



Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/17392

DOI URL: <http://dx.doi.org/10.21474/IJAR01/17392>



RESEARCH ARTICLE

EVALUATE THE EFFECTIVENESS OF STRUCTURED INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING FIRST AID MANAGEMENT OF SELECTED EMERGENCIES AMONG ACCREDITED SOCIAL HEALTH ACTIVISTS (ASHES) IN SELECTED RURAL AREAS OF PHC, BIDADI."

Mrs. Tanuja M.C and Mrs. Aysha Begum

Sri Deva Raj Urs College of Nursing Tamaka, Kolar Kolar District, Karnataka India.

Manuscript Info

Manuscript History

Received: 10 June 2023

Final Accepted: 14 July 2023

Published: August 2023

Key words:-

Effectiveness, SIM, Knowledge, First aid, Selected Emergencies, Management, Asha

Abstract

First aid management of selected emergencies is a discipline with a broad scope involving many specialized fields in its most general sense. According to the Biomedical report, unintentional injury caused 648 000 deaths (7% of all deaths; 58/100 000 population). Since First aid personnel is persons on the spot, generally, peripheral health workers who are familiar with the specific conditions of work and who might not be medically qualified but must be trained and prepared to perform particular tasks. Hence creating awareness in the prevention of emergencies is very important. First aid personnel should be selected carefully, taking into account attributes such as reliability, motivation, and the ability to cope with people and availability in a crisis situation.⁵ Present study attempts to evaluate the effectiveness of structured instructional module on Knowledge regarding first aid management of selected emergencies among Accredited social health activists (ASHAs) at selected rural areas of PHC, Bidadi.

Copy Right, IJAR, 2023,. All rights reserved.

Introduction:-

The Goal Of First Aid Is To Save Life, Prevent An Injury Or Illness From Worsening Or To Help Speedy Recovery. Without Any Delay As a First Aid Save Persons Life So It Is Always Better As It Is Said That Preparedness Is a Key Element Of First Aid.

"Timely first aid saves more lives than heroic surgeries."

Injuries are very common now a day and can occur at any point of time in our day to day life.¹ First aid is the immediate care given to a person who has been injured or suddenly fallen ill. It includes self-help and home care if medical assistance is not available or is delayed. It also includes well-selected words of encouragement, evidence of willingness to help, and promotion of confidence by demonstration of competence.

First aid is not only just about helping crash victims at the roadside. But also calming an injured person or as profound as saving a life. Certain self-limiting illnesses or minor injuries may not require further medical care immediately if first aid is given. It aims to preserve and protect life, prevent further injury or deterioration of illness and help to promote recovery. The internationally accepted symbol for first aid is the white cross on a green background, **St John Ambulance 2008**.

Corresponding Author:- Mrs. Tanuja M C

Address:- Sri Deva Raj Urs College of Nursing Tamaka, Kolar Kolar District, Karnataka India.

The National First Aid Science Advisory Board defined First Aid as “assessments and interventions that can be performed by a bystander (or by the patient/victim) with minimal or no medical equipment. The board defined First aid providers “someone with formal training in first aid, emergency care, (or) medicine who provides first aid.

First aid personnel are persons on the spot, generally health workers who are familiar with the specific conditions of work, and whom might not be medically qualified but must be trained and prepared to perform very specific tasks. Not every worker is suitable to be trained for providing first aid. First aid personnel should be selected carefully, taking into account attributes such as reliability, motivation and the ability to cope with people and availability in a crisis situation.

First aid training not only provides with knowledge and skill to give life support and other emergency care but also helps you to develop safety awareness and habits that promote safety at home, at work, during recreation, and on the streets and highways. In the promotion of safety awareness, it is important to closely relate three terms: cause, effect, and prevention.

The goal of first aid is to save life, prevent an injury or illness from worsening or to help speedy recovery. Without any delay as a first aid save persons life so it is always better as it is said that Preparedness is a key element of first aid.

T. K. Indianian said that in most of the cases, the complications of the injuries and fractures can be reduced by proper application of the first aid in proper time. Lacking of the first aid management at the accidental scene leads to major complications, disability or even death. By considering the importance of first aid it is imperative that every person should be capable of rendering first aid to sick and injured person till the patient reaches in the safe hands of specific medical personnel.

First aid is the initial care that is given to the victim arise at a healthcare centre, before medically trained personnel arrived or before the victim arrives at a health care center. It is estimated that 50% of death occurs within the 1st hour of accident, 30% between 1hr. and a week. And 20% occur after 1st week. The “golden hour” and platinum hour highlight the importance early trauma care. Important factors responsible for increasing secondary injuries and complication are non available off first aid. Delay in transfer from injury site to a hospital, lack of definitive treatment in first aid contact. Hospitals, absence of triage and external medical legal problem.

It's the known fact that Community Health Workers (CHWs) provide a critical and essential link with health systems and are a powerful force for promoting healthy behaviors in resource-constrained settings. During the past decade, there has been an explosion of evidence and interest concerning community health workers and their potential for improving the health of populations where health workforce resources are limited. Given the massive shortage of training the health workers in Africa and Asia – recently estimated.

As such it is the newer concept that Government of India training ASHAs who are the major link between the rural people and health services. ASHA is a resident woman of the village with formal education at least up to the 8th standard. She is selected by the Gramasabha and is accountable to village Panchayath, the general norm of selection is one ASHA per 1000 population. ASHA will be helping out rural people in their health matters. They provide service at the point of care, often in the patient's home and at the place of emergencies in the community. Training them in the first aid could really help to save many lives in emergency condition.

Need for 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.

Our environment is full of accidents, emergency illnesses and other health problems that have different level of severity and magnitude. The problems can be generally classified into two. These are accidents (deliberate and incidental) and emergency illnesses. The consequences of these health problems could end up in physical disability and death. However, the physical disability or death can be significantly reduced and/or prevented by first-aid treatment using locally available materials.

In healthcare, we know that properly administered first aid could save person's life, which makes the importance of learning first aid and to choose the correct and authorized first aid training. The main aim to give first aid is to save life, to prevent deterioration of the condition and further injury, to prevent conditions that might increase the original injury, to make the victims as comfortable as possible, to arrange for transportation to the hospital. To preserve the valuable life of victim's under emergency situations, the blossoms of future should have proper awareness regarding the first aid management.

In response to the Health and Safety (First Aid) Regulations 1981, guidance from the Health and Safety Executive in the Approved Code of Practice 'First Aid at Work', amended 1997 and advice from the Department for Education and Skills, the Department has issued a detailed policy and guidance to all establishments. It is recognized that there is a need in educational establishments to provide facilities and arrangements for first aid when an accident occurs. First aid is a vital part of every establishment's provision for health and safety. The aim is to clarify the Department's policy on the standard and level of first aid provision in schools and to provide guidance for managers to assist them when assessing their needs. It is not possible in most cases to determine precise requirements for first aid provision due to the wide nature of establishment types and activity.

The Health and Safety Executive strongly recommends that it is good practice for first aides to undergo annual 'refresher' courses. It is important that employers make sure qualified first aides attend these courses to help maintain their basic skills and keep up to date with any changes to first aid procedures.

According to Open Access Article; Bio-med-central, reports that unintentional injury caused 648 000 deaths (7% of all deaths; 58/100 000 population). Unintentional injury mortality rates were higher among males than females, and in rural versus urban areas. Road traffic injuries (185 000 deaths; 29% of all unintentional injury deaths), falls (160 000 deaths, 25%) and drowning (73 000 deaths, 11%) were the three leading causes of unintentional injury mortality, with fire-related injury causing 5% of these deaths. The highest unintentional mortality rates were in those aged 70 years or older (410/100 000).

According to ministry of Road transport and highways New Delhi, All India accidental death rate was 30% whereas in Karnataka it is 39%. Unnatural accident rate in India was 36.3% whereas in Karnataka it is 43.2%. The unnatural accidents include road and rail accidents, poisoning, drowning, fire, falls, and electrocution etc.

WHO (2004) reported that the global injury mortality rate is estimated to be 98/100,000 population, with male and female rates of 128/100,000 (38 lakh deaths) and 67/100,000 (19 lakh deaths), respectively. Five of the top ten causes of death globally are due to injuries. Among the total disability-adjusted-life-years (DALYs), 13% were due to injuries. Unintentional and intentional injuries contributed to three-fourth and one-fourth of total DALYs, respectively. Among unintentional injuries, road traffic injuries (RTIs), falls and burns resulted in, respectively, 29%, 12% and 9% of total DALYs.

According to **National Crime Record Bureau NCRB (2007)** in India injuries were the leading cause of death in the age group of 15–24 years (13,309; 35%), second leading cause of death in 5–14 years (3003; 16.2%). Like any other health problem, injuries also have a definitive causative pattern and mechanism intermarriage (product/vehicle), host (human beings) and environmental (roads, homes, play grounds, workplaces) factors along with system-related issues. Every year, injuries contribute to a significant number of deaths, hospitalizations (for short and long periods), emergency care, disabilities (physical, social and psychological), amputations, disfigurement, pain, suffering and agony. Many children become orphans, women become destitute and the elderly grieve in isolation. **According to National Crime Record Bureau NCRB (2007)** in Karnataka, (2007) there were about 516 deaths and 13% had injuries. In the same one year period, 4,986 persons were brought to the hospitals in a ratio of 1: 25 for fatal to non-fatal injuries. 10% of deaths and 20% of injuries occurred among children (< 15 years), contributed for 6% deaths and 7% of injuries. Among children falls on road and play sites resulted in nonfatal injury. More than 80% of fatal and non-fatal injuries occurred at home while playing in balconies, staircases, compounds and at the entrance of home. More than 50% of the fatal and the non-fatal cases had received some sort of first aid. Only 1% patients had been given first aid at the site of injury whereas majority of them were administered for first aid in the hospital.

A study was conducted on 'effect on training program regarding first aid management among residents' at Nepal. The objective of the study was to train them regarding first aid management of common problems requiring first aid

and evaluate the effectiveness of the program. The sample consists of 696 respondents where 60.5% males and 39.5% females. The result showed that the training program conducted was very effective. Majority of the subjects (87.2%) reported that the training program conducted was very useful and 12.8% reported it as useful.

The Survey conducted by G Gururaj on injuries and violence in India, facts and figures, NIMHANS Bangalore shows that in Bangalore 209 children below the age of 18 years died and 5,505 children brought to the hospital with injury. Majority of the children belonged to average socio economic house hold and were studying in schools. Nearly one fourth of the total death in children was due to road traffic accidents. These were followed by burns with 17% and falls with 13%. Drowning and poisoning accounts for 6% and 5% respectively. It is estimated that Bangalore witnesses an average of nearly 10,000 hospitalizations every year. Road traffic accidents were the leading cause of injury (40%). Falls are the second cause with 19% of injuries. Animal bites, Poisoning, Burns and Assault accounts for 11%, 10%, 9%, and 6% respectively.

A study was conducted to evaluate the effect of previous training on first aid knowledge and skills of urban and rural Australians. 30.4% of respondents had completed a senior first aid training. Trained persons performed better than untrained. But both trained and untrained demonstrated poor skills in performing first aid. The study concludes that overall knowledge and skills by community is poor, but can be improved by first aid training courses.

A descriptive study was conducted to estimate the incidence of minor injuries and to study the wound care practices of school children. A fortnightly follow up of urban and rural high school children was done in Chandigarh and rural Haryana. Initial point prevalence survey was followed by fortnightly follow up survey involving interview for assessing incidence and wound care practices among students. The setting was government high schools of Chandigarh and rural Ambala. It was found that in average episodes of minor injuries per year, point prevalence was higher in urban area. First aid training of teachers or the students were lacking in both the areas. Many of the injuries occurred during the school time. Rural students were more tolerant to minor injuries. It was concluded that incidence of minor injuries was higher in rural area as compared to urban area. Training on wound care is recommended.

ASHA will be the first port of call for any health related demands of the village people in general and deprived section of the population especially women and children in particular who find it difficult access health services.

Since ASHA is the one who is selected from their own community she will be available for the community at the crucial time. Thus its highly essential to improve the knowledge of ASHA regarding first aid management of selected emergencies. They will be acting like the first respondent for the life saving situation. So the investigator feel that it is necessary to impart knowledge to ASHA regarding selected first aid measures with the help of structured instructional module which help them to take appropriate first aid measures in emergencies.

Objectives:-

This chapter deals with the statement of the research problem, objectives of the study, hypotheses, research variables made in the study, operational definitions and conceptual framework. Objectives are the guiding forces for a researcher throughout his or her study. Explicit descriptions of objectives are essential to come out with the meaningful search.

The statement of the problem and the objectives for the current study are as follows.

Statement of the problem:

“Evaluate The Effectiveness Of Structured Instructional module On Knowledge Regarding First Aid Management Of selected emergencies among accredited social health activists (ASHAs) in selected rural areas of pnc, Bidadi.”

Objectives of the study:-

1. To assess the existing knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies.
2. To evaluate the effectiveness of structured instructional module on knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies.
3. To find an association between post test level in knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies with their selected sociodemographic variables.

Hypotheses.

H1: There will be a significant difference between the mean pre and post test knowledge scores of ASHAs regarding first aid management of selected emergencies..

H2: There will be a significant association between the post test level of knowledge scores of ASHAs regarding first aid management of selected emergencies and selected socio-demographic variables.

Research variables.

- 1. Independent variable:** Structured instructional module on first aid management of selected emergencies..
- 2. Dependent variable:** Knowledge of ASHAs on first aid management of selected emergencies.
- 3. Socio-demographic variables :** Age, Education, Family income, Religion, Type of family, Marital status, working experience, source of information.

Operational definitions.**Effectiveness:**

It refers to significant gain in knowledge as determined by the difference in pre and post knowledge scores of ASHAs regarding first aid management of selected emergencies.

Structured instructional module:

It refers to systematically organized instructional module prepared by the investigator for ASHAs regarding first aid management of selected emergencies.

Knowledge:

It refers to correct responses of ASHAs to items included in structured knowledge questionnaire regarding first aid management of selected emergencies as expressed in terms of scores.

