

**A STUDY TO ASSESS THE EFFECTIVENESS OF  
COMPUTER ASSISTED INSTRUCTION ON  
KNOWLEDGE AND EXPRESSED PRACTICE  
REGARDING FIRST AID MEASURES FOR DISASTER  
EVENT AMONG THE STUDENTS AT SELECTED ARTS  
COLLEGES, THANJAVUR.**



**BY**

**REG. NO: 301312451**

**A DISSERTATION SUBMITTED TO THE TAMILNADU  
DR.M.G.R.MEDICAL UNIVERSITY, CHENNAI – 32 IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE  
AWARD OF THE DEGREE OF MASTER OF SCIENCE IN  
NURSING**

**OCTOBER - 2015**

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**SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT  
FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN  
NURSING FROM THE TAMILNADU DR.M.G.R.MEDICAL  
UNIVERSITY, CHENNAI.**

**OCTOBER - 2015**

## **DECLARATION**

I hereby declare that this dissertation entitled “**A study to assess the effectiveness of Computer Assisted Instruction on knowledge and expressed practice regarding first aid measures for disaster event among the students at selected Arts colleges, Thanjavur**” outcome of the original research work undertaken and carried out by me, under the guidance of research guide **Prof. Mrs.VANITHA INNOCENT RANI, M.Sc(N), Ph.D.**, Professor cum Principal, and **Mrs. IRAIMANI, M.Sc(N)**, HOD of Medical Surgical Nursing department, Our Lady of Health College of Nursing, Thanjavur.

I hereby declare that the material of this has not found in any way, the basis for the award of any degree / diploma in this university or any other university.

**301312451**

# CERTIFICATE



**CERTIFIED THAT THIS IS THE BONAFIDE WORK OF  
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6.	Research tool
9.	CAI

## LIST OF ABBREVIATIONS

<b>SHORT FORMS</b>	<b>ABBREVIATIONS</b>
CBRN	Chemical, Biological, Radiological and Nuclear
CAI	Computer Assisted Instruction
PHC	Primary Health Care
PPE	Personal Protective Equipment
WTR	Willingness To Report
ANOVA	Analysis Of Variance
SE	Standard Error
RN	Registered Nurse
FA	First Aid
FIG	Figure
H1	Research Hypothesis
No	Number
N	Number of samples
F	Frequency
%	Percentage
SD	Standard deviation
$\chi^2$	Chi-square

## ABSTRACT

Disaster event is a catastrophic event needs a first aid measures in emergency situations. The study focused on effectiveness of computer assisted instruction on knowledge and expressed practice regarding first aid measures for disaster event among the students at selected Arts colleges, Thanjavur. Quasi experimental (Non-equivalent control group design) was used among 80 students by using purposive sampling technique. The knowledge questionnaire and expressed practice questionnaire were given to assess the knowledge and expressed practice. The statistical analysis revealed that for the paired 't' test value ( $t=21.75$ ) and for expressed practice ( $t=19.5195$ ). Where as in control group knowledge ( $t=1.6935$ ) expressed practice ( $t=1.1679$ ). Hence the given CAI was effective. The comparison between the group of unpaired 't' test for knowledge value ( $t=13.3023$ ) and for expressed practice ( $t=12.5320$ ). This proved that there is a significant difference between experimental and control group at 0.05 level. Where as in correlation between the post test scores of knowledge and expressed practice of the experimental group 'r' value ( $r=0.8$ ) and control group 'r' value ( $r=0.3$ ). For association between the chi-square test there is a significant association in age, medium of education, residential area of pre test levels of knowledge and expressed practice. Hence the given CAI was very effective in experimental group.

# CHAPTER - I



# INTRODUCTION



# **CHAPTER – I**

## **INTRODUCTION**

**Timely first aid saves more lives than heroic surgeries!!!**

- Dr. Debangshu Dam

### **BACKGROUND OF THE STUDY**

A disaster is a serious disruption of the functioning of a community involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Developing countries suffer the greatest costs when disaster hits- more than 95 % of all deaths caused by hazards occur in developing countries and losses due to natural hazards are 20 times greater in developing countries than in industrialized countries. Disaster can strike any part of the world at any time. We do not expect disasters, but they happen are an act of God, or an act of man, a wide spectrum of disaster is on the rise around the world.

India is vulnerable, in varying degrees, to a large number of natural as well as man-made disasters. 58.6 % of the landmass earthquakes of moderate to high intensity; over 40 million hectares (12 %) of land floods and river erosion; of the 7,516 kms long coastline, close to 5,700 kms is prone to cyclones and tsunamis. Vulnerability to disasters/ emergencies of Chemical, Biological, Radiological and Nuclear (CBRN) origin also exists. Heightened vulnerabilities to disaster risks can be related to expanding population, urbanization and industrialization, development within high-risk zones, environmental degradation and climatic changes.

**NATIONAL FLOOD COMMISSION** reports of floods are the most common and widespread of all natural disasters. Around 40 million hectares of land in India is prone to floods. Floods cause damage to houses, industries, public utilities and property resulting in huge economic losses, apart from loss of lives.

Geophysical disasters include earthquakes, volcanoes, dry rock falls, landslides and avalanches. Climate-related disasters include hydrological events and meteorological events. There were 3 times as many natural disasters between the years from 2000 to 2009 compared to the amount between the years from 1980 to 1989. A vast majority (80%) of this growth is due to climate-related events.

**NEW ENGLAND JOURNAL OF MEDICINE** stated that the scale of disasters has expanded, owing to increased rates of urbanization, deforestation, environmental degradation and to intensifying climate variables such as higher temperatures, extreme precipitation and more violent wind/water storms.

Man-made disasters are the result of human action; act; intent, error; and negligence. These disasters includes accidents in roadways, waterways and airways; human design structure collapse; oil spills; industrial hazards outbreak; CBRN hazards; pollutions, bomb explosions; war; terrorism and its related threats.

In recent years man-made disasters occur frequently and vigorously due to advancement of science and technology on its devil face leads to epidemic increase of man-made hazards which demolish both biotic and environment irrespective to color, creed, religion, caste, community, race and socio-economic status of the people. The random losses of human lives and their belongings in terms of casualties and sufferings are irreversible and making a permanent black scar in anthropo-development. In this context this study has been more momentous in present day situation.

## **NEED FOR THE STUDY**

Most of us don't think about the value of first aid until we need it. Many of its basic skills can be mastered without attending a formal training course. Medical emergencies are bound to happen, the best thing we can do is to be prepared and know about how to give first aid. Students are the future of any nation. The healthy existences of students are essential to build up a challenging nation.

Catastrophic events, including both natural and man-made disasters, usually create surge capacity needs for health care systems; subsequently, the ability to meet such capacity needs requires thoughtful preparation. While it is true that disastrous emergencies may not be prevented or controlled, it is vital for citizens to be prepared at multiple levels, including individuals, families and community.

**INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETY (IFRCS)** revealed that the last decade (1999-2008), over 7100 disasters happened in the world that caused 1,243,480 deaths and over 1 billion US dollars damage. In 2005, 246 (42%) out of 650 severe natural hazard events recorded globally occurred in Asia killing over 97,000 (90% of the global total of 110,000 individuals) and affecting more than 150 million people. In 2006, 174 disasters affected 28 million people in Asia and the Pacific were affected.

The statistical report of **Nepal earthquake** in April 2015 (also known as the **Gorkha earthquake**) killed more than 8,800 people and injured more than 23,000 people. The earthquake triggered an avalanche on Mount Everest, making it the deadliest day on the mountain in history. It triggered another huge avalanche in the Lang tang valley, where 250 people were reported missing. About 90 % of soldiers from the Nepalese Army were sent to the stricken areas in the aftermath of the earthquake under Operation Sankat Mochan, with volunteers mobilized from other parts of the country.

**Table 1.1** represents the Nepal earthquake Casualties by country on April, 2015

<b>Countries</b>	<b>No of deaths</b>	<b>No of persons injured</b>
Nepal	8773	22,304
India	130	560
China	27	383
Bangladesh	4	200
<b>TOTAL</b>	<b>8947</b>	<b>23,447</b>

**Volunteering Queensland Inc.** stated that From November 2010 to February 2011, experienced a series of floods and cyclones that directly affected more than 2 lakhs people and indirectly affected a great many more. During this period, many community and government organizations were contacted by individuals and groups to help their communities. Queensland was contacted by more than 1 lakh people among them 80,000 potential volunteers were registered.

The USA Department of Homeland Security's **Federal Emergency Management Agency (FEMA)** partners with the **Corporation for National and Community Service (CNCS)** to recruit, place and support members of AmeriCorps NCCC members, called **FEMA Corps members**, to serve in projects related to disaster preparedness, mitigation, response, and recovery activities, providing support in areas ranging from working directly with disaster survivors to supporting disaster recovering centers to sharing valuable disaster preparedness and mitigation information with the public.

Disaster related aid is provided to the victims to save lives, alleviate sufferings and protect human dignity during disaster who are unable to get help from their own community or local authorities. Natural disasters are tragic incidents originating from atmospheric, geologic and hydrologic changes. In

recent decades, millions of people have been killed by natural disasters, resulting in economic damages.

Majority of the research reports indicates that the children and women are highly vulnerable during disasters. The students are the future teachers, who are going to uphold millions of future citizen and nourish them with required knowledge and skills for their sustainability in this modern webbed universe. The knowledge sharing about manmade hazards in top down model to the students will reach the society within the need of an hour. Volunteers plays a vital role in the recovery effort following disasters such as floods, droughts, storms and bushfires. Volunteers are critical partners and participants in societies throughout the world. Whether actively participated through a formal organizations where citizens voluntarily participate in community activities or provide personal care for family, friends, neighbours, or even strangers as part of accepted cultural norms of giving and reciprocity.

## **STATEMENT OF THE PROBLEM**

A study to assess the effectiveness of computer assisted instruction on knowledge and expressed practice regarding first aid measures for disaster event among the students at selected Arts colleges, Thanjavur.

## **OBJECTIVES:**

- To assess the knowledge and expressed practice before and after providing computer assisted instruction regarding first aid measures for disaster event among the students in experimental and control group.

- To evaluate the effectiveness of computer assisted instruction regarding first aid measures for disaster event among the students in experimental group.
- To compare the levels of knowledge and expressed practice among the students regarding first aid measures for disaster event between the experimental and control group
- To correlate the post test scores of knowledge and expressed practice regarding first aid measures for disaster event among the students in experimental and control group.
- To determine the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students with their selected demographic variables in experimental and control group.

#### **HYPOTHESIS:**

**All the hypothesis were tested at 0.05 level of significance**

- H1- There will be a significant difference between the pre and post test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in experimental and control group.
- H2- There will be a significant difference in the levels of knowledge and expressed practice among the students regarding first aid measures for disaster event between the experimental and control group
- H3- There will be a significant correlation between the post test scores of knowledge and expressed practice regarding first aid measures for disaster event among the students in experimental and control group.

- H4- There will be a significant association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students with their selected demographic variables in experimental and control group.

## **OPERATIONAL DEFINITIONS:**

### **Effectiveness:**

In this study, it refers to the extent to which the computer assisted instruction has influenced in increase the knowledge and expressed practice regarding first aid measures for disaster event among the students in Arts College.

### **Computer Assisted Instruction:**

In this study, it refers to the planned instructions given in the form of video clips, pictures, PowerPoint presentations which helps to educate the students regarding first aid measures for disaster event with the help of computer. (Hereafter it is referred to as CAI.)

### **Knowledge:**

In this study, it refers to the information acquired by the students regarding first aid measures for disaster event which was measured by using semi structured knowledge questionnaire.

### **Expressed Practice:**

In this study, it refers to the activities intended by the students in order to handle the disaster victim which was measured by using semi structured expressed practice questionnaire.

### **First Aid Measures for Disaster Event:**

In this study, it refers to the immediate care in minimizing the risk of destructions to victims subjected by calamities such as bleeding, burns, fracture, electrical shock and unconsciousness.

### **Students:**

In this study, it refers to the pupils who are studying first year B.Com at selected Arts College.

### **ASSUMPTIONS:**

- CAI may help the students to deal with disaster event.
- Students may not have adequate knowledge regarding first aid measures for disaster event.

### **DELIMITATION:**

- The study was limited to the students at selected Arts Colleges, Thanjavur.
- The data period was limited to 6 weeks.

### **PROJECTED OUTCOME:**

- The study helps to improve the knowledge and expressed practice regarding disaster management among the Arts students.
- The CAI on knowledge and expressed practice regarding disaster management will help the students to handle the disruptions during the disaster.



# **CHAPTER - II**



# **REVIEW OF LITERATURE**

## **CHAPTER-II**

### **REVIEW OF LITERATURE**

Review of literature is a text of a scholarly paper, which includes the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic.

#### **PART - I**

Literature related to first aid measures for disaster event

#### **PART – II**

Conceptual framework

#### **PART – I LITERATURE RELATED TO FIRST AID MEASURES FOR DISASTER EVENT**

**Alfred.D, Chilton.J et al., Nurse Education in practice (2015)** stated that during the last half of the 20th century, the focus of nursing changed from home and field to high-tech clinics and hospitals. Numerous disaster events and threats in the early 21st century caused educators and practitioners to increase the emphasis on disaster nursing this article tools used by nurse educators to integrate disaster nursing into the didactic and clinical experiences of baccalaureate nursing students. They represent two nursing schools about 90 miles apart that collaborated to provide students with practical application of disaster nursing concepts. Part 1: A curriculum in action provides an overview of the curricular tools used to insure adequate coverage of disaster nursing concepts across the curriculum. Part 2: Collaborative learning in Community Health Nursing for emergency preparedness relates the steps taken to plan, implement, and evaluate two different collaborative disaster simulation events.

**Aliyu.A, Annals of African medicine (2015)** stated that African continent has not been spared of disaster events. A new phenomenon in the continent is terrorism that is fuelled by globalization of arms trade and has contributed significantly to escalation of conflicts in sub-Saharan Africa (SSA) resulting in complex emergencies and destruction of socioeconomic structures. Systematic search of published literature was conducted between 1990 and 2013. The impact of these events has overstretched and overwhelmed the health care system that is least prepared to handle and cope with the surge capacity and also render normal services. There is an urgent need for national emergency agencies across Africa to develop a robust emergency preparedness and response plan. There is a need for curriculum review in tertiary institutions across Sub-Saharan Africa to introduce and or expand training in disaster management.

**Al Thobaity.A, Plummer.V, et al., Australasian emergency nursing journal (2015)** reported that this study explored nurses' knowledge and sources of knowledge, and skills as they relate to disaster management in Saudi Arabia, where more than 4660 people have died, 32,000 people have been affected, and US \$4.65 billion in damage has been caused by disaster since 1980: A quantitative, non-experimental, descriptive research design. Nurses in Saudi Arabia have moderate knowledge concerning disaster preparedness. The majority of nurses gained their knowledge and skills from disaster drills. Nurses need more education in all areas of disaster management, most importantly in their roles during response to disasters. Nurses perceive themselves as not well-prepared but they are willing to improve their skills in disaster preparedness if educational opportunities are provided.

**Azerikatoa.D, Ayoung, SAGE journals (2015)** reported that the importance of disaster management plans for library staff rests on their effective and efficient utilization to confront library-related disasters. This study seeks to

evaluate the preparedness of Ghanaian polytechnic libraries towards disasters, with respect to measures put in place. Based largely on a qualitative approach, the study interviewed five head librarians and 25 other staff members of selected polytechnics, who were chosen using purposive and convenience sampling techniques. Data was analyzed using interpretative techniques. The results showed general absence of security policies and disaster plans. Polytechnic libraries were found to be ill-prepared with respect to disasters. Therefore, it is recommended that libraries develop policies for disaster management, organize training programs for staff in order to increase their awareness about disasters and be involved in cooperative networks.

**Biswas.A, Rahman.A et al., Scientific world journal (2015)** reported that tragic disaster occurred on April 24, 2013, in Bangladesh. The study describes the process of rescue operation and emergency management services provided in the event. Data were collected using qualitative methods including in-depth interviews. Immediately after the disaster, rescue teams came to the place from Bangladesh Armed Forces, Bangladesh Navy, Bangladesh Air Force and local Police and doctors, medical students, and nurses from nearby medical college hospitals and private hospitals and students from colleges and universities including local civil people. Bangladesh faced a tremendous challenge to manage the man-made disaster and experienced enormous support from different sectors of society to manage the disaster carefully and saved thousands of lives. This effort could help to develop a standard emergency management system applicable to Bangladesh and other counties with similar settings.

**Keith Nicholls.J, Steven Picou et al., Journal of applied social science (2015)** stated that Lay Health Workers can play a pivotal role in improving disaster response and recovery because of their potential effectiveness in enhancing the overall health of their communities, supplementing the efforts of

disaster responders, and building relationships of trust among all interested parties. When properly trained, they constitute a proven strategy for timely interventions aimed at reducing long-term collective trauma and building social capital. Provide an overview of essential training needed to prepare them to participate in disaster preparedness, response, and recovery efforts. They concluded with some suggestions for future research.

**Sadeghi-Bazargani.H, Azami-Aghdash.S et al., Health promotion perspectives (2015)** explored that Bam earthquake was the most catastrophic natural disasters in recent years. The aim of this study was to review different aspects of crisis management for the period from 2003 to 2011. The data were summarized and were analyzed using Content Analysis. Out of 422 articles, 25 articles were included in the study. Crisis Management aspects and existing problem were classified into seven categories including planning and organization, human resource management, management of logistics, international humanitarian aids, field performance of the military and security forces, health and medical service provision, and information management. Thus, concerning the importance of different aspects of the crisis management and the high prevalence of disasters in Iran, the observed vulnerability in disaster management process should be addressed.

