai: International Institute for Population Sciences and Macro International, 2005-06, 1.
10. Jerrett M, Gale S, Kontgis C. Spatial modeling in environmental and public health. *Int J Environ Res Public Health*, 2010; 7:1302-1329.
11. Karar K, Gupta AK, Kumar A, Biswas AK. Seasonal variations of PM<sub>10</sub> and TSP in residential and industrial sites in an urban area of Kolkata, India. *Environ Monit Assess*, 2006; 118:369-381.
12. Young-Seoub Hong, Heesoo Pyo, Kyung Su Park, Mina Ha, Ho Kim, Seok-Joon Sohn, *Et al.* *Public Health*; doi:10.3390/ijerph13020213, 2016; 13(2):213.
13. Sinye Lim, Mina Ha, Seung-Sik Hwang, Mia Son and Ho-Jang Kwon. *Int. J. Environ. Res. Public Health*; doi: 10.3390/ijerph120809054, 2015; 12(8):9054-9067.
14. Kyung-Hwa Choi, Mina Ha, Won Jin Lee, Seung-Sik Hwang, Meeseon Jeong, *Int. J. Environ. Res. Public Health*; doi: 10.3390/ijerph10010314, 2013; 10(1):314-

327.

15. Hyeog Ju Kim, Kwang-Yong Lee, Jung-Eun Lee, Jong-Won Kang, Heon Kim. *Int. J. Environ. Res. Public Health*; doi: 10.3390/ijerph10010314, 2013; 10(1):314-327.