First aid:

In the present study first aid refers to, the immediate and temporary treatment given to victim of sudden illness or injuries before the main treatment is started.

Selected emergencies:

In the present study selected emergencies include accidents, poisoning, drowning, burns, snake bite in selected rural areas of PHC, Bidadi.

Management :

In this study it refers to the first level care of selected emergencies by ASHAs in these selected rural areas of PHC, Bidadi.

ASHA:

A trained female community health activist under NRHM who is selected from the same village and is accountable to it and work as the inter phase between community and public health system.

Conceptual framework

Conceptual framework act as a building block for the research study. The overall purpose of framework is to make scientific findings meaningful and generalized. It provides a certain framework of reference for clinical practice, education and research. Framework can guide the researcher's undertaking of not only 'What' of natural phenomena but also 'Why' of their occurrence. They also give direction for relevant questions to practical problem.

The present study was designed to evaluate the effectiveness of the Structured Instructional Module on knowledge regarding first aid management of selected emergencies among Accredited social health activists (ASHAs).

The conceptual framework selected for this study was based on modified Stufflebeam's (1973) Context Input Product Process (CIPP) model. It is a four step model of programme evaluation developed for obtaining useful information for taking decisions. It involves four types of decisions, namely planning decisions, Structuring decisions, implementing

decisions and recycling decisions. It provides a comprehensive, systematic, continuous and ongoing framework for the programme

Context evaluation:

In the present study, context evaluation refers to the planning decision by need assessment of knowledge regarding first aid management of selected emergencies among Accredited social health activists (ASHAs) by reviewing related literature and using state and national statistics

Input evaluation:

In the present study, input evaluation refers to structuring decisions by development of structured knowledge questionnaire to collect data from samples and establishing validity and reliability of the tool and developing Structured Instructional Module regarding first aid management of selected emergencies.

Process evaluation:

In the present study, it refers to implementation of decision by pre testing the knowledge of ASHAs regarding first aid management by using structured knowledge questionnaire and administering structured Instructional Module to them. The environment setting was selected rural areas of PHC, Bidadi

Product evaluation:

In the present study, it refers to recycling the decision by assessing the post test knowledge of Accredited social health activists (ASHAs) regarding first aid management of selected emergencies by using structured knowledge questionnaire and administering Structured Instructional Module to them. The environment setting was selected rural area of PHC, Bidadi.

If the Structured instructional module is ineffective, the decision needs to be recycled to make changes in response to the outcome of the programme. The context evaluation needs to be retained based on changes. This area is not included in the study.

Included in the Study Not included in the study

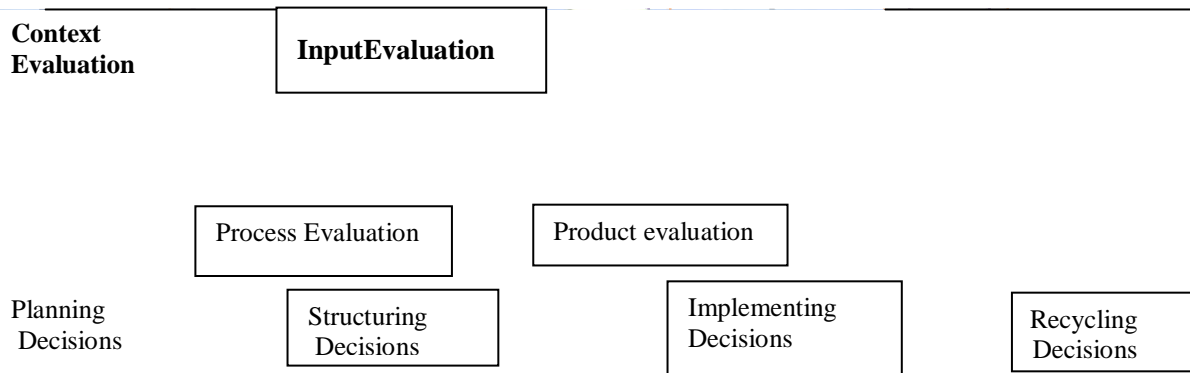


Fig1:- Conceptual framework based on modified Stufflebeam’s CIPP Model (1973).

Methodology:-

A research methodology involves the systematic procedure by the researcher which starts from the initial identification of programme to its final conclusion. This chapter deals with the type of research approach used, setting of the study, population, sampling technique, sample selection, the inclusion and exclusion criteria, development of the tool, collection of data, pilot study, procedure of data collection and the plan for data analysis.

Research Approach

The approach to research is the umbrella that covers the basic procedure for conducting research. The research approach helps the investigator to determine how to collect the data and analyze the data. In view to the nature of the problem selected for the study and the objectives to be accomplished, evaluative approach was considered as appropriate research approach for the present study.

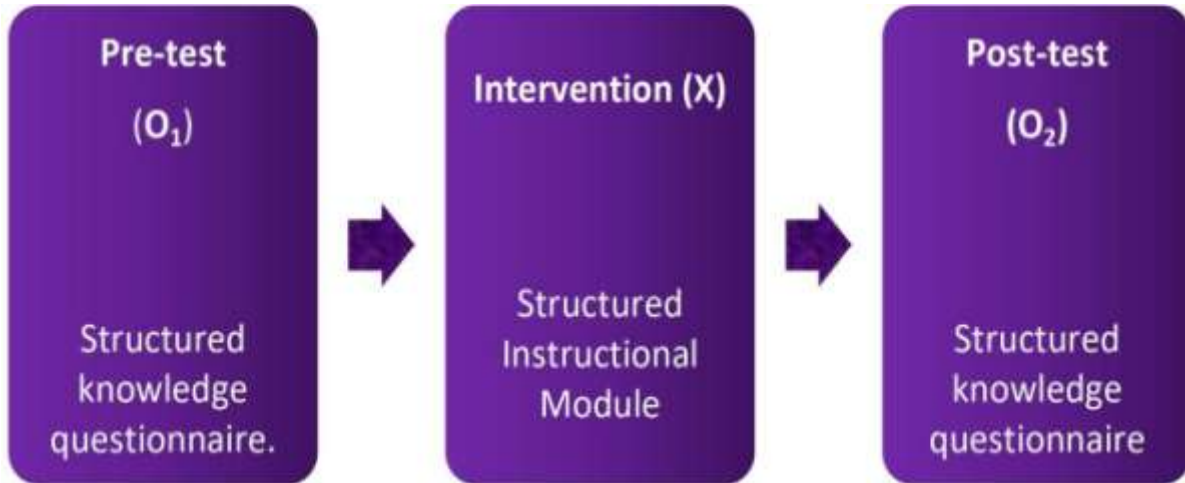
Research Design

A researcher’s overall plan for obtaining answers to the research questions or for testing the research hypotheses is the research design. The research design spells out the basic strategies that the researcher adopts to develop information that is accurate and interpret-able.

For the present study, Pre-experimental one group pre-test post-test design was adopted. In this one group pre-test post-test design (O1 X O2) the investigator introduced a base measure before and after a planned exposure which is depicted as O1 and O2 respectively. In the pre

sent study, the measure was the knowledge of Accredited social health activists (ASHAs) and independent variable is the Structured Instructional Module depicted as X.

The research design selected for the present study is Pre-experimental one group pre-test-post-test design, in which pre-test is conducted followed by Administration of Structured Instructional Module and then conducting post-test for the same group after 7 days.



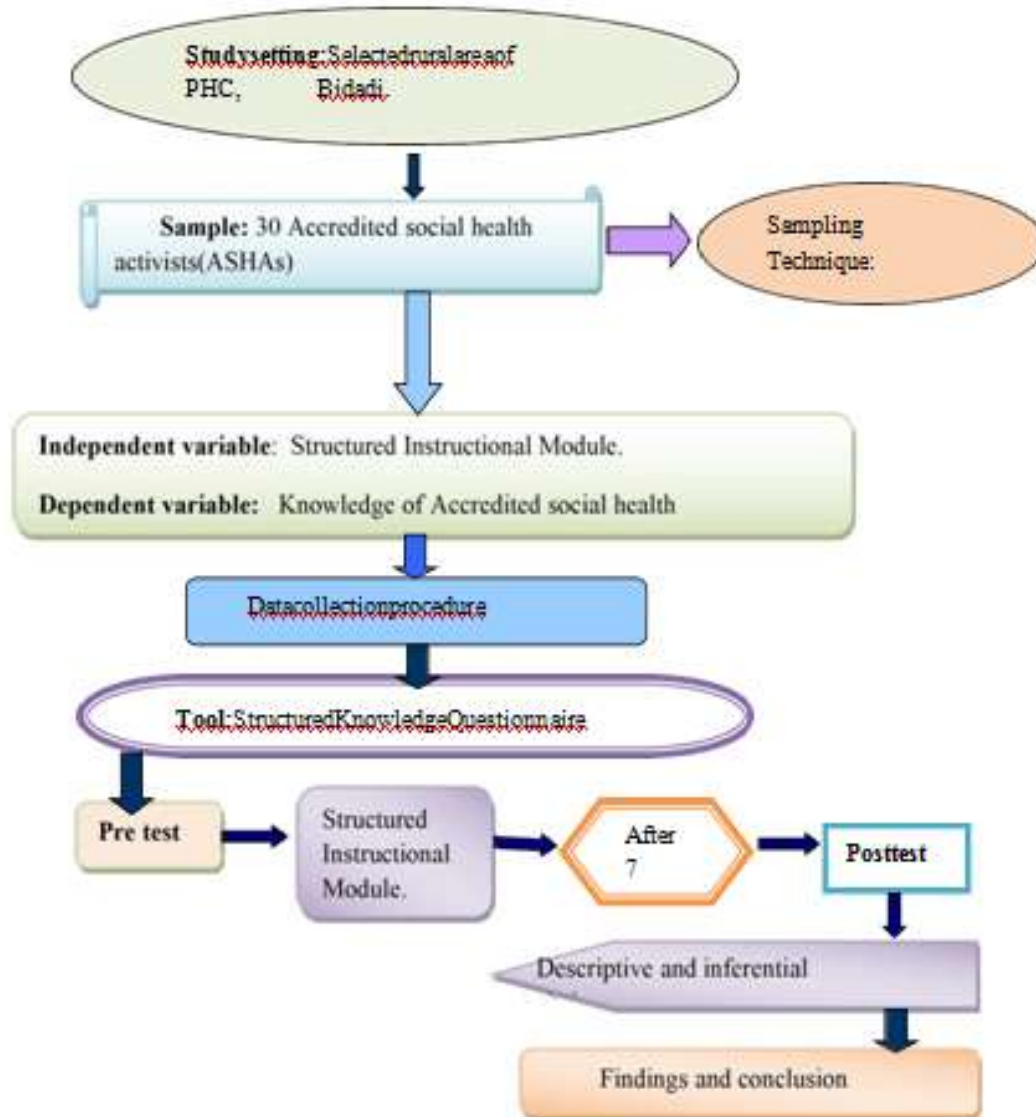


Figure3:- Schematic representation of research plan.

Variables under study:

Variables are qualities, properties, or characteristics of person, things or situation that change or vary and take on different quantitative values.⁵⁴ Three types of variables were identified in this study. They are independent, dependent and Socio-demographic variables.

1. Independent Variable:

The independent variable is the variable that stands alone and not dependent on any other. It is the cause of action. In this study the Structured Instructional Module was the independent variable.

2. Dependent Variable:

Dependent variable is the effect of the action of independent variable and cannot exist by itself. Knowledge of Accredited social health activists (ASHAs) regarding First aid management of selected emergencies was the dependent variable in this study.

3. Socio-demographic Variables:

The researchers make the attempt to study the sample characteristics and present them in research findings. These characteristics of the study subjects are considered as socio-demographic variables. The Socio-demographic variables in this study were Age, Education, Family income, Religion, Type of family, Marital status, working experience, source of information.

Setting of the study:

“Setting” refers to the area where the study is conducted. It is the physical location and condition in which data collection takes place in a study. This study was conducted at Rural areas of PHC , Bidadi (rural areas such as hejjala, byramangala, bidadigramantara, shanmangala.)

Target Population

Population is a group whose member possesses specific attributes that a researcher is interested to study.⁶¹ Target population for the present study were Accredited social health activists (ASHAs) of selected rural areas of PHC, Bidadi.

Sample

Sample refers to a sub set of population, selected to participate in the research study. The sample of this study was Accredited social health activists (ASHAs) of selected rural areas of PHC, Bidadi.

Sample Size:

The sample size was 30 Accredited social health activists (ASHAs) of selected rural areas of PHC , Bidadi.

Sampling Technique:

Sampling refers to the process of selecting a portion of population to represent the entire population.⁵⁵ In this study Purposive sampling technique was used to select the samples from the accessible population. Purposive sampling technique is a type of non-probability sampling technique in which subjects are chosen to be part of the sample with a specific purpose in mind.

Criteria for Selection of Sample

Inclusion criteria : ASHA those who are
Present at the time of data collection
Willing to participate.
Working in the selected areas

Exclusion criteria**Selection and Development of Tool**

To meet the objectives of the study the tool was developed by the investigator. The tool used for the study comprised of a Structured Knowledge questionnaire and Structured Instruction Module on First aid management among ASHAs.

Selection of the Tool

To collect the accurate data from the samples Structured Knowledge questionnaire was selected through literature search and in consultation with the research guide to assess the knowledge of ASHAs regarding First aid management of selected emergencies.

Development of Tool

A Structured Knowledge questionnaire was developed by the investigator based on the research problem; review of related literature and with suggestions and guidance from research guide and 11 experts in the field of Community Health Nursing. ASHAs who are :
1. Sick at the time of data collection

Description of the tool

The Structured Knowledge questionnaire consists of two sections.

Section I: It consists of items on Socio-demographic data which are 08 in numbers such as Age, Education, Family income, Religion, Type of family, Marital status, working experience, source of information

Section II: It consists of 42 items, which has the structured knowledge questionnaire was developed on 07 areas such as;

PART A : Consists of 6 items regarding General information on First aid management
PART B : Consists of 7 items regarding First aid management of Burns

PART C : Consists of 7 items regarding First aid management of Poisoning
 PART D : Consists of 5 items regarding First aid management of Snake bite.
 PART E: Consists of 7 items regarding First aid management of Drowning.
 PART F : Consists of 8 items regarding First aid management of RTA.
 PARTG: Consists of 2 questions regarding First aid kit.