**Usher. K, Redman-Maclaren ML et al., Nurse Education in practice (2015)** Nurses are often first line responders in a large scale emergency or disaster. This paper reports an evaluative study of a tailored research capacity building course for nurse delegates from the Asia Pacific Emergency and Disaster Nursing Network (APEDNN). 23 participant delegates from 19 countries attended a three-week course that included learning and teaching about the critique and conduct of research. An outcome of the course was the collaborative design of a study now being implemented in a number of countries with the aim of investigating

nurses' preparedness for disaster response. Overall, participant delegates rated the planning, implementation and content of the course highly. Recommendations from this study include funding a mix of face-to-face and distance mentoring and writing for publication workshops to ensure the sustainability of outcomes from a research capacity building course such as the one described

**Wilkinson. Am, Matzo. M et al., Journal of continuing education in nursing (2015)** stated that catastrophic mass casualty events (MCEs), such as pandemic influenza outbreaks, earthquakes, or large-scale terrorism-related events, quickly and suddenly yield thousands of victims whose needs overwhelm local and regional health care systems, personnel, and resources. Such conditions require deploying scarce resources in a manner that is different from the more common multiple casualty event. This article presents issues associated with providing nursing care under MCE circumstances of scarce resources and the educational needs of nurses to prepare them to effectively respond in these emergencies.

**Boon, Helen.J et al., Australian Journal of Environmental Education (2014)** Australia regularly suffers floods, droughts, bushfires and cyclones, which are predicted to increase and intensify in the future due to climate change. School disaster education is essential to raise awareness among students and their communities and to encourage preparedness action. This article presents the results of a critical literature review of peer-reviewed publications on disaster education programs in Australian schools conducted through Scopus, A Plus, PsycINFO and the Education Resources Information Center (ERIC) databases. Results highlight a significant dearth of studies examining disaster education programs in Australian schools. Recommendations for future research are proposed to bridge knowledge gaps and establish disaster preparedness resources that support children's knowledge and preparedness for disasters.

**Gerdan, Serpil., Eurasian Journal of Educational Research (2014)** stated that in disaster prone countries, preparedness is an important factor in disaster mitigation. The goal of this study is to determine the levels of disaster awareness and attitude and the individual priorities of the personnel and the students at Umuttepe Campus of Kocaeli University. In this survey, a relational scanning model was applied and the data were collected by a measurement tool via the Internet. The data were analyzed with percentage, frequency, arithmetic means, t-test, F-test and by using SPSS 14.00 statistical program. Level of education is an important factor in reducing disaster damages. Students in the Department of Engineering have the highest awareness level of all. Our results support the world's science-based developments and emphasize that education and training in disaster awareness in formal education is very important

**Oztekin. SD, Larson. EE et al., Japan journal of nursing science (2014)** reported that compare 4 year undergraduate nursing students' educational needs concerning disaster preparedness and response in Istanbul and Miyazaki. Second year of their nursing programs, rarely participate in disaster preparedness and response courses at their universities (75.2%) or outside (89.8%). Educational needs of Miyazaki's students who had already participated in these courses (85%) were higher than in Istanbul's (67.2%). Effective teaching methods were mock drills. The present study also addresses the need to incorporate mass casualty care and disaster management skills into undergraduate curricula. Core contents for nursing curricula in both cities need to be continued. Outcome competencies must be identified and validated through further research.

**Soureche. R., International journal of scientific research (2014)** reported that a survey was conducted to emphasize the level of perception of B.Ed students' towards man made hazards. A 5-point rating scale consists of 50 test items in 5 dimensions was used as a tool for the present study. The sample consists

of 450 randomly sampled B.Ed students (includes both gender) procured from 6 different colleges of education in Pondicherry. The data collected from the sample was statistically analyzed using SPSS package. The result revealed that the sample have high level of perception towards man-made hazards. Significant difference is exhibited in the level of perception of B.Ed students with respect to different demographic variables.

**Arbon.P, Ranse J et al., Australasian emergency nursing (2013)** stated that the type of disaster, individual demographic factors, family factors and workplace factors, have been identified in the international literature as factors that influence a Australian emergency nurses willing to attend and assist in their workplace during a disaster. This research was exploratory and descriptive study design, using online and paper based surveys as a means of data collection. In total, 451 Australasian emergency nurses participated in this research. Participants were more willing to attend their workplace during a conventional disaster ( $p \leq 0.001$ ), if they worked full-time ( $p = 0.01$ ), had received formal education pertaining to disasters ( $p \leq 0.001$ ), had a family disaster plan ( $p = 0.008$ ), did not have children ( $p = 0.001$ ) and worked in an environment in which they perceived their colleagues, managers and organization to be prepared. This study improving disaster knowledge and skills, having a family disaster plan and improving the perceptions of the nurses' workplace preparedness can enhance the nurses' willingness to assist in a disaster.

**Ardalan.A, Mowafi.H et al., Disaster Medical Public Health Preparedness (2013)** reported that to evaluate the effectiveness of a capacity-building intervention administered through a primary health care (PHC) system on community disaster preparedness in Iran. A controlled community intervention trial with pre- and post assessments was conducted in 2011 in 3 provinces of Iran. In each province, 2 areas were chosen and randomly selected as an intervention or



control group. Relative changes in awareness in intervention and control areas were 2.94 and -0.08, respectively ( $P < .001$ ). Relative changes for readiness scores were 5.52 in intervention areas and 0.56 in control areas ( $P < .001$ ). Relative changes for awareness and readiness were significantly correlated with a community's baseline risk perception and previous experience with natural disasters ( $P < .001$ ). An educational intervention administered through the PHC system effectively improved disaster awareness and readiness at a community level.

**Min Zhang, LI LI Gou., Journal of scientific research (2013)** reported about current status of school disaster education of primary school students and analyze potential causes and discuss how to establish a corresponding education mode. The questionnaires of disaster knowledge for Primary and middle school students were used in this study and a random sampling method was adopted for the research. The primary school students maintained the high rate of disaster attention. 73% primary school students had pay attention to the occurrence of disasters; more than 75% primary school students were lack of knowledge on disaster prevention and mitigation and 58.5% students were not satisfied with school disaster education work. It might improve the quality of the disaster education and expand the disaster education to promote the development of disaster education.

**Rakesh Kumar Sharma., Journal advanced pharmaceutical technology (2013)** stated that disaster education is aimed at developing a culture of preparedness and safety besides implementing school Disaster management plans. Disaster management as a subject in social sciences has been introduced in the school curricula for Class VIII, IX, and X by the Ministry of Human Resources Development (HRD), through the Central Board of Secondary Education (CBSE) for empowering the younger generation from the disaster preventive aspects. This

is being extended to all schools through their Secondary Education Boards. State Governments will also ensure the inclusion of disaster management curriculum through State School Boards. The education content is so designed as to inculcate skill-based training, psychological resilience, and qualities of leadership. The role of the NCC and Boy Scouts is also being included in schools and colleges for disaster management related work.

**Boon, Helen Joanna et al., Journal of Policy and Practice in Intellectual Disabilities (2012)** stated that recent weather-related disasters impacting Australia may potentially increase in frequency and severity as a result of predicted climate variability. In the absence of routine policies and procedures, students with disabilities may be placed at risk to ill-advised evacuation efforts or neglected during severe emergencies. The study's results indicate that insufficient consideration has been given to the emergency preparedness planning and management with respect to meeting needs of vulnerable students with disabilities. They recommend that education authorities worldwide review current emergency management policies in a consultative manner with schools, researchers, first responders, and carers so as to minimize risk for students with disabilities in natural disaster emergencies.

**Chinwe Ogedegbe, Themba Nyirenda., International Journal of Emergency Medicine (2012)** revealed that there is limited research on preparation of health care workers for disasters. The objective of this study was to compare perceptions of clinical and non-clinical staff with regard to personal needs, willingness to report (WTR) to work, and level of confidence in the hospital's ability to protect safety and provide personal protective equipment (PPE) in the event of a disaster. A total of 5,790 employees were surveyed; 41 % responded (77 % were women and 63 % were clinical staff). 79% either strongly or somewhat agreed that they know what to do in the event of a disaster, and the

majority was willing to report for duty in the event of a disaster. Clinical and non-clinical staff differs in the types of barriers to WTR endorsed, as well as their confidence in the hospital's ability to provide them with PPE and guarantee their safety.

**Deepak M. , Sabitha Nayak., Nitte University Journal of Health Science (2012)** explored that a descriptive study was conducted to assess the knowledge on first aid measures among self-help group members in selected community areas of Natekal PHC. The sample for the study comprised of 100 self-help group members selected by purposive sampling technique. The data was collected by using structured questionnaires. The results showed that majority of the samples 62% had good knowledge, and 38% had average knowledge about the first aid practice. Among the seven areas of the knowledge assessment on first aid measures the mean percentage score of the samples were highest (70%) in the area of poisoning and lowest score (28.8%) in the area of bleeding.

**Jirapongsuwan.a, Englande AJ, Fos.PJ., Journal of medical association Thailand (2012)** stated that disasters, be they natural or manmade, are catastrophic events that confront nursing managers with the challenge of acting to reduce the impact of such events upon society as a whole. The combination of the two-round of modified Delphi method and The Simple Multi-attribute Rating Technique (SMART) was used to develop a decision tool. The 36 variables were constructed with seven alternatives: policy, communications, materials, human resource management, operation effectiveness and health and stakeholder participation. The authors proposed a practical method to develop a decision model based on the input of key individuals in disaster management. The model can be used to guide the decision making for nurse managers resulting in the best practice for water-related disaster management.

**Nurul'Ain Ahayalimudin, Aniza Ismail., BMC public health (2012)** reported that aim of this study was to determine knowledge, attitude and practice of emergency nurse and community health nurse towards disaster management. This was a cross-sectional study conducted in emergency departments and health clinics in Selangor, one of the states in Malaysia. Questionnaire forms eliciting information towards disaster management were randomly distributed to 468 nurses. Emergency nurses who have been involved in disaster response are more likely to report adequate practice ( $P < 0.01$ , AOR=4.008, 95% CI=1.691-9.504) while those who attended disaster-related education/training are more likely to have adequate knowledge ( $P < 0.05$ , AOR=3.807, 95% CI=1.584-9.153) and practice ( $P = 0.001$ , AOR=4.145, 95% CI=1.804- 9.525). Attending disaster-related education/training is seen to be a predictor to adequate knowledge ( $P < 0.001$ , AOR=3.511, 95% CI=2.097-5.881) and practice ( $P < 0.001$ , AOR=4.080, 95% CI=2.326-7.156), and portraying positive attitude ( $p < 0.05$ , AOR=2.042, 95% CI=1.025-4.069) among community health nurse.

**Shrestha.SS, Sosin.DM., Disaster medical public health preparation (2012)** stated that build a tool to assist disaster response planning and estimate the numbers of displaced persons that will require special medical care during a disaster. We developed a tool Pre Event, which incorporates data from the 2006 National Health Interview Survey, We calculated that 79 428 (95% CI = 76 940-81 770) per million evacuees would need special medical care. The daily occupation of hospital beds would be 1710 beds (95% CI = 1328-2160) per million. The occupation of nursing home beds would be 5094 beds (95% CI = 5040-5148) per million. Pre Event tool can assist disaster planners to prepare for medical care needs of large numbers of evacuees and consider re-evaluating the approach to utilizing and augmenting medical care services.

**St John Ambulance Australia., (2012)** explored that the Australian Youth Council and the National Cadet Group held a consultation with young adult members of St John Ambulance Australia to get their feedback on how to engage their age-group in community resilience and emergency disaster preparedness. The Disaster Resilience Toolkit, developed by young people for young people, provides valuable tips for preparing for any emergency disaster situation. The toolkit encourages the reader to discuss disaster resilience and preparedness with neighbors and local communities; provides a quick reference guide for first aid most commonly required in any disaster area, and gives advice on dealing with the most often recovery stage. Not just for young people, the Disaster Resilience Toolkit is an accessible resource for all ages, and all first aid kit bags. The toolkit also provides a quick reference to the first aid management may need in a disaster situation.

**Bistaraki.A, Waddington.K et al., Cochrane journal (2011)** explored that a recent natural disaster has made disaster training a public priority. Repeated measures analysis of variance (ANOVA), t-test, one-way ANOVA and chi-square test were used to analyze the data. The mean score was significantly higher immediately after the intervention programme [86; standard error (SE): 2] than before (44.5; SE: 1.7) ( $P < 0.001$ ). The mean score 1 month later was significantly lower (77.2; SE: 2.3) than that immediately after the intervention programme ( $P < 0.001$ ), but significantly higher than the mean score before the intervention programme ( $P < 0.001$ ). Participants in the control group achieved a score of 40 (SE: 2.4), which was significantly lower than the scores of the intervention group after the course ( $P < 0.001$ ). The disaster training course had a great benefit for the participants.

**Murad.A, AL Khalaileh, Elaine bond., International Emergency Nursing (2011)** revealed that assess Jordanian RNs' perceptions regarding their

knowledge, skills, and preparedness for disaster management. The participants were 470 completed the survey. Sixty-five per cent of respondents described their current disaster preparedness as weak: 18% medium: 12% good; and 5% felt their preparation was very good. 31% received disaster education in undergraduate programs; 8% in graduate nursing programs; 31% in facility drills, and 22% in continuing education courses. 11% had participated in a real disaster. Four hundred and thirty RNs wanted to learn more about RNs role in disasters, including knowledge and skills. There is a need for a consistent national nursing curriculum for disaster preparedness and nationwide drills to increase disaster knowledge, skills, preparedness, and confidence.

**Curtis.H, Chason.K et al., Cochrane Database Systemic Reviews (2010)** stated that compare video-based learning (VBL) to traditional lecture about disaster medicine for emergency medicine (EM) residents. Participants completed a 123-item knowledge quiz before and after the instruction; a 5-item confidence survey before and after a three-station (decontamination (DCN), mass triage (MT) and personal protective equipment (PPE) Significant improvement was also seen between pre- and post-exercise confidence surveys, which again did not differ ( $p = 0.78$ ) between video (16.2%, 2.1% - 34.6%) and lecture (14.6%, 13.76% - 43%) groups. In the video group, 28.6% of critical actions were missed on the practical exercise stations vs. 45.7% in the lecture group, but this did not reach statistical significance ( $p = 0.07$ ). The study suggests that VBL for disaster medicine increases knowledge and confidence as much as traditional lecture, and may offer greater improvements in practical skill performance.

**Gore .R, Bloem. C, et al. Pre hospital and disaster medicine (2010)** reported that methods of teaching methods have been applied in Haiti before and after the 2010 earthquake. They include established a “Train the trainer” model - Established civilian first responder training -First Aid. A total of 54 people 12

participants completed the First Aid Instructors course. 95 program participants completed an end of course survey. 41 participants had no prior first Aid training or exposure. The course participants included 2 physicians, 22 students, 8 nursing students, 7 nurses, 20 teachers, 12 health workers, 5 drivers, and 14 laborers. 92 of those surveyed stated they would recommend this course to a friend. 88 participants stated that hands on learning helped them better learn the course material. They will serve as a foundation for self-sustaining higher-level emergency, pre-hospital, disaster training and management. This will improve the general quality of health care delivery.

**Khan.A, Shaikh.S., Journal of Pakistan medical association (2010)** reported that to assess knowledge, attitude and practices of first aid measures in undergraduate students of Karachi. A total of 446 medical and non-medical students were interviewed. 78 students (17.5%) had formal First Aid (FA) training. The mean number of correct answers of students with FA training was 10.3 (+/- 3.5) as opposed to 8.58 (+/- 4.0) in those without FA training ( $p < 0.001$ , 95% CI) with a mean difference of 7.84%. The mean number of correct answers by medical students with FA training was 11.2 (+/- 2.9) as opposed to 7.2 (+/- 3.43) by non-medical students ( $p < 0.001$ , 95% CI) with a mean difference of 18.14%. First aid training programmes should be introduced at school and college level in developing countries to decrease the early mortality and morbidity of accidents and emergencies.

**Reilly.MJ, Markenson.D., Disaster medical public health preparation (2010)** stated that prevalent assumption in hospital emergency preparedness planning is that patient arrival from a disaster scene will occur through a coordinated system. Strength of the emergency medical services system, case reports in the literature and major incident after-action reports have shown that most patients who present at a health care facility after a disaster do not

necessarily arrive via ambulance. They were 25 years of aggregate data suggest that only 36% of disaster victims are transported to hospitals via ambulance, whereas 63% use alternate means to seek emergency medical care. Hospitals should evaluate their emergency plans to consider the implications of alternate referral patterns of patients during a disaster. Additional consideration should be given to mass triage, site security, and the potential need for decontamination after a major incident.

**Park.K, Preventive & Social Medicine., (2011)** stated that after major disaster the need for first aid is likely to be so great that organized relief services will be able to meet only a small fraction of the demand. Most immediate help comes from the uninjured survivors.

**Central Board of Secondary Education., (2006)** explained this book will help all the students who are the future citizens, volunteers and also disaster managers to be able to cope up with disasters and be better disaster managers and save many precious lives.