Scoring Interpretation:

Section II has a total of 42 questions, score of (one) 1 will be given for every correct response and score of zero (0) will be given for every wrong . The resulting score will be interpreted as follows

Adequately knowledge score:	above 34 (75-100 %)	Moderately knowledge score:	22-33 (51-74 %)
Inadequate knowledge score	: below 21 (below 50 %)	Minimum score	: 00
Maximum Score	42		

Development of SIM

The SIM was developed on the basis of research study, review of literature and consulting with experts. The step followed to develop SIM was as follows:

1. Preparation of first draft of SIM
2. Development of criteria checklist to evaluate the SIM
3. Content validity of SIM
4. Preparation of final draft of SIM in Kannada and English Languages

Preparation of first draft of SIM

SIM was prepared on the basis of research problem, review of literature, which was pertaining to the first aid management among ASHAs.

Development of Criteria Checklist to evaluate the SIM:

Selection of the Content

1. The content of SIM on first aid management was selected through literature research and in consultation with the research guide. Then content was analyzed into subtopics Organization of the Content
2. The content selected was organized under following main headings.
3. Introduction
4. Goal of the module
5. Definition of First aid.
6. Aims and principles of first aid.
7. Steps of first aid
8. Chapter 1: First aid management of Burns
9. Chapter 2: First aid management of Poisoning
10. Chapter 3: First aid management of snake bite
11. Chapter 4: First aid management of Drowning
12. Chapter 5: First aid management of RTA
13. Explains about First aid kit.

Conclusion:-

Content Validity of SIM

The SIM was given to 11 experts in the field of Community Health Nursing along with the tool. The suggestions were incorporated in the SIM.

Preparation of Final Draft of SIM in Kannada and English languages

The draft of SIM consisted of introduction, content and summary. Finally SIM was prepared and titled as "Structured Instructional Module regarding First aid management of selected emergencies among ASHAs". Then the SIM was translated to Kannada language to administer for the samples those were not able to understand English.

Validity of the tool

It refers to "the degree to which the instrument measures what it is intended to measure." The prepared tool along with SIM on First aid management was

submitted to 11 experts who are in the field of Community Health Nursing. The expert's suggestions were incorporated effectively and prepared the final tool with the direction of research guide.

Reliability of the Tool

Reliability of the research instruments is defined as the extent to which the instrument yields the same results in repeated measures. It is then concerned with consistency, accuracy, precision, stability, equivalence and homogeneity. The tool after the validation was subjected to test for its reliability. The structured knowledge questionnaire was administered to 05 samples. The reliability of the tool was computed by split-half Karl Pearson's correlation formula. (Raw score method).

The reliability of the tool is computed by using split half technique with raw score method. The reliability coefficient of structured knowledge questionnaire found to be 0.91 revealing the tool is feasible for administration for the main study. Validity coefficient worked to be 0.95 ($r = 2r / (1+r)$) Brawn's prophecy formula was used. The tool was found to be reliable and feasible.

Pilot Study:

After having obtained formal administrative approval from the Medical officer of PHC, Bidadi (Annexure – B) Participants were informed about the purpose of the study and consent was taken from them. The pilot study was conducted from the 02-09-2014 to 09-09-2014 at PHC, Bidadi. Data was collected from 5 samples. The knowledge of the participants on first aid management was assessed on September 02nd by using structured knowledge questionnaire followed by SIM was administered on the same day, later the post test was conducted on 09th September to assess the improvement in the knowledge of the ASHAs. The samples chosen were similar in characteristic to the population under study. It was found that each respondent took 40 to 45 minutes to complete the structured knowledge questionnaire and it was found that the items were simple and comprehend. The results of pilot study shows that the Pre Test mean percentage was 47.61% and the Post Test the mean percentage was 64.28% with enhancement of 16.67% and

The statistical paired 't' implies that the difference in the pre test and post test knowledge score found statistically significant at 5% level.

The purpose of the pilot study was to:

1. Find out the feasibility of conducting the final study.
2. Determine the method of statistical analysis.
3. To refine the instrument.
4. To know time required for administering tool and to collect data.

Procedure for Data Collection

A formal written permission was obtained from concerned authority [Medical officer of CHC, Bidadi] {Annexure - B} to conduct main study. The data was collected by using structured knowledge questionnaire from 25th September to 27th October 2014. At selected rural areas of PHCs, Bidadi and Byramanga. The investigator personally visited ASHAs and explained the purpose of the study and collected data from subjects who were interested and willing to participate in the study. They were assured of anonymity and confidentiality. Pre-test was conducted by using structured knowledge questionnaire to assess the pre test knowledge followed by administration of SIM regarding First aid management, after 7 days post-test was conducted with the same structured knowledge questionnaire to assess the post test knowledge. The study was conducted according to the convenience and choice of ASHAs.

Plan for Data Analysis

The data obtained was analyzed in terms of objectives of the study using descriptive and inferential statistics.

1. Organized data in master sheet
2. Frequencies and percentage for the analysis of demographic data
3. Mean and standard deviation for the tool
4. Paired 't' test was used to find the effectiveness of structured instructional module and Chi-square test was used to determine the association between post test knowledge scores with selected socio-demographic variables
5. The findings were represented in tables and graphs

This chapter dealt with research materials and methods, setting, population, development of tool, development of SIM, sampling methods and concludes with data collection procedure, and plan for data analysis

Results:-

This chapter deals with the analysis and interpretation of data collected to evaluate the effectiveness of Structured Instructional Module regarding First aid management of selected emergencies among ASHAs at selected rural areas of PHCs, Bidadi.

The purpose of this analysis is to reduce the data to a manageable and interpretable form so that the research problems can be studied and tested. Analysis and interpretation of research study data is done on the basis of following objectives and the results were computed by using descriptive and inferential statistics.

Objectives of the study:-

1. To assess the existing knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies.
2. To evaluate the effectiveness of structured instructional module on knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies.
3. To find an association between post test level in knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies with their selected sociodemographic variables.

Presentation of the Data:

To begin with, the data was entered in a master sheet, for tabulation and statistical processing. In order to find the relationship the data was tabulated, analyzed and interpreted by using descriptive and inferential statistics. The data is presented under the following headings.

Section 1: Sociodemographic characteristics of respondents under study. Section 2: Overall and aspect wise knowledge scores of respondents.

Section 3: Analysis of association between Socio demographic variables & post test Knowledge scores.

Section 1

Analysis of sociodemographic characteristics of ASHAs

Table 1:- Distribution of Respondents by Age N= 30.

Sl.No.	Age in Years	Frequency	Percentage
1	25-30 years	13	43.3
2	31-35 years	13	43.3
3	36-40 years	4	13.4
4	41-45 years	-	-
	Total	30	100

Table 1 & Fig. 4 shows that 43.33% (13) of the respondents were in the age group of 25–30 years followed by 43.33% (13) of the respondents were in the age group of 31–35 years, 13.4% (4) of the respondents were in the age group of 36–40 years

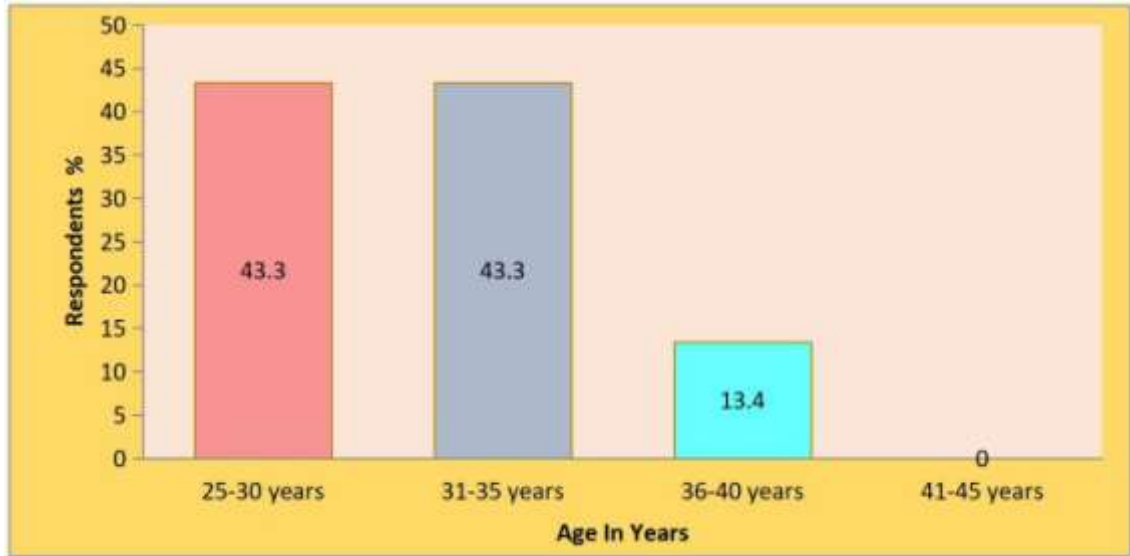


Figure4:- Bar diagram representing percentage distribution of Respondents.

by Age

Table 2:- Distribution of Respondents by Educational status N= 30.

Sl.No.	Educational Status	Frequency	Percentage
1	Primary education	-	-
2	High school	23	76.7
3	P.U.C	7	23.3
	Total	30	100

The Data from Table 2 & Fig. 5 shows that majority 76.7% (23) of the respondents were completed High school education, 23.3% (07) were completed Pre-University education and none of them falls in category primary education.

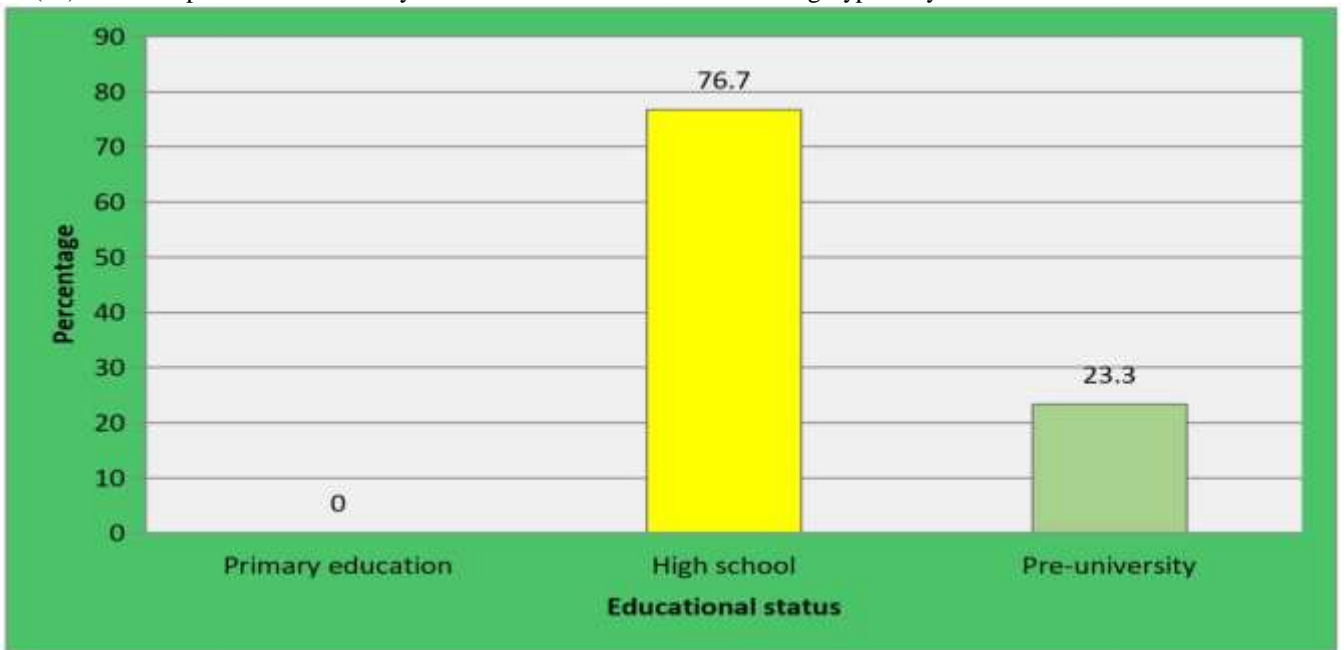


Figure 5:- Bar diagram representing percentage distribution of Respondents by Educational status.

Table 3:- Distribution of Respondents by Marital Status N= 30.

Sl.No.	Marital Status	Frequency	Percentage
1	Married	27	90.0
2	Widow	3	10.0
3	Divorced	-	-
	Total	30	100

The Data from Table 3 & Fig. 6 show that majority 90% (27) of the respondents were Married, followed by 10% (03) were widows.