## **CONCEPTUAL FRAMEWORK**

### **KING'S GOAL ATTAINMENT THEORY**

Conceptual framework is a basic structure that consists of certain abstract block which represents the observational the experimental and analytical or synthetically aspects of a process or system being conceived. The interconnection of these blocks completes the framework for certain expected outcomes. A conceptual framework is used in research to the outline possible course of action or to present a preferred approach to an idea. Nursing theory should provide the principles that under practice and help to generate further nursing knowledge.

The study is based on Imogene king's goal attainment theory (1997) which would be relevant for CAI regarding first aid measures for disaster event. Imogene king's system is an open system. In this system human are in constant contact interaction with their environment.

#### **Perception:**

In this study the researcher perceives that most of the students had inadequate knowledge and expressed practice regarding first aid measures for disaster event.

#### **Judgment:**

In this study the researcher judge that the CAI is effective in improving the knowledge and expressed practice regarding first aid measures for disaster event. It minimizes the risk of destructions during disaster.

**Action:**

In this study the researcher prepare the CAI to improve the knowledge and expressed practice on first aid measures for disaster event among the students.

**Mutual goal setting:**

In this study it is an activity that includes the students in prioritizing the goal and in developing the plan of action to achieve those goals. Here these study both the researcher and students accept to undergone with the research study.

**Reaction:**

The researcher plans together and moves towards goal attainment. Here the researcher plan to teach the first aid measures for disaster event after conducting the pre test to the experimental group.

**Interaction:**

The act of two or more persons in mutual presence and sequence of verbal and non-verbal behaviors that are directed towards the goal.

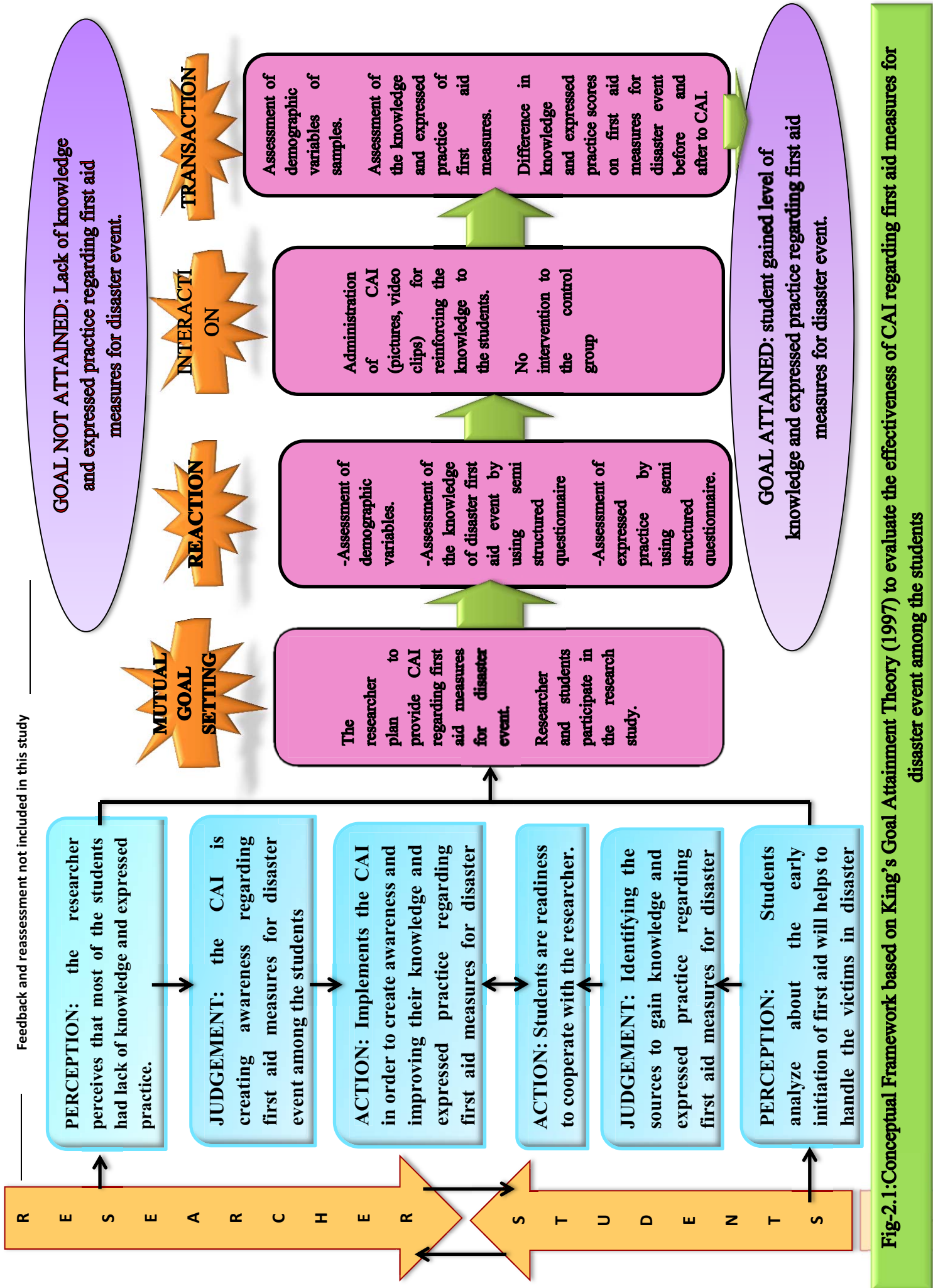
In this study the interaction includes pre test (for assessing the knowledge and expressed practice) then administration of CAI and post test to the samples of the experimental group and no intervention to the samples of the control group. Post test was conducted for both groups.

**Transaction:**

In this study the transaction includes the assessment of post test levels of knowledge and expressed practice on first aid measures for disaster event among the students.

In this study the researcher and the subject came together for an interaction, a different set of perception to exchange. The researcher perceives the subject need to teach the first aid measures for disaster event to manage the emergency situation confidently in community settings

The researcher communicates the subjects by implementing the CAI regarding first aid measures for disaster event between the subjects takes place. The goal is said to be achieved where there was an increased level of knowledge and expressed practice in experimental group.



**Fig-2.1: Conceptual Framework based on King's Goal Attainment Theory (1997) to evaluate the effectiveness of CAI regarding first aid measures for disaster event among the students**

# CHAPTER-III

## RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. In this chapter the investigator discusses the Research approach, Research design, Variables, Setting, Population, Sample, Sample size, Sampling technique, Criteria for data collection, Description of the tool, Plan for data analysis and protection of human rights.

### RESEARCH APPROACH

Evaluative research approach was used in this study.

### RESEARCH DESIGN

Quasi-experimental (Non-equivalent pre test post test control group) design was used in this study. (E – Experimental Group, C – control Group)

E	O1	×	O2
C	O1		O2

O1 - Pre test

× - Computer Assisted Instruction

O2 - Post test

### VARIABLES

**Independent Variable:** CAI regarding first aid measures for disaster event.

**Dependent Variables:** Knowledge and expressed practice regarding first aid measures for disaster event.

**Demographic Variables:** It includes Age of the student, Gender, Domiciliary area, Medium of education, Residential area and Source of information.

## **SETTING**

The study was conducted among I year B.Com students at selected Arts colleges in Thanjavur District such as Annai Velankanni Arts college and Kundhavai Nachiyar Arts college for women. It was nearby 2 kms. Pilot study was conducted at Bharath college of Arts and Science and Abi and Abi of Arts, Science and Technology were situated in Thanjavur District.

## **POPULATION**

The population comprised of B.Com students at selected Arts colleges in Thanjavur District.

## **SAMPLE**

The sample comprised of I year B.Com students.

## **SAMPLE SIZE**

The sample size comprised of 80 I year B.Com students those who are studying at selected Arts colleges in Thanjavur District.

Experimental group: 40 students

Control group: 40 students

## **SAMPLING TECHNIQUE**

Non probability Purposive sampling technique was used to select the colleges for research study. Then again purposive sampling technique used for selecting the sample in this study.

## **CRITERIA FOR SAMPLE SELECTION**

### **INCLUSION CRITERIA**

- Students who are studying I year B.Com at selected Arts colleges in Thanjavur District.
- Students who are willing to participate in the study.

### **EXCLUSION CRITERIA**

- Students who are undergone previous disaster management programmes, workshops and seminars.
- Students who are studying other than B.Com.

## **REPORT OF THE PILOT STUDY**

Pilot study was conducted to test the reliability, practicability, validity and feasibility of the tool. Pilot study was conducted for a period of 2 weeks. The investigator obtained a written permission from the head of the institution authorities of Bharath College of Arts and Science (Experimental group) and Abi and Abi College of Arts, Science and Technology, Thanjavur (Control group). The investigator obtained the oral permission from the participants prior to the study. Non probability purposive sampling technique was used to select the samples. The pre test was conducted by using semi-structured knowledge questionnaire to assess the knowledge and semi-structured expressed practice questionnaire to assess the expressed practice. The next day CAI was provided to the experiment group and

the post test was conducted after 7 days by using the same tools for both the experimental and control group. The result of the pilot study was analyzed by the descriptive and inferential statistics it showed the feasibility to do the study. So the main study was proceeded.

## **RELIABILITY AND VALIDITY OF THE TOOL**

The reliability and validity of the tool was established by Medical and Nursing experts. The tool was modified according to their suggestions and recommendations of experts and the tool was finalized. The reliability of the tool was established by using test-retest method,  $r = 0.7$ (Karl Pearson co-efficient Formula).

## **METHOD OF DATA COLLECTION**

Written formal permission was obtained from the head of the institution authorities. The investigator obtained the oral permission from the participants prior to the study then the investigator conducted the pre test on first day by using the semi-structured knowledge questionnaire to assess the knowledge and semi-structured expressed practice questionnaire to assess the expressed practice. After the pre test, next day CAI was provided to the experimental group students. After 7 days the investigator conducted the post test to both the experimental and control group to determine the knowledge and expressed practice of subjects with the help of using the same tools.

## **SCORING AND INTERPRETATION PROCEDURE**

### **(A) DESCRIPTIONS OF THE TOOLS**

Semi structured questionnaire will have III parts,

**Part-I** - Demographic variables.



**Part-II** - It consisted of semi-structured knowledge questionnaire regarding First aid measures for disaster event.

**Part-III** - It consisted of semi-structured expressed practice questionnaire regarding First aid measures for Disaster event.

**(B) SCORING OF THE TOOL**

**PART-II:**

It consisted of 24 items related to knowledge regarding First aid measures for disaster event. Each item carries “1” mark for correct answer and “0” mark for wrong answer

$$\frac{\text{Obtained score}}{\text{Total score}} \times 100$$

**TABLE 3.1 represents the percentage for the levels of knowledge score**

LEVEL OF KNOWLEDGE	SCORE	PERCENTAGE
Inadequate knowledge	0 – 8	0 – 33 %
Moderately adequate knowledge	9 – 16	34 – 67%
Adequate knowledge	17 – 24	68 – 100%

**PART-III**

It consisted of 15 items related to practice regarding First aid measures for disaster event. Each item carries “1” mark for correct answer “0” mark for wrong answer.

$$\frac{\text{Obtained score}}{\text{Total score}} \times 100$$

**TABLE 3.2** represents the percentage for the levels of expressed practice score

Level of expressed practice	score	Percentage
Inadequate expressed practice	0 – 5	0 – 33 %
Moderately adequate expressed practice	6 – 10	34 – 67 %
Adequate expressed practice	11 – 15	68 – 100%

### **PLAN FOR DATA ANALYSIS**

Collected data was tabulated and analyzed by using descriptive and inferential statistical methods.

**TABLE 3.3** represents the plan for data analysis

S.N	DATA ANALYSIS	METHODS	REMARKS
1.	Descriptive statistics	Percentage, Frequency distribution, Mean and standard Deviation	To describe the demographic variables of I year B.Com students on knowledge and expressed practice in both experimental and control group.
		Correlation	To determine the relationship between the

			post test scores of knowledge and expressed practice I tear B.Com students knowledge and expressed practice in both experimental and control group.
2.	Inferential statistics	Paired “t” Test	To assess the effectiveness of Computer Assisted Instruction regarding First aid measures for disaster event among I year B.Com students in both experimental and control group.
		Unpaired “t” test	To compare the knowledge and expressed practice of I year B.com students in both experimental and control group.
		Chi-square test	To find out the association between the pre test levels of knowledge and expressed practice regarding First aid measures for disaster event among I year B.Com students with their demographic variables.

## **PROTECTION OF HUMAN SUBJECTS**

The research proposal was approved by the dissertation committee prior to conduct the pilot study. The permission was obtained from the head of the institutional authorities. After the clear explanation about the study oral consent was obtained from each participant before started the data collection. Assurance was provided to the subjects that the Anonymity, Confidentiality and subject privacy would be guarded.

## **CHAPTER-IV**

### **DATA ANALYSIS**

This chapter deals with the description of sample characteristics, analysis and interpretation of data collected from students regarding First Aid measures for disaster event in both experimental and control group.

This chapter represents the organization of data and the collected data was interpreted the data by using descriptive and inferential statistical methods. The data was coded and analyzed as per the objectives of the study.

#### **ORGANIZATION OF DATA:**

The data was organized and tabulated as follows.

##### **SECTION: 1**

Assessment of demographic variables of students regarding first aid measures for disaster event.

##### **SECTION: 2**

Assessment of pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

##### **SECTION: 3**

Assessment of post test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

#### **SECTION: 4**

Comparison of pre test and post test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

#### **SECTION: 5**

Comparison of experimental and control group levels of knowledge and expressed practice regarding first aid measures for disaster event among the students

#### **SECTION: 6**

Assessment of correlation between the post test scores of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

#### **SECTION: 7**

Assessment of the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group with their selected demographic variables.

## PRESENTATION OF DATA

### SECTION: 1

Assessment of demographic variables of the students regarding first aid measures for disaster event in both experimental and control group.

**TABLE:4.1** Represents frequency and percentage distribution of demographic variables of the students regarding first aid measures for disaster event in both experimental and control group.

$$N = 40 + 40 = 80$$

DEMOGRAPHIC VARIABLES	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	Percentage	Frequency	Percentage
<b>Age</b>				
17 – 18 years	34	85%	27	67.5%
19 – 20 years	4	10%	10	25%
21 – 22 years	2	5%	3	7.5%
<b>Gender</b>				
Male	22	55%	-	-
Female	18	45%	40	100%
<b>Domiciliary area</b>				
Urban	17	42.5%	15	37.5%
Rural	21	52.5%	14	35%
Semi urban	2	5%	11	27.5%
<b>Medium of education</b>				
Tamil	32	80%	34	85%
English	8	20%	6	15%
<b>Residential area</b>				
Day scholar	13	32.5%	17	42.5%

Hosteller	27	67.5%	23	57.5%
<b>Source of information</b>				
Health personnel	18	45%	3	7.5%
Mass media	18	45%	22	55%
Relatives	4	10%	15	37.5%

**TABLE: 4.1** above represent the frequency and percentage distribution of demographic variables of the students regarding first aid measures for disaster event in both experimental and control group.

This table revealed that regarding the age of the students maximum 34(85%) students were in age group of (17–18 yrs), 4(10%) students were in age group of ( 19-20 yrs), 2 (5%) students were in age group of (21-22 yrs) in experimental group. Where as in control group maximum of 27(67.5%) students were in age group of (17-18 yrs), 10(25%) students were in age group of (19-20 yrs), 3(7.5%) students were in age group of (21-22 yrs).

Regarding the gender the maximum 22(55%) students were male and 18(45%) students were female in experimental group. Where as in control group none of them were male and maximum 40 (100%) students were female.

Regarding the domiciliary area 17(42.5%) students were urban, 21(52.5%) were rural and 2(5%) were semi urban in experimental group. Where is in control group 15(37.5%) were urban, 14(35%) and 11(27.5%) students in semi urban.

Regarding the medium of education in schooling maximum 32(80%) were from Tamil medium, 8(20%) were from English medium in experimental group. Where as in control group maximum 34(85%) were from Tamil medium, 6(15%) were from English medium.

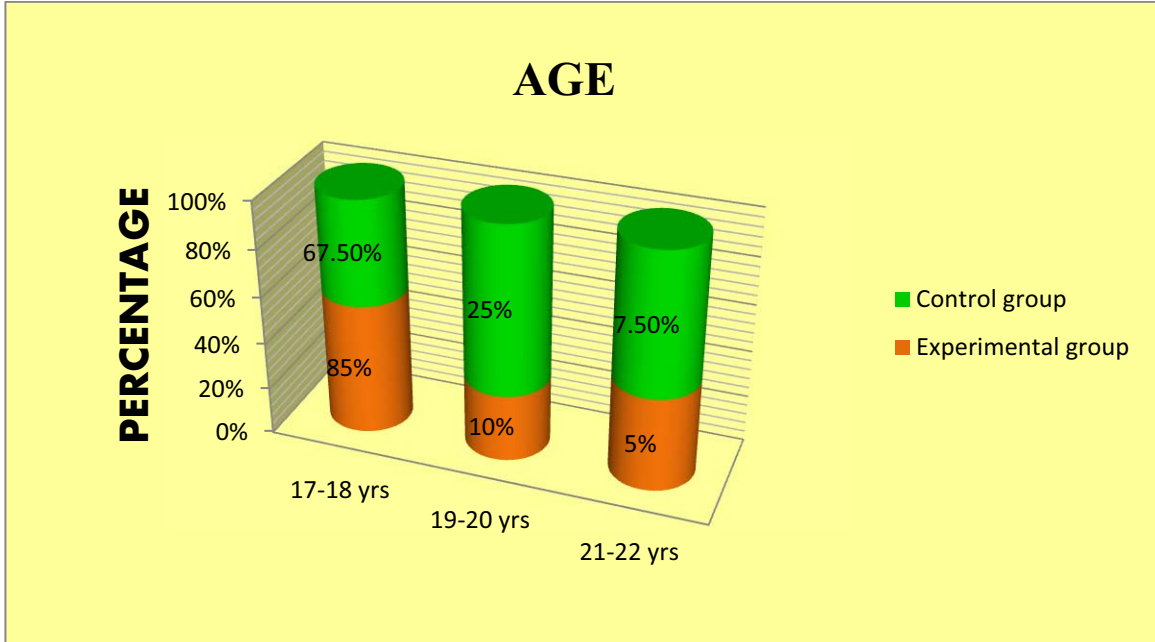
Regarding the Residential area 13(32.5%) students were in day scholar, 27(67.5%) of students were hosteller in experimental group. Where as in control

group 17(42.5%) students were day scholar and maximum 23(57.5%) students were in hosteller.

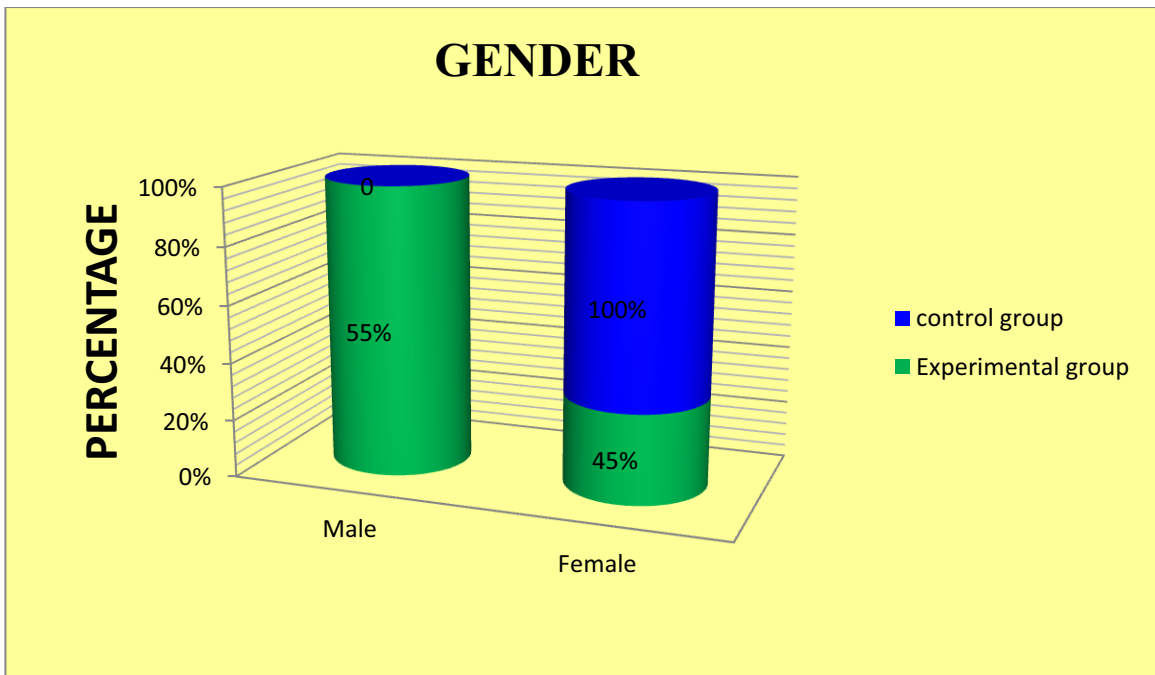
Regarding the source of information 18(45%) were gaining information from health personnel, 18(45%) were gaining information from mass media, 4(10%) were gaining information from relatives. Where as in control group 3(7.5%) were gaining information from health personnel, maximum 22(55%) were gaining information from mass media, 15(37.5%) were gaining information from relatives.



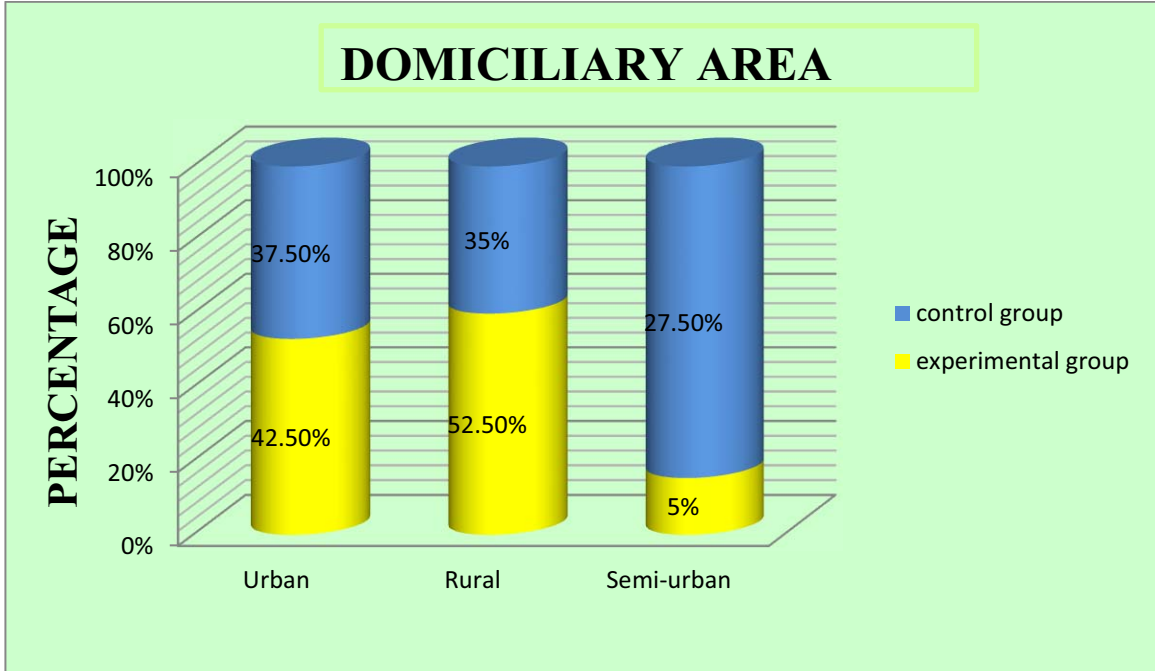
**Figure 4.1** Represents the percentage distribution of age of the students in experimental and control group



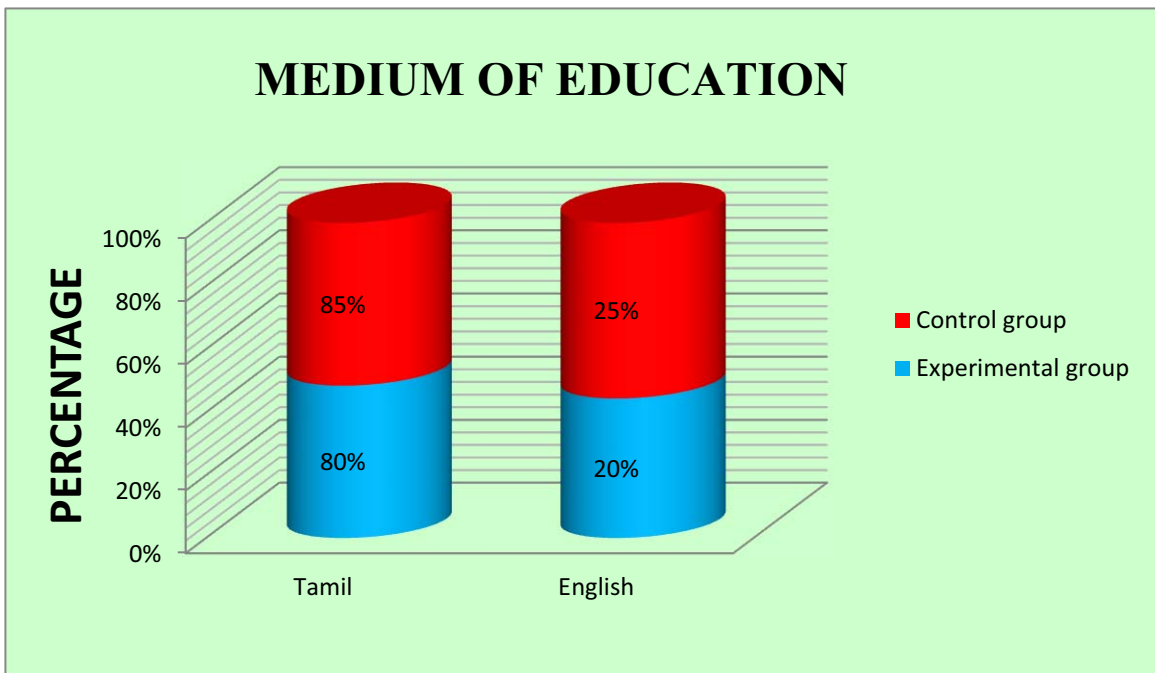
**Figure 4.2** Represents the percentage distribution of gender of the students in experimental and control group



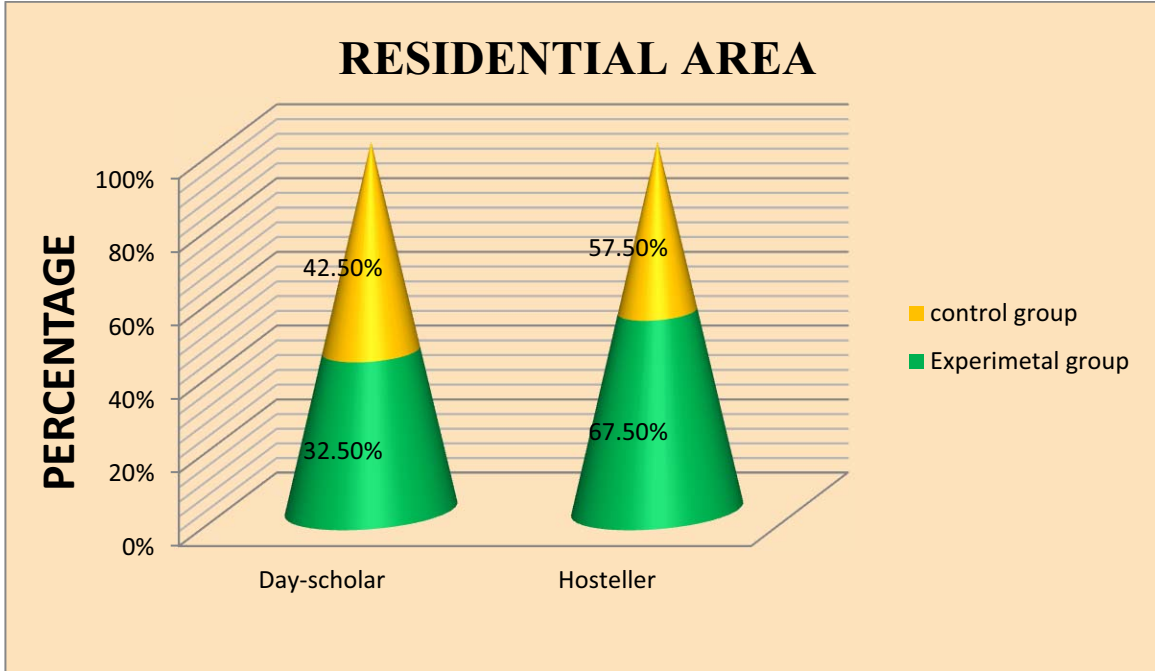
**Figure 4.3** Represents the percentage distribution of domiciliary area of the students in experimental and control group



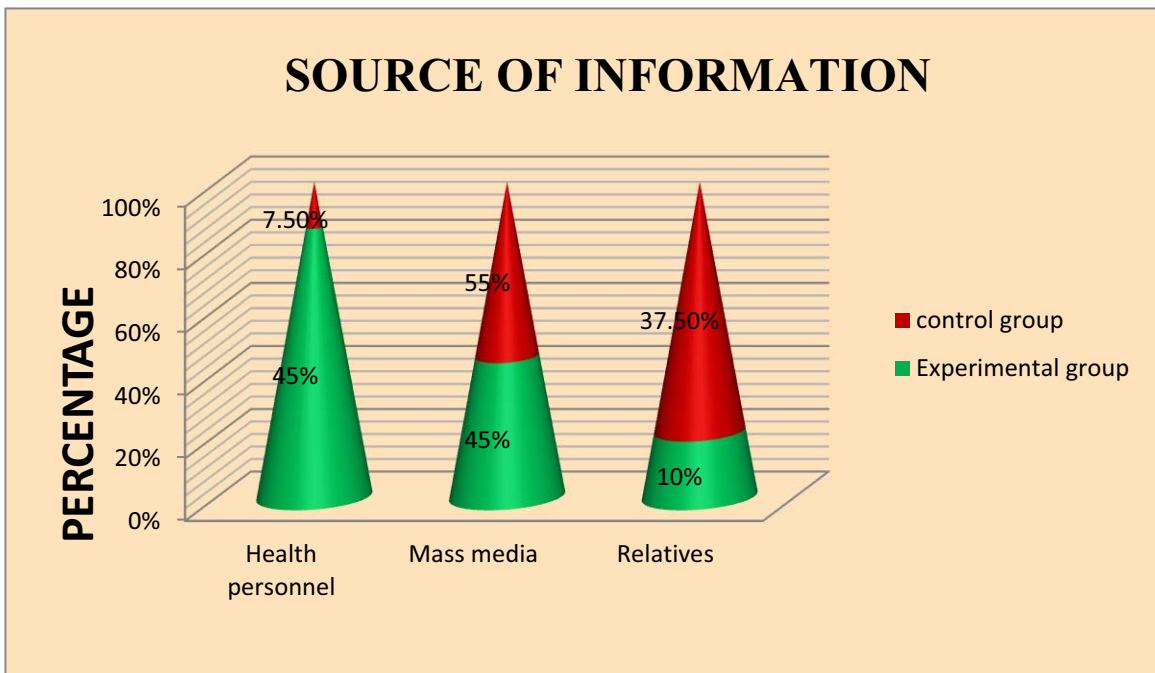
**Figure 4.4** Represents the percentage distribution of medium of education of the students in experimental and control group



**Figure 4.5** Represents the percentage distribution of residential area of the students in experimental and control group



**Figure 4.6** Represents the percentage distribution of source of information of the students in experimental and control group



## SECTION: 2

Assessment of pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

**TABLE: 4.2** Frequency and percentage distribution of pre test levels of knowledge among the students regarding first aid measures for disaster event in both experimental and control group.

$$N = 40 + 40 = 80$$

LEVEL OF KNOWLEDGE	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	Percentage	Frequency	Percentage
Inadequate knowledge	30	75%	31	77.5%
Moderately adequate knowledge	10	25%	9	22.5%
Adequate knowledge	-	-	-	-

**Table 4.2** represents the frequency and percentage distribution of pre test levels of knowledge among the students regarding first aid measures for disaster event in both experimental and control group.

The assessment of pre test levels of knowledge regarding first aid measures for disaster event reveals that 30(75%) of students had inadequate knowledge and 10(25%) of students had moderately adequate knowledge in experimental group. Where as in control group 31(77.5%) of students had inadequate knowledge and 9(22.5%) of students had moderately adequate knowledge and none of them had adequate knowledge in both experimental and control group.

**TABLE: 4.3** Frequency and percentage distribution of pre test levels of expressed practice among the students regarding first aid measures for disaster event in both experimental and control group.

$$N = 40 + 40 = 80$$

LEVELS OF EXPRESSED PRACTICE	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	Percentage	Frequency	Percentage
Inadequate expressed practice	34	85%	33	82.5%
Moderately adequate expressed practice	6	15%	7	17.5%
Adequate expressed practice	-	-	-	-

**Table 4.3** represents the frequency and percentage distribution of pre test levels of expressed practice among the students regarding first aid measures for disaster event in both experimental and control group.

The assessment of pre test levels of expressed practice regarding first aid measures for disaster event reveals that 34 (85%) students had inadequate expressed practice and 6(15%) students had moderately expressed practice in experimental group. Where as in control group 33(82.5%) students had Inadequate expressed practice and 7(17.5%) students had moderately expressed practice and none of them had adequate expressed practice in both experimental and control group.

### SECTION: 3

Assessment of post test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

**TABLE: 4.4** Frequency and percentage distribution of post test levels of knowledge among the students regarding first aid measures for disaster event in both experimental group and control group

$$N = 40 + 40 = 80$$

LEVELS OF KNOWLEDGE	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	Percentage	Frequency	Percentage
Inadequate knowledge	-	-	27	67.5%%
Moderately adequate knowledge	15	37.5%	13	32.5%%
Adequate knowledge	25	62.5%	-	-

**Table 4.4** represents the frequency and percentage distribution of post test levels of knowledge among the students regarding first aid measures for disaster event in both experimental group and control group.

The assessment of post test levels of knowledge regarding first aid measures for disaster event reveals the none of them had inadequate knowledge, 15 (37.5%) students had moderately adequate knowledge and 25(62.5%) students had adequate knowledge in experimental group. Where as in control group 27(67.5%) students had inadequate knowledge and 13(32.5 %%) students had moderately adequate knowledge and none of them had adequate knowledge in control group.