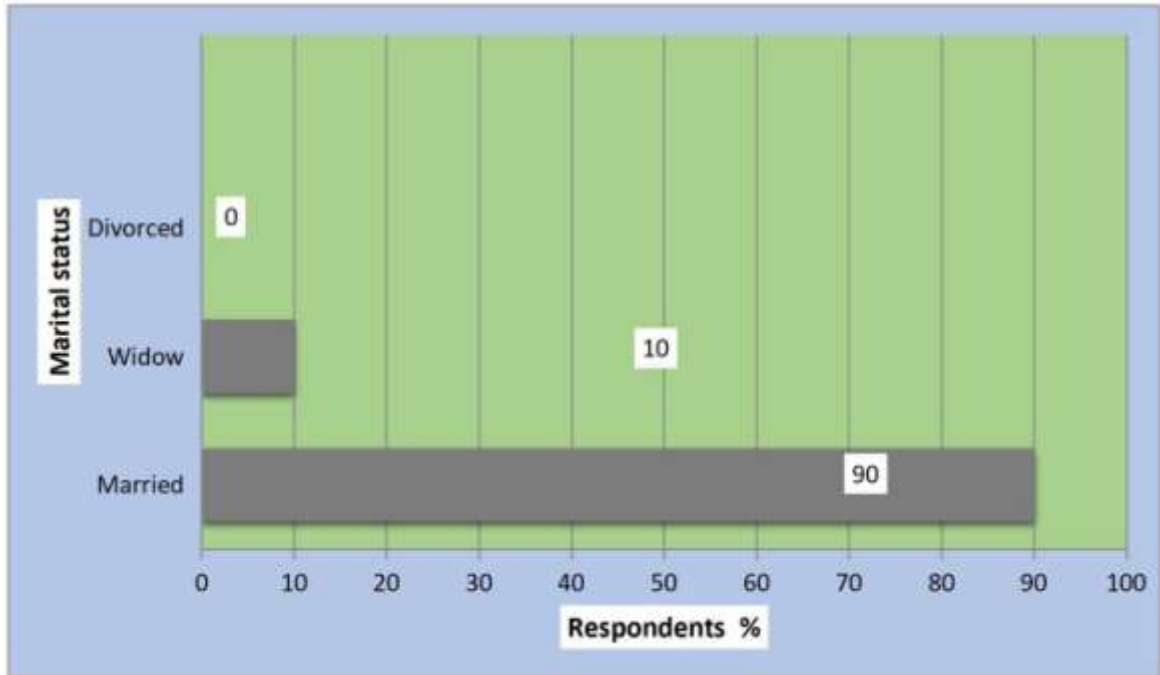


Figure 6:- Horizontal cylinder diagram represents percentage distribution of Respondents by Marital Status.

Table 4:- Distribution of Respondents by Type of Family N= 30.

Sl.No.	Type of Family	Frequency	Percentage
1	Nuclear	27	90
2	Joint	3	10
3	Extended	00	
	Total	30	100

The Data from Table 4 & Fig. 7 Shows that majority 90% (27) of the respondents were belong to Nuclear family and remaining 10% (3) respondents were belongs to Joint family and none belong to extended family.

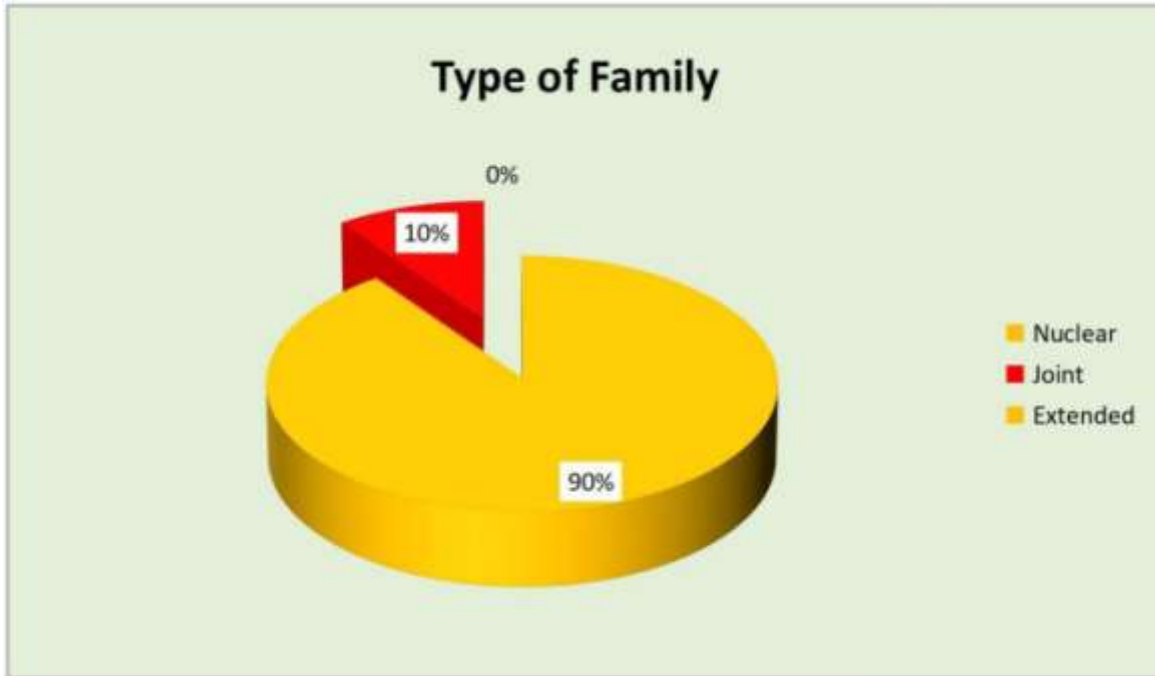


Figure 7:- Pie diagram representing percentage distribution of Respondents by Type of Family.

Table 5:- Distribution of Respondents by Religion N= 30.

SI.No.	Religion	Frequency	Percentage
1	Hindu	30	100.0
2	Muslim	-	-
3	Christian	-	-
4	Any other	-	-
	Total	30	100

The Data from Table 5 & Fig. 8 Shows that all the respondents 100 % (30) were belongs to Hindu religion None of them belongs to Muslim , Christian and other religion.

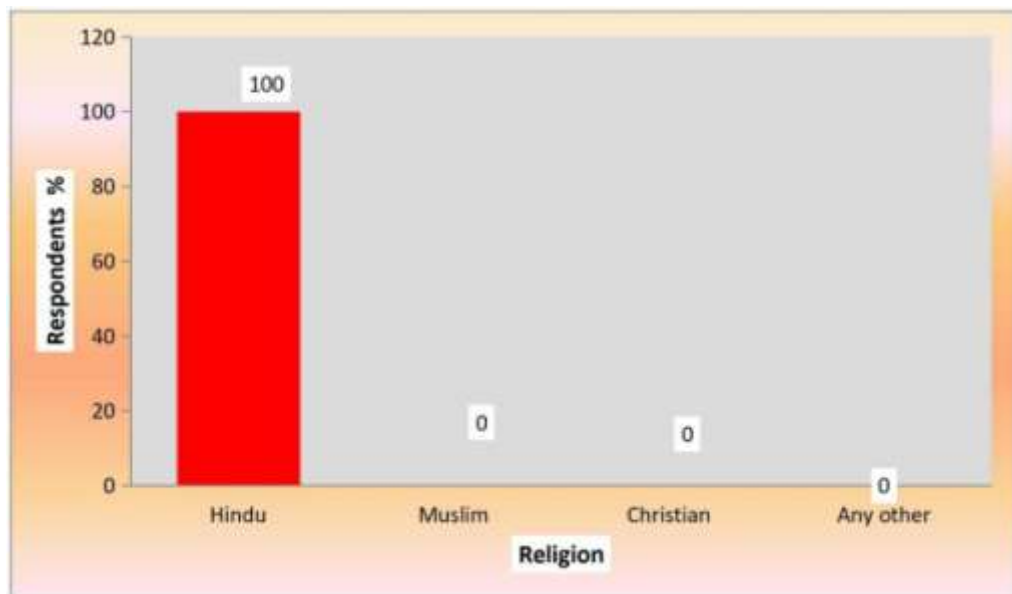


Figure 8:- Cone diagram representing percentage distribution of Respondents by Religion.

Table 6:- Distribution of Respondents by Years of Working Experience N= 30

Sl.No.	Year of Experience	Frequency	Percentage
1	0-1 year	-	-
2	1-3 years	6	20.0
3	4-7 years	20	66.7
4	8-9 years	4	13.3
	Total	30	100

Table 6 & Fig. 9 shows that majority 66.7% (20) of the respondents had 4-7 years of experience, 20% (6) of the respondents had 1 – 3 years of experience, 13.3% (4) of the respondents had 8 – 9 years of experience .

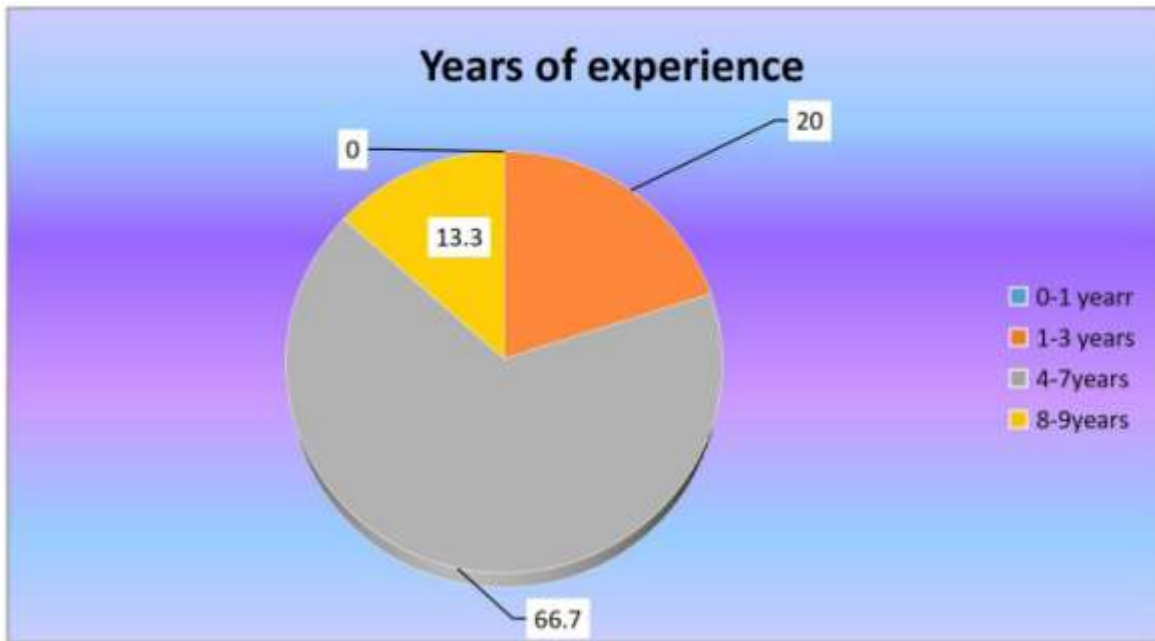


Figure 9:- Pie diagram representing percentage distribution of Respondents by Year of Experience.

Table-7:- Distribution of Respondents by Monthly family income. N= 30

Sl.No.	Monthly family income in Rupees	Frequency	Percentage
1	<10000	21	70.0
2	10001-15000	9	30.0
3	15001-20000	-	-
4	>20000	-	-
	Total	30	100

The Data from Table 7 & Fig. 10 shows that majority 70 % (21) of respondents had monthly family income of Rs. Less than 10,000, 30% (9) of respondents had monthly family income between Rs. 10001-15000 and no such family was their which had the income of either 15001-20000 or more than 20000.

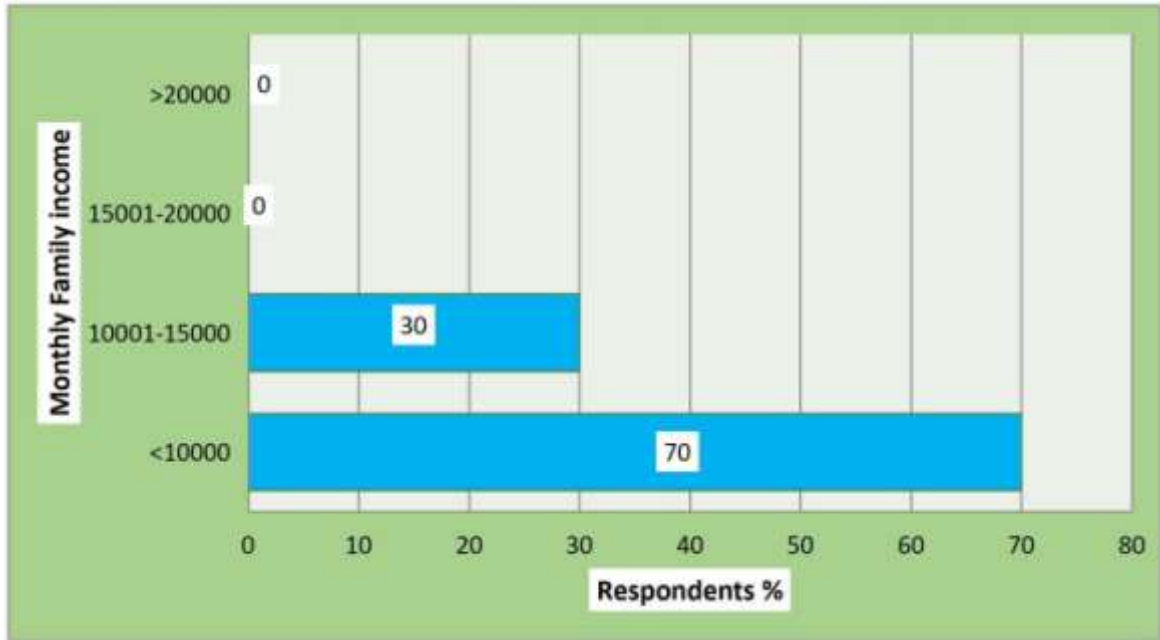


Figure 10:- Bar diagram representing percentage distribution of Respondents by Monthly family income.

Table-8:- Distribution of Respondents by Source of information N= 30.

Sl.No.	Source of information	Frequency	Percentage
1	In-service education/Training	12	40.0
2	Books/Magazines/Journal	04	13.3
3	Mass media	06	20.0
4	Health personnel	08	26.7
5	Workshop/conference	00	00
	Total	30	100

Table 8 & Fig. 11 shows that majority of 40.0% (12) respondents were receiving information from In service education/training, 26.7% (8) respondents were receiving information from health personnel, 20.0% (6) respondents were receiving information from mass media, 13.3% (4) respondents were receiving information from Books/Magazines/Journal and no respondent had attended any workshop or conference.