**TABLE 4.5**

Frequency and percentage distribution of post test levels of expressed practice among the students regarding first aid measures for disaster event.

$$N = 40 + 40 = 80$$

LEVELS OF EXPRESSED PRACTICE	EXPERIMENTAL GROUP		CONTROL GROUP	
	Frequency	Percentage	Frequency	Percentage
Inadequate expressed practice	-	-	30	75%
Moderately adequate expressed practice	23	57.5%	10	25%
Adequate expressed practice	17	42.5%	-	-

**TABLE 4.5** represents the frequency and percentage distribution of post test levels of expressed practice among the students regarding first aid measures for disaster event in both experimental and control group.

The assessment of post test levels of expressed practice regarding first aid measures for disaster event reveals that none of them had inadequate expressed practice. 23 (57.5%) students had moderately adequate expressed practice and 7(42.5%) had adequate expressed practice in experimental group. Where as in control group 30(75%) students had inadequate expressed practice and 10(25%) students had moderately adequate expressed practice and none of them had adequate expressed practice.

## SECTION – 4

Comparison of pre test and post test levels of knowledge and expressed practice regarding first aid measures for disaster event in both experimental and control group.

**TABLE 4.6** Comparison of pre test and post test levels of knowledge regarding first aid measures for disaster event among the students in both experimental and control group.

GROUP	PRE TEST		POST TEST		Paired “t” test Value
	MEAN	SD	MEAN	SD	
Experimental group	8.175	1.9607	18.75	3.3147	t = 21.75 *
Control group	8.525	2.4493	9.1	2.9899	t = 1.6935

\* Significant

$H_0$  – there is no significant association between the pre test and post test levels of knowledge regarding first aid measures for disaster event among the students in both experimental and control group.

**TABLE 4.6** Comparison of pre test and post test levels of knowledge regarding first aid measures for disaster event among the students in both experimental and control group.

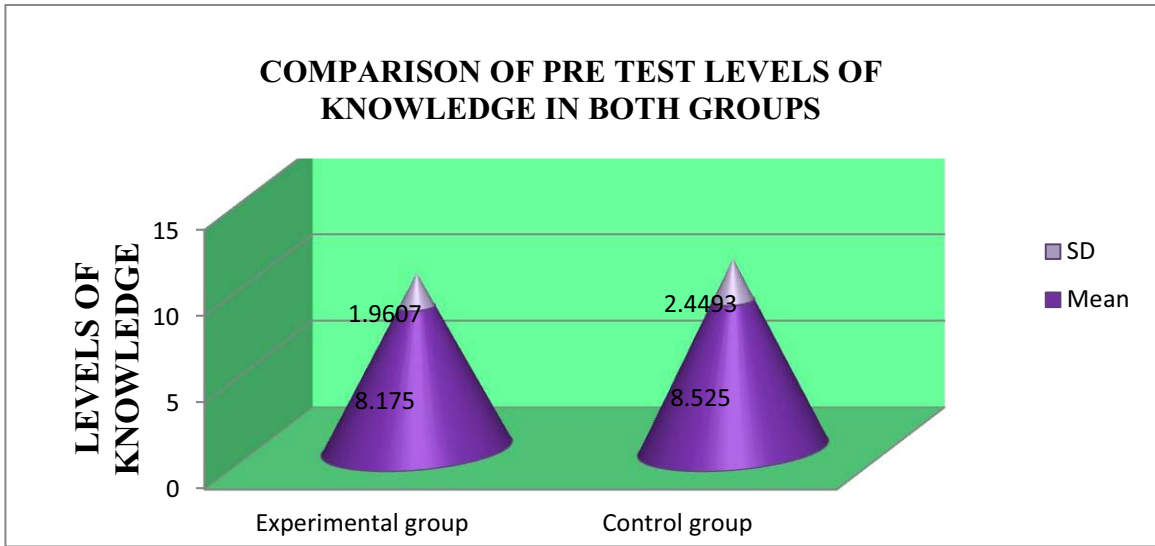
The analysis reveals that mean value 8.175 with standard deviation 1.9607 of pre test has significant to the post test mean value 18.75 with standard deviation 3.3147 and the ‘t’ value  $CV = 21.75$  and the  $TV = 2.0227$  ( $CV > TV$ ) which is significant at 0.05 level for experimental group. Where as in control group the analysis reveals that mean value 8.525 with standard deviation 2.4493 of pre test has not significant to the post test mean value 9.1 with standard deviation



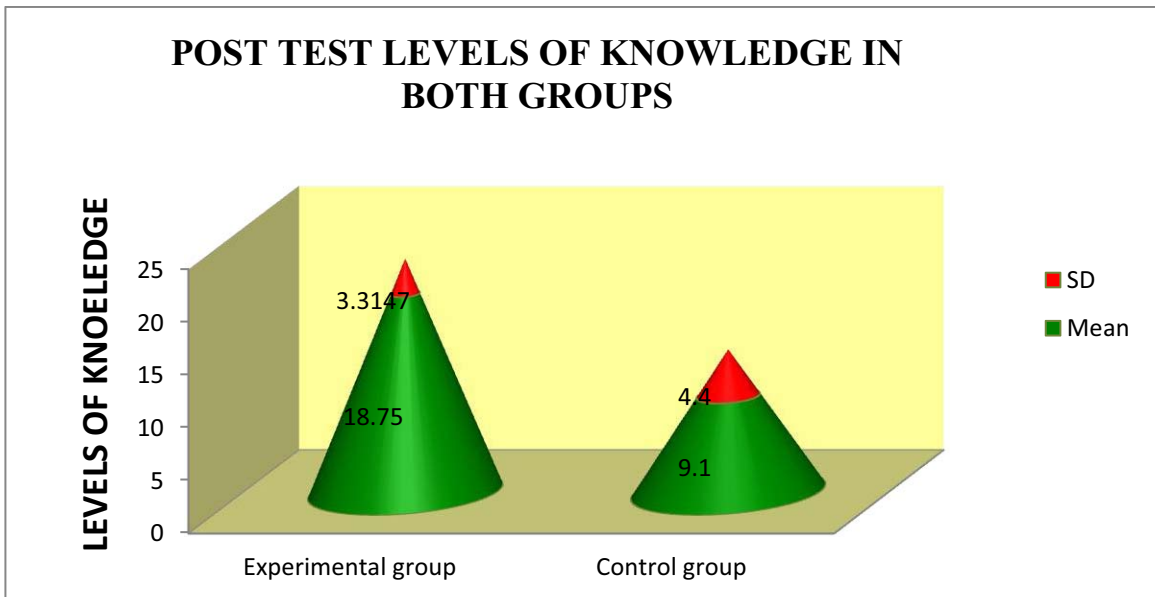
2.9899 and the 't' value  $CV = 1.6935$  and the  $TV = 2.0227$  ( $CV < TV$ ) which is not significant 0.05 level for control group.

Since in experimental group there is a highly significant difference in pre test and post test levels of knowledge regarding first aid measures for disaster event among the students,. it shows the given CAI was effective

**FIGURE 4.7** Represents the comparison of pre test levels of knowledge regarding first aid measures for disaster event among the students in both experimental and control group.



**FIGURE 4.8** represents the comparison of post test levels of knowledge regarding first aid measures for disaster event among the students in both experimental and control group.



**TABLE 4.7**

Comparison of pre test levels of expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

GROUP	PRE TEST		POST TEST		Paired 't' Test Value
	MEAN	SD	MEAN	SD	
Experimental group	4.875	1.1442	10.85	2.2310	t =19.5195 *
Control group	5	1.7748	5.475	1.4830	t = 1.1679

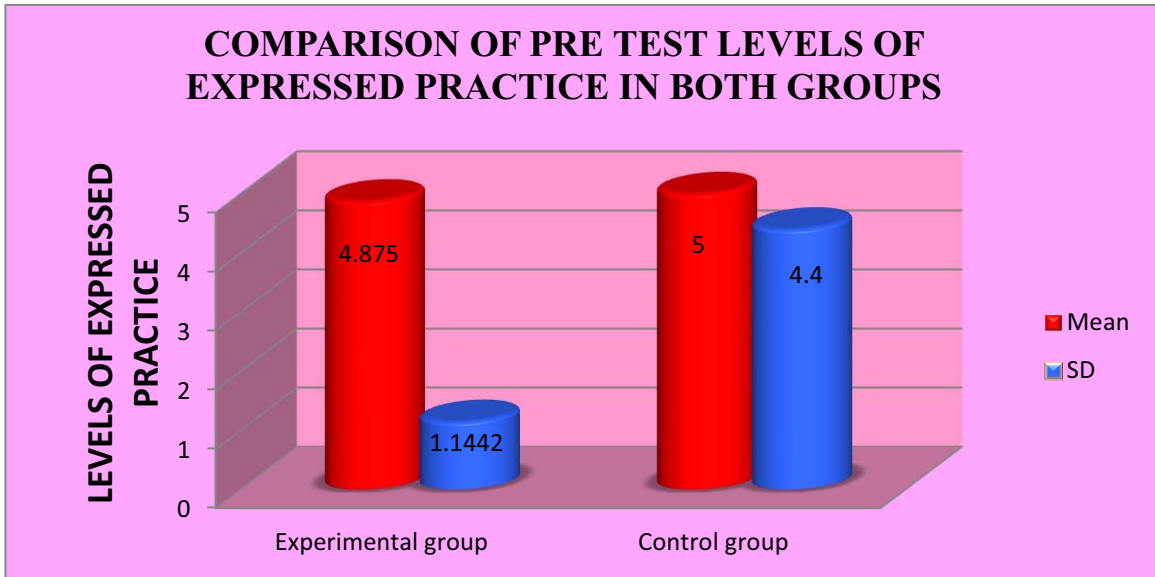
H0 – there is no significant association between the pre test and post test levels of expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

**TABLE 4.7** Comparison of pre test and post test levels of expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

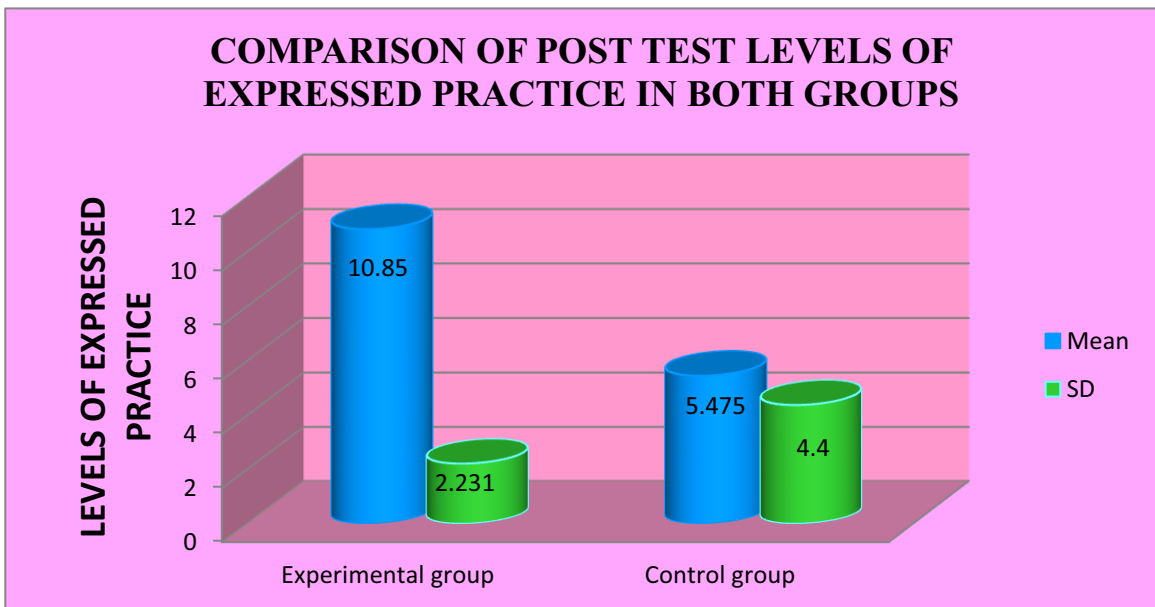
The analysis reveals that the mean value 4.875 with standard deviation 1.1442 of pre test has significant to the post test mean value 10.85 with standard deviation 2.2310 and the 't' value  $CV = 19.5195$  and  $TV = 2.0227(CV > TV)$  which is significant at 0.05 level for experimental group. Where as in the control group the analysis reveals that the mean value 5 with standard deviation 1.7748 of pre test has significant to the post test mean value 5.475 with standard deviation 1.4830 and the 't' value  $CV = 1.1679$  and  $TV = 2.0227(CV < TV)$  which is not significant at 0.05 level for control group.

Since in experimental group there is a highly significant difference in pre test and post test levels of expressed practice regarding first aid measures for disaster event among the students. It shows the given CAI was effective.

**FIGURE 4.9** Represents the comparison of pre test levels of expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.



**FIGURE 4.10** Represents the comparison of post test levels of expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.



## SECTION – 5

Comparison of experimental and control group levels of knowledge and expressed practice regarding first aid measures for disaster event among the students.

**TABLE 4.8** Comparison of experimental and control group levels of knowledge regarding first aid measures for disaster event among the students.

$$N = 40 + 40 = 80$$

TEST	EXPERIMENTAL GROUP		CONTROL GROUP		Unpaired 't' test value
	MEAN	SD	MEAN	SD	
PRE TEST	8.175	1.9607	8.525	2.4493	't' = 0.6967
POST TEST	18.75	3.3147	9.1	2.9899	't' =13.3023 *

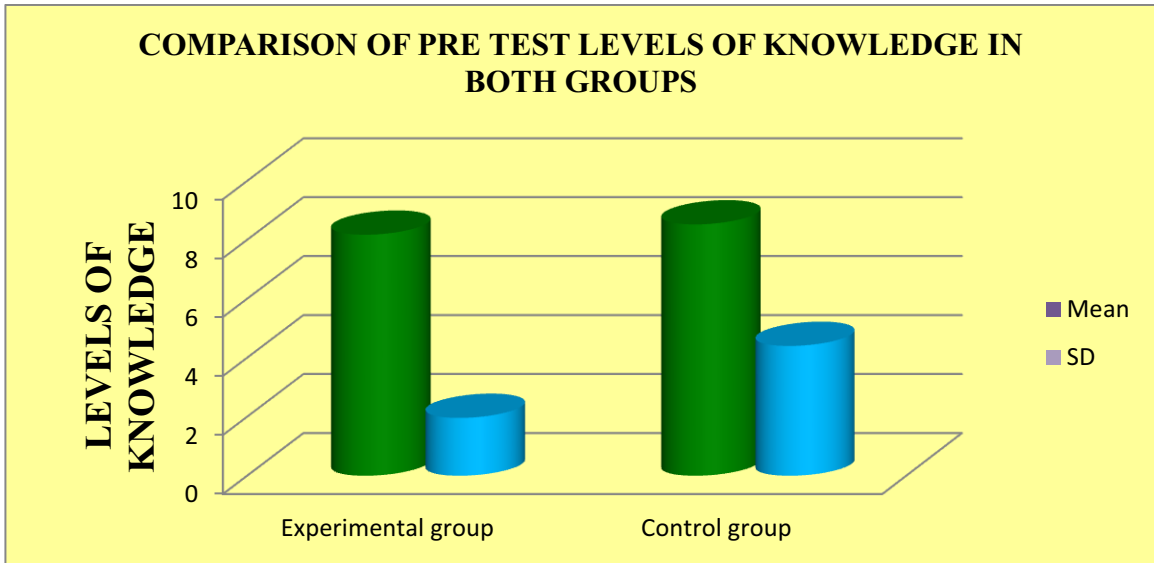
H0 – there is no significant difference in pre test and post test levels of knowledge between the experimental and control group.

**TABLE 4.8** represents the comparison of experimental and control group levels of knowledge regarding first aid measures for disaster event among the students.

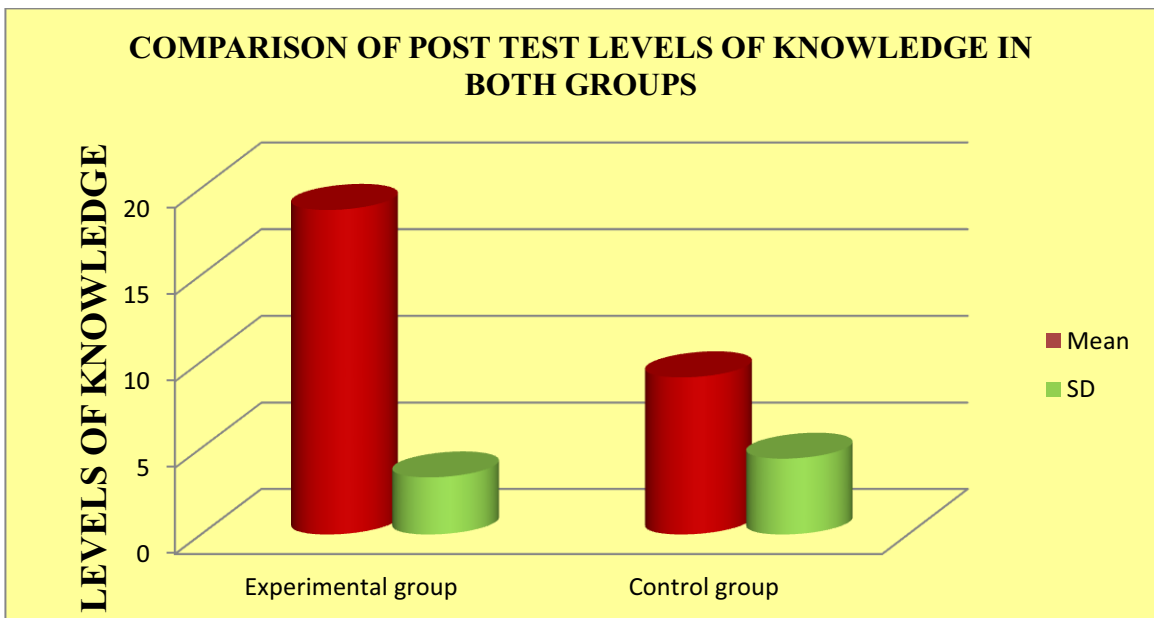
The analysis reveals that the pre test mean value 8.175 with standard deviation 1.9607 in experimental group in control group the mean value 8.525 with standard deviation 2.4493 and the 't' value  $CV = 0.6967$  and the  $TV = 2.0227$  ( $CV > TV$ ) which is significant at 0.05 level. For the post test mean value 18.75 with standard deviation 3.3147 in experimental group and the mean value 9.1 with standard deviation 2.9899 and the 't' value  $CV = 13.3023$  and  $TV = 2.0227$  ( $CV > TV$ ) which is significant at 0.05 level.

The statistical analysis reveals that there is a highly significant difference in post test levels of knowledge of experimental group as compared with control group. So the given CAI was effective.

**FIGURE 4.11** Represents the comparison of experiment and control group pre test levels of knowledge regarding first aid measures for disaster event among the students.



**FIGURE 4.12** Represents the comparison of experiment and control group post test levels of knowledge regarding first aid measures for disaster event among the students.



**TABLE 4.9** Comparison of experiment and control group levels of expressed practice regarding first aid measures for disaster event among the students.

$$N = 40 + 40 = 80$$

TEST	EXPERIMENTAL GROUP		CONTROL GROUP		Unpaired 't' Test value
	MEAN	SD	MEAN	SD	
PRE TEST	4.875	1.1442	5	1.7748	't' = 0.3394
POST TEST	10.85	2.2310	5.475	1.4830	't' = 12.5320 *

H<sub>0</sub> – there is no significant difference in pre test and post test levels of expressed practice between the experimental and control group.

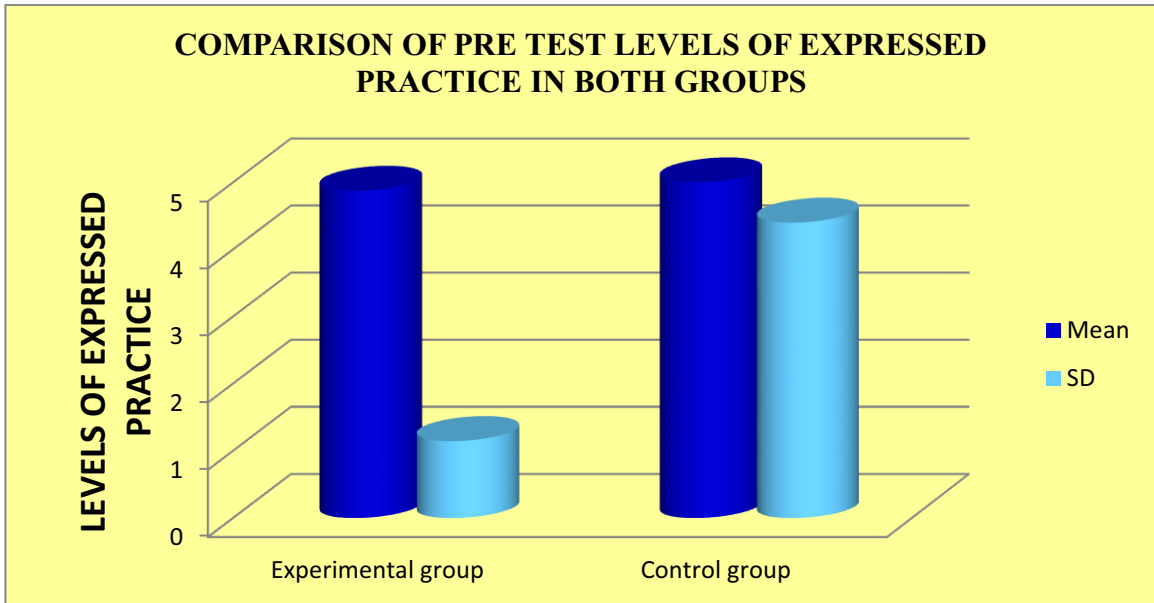
**TABLE 4.9** represents the comparison of experiment and control group levels of expressed practice regarding first aid measures for disaster event among the students.

The analysis reveals that the pre test experiment group expressed practice was the mean value 4.875 with standard deviation 1.1442 and the mean value 5 with standard deviation 1.7748 in control group and the 't' value CV = 0.3394 and TV = 2.0227 (CV < TV) which is not significant at 0.05 level where there is no significant difference in pre test levels of expressed practice in experiment group as compared with control group

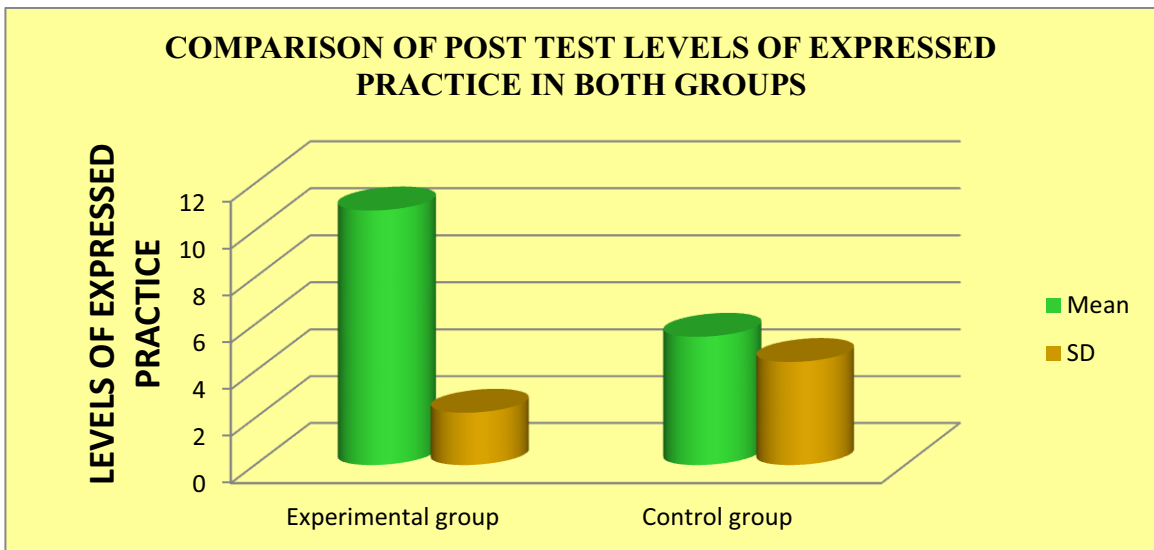
For the post test practice mean value was 10.85 with standard deviation 2.2310 in experiment group and the mean value 5.475 with standard deviation 1.4830 for control group and the 't' value CV = 12.5320 and TV = 2.0227 (CV > TV) which is significant at 0.05 level.

The statistical analysis reveals that there is a highly significant difference in post test levels of expressed practice of experiment group and there is no significant difference in pre test levels of expressed practice for the control group. So the given CAI was effective.

**FIGURE 4.13** Represents the comparison of experiment and control group pre test levels of expressed practice regarding first aid measures for disaster event among the students.



**FIGURE 4.14** Represents the comparison of experiment and control group post test levels of expressed practice regarding first aid measures for disaster event among the students.





## SECTION – 6

Assessment of correlation between the post test scores of knowledge and practice regarding first aid measures for disaster event among the students in both experimental and control group.

**TABLE 4.10** Assess the correlation between the post test scores of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group. **N = 40 + 40 = 80**

GROUP	POST TEST		POST TEST		“ r” value
	MEAN	SD	MEAN	SD	
Experimental group	18.75	3.3147	10.85	2.2310	r = 0.8 positive and highly significant
Control group	9.1	2.9899	6.475	1.4830	r = 0.3 positive and moderate significant

**TABLE 4.10** Represents the correlation between the post test scores of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group

In experimental group the mean value knowledge represents 18.75 with standard deviation 3.3147 and the mean value of expressed practice 10.85 with standard deviation 2.2310 and the correlation  $r = 0.8$  which is positive and highly significance for post test scores. Where as in control group the mean value of knowledge 9.1 with standard deviation 2.9899 and the mean value of expressed practice 6.475 with standard deviation 1.4830 and the correlation  $r = 0.33$  which is positive and moderate significance for post test scores of knowledge and expressed practice. Hence there is a positive and highly significant correlation between the knowledge and expressed practice of experiment group. It reveals the given CAI was effective.

## SECTION: 7

Assessment of the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental and control group.

**TABLE 4.11** Association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students in both experimental group with their selected demographical variables.

**N = 40**

Demographic Variables	Level of knowledge						$\chi^2$	Level of expressed Practice						$\chi^2$
	Inadequate		Moderately Adequate		Adequate			Inadequate		Moderately adequate		Adequate		
	NO	%	N	%	N	%		NO	%	N	%	N	%	
<b>Age</b>														
17-18 yrs	25	62.5	9	22.5	-	-	0.7058 (NS)	31	77.5	3	7.5	-	-	11.9966 (S)
19-20 yrs	3	7.5	1	2.5	-	-		1	2.5	3	7.5	-	-	
21-22 yrs	2	5	-	-	-	-		2	5	-	-	-	-	
<b>Gender</b>														
Male	18	45	4	10	-	-	0.1363 (NS)	20	50	2	5	-	-	1.3387 (NS)
Female	12	30	6	15	-	-		14	35	4	10	-	-	
<b>Domiciliary area</b>														
Urban	12	30	5	12.5	-	-	0.8588 (NS)	14	35	3	7.5	-	-	2.4527 (NS)
Rural	16	40	5	12.5	-	-		19	47.5	2	5	-	-	
Semi-urban	2	5	-	-	-	-		1	2.5	1	2.5	-	-	
<b>Medium of education</b>														
Tamil	28	70	4	10	-	-	7.3332	31	77.5	1	2.5	-	-	17.6959

English	2	5	6	15	-	-	(S)	3	7.5	5	12.5	-	-	S)
<b>Residential area</b>														
Day	5	12.5	8	20	-	-	13.713	7	17.5	6	15	-	-	14.6606
scholar	25	62.5	2	5	-	-	1(S)	27	67.5	-	-	-	-	(S)
Hosteller														
<b>Source of information</b>														
Health														
personnel	10	40	2	5	-	-	3.6586	17	42.5	1	2.5	-	-	2.309
Mass media	11	27.5	7	17.5	-	-	(NS)	14	35	4	10	-	-	(NS)
Relatives	3	7.5	1	2.5	-	-		3	7.5	1	2.5	-	-	

H0 – There is no significant association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students of experimental and control group with their selected demographic variables.

**TABLE 4.11** shows the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students of experimental group with their selected demographic variables.

The analysis reveals that there is a significant association between the medium of education and residential area of pre test levels of knowledge and there is no significant association between the age of the student, gender, domiciliary area, source of information in experimental group. Where as in pre test levels of expressed practice reveal that there is a significant association between the age of the student, medium of education, residential area and there is no significant association between the gender, domiciliary area, source of information in experimental group at the significant level of 0.05 level.

**TABLE 4.12** Association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students of control group with their selected demographic variables. N = 40

Demographic Variables	Level of knowledge						$\chi^2$	Level of expressed Practice						$\chi^2$
	Inadequate		Moderately Adequate		Adequate			Inadequate		Moderately adequate		Adequate		
	NO	%	N	%	N	%		NO	%	N	%	N	%	
<b>Age</b>														
17-18 yrs	25	62.5	2	5	-	-	15.616	26	65	1	2.5	-	-	12.088
19-20 yrs	6	15	4	10	-	-		6	15	4	10	-	-	
21-22 yrs	-	-	3	7.5	-	-		3 (S)	1	2.5	2	5	-	
<b>Gender</b>														
Male	-	-	-	-	-	-	0	-	-	-	-	-	-	0
Female	31	77.5	9	22.5	-	-	(NS)	33	82.5	7	17.5	-	-	(NS)
<b>Domiciliary area</b>														
Urban	12	30	3	7.5	-	-	2.5897	11	27.5	4	10	-	-	1.9165
Rural	9	22.5	5	12.5	-	-		9	22.5	2	5	-	-	
Semi – urban	10	25	1	2.5	-	-		(NS)	13	32.5	1	2.5	-	
<b>Medium of education</b>														
Tamil	29	72.5	5	12.5	-	-	7.8964	30	75	4	10	-	-	5.5226
English	2	5	4	10	-	-	(S)	3	7.5	3	7.5	-	-	(NS)
<b>Residential area</b>														
Day scholar	10	25	7	17.5	-	-	5.9139	13	32.5	4	10	-	-	6.7443

Hosteller	21	52.5	2	7.5	-	-	(NS)	20	5	3	7.5	-	-	(S)
<b>Source of information</b>														
Health	-	-	3	7.5	-	-	11.291	3	7.5	-	-	-	-	
personnel	18	45	4	10	-	-	1 (S)	18	45	4	10	-	-	0.7080
Mass media	13	32.5	2	2.5	-	-		12	3	3		-	-	(NS)
Relatives											7.5			

H0 – there is no significant association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students of control group with their selected demographic variables.

**TABLE 4.12** shows the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students of control group with their selected demographic variables.

The analysis reveals that there is a significant association between the medium of education age, medium of education, source of information of pre test levels of knowledge and there is no significant association between the gender, domiciliary area, and residential area in control group. Where as in pre test level of expressed practice reveals that there is a significant association between the age, residential area and gender, domiciliary area, medium of education, residential area source of information in control group at the significant level of 0.05 level.

## CHAPTER-V

### DISCUSSION

This chapter deals about the discussion of the study with appropriate statistical analysis and the findings based on the objectives of the study.

The study was a quasi experimental (Non equivalent pre test post test control group design). The problem stated as “A study to assess the effectiveness of computer assisted instruction on knowledge and expressed practice regarding first aid measures for disaster event among the students at selected Arts colleges, Thanjavur.”

The study was conducted for 80 students in which 40 were assigned to experimental group and 40 were assigned to control group. Arts colleges and the samples were selected by using non probability purposive sampling techniques. Pre test was conducted by using the semi structured knowledge questionnaire to assess the knowledge and the semi structured expressed practice questionnaire was used to assess the expressed practice on second day CAI was provided to the experimental group. After 7 days the post test was conducted by using the same tools for both experimental and control group.

**The first objective to assess the knowledge and expressed practice regarding first aid measures for disaster event before and after providing CAI among the students in both experimental and control group.**

In the experiment group the pre test levels of knowledge was 30 (75%) students had inadequate knowledge and 10(25%) students had moderately adequate knowledge. In expressed practice 34(85%) had inadequate expressed practice and 6(15%) students had moderately adequate expressed practice whereas In the control group the pre test levels of knowledge was 31(77.5%) students had

inadequate knowledge and 9(22.5%) students had moderately adequate knowledge. In practice 33(82.5%) students had inadequate expressed practice and 7(17.5%) had moderately adequate expressed practice and none of them had reported adequate knowledge and expressed practice regarding first aid measures for disaster event in both experiment and control group..

In the experiment group the post test levels of knowledge was 15(37.5%) students had moderately adequate knowledge and 25(62.5%) students had adequate knowledge. In expressed practice 23(57.5%) students had moderately adequate expressed practice and 17(42.5%) students had adequate expressed practice. Whereas in the control group post test levels of knowledge were 27(67.5%) students had inadequate knowledge and 13(32.5%) students had moderately adequate knowledge. In expressed practice 30(75%) students had inadequate expressed practice and 10(25%) students had moderately adequate expressed practice and none of them had reported adequate knowledge and expressed practice regarding first aid measures for disaster event.

Hence the experiment group had improvement in their levels of knowledge and practice regarding first aid measures for disaster event.

**The second objective to evaluate the effectiveness of computer assisted instruction regarding first aid measures for disaster event among the students in experimental group.**

In experiment group the mean pre test value for knowledge was 8.175 with SD 1.9607 in post test mean value was 18.75 with SD 3.3147 and the projected 't' value  $CV = 21.75$  and  $TV = 2.0227$  ( $CV > TV$ ) at 0.05 level. Where as in pre test level of expressed practice the mean value was 4.875 with SD 1.1442, in post test mean value was 10.85 with SD 2.2310 and the projected 't' value  $CV = 19.5195$  and  $TV = 2.0227$  ( $CV > TV$ ) at 0.05 level. It proves that there is a significant

difference between the pre and post test levels of knowledge and expressed practice regarding first aid measures for disaster event in experimental group. Hence the given CAI was effective.

In control group the mean pre test levels of knowledge was 8.525 with SD 2.4493 in post test the mean value was 9.1 with SD 2.9899 and the projected 't' value  $CV = 1.6935$  and  $TV = 2.0227$  ( $CV < TV$ ) at 0.05 level. Where as in pre test levels of expressed practice the mean value was 5 with SD 1.7748 in post test the mean value was 5.475 with SD 1.4830 and the projected 't' value  $CV = 1.1679$  and  $TV = 2.0227$  ( $CV < TV$ ) at 0.05 level. It proves that there is a no significant difference between the pre and post test levels of expressed practice regarding first aid measures for disaster event.