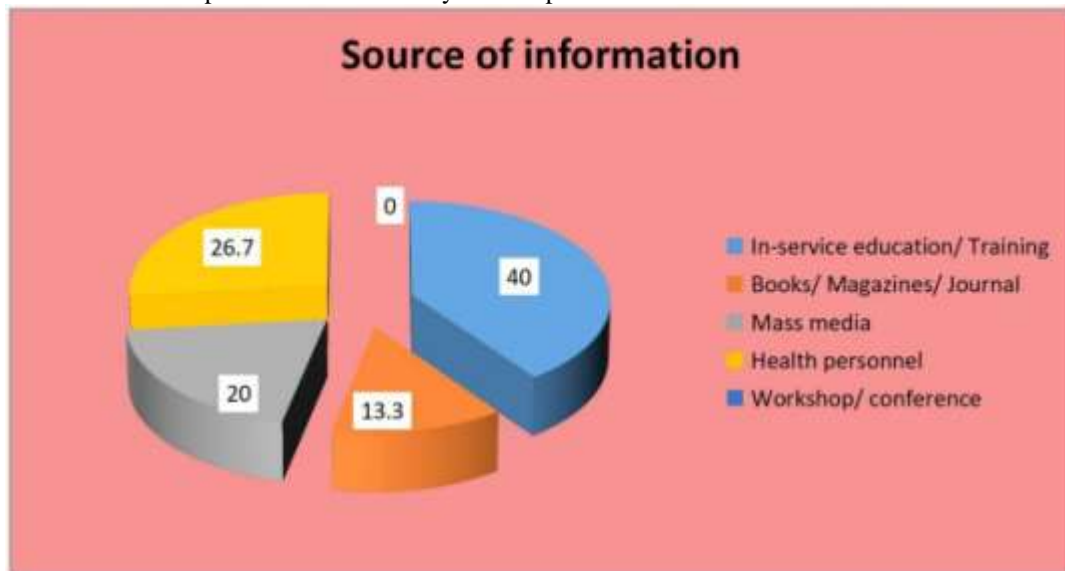


Figure 11:- Pie diagram representing percentage distribution of Respondents by Source of information.

Section 2: Overall And Aspect Wise Knowledge Scores Ofrespondentsonfirstaid Management.

Table– 9:- Distributionofrespondentsonpretestknowledgescores on firstaidmanagement N= 30

KnowledgeLevel	Category	Respondents	
		Number	Percent
Inadequate	<50% Score	21	70.0
Moderate	50– 75% Score	9	30.0
Adequate	>75% Score	-	-
Total		30	100

The DatafromTable 9& Fig.12showsthat70% (21) of the respondentshadinadequateknowledge(<50%)andremaining30%(9)oftherespondentshadmoderate knowledge (51-75%) regarding occupational safety. None of respondentshadadequateknowledge.

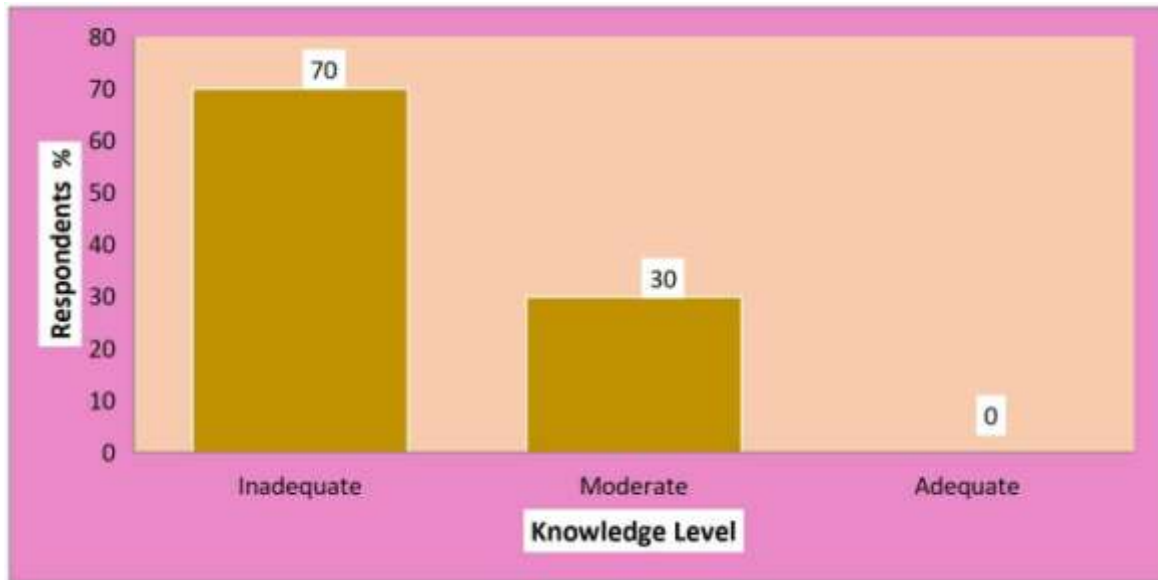


Figure 12:- Bar diagram representing percentage distribution of respondents onpretestknowledgescoresonfirstaid management.

Table– 10:- Aspect wise Pre test Mean knowledge scores of Respondents on first aidmanagement N= 30.

No.	Knowledge Aspects	Statements	Max.Score	Respondents Knowledge			
				Mean	SD	Mean (%)	SD(%)
A	Generalinformation	6	6	2.77	1.35	46.1	6.83
B	Related toBurns	7	7	2.87	1.33	41.0	13.42
C	Relatedtopoisoning	7	7	2.60	1.03	37.1	6.57
D	Related tosnake bite	5	5	2.03	0.76	40.6	15.2
E	Relatedtodrowning	7	7	2.63	0.92	37.5	13.14
F	Relatedtoroadtrafficaccidents	8	8	3.27	1.23	40.8	15.37
G	Relatedtofirstaidkit	2	2	1.17	0.53	58.8	26.5
	Combined	42	42	17.33	4.98	41.2	11.85

TheDatafromtheaboveTable10reveals thattheaspectwise pre-testmeanknowledgeofrespondentsregardingFirstaidmanagement.Thehighestmeanknowledge percentage was seen in the aspect of first aid kit 58.8 % followed byGeneral information 46.1%,Related toBurns41.0%,Relatedto road traffic accidents 40.8 %, Related to snake bite 40.6 % Related to drowning 37.5% and the lowest meanpercentage was seenintheaspectRelatedto poisoning37.1 %.

Table– 11:- Distributionofrespondentsonposttestknowledgescoreson first aidmanagement N= 30

Knowledge Level	Category	Respondents	
		Number	Percent

Inadequate	<50% Score	00	00
Moderate	50– 75% Score	10	33.3
Adequate	>75% Score	20	66.7
Total		30	100

The Data from Table 11 & Fig. 13 shows that 66.7% (20) of the respondents hadadequate knowledge (> 75 %) and remaining 33.3% (10) of the respondents hadmoderate knowledge (50-75%) regarding occupational safety. None of respondentshadinadequateknowledge.

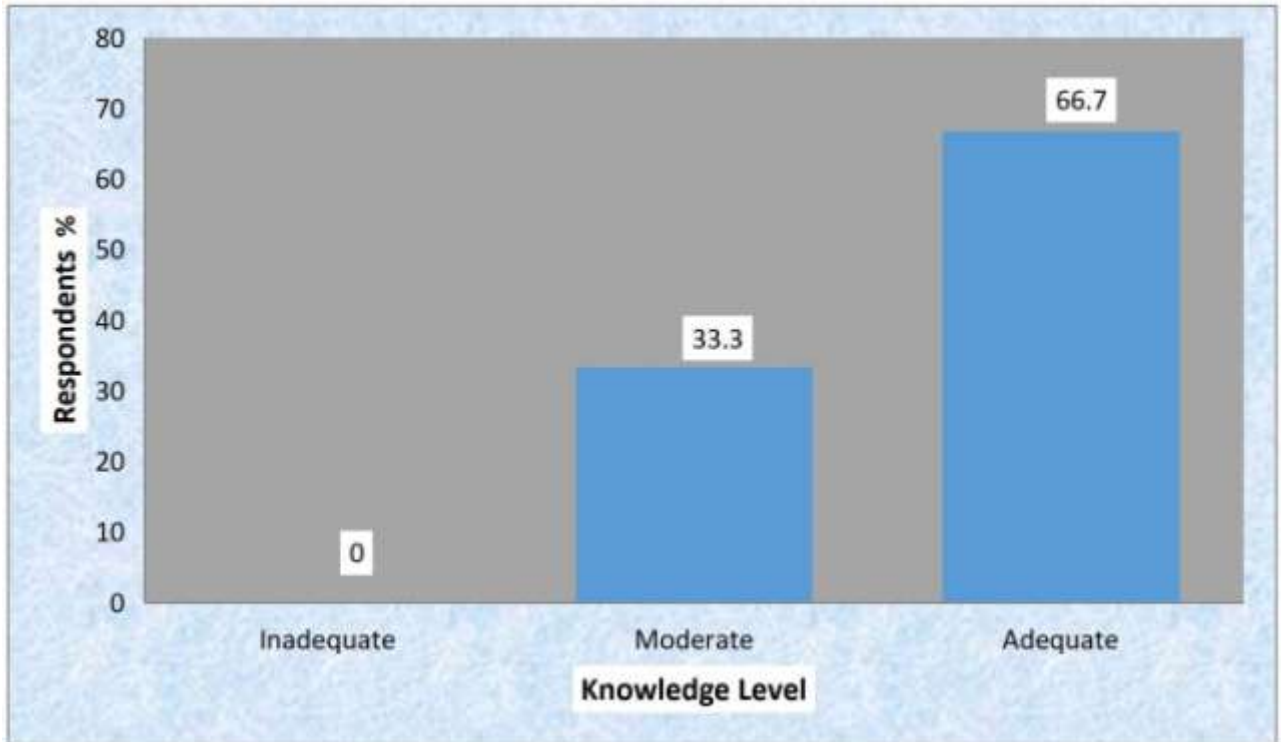


Figure 13:- Bar diagram representing percentage distribution of respondents on posttest knowledge scores on first aid management.

Table– 12:- Aspectwise Posttest Mean knowledge scores of Respondentson firstaid management N= 30

No.	Knowledge Aspects	Statements	Max.Score	Respondents Knowledge			
				Mean	SD	Mean (%)	SD(%)
A	General information	6	6	4.03	0.41	67.1	22.5
B	Related to Burns	7	7	5.73	.0.94	81.9	19
C	Related to poisoning	7	7	5.70	0.46	81.5	14.71
D	Related to snake bite	5	5	3.53	1.19	70.6	23.8
E	Related to drowning	7	7	5.60	1.16	80.0	16.52
F	Related to road traffic accidents	8	8	5.93	1.70	74.1	21.25
G	Related to first aid kit	2	2	1.53	0.68	76.6	34
	Combined	42	42	32.07	5.44	76.3	12.95

The Data from the above Table 12 reveals that the aspect wise post - test mean knowledge of respondents regarding First aid management. The highest mean knowledge percentage was seen in the aspect of Related to Burns 81.9 % followed by Related to poisoning 81.5%, Related to drowning 80%, Related to first aid kit 76.6 % , Related to road traffic accidents 74.1 % Related to snake bite 70.6 % and the lowest mean percentage was seen in the aspect General information 67.1%.

Table– 13:- OverallDistributionofrespondentsonknowledgelevelonfirstaidmanagement N= 30.

Knowledgelevel	Category	Classificationof respondents			
		Pretest		Posttest	
		Number	Percent	Number	Percent
Inadequate	<50% Score	21	70.0	00	00
Moderate	50– 75% Score	9	30.0	10	33.3
Adequate	>75% Score	00	00	20	66.7
Total		30	100	30	100

*Significantat5% level,

Table -13& Fig.14depictsthatin pre test70% (21) of respondentshadinadequate knowledge (< 50 %), 30% (09) of respondents had moderate knowledge(50-75 %) and none of them had adequate knowledge (> 75 %). In post test, none ofrespondentshadinadequateknowledge(<50%),33.3%(10)respondentshadmoderate knowledge (50-75 %) and remaining 66.7% (20) respondents had adequateknowledge(>75%)regardingfirstaidmanagement.However χ^2 indicatesthesignificantdifferenceintheknowledge levelofASHAsonfirstaidmanagement.

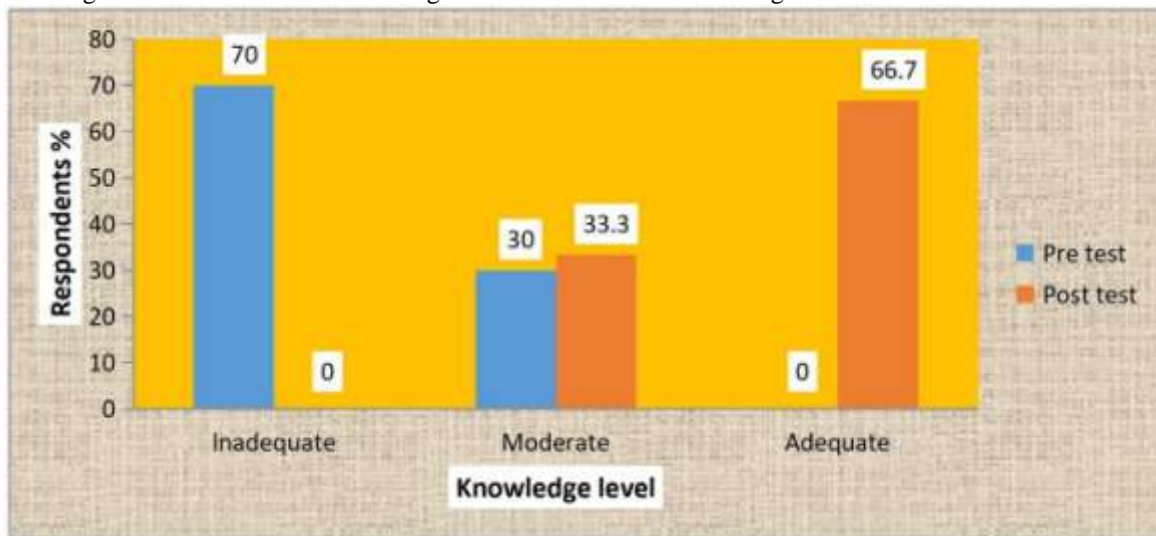


Figure 14:- Cylinder diagram representing over all percentage distribution ofrespondentson knowledgelevelon firstaidmanagement.

Table– 14:- OverallPretestandPosttestMeanknowledgeonfirst aidmanagement N=30.