Hence the research hypothesis H1 states that there is a significant difference between the pre and post test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students was accepted with the experiment group but the same it is rejected to the control group.

**The third objective to compare the pre and post test levels of knowledge and expressed practice between the experimental and control group.**

In pre test the mean levels of knowledge for experimental group was 8.175 with SD 1.9607 and for control group was 8.525 with SD 2.4493. and the projected 't' value  $CV = 0.6967$  and  $TV = 2.0227$  ( $CV < TV$ ) at 0.05 level. Where as in post test levels of knowledge the mean value was 18.75 with SD 3.3147 and for control group the mean value was 9.1 with SD 2.9899 and the projected 't' value  $CV = 13.3023$  and  $TV = 2.0227$  ( $CV > TV$ ) at 0.05 level. In pre test, the mean levels of expressed practice for the experimental group was 4.875 with SD 1.1442 and for control group the mean value was 5 with SD 1.7748 and the



projected 't' value  $CV = 0.3394$  and  $TV = 2.0227$  ( $CV < TV$ ) at 0.05 level. Whereas in experimental group post test levels of expressed practice mean value was 19.85 with SD 2.2310. In control group post test levels of expressed practice mean value was 5.475 with SD 1.4830 and the projected 't' value  $CV = 12.5320$  and  $TV = 2.0227$  ( $CV > TV$ ) at 0.05 level. It proves that there is a significant difference between the post test levels of expressed practice in experimental and control group.

Research hypothesis H2 states that there is a significant difference in the post test levels of knowledge and expressed practice between the experimental and control group regarding first aid measures for disaster event among the students. Hence the research hypothesis H2 was accepted but the same it is rejected to the pre test levels of knowledge and expressed practice between the experimental and control group.

**The fourth objective to correlate the post test scores of knowledge and expressed practice regarding first aid measures for disaster event among the students in experimental and control group.**

In experiment group the mean post test value of knowledge was 18.75 with SD 3.3147 and for expressed practice the value was 10.85 with SD 2.2310. And the 'r' value 0.8 it revealed that there was a positive and highly significant correlation. Whereas in control group the mean post test value of knowledge was 9.1 with SD 2.9899 and in expressed practice the mean value 5.475 SD 1.4830 and 'r' value 0.3 it revealed that there was a positive and moderate correlation between post test scores of knowledge and expressed practice regarding first aid measures for disaster event.

So the research hypothesis H3 there is a significant correlation between the post test scores of knowledge and expressed practice regarding first aid measures

for disaster event among the students in experiment and control group was accepted.

**The fifth objective to determine the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students with their selected demographic variables in experimental and control group.**

In the experimental group there was no significant association between the pre test levels of knowledge with the age, gender, domiciliary area, medium of education, residential area, and source of information. Where as in expressed practice there was no significant association in age of the student, gender, domiciliary area, medium of education, residential area, and source of information. In the control group there was no significant association between the pre test levels of knowledge with the age, gender, domiciliary area, medium of education, residential area, and source of information. Where as in expressed practice there was no significant association in age of the student, gender, domiciliary area, medium of education, residential area, and source of information. So the research hypothesis H4 was rejected.

Hence in experimental group there was a significant association between the knowledge with medium of education, residential area and for expressed practice there was a significant association with age, medium of education and residential area .Where as in control group there was a significant association with age, medium of education and source of information in the knowledge level and there was a significant association with age of the student, residential area in the expressed practice so H4 was accepted.

## CHAPTER – VI

### SUMMARY AND CONCLUSION

The present study was conducted to assess the knowledge and expressed practice of the Arts students regarding first aid measures for disaster event. The quasi experimental design was used. The college and samples were selected by using non probability purposive sampling technique. A total 80 (40 students in experimental group and 40 students in control group) who met the inclusion criteria were selected as samples. The investigator first introduced herself to the samples and developed rapport with them. After the selection of samples, the interview was being conducted with the instrument.

The statistical analysis revealed that the levels of knowledge and expressed practice of the experiment group was calculated by the paired' test for knowledge  $CV = 21.75$  and for expressed practice  $CV = 19.5195$ . Where as in control group the knowledge  $CV= 1.6935$  and for expressed practice  $CV= 1.1679$ . Hence there was a significant difference in the experimental group so the given CAI was effective

The statistical analysis for the comparison of knowledge and expressed practice between the experiment group and control group was calculated by the unpaired 't' test for pre test knowledge  $CV= 0.6967$  it showed no difference in knowledge and for expressed practice  $CV = 0.3394$ . This proved that there is a no significant difference in expressed practice. Where as in post test the knowledge level was  $CV = 13.3023$  and for expressed practice  $CV= 12.5320$  this revealed that there was a significant difference in post test levels of knowledge and expressed practice for the experiment and control group.

The statistical analysis for correlation was calculated by “Karl Pearson correlation test” stated that in experimental group calculated ‘r’ value was 0.8 it revealed that there was a positive and highly significant correlation for control group calculated ‘r’ value 0.3 it revealed that there was a positive and moderate significant correlation between the post test scores of knowledge and expressed practice regarding first aid measures for disaster event.

The statistical analysis to determine the association between the pre test levels of knowledge and expressed practice regarding first aid measures for disaster event among the students with their selected demographic variables was calculated by using ‘chi square test’. The results were stated that in experiment group there was a significant association with medium of education, residential area towards the knowledge and in practice there is a significant association with age, medium of education, residential area. Where as in control group towards the knowledge level there was a significant association with age, medium of education and source of information and in expressed practice there was a significant association with age, residential area.

## **CONCLUSION:**

The main objective of the study was to determine the effectiveness of CAI on knowledge and expressed practice regarding first aid measures for disaster event among the students at selected Arts colleges, Thanjavur. The statistical analysis revealed that the given CAI was effective.

## **NURSING IMPLICATIONS:**

The findings of the present study have certain important implications for the Nursing services, Nursing education, Nursing administration, Nursing research.

### **NURSING SERVICE:**

Nurses are act as an educator, leader, supervisor, protector and team member in various situation of work. Education may be given to care givers .public or students regarding first aid measures for disaster event to protect the victim in case of disaster event.

The findings of the study will help the students to identify the priority and provide first aid measures in case of disaster event in both hospital and community setting.

### **NURSING EDUCATION:**

The result of the study will help to the nurse educator to import the knowledge regarding first aid measures for disaster event to the public.

The study emphasized the need of educating the Nursing personal, Non Nursing personal and the public through in- service or containing education programme to update their knowledge and skills in educating the students regarding first aid measures for disaster event.

### **NURSING RESEARCH:**

The study can be a baseline for further studies to built upon.

The study can be conduct in various group of students (other than Arts students and the public.

### **NURSING ADMINISTRATION:**

The findings of the present study will help the nurses to organize and plan for educational programme by using various teaching methods and audiovisual aids.

## **RECOMMENDATIONS:**

- The comparative study can also be done to assess the effectiveness of CAI among Nursing and Non Nursing students.
- The study can be done on large number of samples to generalize the effectiveness of CAI.
- A true experimental study can be done to assess the effectiveness of CAI and mock drills regarding first aid measures for disaster event among the public.

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# RESEARCH TOOL

## TOOL – I (DEMOGRAPHIC VARIABLES)

SAMPLE NO: \_\_\_\_\_

COLLEGE: \_\_\_\_\_

Samples are requested to kindly tick the options

### 1. Age of the student

- a. 17-18 years
- b. 19-20 years
- c. 21-22years

### 2. Gender

- a. Male
- b. Female

### 3. Domiciliary area

- a. Urban
- b. Rural
- c. Semi-urban

### 4. Medium of education

- a. Tamil
- b. English

**5. Residential area**

- a. Day scholars
- b. Hosteller

**6. Source of information**

- a. Health personnel
- b. Mass media
- c. Relatives

## TOOL- II KNOWLEDGE QUESTIONNAIRE

**1. What is meant by disaster?**

- a. Catastrophic event
- b. Prosperity event
- c. Fortune event

**2. Which of the following type is considered as a hurricane?**

- a. Natural disaster
- b. Man-made disaster
- c. Biological disaster

**3. Which natural disaster appeared as a funnel shaped cloud?**

- a. Typhoons
- b. Tornadoes
- c. Avalanches

**4. What is meant by Riots?**

- a. Harmony
- b. Peace
- c. Crowd

**5. What is the example for rapid onset disaster?**

- a. Famine
- b. Earthquake
- c. Drought



**6. What is the name of the earthquake under the sea?**

- a. Tsunami
- b. Hurricane
- c. Cyclone

**7. Which one of the natural disaster has higher incidence in India?**

- a. Flood
- b. Volcano
- c. Drought

**8. What is the first step to arrest the bleeding?**

- a. Apply direct pressure with a clean dressing
- b. Apply coffee powder
- c. Apply ointment

**9. What should be done for a firmly embedded foreign object in a wound?**

- (a) To remove by hand
- (b) To leave in a place & to seek medical attention
- (c) To remove by instrumentation

**10. What level should keep the affected part of bleeding victim?**

- a. Above the heart
- b. Below the heart
- c. At the level of heart

**11. What is meant by open fracture?**

- a. Ruptures a blood vessel
- b. Damage a nerve
- c. Broken bone breaks through the skin

**12. Which one is should not be done in fractured area?**

- a. Massage the affected area
- b. Control the bleeding
- c. Calm the person

**13. What should be done for caring an amputated body part?**

- a. Wash the part and put it in a bag of ice
- b. Try to padding the part back in place
- c. Apply a pressure

**14. Which type of burns you can pour the tap water?**

- a. Radiation burns
- b. Electrical burns
- c. Thermal burns

**15. Which of the following symptom by minor burns?**

- a. Blisters
- b. Redness
- c. Bleeding

**16. What measure should not be done for severe burns?**

- a. Elevate the burned body part
- b. Cover the area of burn
- c. Remove burned clothing

**17. Which medications can be applied for burns?**

- a. Silver sulfadiazine
- b. Copper sulfadiazine
- c. Zinc sulfadiazine

**18. How long wash for chemical burns?**

- a. 10 minutes
- b. 20 minutes
- c. 30 minutes

**19. What is the most common electrical shock related injury?**

- a. High fever
- b. vomiting
- c. electrical burns

**20. How to protect the victim from the electrical source?**

- a. Remove the victim by wood
- b. Remove the victim by steel
- c. Remove the victim by hand

**21. How much distance away from the high voltage current shock victim?**

- a. 8 meters
- b. 18 meters
- c. 28 meters

**22. What is the immediate best action during an electrical shock?**

- a. shut off power
- b. remove the victim
- c. stand on wood items.

**23. How will you assess the responsiveness for the unconscious victim?**

- a. Look, Listen
- b. Shake, shout
- c. cover, cool

**24. What position is to be given for unconscious victim?**

- a. Lying
- b. Standing
- c. Sitting

## CHECKLIST

S.NO	CONTENT	YES	NO
1.	Do you wash the minor wounds with water?		
2.	Do you take immediate action for cool, clammy skin?		
3.	Do you make the victim lie down when bleeds more, it will help to reduce chances of fainting?		
4.	Do you wash the burn with ice water?		
5.	Do you move joints above or below the fracture?		
6.	Do you apply ice packs to help limit swelling and relieve pain?		
7.	Do you wash the wound, if you suspect a broken bone?		
8.	Do you break the blisters caused by burns?		
9.	Do you cover the minor burned area with clean wet cloth?		
10.	Do you remove the tight ornaments from the burned area?		
11.	Do you protect yourself by standing on non-conductive material?		
12.	Do you continue to hold the victim with electrical shock, if you feel tingling sensation?		
13.	Do you slap an unconscious victim's face or splash water on the face to try to get his response?		
14.	Do you place a pillow under the head of an unconscious victim?		
15.	Do you loosen any tight clothing for the unconscious victim?		

## ANSWER KEYS

<b>TOOL - I</b>		<b>TOOL - II</b>	
<b>Q.NO</b>	<b>ANSWER</b>	<b>Q.NO</b>	<b>ANSWER</b>
1.	A	1	YES
2	A	2	YES
3	B	3	YES
4	C	4	NO
5	B	5	NO
6	A	6	YES
7	A	7	NO
8	A	8	NO
9	B	9	YES
10	A	10	YES
11	C	11	YES
12	B	12	NO
13	A	13	NO
14	B	14	NO
15	B	15	YES
16	C		
17	A		
18	B		
19	C		
20	A		
21	B		
22	A		
23	B		
24	A		



**COMPUTER ASSISTED INSTRUCTION**  
**ON**  
**FIRST AID MEASURES FOR DISASTER**  
**EVENT**



**COMPUTER ASSISTED INSTRUCTION**  
**FIRST AID MEASURES FOR DISASTER EVENT**

Name of the teacher : Ms.N.Esaimozhi

Topic : First aid measures for disaster event

Group : I year B.Com students

Number of the students : 40

Venue : Classroom

Duration : 1 hour

Time :

Medium of instruction : English

Method of teaching : Lecture cum Discussion

Audio visual aids : LCD.

## **GENERAL OBJECTIVES:**

At the end of the session, the Arts students will gain knowledge regarding first aid measures for disaster event and develop their desirable positive attitude towards first aid measures for disaster event and they will be able to practice and their real life situation.

## **SPECIFIC OBJECTIVES:**

At the end of the session, the students' will be able to,

- define disaster
- classify the types of disaster
- state the incidence of disaster
- describe the first aid measures for disaster event
- explain the first aid action plan
- discuss the bleeding
- enumerate the fracture
- elaborate the burns
- discuss the electrical shock
- describe the unconsciousness

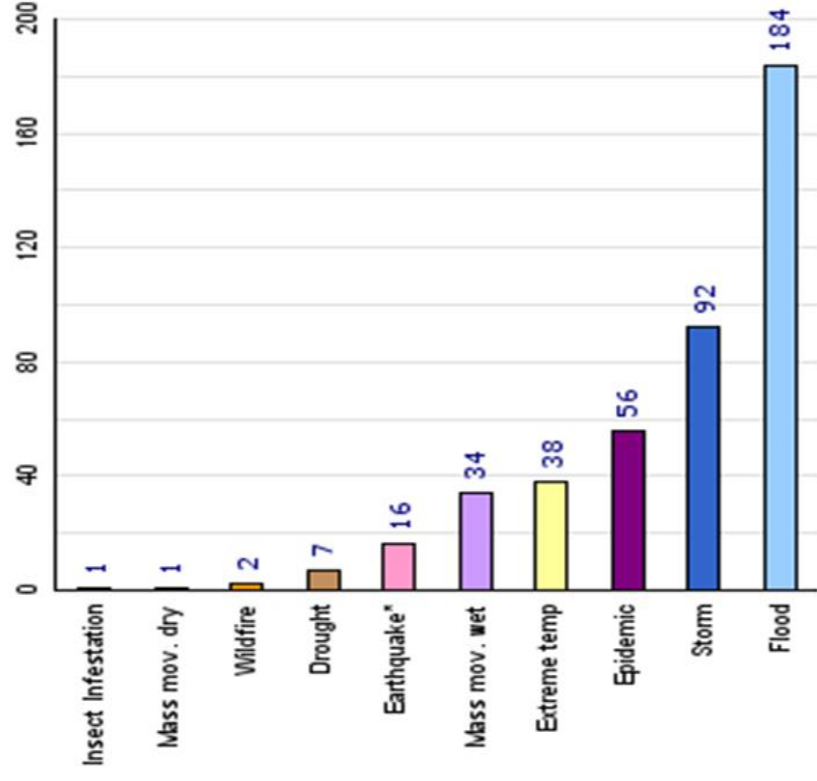
	Time	Specific Objectives	Content	Teaching Activities	Learning Activities	Av Aids	Evaluation
1.	2mts		<p style="text-align: center;"><b>FIRST AID MEASURES FOR DISASTER EVENT</b></p> <p><b>INTRODUCTION:</b> Disasters have been integral parts of the human experience since the beginning of time, causing premature death, impaired quality of life and altered health status. The word disaster derives from Greek word. The root of the word disaster (bad star) comes from an astrological theme in which the ancients used to refer to the destruction of a star as a disaster. The ancient people believed that the disaster is occurred due to the unfavorable position of the ‘planets’ or ‘Act of God’.</p>	Introducing the topic	Listening	-	-
2.	3mts	The students will be able to define the disaster	<p><b>DEFINITIONS:</b> ‘Disaster as any occurrence that causes damage, ecological disruption, loss of human life, deterioration of health and health services, on a scale sufficient to warrant an extraordinary response from outside the affected community (or) area’.</p> <p style="text-align: center;"><b>- WHO</b></p>	Defining	Interacting	LCD	What is the definition of disaster?

			<p>“An occurrence either natural (or) manmade that causes human suffering and creates human that victim’s cannot alleviate without assistance.</p> <p style="text-align: center;"><b>- AMERICAN RED CROSS</b></p> <p><b>UNDP (2004)</b> Disaster is a serious disruption triggered by a hazard, causing human material, economic or (and) environment losses, which exceed the ability of those affected to cope.</p> <p style="text-align: center;"><b>- UNDP (2004)</b></p> <p>Thus a disaster may have the following main features:</p> <ul style="list-style-type: none"> <li>• Unpredictability</li> <li>• Unfamiliarity</li> <li>• Speed</li> <li>• Urgency</li> <li>• Uncertainty</li> <li>• Threat</li> </ul> <p><b>TYPES OF DISASTER:</b></p> <p><b>1.NATURAL DISASTERS:</b></p> <p>A serious disruption triggered by a natural hazard causing human, material, economic (or) environmental losses.</p>	Interacting	Discussin g	LCD	What are all the types of disaster?
3.	3mts	The students will be able to classify					



- ✓ Collapse of building
- ✓ Technological failure

**INCIDENCE:  
NATURAL DISASTER OCCURRENCE REPORTED**



The student will be able to state the incidence of disaster

4. 3mts

What is the incidence for disaster in india?