Aspects	Max.Score	RespondentsKnowledge				Paired ‘t’Test
		Mean	SD	Mean (%)	SD(%)	
Pretest	42	17.33	4.98	41.2	11.85	23.85*
Posttest	42	32.07	5.44	76.3	12.95	
Enhancement		14.74	0.46	35.1	1.1	

*Significantat5% level

t (0.05, 29df) =

1.96Table14&figure.15:depictsthatpretestmeanpercentagewas41.2%andposttest mean percentage was 76.3%, with enhancement of 35.1%, calculated “t” test value of23.85* is greater than table value [t (0.05, 29df) = 1.96] hence study found to besignificantat 5% level.

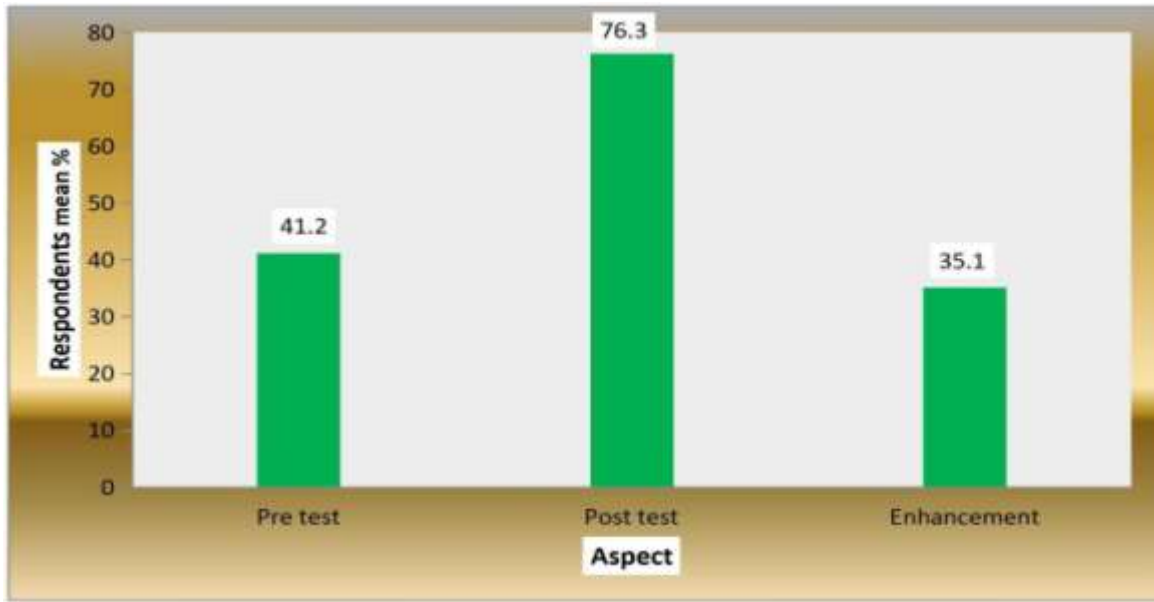


Figure 15:- Bar diagram representing Mean percentage distribution of overall Pre test and Post test knowledge on first aid management.

Table 15:- Aspect wise Mean percentage of pre test and post test knowledge on first aid management N= 30.

No.	Knowledge aspect	Respondents' knowledge (%)						Paired 't' test
		Pretest		Posttest		Enhancement		
		Mean	SD	Mean	SD	Mean	SD	
A	General information	46.1	6.83	67.1	22.5	21.0	15.67	4.47*
B	Related to Burns	41.0	13.42	81.9	19	40.8	5.58	12.82*
C	Related to poisoning	37.1	6.57	81.5	14.71	44.3	8.14	17.06*
D	Related to snake bite	40.6	15.2	70.6	23.8	30.0	8.6	7.42*
E	Related to drowning	37.5	13.14	80.0	16.52	42.3	3.38	15.72*
F	Related to road traffic accidents	40.8	15.37	74.1	21.25	38.0	5.88	10.63*
G	Related to first aid kit	58.8	26.5	76.6	34	18.0	7.5	2.62*
H	Overall	41.2	11.85	76.3	12.95	35.0	1.1	23.85*

*Significant at 5% level

Table-15 & Fig. 16: reveal that the aspect wise mean pre and post test and knowledge enhancement score on first aid management. The pre test mean knowledge score regarding General information was 46.1% and the post test score is 67.1%. The enhancement of the knowledge is found to be 21.0%. Related to Burns the pre test score was found to be 41.0% and post test score of 81.9% with the enhancement of 40.8%. The pre test score related to Poisoning was found to be 37.1% and post test score of 81.5% with the enhancement of 44.3%. Related to snake bite pre test score was 40.6% and the post test score of 70.6% with the enhancement of 30.0%. Related to Drowning pre test score was 37.5% and the post test score of 80.0% with the enhancement of 42.3%. Related to Road traffic accident pre test score was 40.8% and the post test score of 74.1% with the enhancement of 38.0%. Related to first aid kit pre test score was 58.8% and the post test score of 76.6% with the enhancement of 18.0%.

The overall mean score in the pre test was 41.2% and 76.3% in the post test with an enhancement of 35.0%. The statistical paired 't' test indicates the enhancement in the mean knowledge scores was found to be significant at 5% level for all the aspect under the study.

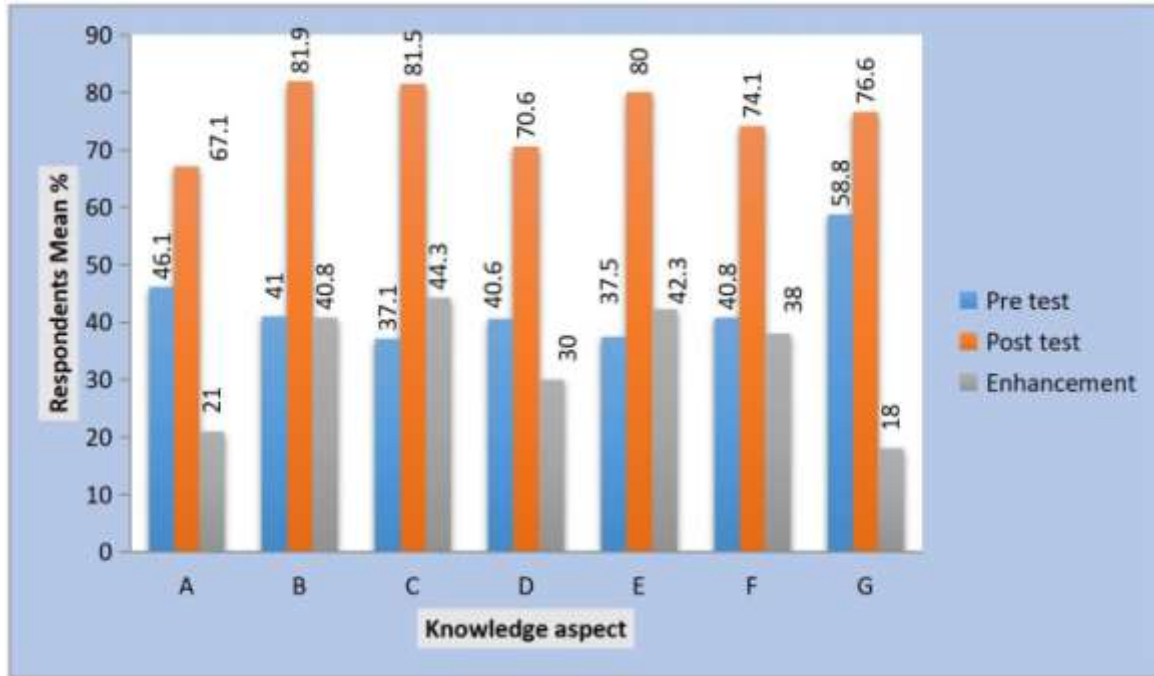


Figure 16:- Bar diagram representing aspect wise Mean percentage of pre test and post test knowledge and its enhancement on knowledge of first aid management.

Section 3: Analysis Of Association Between Sociodemographic variables and post test knowledge scores.

Table 16:- Association between Age and Post test Knowledge level on First aid management. N=30

Personal Variable	Category	Sample	Respondents Knowledge				χ^2 Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Age group in years	25-30	13	8	66.7	5	27.8	3, df=2, S	p<0.05
	31-35	13	3	25.0	10	55.6		
	36-40	4	1	8.3	3	16.7		
	41-45	-	-	-	-	-		
Combined		30	16		34			

S: Significant at 5%

$$\chi^2(0.05, 2df) = 5.98$$

Table 16:- The above table shows that the obtained value ($\chi^2 = 5.99$) is more than table value ($\chi^2 = 5.98$). This implies their significant association between the knowledge scores and age. Hence research hypothesis is accepted.

Table 17:- Association between Educational status and Post test Knowledge level on first aid management. N=30

Personal Variable	Category	Sample	Respondents Knowledge				χ^2 Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Educational Status	Primary education	-	-	-	-	-	2.134, df=1, NS	p>0.05
	High school	23	9	75.0	14	77.8		
	Pre-university	7	3	25.0	4	22.2		
Combined		30	16		34			

NS: Non-Significance

$$\chi^2(0.05, 1df) = 3.84$$

Table 17:- The above table shows that the obtained value ($\chi^2 = 2.134$) is less than table value ($\chi^2 = 3.84$). This implies no significant association between the knowledge scores and educational status. Hence research hypothesis is rejected.

Personal Variable	Category	Sample	Respondents Knowledge		χ^2 Value	P Value
			Moderate	Adequate		

			N	%	N	%		
Maritalstatus	Married	27	9	75.0	18	100	, df=1,S	p<0.05
	Widow	3	3	25.0	0	0		
	Divorced	-	-	-	-	-		
Combined		30	16		34			

Table– 18:- Association between Marital status and Post test Knowledge level on first aid management .N=30

Personal Variable	Category	Sample	Respondents Knowledge				χ^2 Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Typeof family	Nuclear	27	10	83.3	17	94.4	52, df=1,NS	p>0.05
	Joint	3	2	16.7	1	5.6		
	Extended	-	-	-	-	-		
Combined		30	16		34			

S:Significantat5%

$$\chi^2(0.05, 1df)=3.84$$

Table 18 : The above table shows that the obtained value ($\chi^2 = 4.89$) is more than tablevalue ($\chi^2 = 3.84$). This implies significant association between the knowledge scoresandmarital status. Hence researchhypothesis isaccepted.

Table– 19:- Association between Type of family and Post test Knowledge level on first aid management. N=30

Personal Variable	Category	Sample	Respondents Knowledge				χ^2 Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Years of experience	0-1 yearr	-	-	-	-	-	2.476, df=2,NS	p>0.05
	1-3years	6	2	16.7	4	22.2		
	4-7years	20	8	66.7	12	66.7		
	8-9years	4	2	16.7	2	11.1		
Combined		30	16		34			

NS:Non-Significance

$$\chi^2(0.05, 1df) = 3.84$$

Table 19 : The above table shows that the obtained value ($\chi^2 = 2.452$) is less than table value ($\chi^2 = 3.84$). This implies no significant association between the knowledge scoresandtypeof family.Henceresearchhypothesis isrejected.

Table– 20:- Association between Years of working experience and Post test Knowledge levelonfirstaid management. N=30

N=30

NS-NonSignificant

$$\chi^2 (0.05, 2df)=5.98$$

Table 20 : The above table shows that the obtained value ($\chi^2 = 2.476$) is less than tablevalue ($\chi^2 = 5.98$). So there isno significant association between the knowledge scoresandtheyearsofexperience.Henceresearchhypothesis is rejected.

Table– 21:- Association between Monthly family income and Post test Knowledge level onfirstaidmanagement. N=30.

Personal Variable	Category	Sample	Respondents Knowledge				χ^2 Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Monthlyfamilyincome	<10000	21	7	58.3	14	77.8	1.678, df=1,NS	p>0.05
	10001-15000	9	5	41.7	4	22.2		
	15001-20000	-						
	>20000	-						
Combined		30	16		34			

NS:Non-Significance

$$\chi^2(0.05, 1df) = 3.84$$

Table 21 : The above table shows that the obtained value ($\chi^2 = 1.678$) is less than table value ($\chi^2 = 3.84$). This implies no significant association between the knowledge scores and monthly family income. Hence research hypothesis is rejected.

Table 22:- Association between Source of information and Post test Knowledge level on First aid management. N=30

Personal Variable	Category	Sample	Respondents Knowledge				χ^2 Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Source of information	In-service education	12	4	33.3	8	44.4	11.67, df=3,S	P<0.05
	Books/magazine/Journal	4	4	33.3	0	0		
	Mass media	6	2	16.7	4	8.3		
	Health personnel	8	2	16.7	6	33.3		
	Workshop/conference	-	-	-	-	-		
Combined		30	16		26			

Significant at 5% Level χ^2 (0.05, 3df) = 7.82

Table 22: The above table shows that the obtained value ($\chi^2 = 11.67$) is more than table

value ($\chi^2 = 9.49$). So there is significant association between the knowledge scores and the source of information. Hence research hypothesis is accepted.

Note: The demographic variables not having frequency for at least one row and column (Socio demographic variable - Religion) is being omitted since it is invalid to perform Chi-square analysis.

Discussion:-

This chapter deals with the discussion of the study with appropriate literature review, statistical analysis and findings of the study based on objectives of the study. A report of findings is never sufficient to convey their significance. The meaning that researchers give to the results plays a rightful and important role in the report. The discussion section is devoted to a thoughtful and insightful analysis of the findings, leading to a discussion of their clinical and theoretical utility.

The present study is focused on to "evaluate the effectiveness of structured instructional module on knowledge of regarding first aid management of selected emergencies among ASHAs at selected rural areas of PHC, Bidadi.

A pre experimental one group pretest and post test design was used to conduct the study. Research approach was an evaluative approach. The target population for the study was ASHAs working at selected rural areas of PHC, Bidadi. Samples were selected by purposive sampling technique from accessible population. The total samples under the study were 30 ASHAs working in different areas of PHCs, Bidadi. Structured knowledge questionnaire was used to collect data.

The following components were used to conduct this study.

Section I: Socio-Demographic variables of ASHAs

Section II: Structured knowledge questionnaire about first aid management.

The findings of the study are discussed under the following headings:

1. Sociodemographic characteristics.
2. Assessment of existing knowledge regarding first aid management among ASHAs.
3. Evaluating the effectiveness of structured instructional module regarding first aid management among ASHAs.
4. Association between post test knowledge scores with selected Sociodemographic variables.
5. Testing of the hypotheses.

Sociodemographic characteristics:

This section dealt with the analysis of selected Sociodemographic variables based on frequency and percentage distribution of the samples.

The major finding of the study was summarized as follows.

1. Majority 43.3% (13) of the respondents were in the age group of 25 – 30 years followed by 43.3% (13) of the respondents were in the age group of 31 – 35 years, 13.3% (4) of the respondents were in the age group of 36 – 40 years and none in the age group of 41 – 45 years.
2. Majority 76.7% (23) of the respondents were completed high school education, 23.3% (7) were completed Preuniversity education.
3. Most of 90% (27) of the respondents were married and remaining 10% (3) respondents were widowers.
4. Majority 90% (27) of the respondents were belong to Nuclear family and remaining 10% (3) respondents were belong to Joint family.
5. All the 100% of respondents were Hindu.
6. Majority 66.7% (20) of the respondents had 4 – 7 years of experience, 20% (6) of the respondents had 1 – 3 years of experience, 13.3% (4) of the respondents had 8 – 9 years of experience.
7. Majority 70% (21) of respondents had monthly family income Rs. Less than 10,000, 30% (9) of respondents had monthly family income Rs. 10,001 – 15,000
8. Majority of 40.0% (12) respondents were receiving information from In service education/training, 26.7% (8) respondents were receiving information from health personnel, 20.0% (6) respondents were receiving information from mass media, 13.3% (4) respondents were receiving information from Books/ Magazines/ Journal and no respondent had attended any workshop or conference.

Assessment of existing knowledge of ASHAs regarding first aid management of selected emergencies.

Knowledge of ASHAs was assessed through conducting the pre test by using structured knowledge questionnaire as a tool. The present study confirms that the overall mean knowledge scores in pre-test is 41.2%. This shows that there is lack of information among ASHAs regarding first aid management. Although 30% of ASHAs had moderate knowledge, and majority of them had inadequate knowledge (70%) regarding first aid management. Hence it is necessary to provide education in order to enhance knowledge on first aid management. So, structured instructional module was provided to the ASHAs.

A cross sectional worldwide study in knowledge on injuries, emergencies and their prevention in Singapore. The samples are collected with a two stage stratified random sampling. This study revealed that samples are having poor knowledge (nearly 82%) on first aid practices. He conclude the study with needed frequent educational and training programme.⁶²

Evaluating the effectiveness of structured instructional module regarding first aid management.

The present study confirmed that there was a considerable improvement of knowledge after the administration of structured instruction module on first aid management of selected emergencies and is statistically established as significant. The overall pretest mean knowledge percentage was 41.2% and posttest mean percentage was 76.3% with mean knowledge enhancement of 35.1%.

A study was conducted in Italy with an objective to evaluate the benefit of teaching emergency first aid procedures for 469 samples. The result showed that their was a better knowledge gain in posttest than pretest after teaching programme. This proposed and concluded that teaching emergency first aid could be successful.

Association between post test knowledge scores with selected sociodemographic variables.

The findings of the study revealed that there is significant association between posttest knowledge scores and sociodemographic variables such as Age (5.99*^S), Marital status (4.89*^S) and Source of information (11.67*^S) at 0.05% level.

A descriptive study was conducted on first aid among community workers to determine the knowledge of first aid practices. It includes management of stings and bites, burns, scald, nose bleed, seizure, eye injuries, fracture, sprain, fever, skin wounds drowning, poisoning and etc. Knowledge of specific guidelines ranged from 21-90%. Subjects especially lacked knowledge regarding the rapid removal of fall stingers and in animal bite situation.

only 36% have sting awareness, 23% poisoning awareness and 46% burn awareness. Knowledge is affected by age and unaffected by gender and education. Further education is needed to the younger one and unmarried to improve the knowledge of first aid practices.

The study findings also reveal that there was no significant association between educational status (2.134^{NS}), type of family (2.452^{NS}), monthly family income (1.678^{NS}), working experience (2.476^{NS}) and the post test knowledge scores.

Testing the hypotheses:

H₁: There will be a significant difference between the mean pre and post test knowledge scores of ASHAs regarding first aid management of selected emergencies.

In this study the overall pre test mean knowledge score was 41.2% and post test score was 76.3% with mean knowledge enhancement 35.1%. The **H₁** stated in the study is accepted since there was significant change found between the pre-test and post-test knowledge scores regarding first aid management at level (0.05%) $P < 0.05$. Hence, there was a significant improvement in knowledge scores of ASHAs after administration of SIM regarding first aid management of selected emergencies.

H₂: There will be a significant association between the post test level of knowledge on first aid management of selected emergencies and selected socio-demographic variables.

The investigator accepts the **H₂** for significant association between Age (5.99*^S), Marital status (4.89*^S), Source of information (11.67*^S) and post test knowledge scores.

The investigator rejects the hypotheses **H₂** for no significant association between socio demographic variables such as educational status (2.134^{NS}), type of family (2.452^{NS}), monthly family income (1.678^{NS}), working experience (2.476^{NS}) and the post test knowledge scores.

Conclusion:-

This chapter presents the conclusions drawn, implications and recommendations. The focus of the study was to "evaluate the effectiveness of structured instructional module on knowledge of regarding first aid management of selected emergencies among ASHAs at selected rural areas of PHC, Bidadi".

A pre-experimental one group pre test post test design and evaluative approach was used in the study. The data was collected from 30 ASHAs through purposive sampling technique.

The SIM contains Goal of module, Introduction to first aid management, first aid management of burns, poisoning, drowning, snake bite, RTA, information on first aid kit and conclusion.

The following conclusions were drawn on the basis of the findings of the study:

1. The pre-test knowledge score among majority of ASHAs was inadequate and post-test knowledge score was found to be adequate.
2. There was significant enhancement in knowledge of ASHAs after administration of structured instructional module regarding first aid management.
3. There was significant association between Post test knowledge scores and socio demographic variables such as age (5.99), marital status (4.89), Source of information (11.67) at 0.05 level.
4. The findings of the study revealed that there is no significant association between personal variables such as educational status (2.134^{NS}), type of family (2.452^{NS}), monthly family income (1.678^{NS}), working experience (2.476^{NS}) and the post test knowledge scores. At 0.05 level.

Nursing Implications:

The main aim of the present study was to educate the ASHAs regarding firstaid management. The study revealed that there was gap in knowledge of ASHAs regarding first aid management .It is indicated that concentrated efforts should be taken by health professionals in educating the ASHAs regarding first aid management to impart knowledge and to create awareness about importance of firstaid management in community level . The findings of this study have implications in the field of Nursing education, Nursing practice, Nursing administration and Nursing research. The dissemination of the knowledge takes place when the research findings are made use of in the following fields.

Nursing Practice:-

Nursing profession has been developing faster in recent years in a unique way. The major change that has occurred in the profession is expansion in the role of nurses. One of the major roles that nurses play is educating the peripheral level community health workers regarding various health related facts and its management at community level . Updating the knowledge of ASHAs is a very important task which will help them to aware about the various emergencies at the community level and lack of knowledge about their first aid management . Therefore the community health nurses should take active involvement in educating the ASHAs regarding firstaid management so that the mortality and morbidity rates due to unavailability of the firstaid management during an emergency situation can be reduced.

Nursing Education:

1. The study can be extended for educating the different levels of community health workers regarding firstaid management.
2. Nurse educators can use the findings of this study to understand what different strategies can be adapted for educating ASHAs regarding first aid management.
3. As a community health nurse there are abundant opportunities for nursing professionals to educate the ASHAs of different areas of PHC and villages
4. Nurse educators can use innovative teaching method like structured instructional module to increase the knowledge and awareness about various emergencies and its firstaid management.

Nursing Administration:

1. The nurse administrator should arrange continuing education programme for nursing personnel regarding firstaid management
2. This will help the nurse administrator to prepare adequate learning materials for giving health information regarding firstaid management in any setting.
3. Nursing personnel should be prepared to take leadership role in educating the ASHAs in different settings such as various areas, PHCs, villages.
4. The nurse administrator should explore their potentials and encourage innovative ideas in preparation of teaching material. She/he should organize to see that sufficient manpower, money and material for disseminating health information.

Nursing research:

1. The study will motivate the beginning researcher to conduct same study with different variables on a large scale.
2. Various studies conducted showed that awareness on first aid management should be created among citizens. There is need for extensive research on firstaid management
3. Research must focus on improvement in knowledge, attitude and practice of ASHAs regarding firstaid management. Research must be done in non new methods of teaching to enable ASHAs to improve knowledge.

Limitation of the study:

1. The study is limited only to ASHAs working at selected rural areas of PHC, Bidadi
2. The study did not use control group.
3. Only a single domain that is knowledge is considered in the present study.
4. The sample size for the study was limited to 30 ASHAs.

Recommendations:-

On the basis of the findings of the study following recommendations have been made:

Application of present study can be conducted with a larger population to generalize the findings. A similar study can be conducted on different samples such as anganwadi workers, health assistants, lady health visitors with a control group.

A descriptive study can be conducted to assess the knowledge, attitude and practice of ASHAs regarding first aid management with a larger sample.

A comparative study can be conducted between lady health visitors and ASHAs.

Manuals and information booklets may be developed to enhance knowledge regarding first aid management.

A comparative study can be done between the effectiveness of structured instructional module versus structure teaching programme.

Summary:

This chapter deals with the summary of the study and its major findings along with implications. The study was conducted "to evaluate the effectiveness of structured instructional module on knowledge regarding first aid management of selected emergencies among Accredited social health activists (ASHAs) at selected rural areas of PHC, Bidadi".

Objectives of the study:-

1. To assess the existing knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies.
2. To evaluate the effectiveness of structured instructional module on knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies.
3. To find an association between post test level in knowledge of Accredited Social Health Activists (ASHAs) regarding first aid management of selected emergencies with their selected sociodemographic variables.

Hypotheses.

H1: There will be a significant difference between the mean pre and post test knowledge scores of ASHAs regarding first aid management of selected emergencies.

H2: There will be a significant association between the post test level of knowledge on first aid management of selected emergencies and selected socio-demographic variables.

The conducted study aims at developing and evaluating the effectiveness of structured instructional module on knowledge of ASHAs regarding first aid management of selected emergencies at selected rural areas of PHC, Bidadi.

Review of literature of related studies enabled the investigator to collect related and relevant information to support the study, design the methodology, to develop the conceptual framework and in the development of tool.

The conceptual framework selected for this study was based on modified Stufflebeam's (1973) Context Input Product Process (CIPP) model. It is a four step model of programme evaluation developed for obtaining useful information for taking decisions. It involves four types of decisions, namely planning decisions, Structuring decisions, implementing decisions and recycling decisions. It provides a comprehensive, systematic, continuous and ongoing framework for the programme.

The research design selected for the study was Pre-experimental one group pretest and posttest design. The independent variable was structured instructional module regarding first aid management and the dependent variable was post test knowledge scores of ASHAs regarding first aid management of selected emergencies.

The sample of this study comprised of 30 ASHAs working at different areas of PHCs, Bidadi. Purposive sampling technique was used to select the sample. The tool developed and used for the data collection was Structured knowledge questionnaire. 11 experts validated the content of the tool and the tool was found to be reliable and feasible. The structured instructional module consisted of various aspects on first aid management. The Structured Instructional Module was prepared with a view to enhance the knowledge of ASHAs.

After obtaining formal written permission from concerned authority [Medical officer of Bidadi CHC and Byramangala PHC] {Annexure - B}, Pilot study was conducted at Bidadi gramantara PHC area from 02.09.2014 to 09.09.2014 as apart of the major study, tool proved to be comprehensible, feasible and acceptable. Data collection procedure for main study began from 25.09.2014 to 27.10.2014. The investigator personally visited ASHAs and explained the

purpose of the study and collected data from subjects who were interested and willing to participate in the study. They were assured of anonymity and confidentiality. Pre-test was conducted by using structured knowledge questionnaire to assess the pre test knowledge followed by administration of SIM regarding First aid management, after 7 days post-test was conducted with the same structured interview schedule to assess the post test knowledge. The study was conducted according to the convenience and choice of ASHAs.

The data gathered were analyzed and interpreted according to objectives.

Descriptive statistics mean and standard deviation were used. And inferential statistics like paired 't' test and chi-square were included to test the hypothesis at different levels of significance and the data obtained are presented in the graphical form.

Major findings of the study:

Findings related to sociodemographic characteristics of the subjects:

1. Majority 43.3% (13) of the respondents were in the age group of 25 – 30 years followed by 43.3% (13) of the respondents were in the age group of 31 – 35 years, 13.3% (4) of the respondents were in the age group of 36 – 40 years and none in the age group of 41 – 45 years.
2. Majority 76.7% (23) of the respondents were completed high school education, 23.3% (7) were completed Pre university education.
3. Majority 90% (27) of the respondents were married and remaining 10% (3) respondents were widowers.
4. Majority 90% (27) of the respondents were belong to Nuclear family and remaining 10% (3) respondents were belongs to Joint family.
5. All the 100% of respondents were Hindu.
6. Majority 66.7% (20) of the respondents had 4 – 7 years of experience, 20% (6) of the respondents had 1 – 3 years of experience, 13.3% (4) of the respondents had 8 – 9 years of experience.
7. Majority 70% (21) of respondents had monthly family income Rs. Less than 10,000, 30% (9) of respondents had monthly family income Rs. 10,001 – 15,000.
8. Majority of 40.0% (12) respondents were receiving information from In service education/training, 26.7% (8) respondents were receiving information from health personnel, 20.0% (6) respondents were receiving information from mass media, 13.3% (4) respondents were receiving information from Books/ Magazines/Journal and no respondent had attended any workshop or conference.
9. Findings related to knowledge regarding first aid management among

ASHAs

1. The overall pre test mean knowledge score was found to be 41.2%. The highest mean knowledge percentage was seen in the aspect of first aid kit 58.8% followed by General information 46.1%, Related to Burns 41.0%, Related to road traffic accidents 40.8%, Related to snake bite 40.6% Related to drowning 37.5% and the lowest mean percentage was seen in the aspect Related to poisoning 37.1%.
2. The overall post test mean knowledge score was found to be 76.3%. The highest mean knowledge percentage was seen in the aspect of Related to Burns 81.9% followed by Related to poisoning 81.5%, Related to drowning 80%, Related to first aid kit 76.6%, Related to road traffic accidents 74.1% Related to snake bite 70.6% and the lowest mean percentage was seen in the aspect General information 67.1%.
3. The overall pre test mean knowledge score was 41.2% and post test value was 76.3% with enhancement of 35.1%. Calculated "t" test value of 23.85* is greater than table value [t (0.05, 49df) = 1.96] hence study found to be significant at 5% level.