LCD

Listening

Discussing the incidence

5.	5mts		<p><b>FIRST AID MEASURES FOR DISASTER EVENT:</b></p> <p>First Aid is a set of measures which need to be taken in order to prevent any further harm being done to the body of an injured person in case of an accidental injury.</p> <p>First aid has three main objectives –</p> <ol style="list-style-type: none"> <li>1. <u>To preserve life of the injured</u> – Definitely, the main objective of providing first aid to the injured is that life of the injured can be saved. The life of the injured must not be lost just because no one was there to provide first aid – this is the main objective of first aid.</li> <li>2. <u>To prevent deterioration of the condition</u> – The first aider needs to make sure that the condition of the injured does not deteriorate otherwise the first objective might fail.</li> <li>3. <u>To promote recovery of the injured</u> – If the first and the second objectives are successfully met, then the first aid provider must try to take the injured to the doctor in case of availability. Otherwise, he / she must try his best to do what he / she can do in order to support recovery of the injured.</li> </ol> <p><b>PRECAUTIONS</b></p> <p><i>Do's for Emergency Operations</i></p>	Lecture cum discussion	Asking doubts	LCD	What are all the first aid measures for disaster event?
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6.	3 mts	The student will be able to explain the first aid	<ul style="list-style-type: none"> <li>✓ Keep calm</li> <li>✓ Take maximum safety while removing debris from the vicinity of the casualty.</li> <li>✓ Proper examination of the casualty is a must.</li> <li>✓ Provide First Aid, check and facilitate proper breathing</li> <li>✓ Cover the patient with a blanket or tarpaulin etc. and protect the casualty from further injury</li> <li>✓ Use sharpened tools carefully when moving the casualties.</li> <li>✓ Loosen the clothing and keep the patient lying down and warm.</li> </ul> <p><b>Don'ts</b></p> <ul style="list-style-type: none"> <li>✓ Do not panic</li> <li>✓ Do not carelessly move an injured casualty unless the person is in immediate danger.</li> <li>✓ Do not expose to further possible injury or adverse conditions.</li> <li>✓ Do not touch live electric wiring. Do not violate safety measures</li> </ul> <p><b>FIRST AID ACTION PLAN</b></p> <p>This Action Plan is a vital aid to the first aider in assessing whether the victim has any life-threatening conditions and if any immediate first aid is necessary. They are '<i>DRABC</i>'</p>	Discussing	Interacting	LCD	What is the plan for first aid?
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action plan

D - Check for DANGER

- To you
- To others
- To victim

R - Check RESPONSE

- Is victim conscious?
- Is victim unconscious?

C - Check for CIRCULATION

- Can you feel a pulse?
- Can you see any obvious signs of life?

A - Check AIRWAY

- Is airway clear of objects?
- Is airway open?

B - Check for BREATHING

- Is chest rising and falling?
- Can you hear victim's breathing?
- Can you feel the breath on your cheek?

7.	10 mts	The students will be able to discuss the bleeding	<p style="text-align: center;"><b>BLEEDING</b></p> <p><b>Overview</b> Cuts, scrapes and puncture can result in bleeding. Severe bleeding can be life threatening. Bleeding have two types:</p> <ul style="list-style-type: none"> <li>• External bleeding     Bleeding from injury to the skin with or without injury to the underlying structures</li> <li>• Internal bleeding     Bleeding into organs or body cavities, this cannot be seen from the outside.</li> </ul> <p>Bleeding may be from arteries, veins or capillaries, called arterial, venous and capillary bleeding respectively.</p> <p><b>Symptoms</b> Discharge of blood from a wound Bruising Clammy skin Rapid pulse Weakness</p>	Clarifying the doubts	Interacting with investigat or	LCD	What is the first aid measure for bleeding?
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Low blood pressure

Paleness

**Treatment**



- Wash hands well before administering to victim. Wear synthetic gloves
- Lay the person down. This reduces the chances of fainting by increasing blood flow to the brain.



- If the bleeding is severe, keep the injured body part completely still. Lay the person flat, raise the feet about 12 inches, above the level of their heart and cover the person with a coat or blanket.




- Remove any obvious debris/particle from a wound. Do not remove an object such as a knife, stick, or arrow that is stuck in the body. Place pads and bandages around the object and tape the object in place.



- Put pressure directly on an outer wound with a sterile bandage, clean cloth, or even a piece of clothing. If nothing else is available, use hand. Direct pressure is best for external bleeding, except for an eye injury. Apply pressure continuously for atleast 20 minutes.
- Maintain pressure until the bleeding stops. When it has stopped, tightly wrap the wound dressing with adhesive tape or a piece of

					<p>clean clothing.</p> <ul style="list-style-type: none"><li>• Place a cold pack over the dressing. Do not peek to see if the bleeding has stopped.. This will help to constrict blood vessels, which will help stop bleeding</li><li>• Add extra bandage on top of the first one</li><li>• Apply direct pressure on the artery if necessary</li><li>• Squeeze the artery keeping finger flat</li><li>• Continue applying pressure on the wound</li><li>• Once bleeding stops immobilize the affected part</li><li>• See a doctor</li></ul> <p><b>Consult a doctor</b></p> <ul style="list-style-type: none"><li>• If bleeding does not stop</li><li>• If bleeding occurs through nose, ears etc</li><li>• Coughing up blood</li><li>• Vomiting</li><li>• Deep wounds fracture.</li></ul> <p><b>Steps To Avoid</b></p> <ul style="list-style-type: none"><li>• Do not try to replace a displaced organ</li><li>• Just cover the wound with a clean cloth</li><li>• Do not try to remove an embedded object</li></ul>
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8.	7 mts	The student will be able to enumerate the fracture	<p style="text-align: center;"><b>FRACTURE</b></p> <p><b>OVERVIEW:</b> A broken bone, or cracked bone, can occur when pressure is applied to bone or some kind of trauma. Broken bones are usually not life threatening, but they do require immediate medical care.</p> <p><b>SYMPTOMS:</b></p> <ul style="list-style-type: none"> <li>✓ Severe pain</li> <li>✓ Difficulty in movement</li> <li>✓ Swelling/ bruising / bleeding</li> <li>✓ Deformity / abnormal twist of limb</li> <li>✓ Tenderness on applying pressure</li> </ul>  <ul style="list-style-type: none"> <li>✓ <b>For open fractures</b></li> <li>✓ Control bleeding before treatment. If suspect a broken bone,</li> </ul>	Lecture cum discussion	Asking doubts	LCD	What are all the first aid measures for fracture?
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		<p>especially in the head, neck, back, hip or upper leg, see severe bleeding, call emergency services.</p> <ul style="list-style-type: none"> <li>✓ Remove or cut away the patient's clothing around the area of the injury.</li> <li>✓ Avoid washing the wound or palpating it. If it is obviously swollen and discolored.</li> <li>✓ Cover the entire wound with a large pad.</li> <li>✓ If any loose body part, wash the part and put in a bag of ice.</li> </ul> <p><b>For open / closed fractures</b></p> <ul style="list-style-type: none"> <li>• Check the breathing</li> <li>• Calm the person</li> <li>• Immobilize the broken wound. Support with cushions or items of clothing.</li> <li>• Apply ice to reduce pain / swelling</li> </ul> <p><b>DO NOT</b></p> <ul style="list-style-type: none"> <li>• Massage the affected area</li> <li>• Straighten the broken bone</li> <li>• Move without support to broken bone</li> <li>• Move joints above / below the fracture</li> <li>• Give oral liquids / food</li> </ul>				
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9.	10 mts	The student will be able to elaborate the burns	<p style="text-align: center;"><b>BURNS</b></p> <p><b>OVERVIEW</b> Injuries due to heat/ chemicals/ electricity/ radiation. Common heat injuries due to fire, hot liquids, steam. Burns due to heat / chemicals - through skin contact. Severe burns affect muscles, fat and bones. Older people/ children - particularly vulnerable</p> <p style="text-align: center;"><b>FIRST AID: COOL, COVER &amp; CALL</b></p> <p><b>Recognition:</b></p> <ul style="list-style-type: none"> <li>• Reddened skin</li> <li>• Pain in the area of the skin</li> <li>• Swelling and blistering of the skin</li> </ul> <p><b>Categories of burns</b></p> <ul style="list-style-type: none"> <li>• <b>First degree</b></li> <li>• <b>Second degree</b></li> <li>• <b>Third degree</b></li> </ul> <p>Categorization depends on severity of tissue damage. Check extent of burn before deciding self-treatment.</p> <p>Seek help if burn is over a couple of inches in diameter, or If it involves large sections of the hands, feet, face, groin or buttocks, or a</p>	Explaining	Discussing	LCD	What are all the first aid for burns?
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major joint.

**First-degree burns:**



Skin will appear red and may be swollen or painful. Generally does not require medical attention, but can be painful! Please contact the Nurse Trainer on-call for direction such as PRN Tylenol or Aloe Vera application.

**Treatment**

- Remove patient from heat source
- Remove the burnt clothing
- Run cool water over burnt area
- Gently clean the injured area & dry
- Apply anti biotic such as Silver Sulphadiazine
- Use a sterile bandage to cover burns
- Take tetanus vaccination, if required

**Second-degree burns:**

Skin will appear red, blistered and swollen. May require medical attention.

**Treatment**

- ✓ Clean the affected area thoroughly
- ✓ Gently dry
- ✓ Apply antibiotic cream over affected area
- ✓ Make the patient lie down
- ✓ Keep burnt body part at a raised level
- ✓ Splints may be used to rest affected joints
- ✓ Hospitalization is essential

**Third degree burns:**

The most serious burns involve all layers of the skin and cause permanent tissue damage. Fat, muscle and even bone may be affected. Areas may be charred black or appear dry and white. Difficulty inhaling and exhaling, carbon monoxide poisoning, or other toxic effects may occur if smoke inhalation accompanies the burn.

**For major burns**, call or emergency medical help. Until an emergency unit arrives, follow these steps:

- 1. Don't remove burned clothing.**

		<p><b>2. Don't immerse large severe burns in cold water. Elevate the burned body part or parts.</b> Rise above heart level, when possible.</p> <p><b>3. Cover the area of the burn.</b> Use a cool, moist, sterile bandage; clean, moist cloth; or moist cloth towels.</p> <p><b>4. Hospitalization is essential.</b></p> <p><b>Chemical burns</b></p> <p>Flush the affected area with cool running water for at least 15 minutes. Remove all clothing and jewelry that has been contaminated. Monitor victim for shock and seek medical assistance.</p> <p><b>1. Quickly remove any contaminated clothing</b></p> <ul style="list-style-type: none"> <li>• If the chemical is a powder brush it off, avoiding contact, before flushing with water.</li> </ul> <p><b>2. Cool the injury</b></p> <ul style="list-style-type: none"> <li>• Flood the burned area with copious amounts of water and continue for up to 20 minutes.</li> </ul> <p><b>3. If a chemical solution has splashed into the eyes</b></p> <p><b>How to flush the eye:</b> If chemical is in only one eye, flush by positioning the victim's head with the contaminated eye down to prevent flushing the chemical from one eye to another. Flush with cool</p>			
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10	5 mts	<p>The student will be able to discuss the electrical shock</p>	<p>or room temperature water for 15 minutes or more. Remove contact lenses after flushing. Contact a physician immediately!!</p> <p><b>Call for an ambulance urgently.</b></p> <p><b>PRECAUTIONS:</b></p> <ul style="list-style-type: none"> <li>• Do not apply lotions, ointment, or fat to a burn</li> <li>• Do not touch the burn or burst any blisters.</li> <li>• Do not remove anything sticking to the burn.</li> <li>• If the burn is to the face, do not cover it.</li> <li>• Keep cooling with water until help arrives.</li> <li>• If the burn is caused by chemicals, cool for at least 20 minutes</li> </ul> <p style="text-align: center;"><b>ELECTRICAL SHOCK</b></p> <p><b>OVERVIEW:</b></p> <p>The danger from an electrical shock depends on the type of Current, how high the voltage is, how the current traveled through the body, the person's overall health and how quickly the person is treated.</p> <p><b>While waiting for medical help, follow these steps:</b></p> <ul style="list-style-type: none"> <li>• Look first. Don't touch. The person may still be in contact with the electrical source. Touching the person may pass the current through you.</li> </ul>	Lecture cum discussion	Clarifying the doubts	LCD	What are all the first aid measures for electrical shock?
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**To turn off power:**

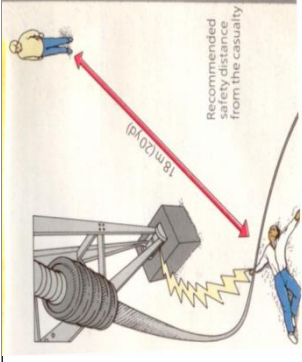
- Unplug an appliance if plug is undamaged or shut off power via circuit breaker, fuse box, or outside switch.

**If you can't turn off power:**

- Stand on something dry and non-conductive, such as dry newspapers, telephone book, or wooden board.
- Try to separate the person from current using non-conductive object such as wooden or plastic broom handle, chair, or rubber doormat.

**If high voltage lines are involved:**

- DO NOT approach the casualty until you are officially told that the power has been cut off and, if necessary, isolated
- Maintain a distance of at least 18 meters and keep bystanders away



- Do not try to separate the person from current if you feel a tingling sensation in your legs and lower body. Hop on one foot to a safe place where you can wait for lines to be disconnected.
- If a power line falls on a car, instruct the passengers to stay inside unless explosion or fire threatens.
- Call for emergency assistance. If the victim is unconscious, check to see if they are breathing and have a pulse. Electric shocks may knock the person unconscious, halt their breathing, and stop the heart
- Do not attempt to move the victim unless they are in further danger. Other injuries may have occurred that you are unaware of.
- Cover the victim in a blanket and stay with them until help arrives. Do not leave them alone.

11	7 mts	<p>The student will be able to describe the unconsciousness</p> <p><b>PRECAUTIONS:</b></p> <ul style="list-style-type: none"> <li>Do not leave the person unattended, except to call an ambulance.</li> <li>Do not let the person smoke, eat, drink, or move.</li> </ul> <p><b>UNCOSCIOUSNESS</b></p> <p><b>OVERVIEW:</b></p> <p>Unconsciousness is when a person is unable to respond to people and activities. Often, this is called a coma. Fainting is a brief loss of consciousness and is the result of an interference with the function of the brain.</p> <p>There are many causes of unconsciousness, the most common of which are: fainting, head injury, epilepsy, stroke, poisoning, diabetes and conditions associated with lack of oxygen. If you have seen a person fainting then:</p> <p><b>Do's</b></p> <ul style="list-style-type: none"> <li>✓ Catch the person before he/she falls</li> <li>✓ Pinch the person and see if she moves or opens her eyes</li> <li>✓ Examine the injuries and causes of unconsciousness</li> <li>✓ Tilt head back and keep arms at right angle to body</li> <li>✓ Raise the legs 8 – 12 inches. This promotes blood flow to</li> </ul>	Explaining	Asking doubts	LCD	What are all the first aid measure for unconsciousness?
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the brain.

- ✓ Loosen any tight clothing
- ✓ Keep the victim warm if it is cold outside
- ✓ Keep a record of the casualty's condition

**Don'ts**

- ✓ don't give the patient anything to eat or drink
- ✓ don't allow the person who has just fainted to get up until the victim is fully conscious
- ✓ if the area is warm, don't crowd around the victim

**ASSESSING THE VICTIM**

- Shake and shout to see whether the victim is rousable.
- Lift the chin, tilt the head.
- Watch the chest for movement.

**RECOVERY POSITION**

The recovery position is used to clear an obstructed airway and to position the unconscious victim who is breathing. Follow the instructions below to place a victim into the recovery position.

1. Kneel beside the victim.
2. Place the victim's arm, which is furthest away from out at 90 degrees.



3. Place the victim's other arm across their chest with their hand wrapped under their neck.
4. Cross the victim's leg that is close to over the other leg.
5. Using one hand under the victim's neck in order to hold their hand which is under their neck and with other hand against the victim's hip/ raised knee, turn the victim away from person and onto their side. Ensure that the head and neck are well supported during this move.
6. Turn the victim's head slightly downwards and, using a gloved hand, place two fingers in the mouth and sweep the mouth clear of any foreign material, if required.
7. Once the airway is clear and open, asses for signs of breathing.

**The Recovery Position**



					<ul style="list-style-type: none"> <li>• Legs straight, head tilted back.</li> <li>• Draw the leg up, foot flat on floor; hold the hand against the cheek.</li> <li>• Put her towards person, maintain support at the head.</li> </ul>				
					<p><b>SUMMARY</b></p> <p>Till now we are discussed about the definition, incidence, first aid measures, first aid action plan, bleeding, fracture, burns, electrical shock and unconsciousness.</p>				
					<p><b>CONCLUSION</b></p> <p>First aid measures is taken immediately after an emergency situation. During an disaster as a volunteer help to prevent the victim from major injury or illness. The volunteer should learn the basic skills about first aid measures.</p>				