Findings related to association between Post test knowledge scores and Sociodemographic variables:

1. The association between post test knowledge score and socio demographic variables were computed by using chi-square test.
2. There was significant association between Age (5.99^S), Marital status (4.89^S), Source of information (11.67^S) and post-test knowledge scores.
3. There was no significant association between educational status (2.134^{NS}), type of family (2.452^{NS}), monthly family income (1.678^{NS}), working experience (2.476^{NS}) and the post test knowledge scores.

References:-

1. Facts about injuries to children at school. Available from:<http://ukhealthcare.uky.edu/uploadedfiles/school.facts.pdf>
2. Parker G Thomas. Introduction to first aid. Available from:http://www.healthguidance.org/entry/8941/1/introduction_to_first_aid.html
3. EngelJayce,(1993),“MOBY’SPOCKETGUIDESERIESPEDIATRIC ASSESSMENT,”3rdedition,MosbyPublishers,Newyork,page no;3-37,109.
4. The national first aid science advisory board. Availablefrom:
<http://circ.ahajournal.org/content/112/22;suppl/III;115.full>.
5. Dajer J Antonio. First aid. Available from:http://www.ilo.org/safework_bookshelf/english?content&nd=857170142
6. Firstaidfor theinjured.StJohnAmbulance association,2008;123-124
7. T.K.Indirani,Firstaidfornurses,1stedition,NewDelhi,Jaypeepublishers,2003.
8. Mrs.Kazi Fauzia Jawed, Effectiveness Of Planned Teaching Programme OnFirst – Aid For Selected Accidents & Emergencies For School Children InSelectedHighSchools Of UdupiDistrict NNT2007Dec;30-32
9. WHO.Theglobalshortageofhealthworkers,theirtraininganditsimpact.WHOfactsheet302.Geneval:WHO2006.
10. TheASHAintheNRHMAsparahealthworker,Availablefrom:<http://essaybank.degree-essays.com/health/the-asha-in-the-nrhm-as-para-health-worker>
11. Ababa Addis. First Aid extension package. Federal Democratic Republic ofEthopia,Ministryofhealth.2003Sep.Availablefrom:http://cnhde.ei.columbia.edu/training/documents/First_Aid.pdf
12. Researchshowschildrenlackfirstaidskills.BritishRedCross.[Cited2010May4].<http://www.redcross.org.uk/standard.asp?id=88738>.
13. Healthandsafetyteam.GuidanceforHeadteachersandmanageronfirst aid.
14. EastSussexcountycouncil,FlinderUniversity. 2011
15. Jagnoor, Wilsonsuraweera, Lisakeay, RebeccaQIvers, JSThakur, PrabhathJha and Million death study collaborators, BMC Public health2012, 12:487 doi:10.1186/1471-2458-12-487. Available from:<http://www.biomedcentral.com>
16. MotorTransportStatisticsofIndia,TransportResearchWing,MinistryofRoad,Transportand Highway,NewDelhi.
17. World Health Organization. Handbook for the documentation of interpersonalviolencepreventionprogrammes. Geneva: WHO;2004availablefrom:<http://www.nimhans.kar.nic.in/epidemiology/bisp/fs8.pdf>
18. National Crime Record Bureau NCRB accidental death and suicides in Indiaministry of home affairs New DelhiGovtof India 2007 availablefrom:<http://www.nimhans.kar.nic.in/epidemiology/bisp/fs8.pdf>
19. Melita. R. S, Sharma. S. S, Pandel. R. K.effect on training program regardingfirst aid management among high school students. Journal of Nepal HealthResearchCouncil.2005;3(1):17-20
20. GGururaj,injuriesandviolenceinIndia,factsandfigures,NIMHANS,publiationno.82,Bengaluru.Availablefrom:w
www.nimhans.kar.nic.in/epidemiology/bisp/ivipdfS 2011
21. AustNZJPublichealth2006Apr;30(2):147-50.Communityfirstaidtraining
22. in western Australia . Discipline of Emergency medicine , Aboriginal andruralhealth care university ofwesternAustralia
23. Singh AJ, Kaur A. Minor injuries in ninth class school children of ChandigarhandruralHaryana.Indian Pediatr.1996 Jan;33(1):25-30.
24. PolitD,HungerHP.Nursingresearchprinciplesandmethods.5thed. Philadelphia:Lippinkott;1999.p156-58,76
25. J Pak Med Assoc. 2012 Mar;62(3):218-21 Knowledge, attitude and practicesofreliefworkersregardingfirstaidmeasures.FatemazahraInfertilityandReproductiveHealthResearchCenter,DepartmentofMidwifery,BabolUniversityofMedicalSciences,Babol
26. TeachingwildernessfirstaidinaremoteFirstNationscommunity:thestoryoftheSachigoLakeWildernessEmergencyResponseEducationInitiative. Institute of Health Policy & Management, Faculty of Medicine, University ofToronto,Toronto,ON,Canada.PMCID:PMC3482695PMID:23110258[PubMed-indexed forMEDLINE]
27. Khan A, Sheikh S. Knowledge attitude and practice of undergraduate studentsregarding first aid measures. Journal of Pakistan Medical association. [Cited2010May6].<http://www.jpma.org.pk/editorialboard.php>.
28. George Bolling, Hans Alvin Wahl, Training of community health workersregarding first aid measures, volume 80 , Issue 6 , June 2009 , Pages 689 -692
29. Nafissi N,Saghafinia M, Balochi K. Improving trauma care inElam the

- ruralIranbytrainingexistingtreatmentchains.2008Oct–December.[cited2010May1].8(4):P.881.<http://www.rrh.org.au/publishedarticles/ari>.
32. Baser M, Coban S, Tasci S, Sungur, Bayat M., Evaluating first-aid knowledge and attitudes of a Turkish primary school teachers. *J Emerg Nurs*. 2007 Oct; 33(5):428-32
 33. King L, Thomas M, Gatenby K, Georgiou A, Hera M. First aid for scald campaign: reaching Sydney's, Chinese, Vietnamese, and Arabic speaking communities. *BMJ* 2006; 12:427-429.
 34. Alikar EB, Essien AA, Child hood epilepsy: knowledge and attitude of primary school teachers in Port Harcourt, Nigeria, *Niger J ed*. 2005 Jul-Sep; 14(3):299-303.
 35. Singur AJ, Thode HC, Cronin KA. Paediatric first aid knowledge. *JCN* 2004 Dec; 20(12):808-11.
 36. Uray T, Lunzer A, Ochsenhofer A, Thanikkel L, Zingerle R, Lillie P, Brandl E, Sterz Department Of Emergency Medicine, University of Vienna, Austria; "feasibility of Life supporting First aid training as a mandatory subject in primary schools; *Resuscitation*, 2003 November, 59(2); 211-220
 37. Aly SA Ahmed NI, Department of community health nursing, higher institute of nursing, Zagazig university, *J Egypt Public health association*. 2003; 68(1-2):101-118.33
 38. Engeland A, Roysamb E, Smedslund G, Sogaard A .J. Effects of first-aid training in Junior high schools, *Inj Control Saf Prompt*. 2002 Jun; 9(2):99-106
 39. Goniewicz M, Chemperek E et al , " Attitude of students of high school in Lublin towards the problem of first aid " . *Wiad Lek* 2002 ; 55 Suppl 1 , Pages 679 – 685
 40. Gagliardi M, Neighbors M, Spears C, Byrd S, Snarr J. Emergencies in the school setting: are public school teachers adequately trained to respond. *Prehospital Disaster Med*. 1994 Oct-Dec; 9(4):222-5.
 41. Prabhjot Saini, Ranadive P, Mahal R. Study of Knowledge of First Aid Management and Emergency Care in Burn Patients . *TNAI journal* .2009; c(7):1-4.
 42. Sani P, Ranadeve P, Mahal R. Study of knowledge of first aid management and emergency care in burn patients. 2009; [3 screens]. Available at: <http://www.tnainonline.org>. Accessed November 15, 2009.
 43. Brain O Neil. (2000). First aid for school children. At Gosford Hospital , Jones and Bartlett publishers. (3rd ed). 45-46
 44. Prabhakara G.N, *Textbook of community health for nurses 1st edition*, Peepee Publishers, New Delhi. (2005). page no 205
 45. Julie Considine 'Belinda Mitchell .Chemical, biological and radiological incidents: preparedness and perceptions of emergency nurses [internet] 2008 Nov 3 [cited 2009 Oct 23]; 33(482-97). Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-7717.2008.01084.x/abstract>
 46. 7717.2008.01084.x/abstract
 47. Ann E Hiott, M D, Sara A Quandt, Julie early et. al. Review of pesticide education materials for health care providers providing care to agricultural workers National rural health association [Internet]. 2006 Available from: www.factic.org/pdf/mig_review/20of/20pesticide/20materials.pdf
 48. www.factic.org/pdf/mig_review/20of/20pesticide/20materials.pdf
 49. Jors M D. Acute pesticide poisonings among small-scale farmers in La Paz country Bolivia [Internet]. 2004. [(Thesis) Submitted to faculty of health sciences university of Copenhagen]: Bolivia , department of international health institute for public health. Available from: plagball.org
 50. plagball.org. po/file/thesis%20plagball%20version%20complete%20en%20ing.lef.pdf.
 51. Aiwerasia VF, Ngowi, David N, Maeda Timo J Partanen. Assessment of the ability of health care providers to treat and prevent adverse health effects of pesticides in agricultural areas of Tanzania. *Int J of Occupational Med and Envnt H*. 2001 ; 14(4):349—56. Available from: <http://www.imp.lodz.pl/upload/oficya/artykuly/pdf/full/Ngowi4-04-01.pdf>
 52. Alirol E, Sharma SK, Bawaskar HS, Kuch U, Chappuis F. Snake bite in South Asia: a review 2010 Jan 26; 4(1):e603.
 53. Currie BJ, Canale E, Isbister GK, (2008). Snake bites treated by pressure immobilisation at Australia in pediatric emergency dept, *Journal of society of pediatric Nurses*. 5(2).
 54. Dr. Owen Lewis. (2004) .Clinical Management of Snake Bite In South East Asian Region, Nepal. Vol (58).
 55. Discipline of Emergency Medicine, School of Primary, Aboriginal and Rural Health Care, University of Western Australia, Level 2, R Block, Queen Elizabeth II Medical Centre, Nedlands, WA 600.
 56. Daniels P. Drowning Physiology After the rescue. 2009 April 20. [Cited

- 2010May6].<http://www.lib.niu.edu/1982/ip820732.html>.
57. MassGeneralHospitalforChildren.Firstaidtraining.2010.[cited2010May5].<http://www.mgh.harvard.edu/children/professionals/default.aspx>.
 58. Roy N. Murlidhar V. Where there are no emergency medical services prehospital care for the injured in Mumbai, India. [online] 2010 [cited 2010 Nov5]Available fromURL:<http://www.ncbi.nih.gov/pubmed/20467994>
 59. Jain A.MenzesRG. Twowheeleraccidentson Indiaroads-astudyfromMangalore,India.[online]2009[cited2010Nov5]AvailablefromURL:<http://www.ncbi.nih.gov/pubmed/19239962>
 60. Sosada.k,Zurawinski w,StepienT. Evaluation of the knowledge of teachers andhighschoolstudentsinSilesiaontheprinciplesoffirstaid.IndianJpublicHealth.2004Jan-mar;39(1):23-5.URL:<http://www.ncbi.nih.gov/pubmed/17474616>
 61. GuptaS.,RoyChowdhuryU.B.,DebP.K.,etal(2003),AvailablefromURL:<http://www.ncbi.nih.gov/pubmed/19915276>.
 62. Arbon Paul., Hayes Jo (2000) with the aim on first aid and Harm minimizationforvictims ofroadTraumaWesternaustralia
 63. Eva M.Larsson., Niklas L. Martensson., Kristina A.E. Alexanderson (1998) onFirstAidTraining andBystanderActionsatTrafficCrashes–
 64. Vikas Bhatia, Sonia Puri, Chetna Mangat, Amrit Pal Kaur.An Interventionalstudy to strengthen first aid care in schools of Chandigarh, India. Int. Jou2010(8):1
 65. PRUITT.V.M,workrelatedburnsjournalofoccupationalenvironmentalmedicine,2006, 5 (2): pageno. 423 – 433
 66. Divya K A. evaluate the effectiveness of SIM on knowledge of IT employeesregardingpreventionofhypertension,RajivGandhiUniversityofHealthSciencesBangalore,(Unpublished thesis)
 67. SharmaSK.Nursingresearchandstatistics.1sted.Haryana:Elsevier;2011.p.288-297. p. 153-155.
 68. CarolL.MacneeandSusanMcCabe.UnderstandingNursingResearch.2ndedition.Philadelphia:LippincottWilliamsandWilkinsPublishers.p.no.180-184
 69. Gulla.J.(2004).KnowledgeofFirstAid.DepartmentofemergencyMedicine. StonyBrookUniversity.USA(20).
 70. LubranoR,RomeroSetal,UniversitydeglistudidiRomaLaSapeinza324,0016Roma, Italy:2005 march:64(3):303 – 7
 71. PradhanS.K,firstaidknowledgeassessmentinanurbanslumof Delhi.
 72. Indian JournalofCommunitymedicine. (2007).