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"A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME (STP) ON KNOWLEDGE REGARDING MANAGEMENT OF FLOODS AMONG NATIONAL SERVICE SCHEME (NSS) VOLUNTEERS OF RAJEEV COLLEGE OF NURSING, HASSAN"

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ABSTRACT

Introduction: Excessive flooding is a worldwide problem. It causes loss of human life, extensive damage to infrastructure, and agriculture production. The loss due to floods increase severy year globally. The adequate knowledge and correct time intervention scan reduce the impacts of floods. At the time of such accidents and mass casualties volunteer groups like National Service Scheme has significant role in rescue services. The knowledge regarding first aid and emergency care, control and prevent communicable diseases, and management of floods help them to play a major role in emergency management in floods, where the medical professionals find difficulty to reach. **Objectives:** Identify the level of knowledge of NSS volunteers of Rajeev College of Nursing on management of floods in terms of pre-test score. Asses the level of knowledge of NSS volunteers of Rajeev College of nursing on management floods after administering Structured Teaching programme (STP). Evaluate the effectiveness of Structured Teaching Programme (STP) on management of floods for NSS volunteers of Rajeev College of nursing. Associate the level of knowledge of the NSS volunteers of Rajeev College of nursing with selected demographic variables. **Methodology:** The research approach adopted for this study was an evaluative research approach. The research design adopted for this study was a pre-experimental single group pre-test post-test design for assessing the knowledge of the NSS volunteers of Rajeev College of Nursing regarding management of floods. The sampling technique of the study is Non-probability convenient sampling technique, 100 NSS volunteers were selected as samples. Data was collected by using Structured questionnaire consisted of two sections. Section I: Demographic variables. Section II: Knowledge questionnaire on management of floods. **Results:** The result of this study shows that pre-test percentage of NSS volunteers on knowledge of management of floods was 43.03% (12.91). Post-test percentage of NSS volunteers on knowledge of management of floods was77.63% 23.29). Hence the enhancement of the knowledge regarding management of floods score of the study group was 34.6% (10.38). The overall mean post-test knowledge score (23.29) of the NSS volunteers were significantly higher than the pre-test knowledge score (12.91). The paired 't' test value was 35.729 which is significant at p=0.000 level. **Conclusion:** The study concluded that the STP on management of floods was an effective method for providing moderate to adequate knowledge and National Service Scheme volunteers to enhance their knowledge regarding management of floods.

KEYWORDS

Knowledge regarding management of floods, National Service Scheme and Teaching Programme.

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INTRODUCTION

Today, we suffer from many threats to our life. Disasters are the best examples of such threats. It is the main cause for increasing mortality as well as the morbidity rate. The rate of death and disability is too high in disasters. In Last year more than 2lakh people died due to various disasters in the overall

world. Under developed and developing countries are the chief sufferers of the sefatal evens. In other words, it is the main obstacle for the development of that countries[1]. WHO defines 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 extra ordinary response from outside the affected community or area" A disaster is defined as a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environment all losses, which exceed the ability of the affected community or society to cope using it so were sources[2]. Disasters can be divided in to natural and manmade or technological. Natural disasters include floods, draughts, forest fires, earth quakes, tsunamis, hurricanes volcanic eruptions, tornadoes. Manmade includes hazardous substance accidents, radiological accidents, dam failures, structural fire and explosions, and domestic disturbances[3]. Disaster scan affect one family at a time as in a house fire, or in the case of a chemical leak in Bhopal kills 2500 people and injured 150,000 (Taggart1985). One earth quack in Iran killed 40,000 people and created an instant homeless population of approximately 500,000[3]. Natural disasters are related to the climate of the area. In India, floods are the most common natural disasters. The heavy southwest monsoon rains cause the Brahmaputra, Krishna, Godavari, and other rivers to distend their banks, often flooding surrounding areas. Though they provide rice paddy farmers with a largely dependable source of natural irrigation and fertilization, the floods can kill thousands and displace millions. Excess, erratic, or untimely monsoon rainfall may also was ha way or otherwise ruin crops. Almost all the parts of India are flood prone, and extreme precipitation events, such as flash floods and torrential rains, have become increasingly common in central India over the past decades, coinciding with rising temperatures. The national commission on floods (1980) assessed the flood prone area in India as 40 million ha (12% of geographical area). Out of the to talarealiablet of loods about 80% (32million ha) could be provided with reasonable protection and approximately 50% of such area has been so for through various means of flood management measures[5]. A flood is a nover flow or accumulation of an expanse of water that submerges land. The word flood comes from the old English word ‘flood’ which means flow. Flood in gmay result from the excess volume of water with in a body of water such as, a river or a lake, which over floes or break levees, with the result that some of the waters capes its natural boundaries. Floods have the ir greatest impacts at local level especially in the lives of ordinary people. Current disasters are becoming more complex and climate change posses a greater potential for adverse impacts (Aalst and Burton)[7]. Floods have huge impacts on normal life of an individual, family and community. It disturbs the normality of life. The disturbances can be classifying under three pats of effects. These are vary in its severity and area of impacts.

Primary effects

These are the first and foremost effects of floods. It happens just after the attack of floods. It can be classified into two types. Physical damage-this discusses about the physical damages due to the floods. Casualties-floods can kill and deterior ate the health of individual very badly.

The causalities include the effect to of floods on humanity by counting deaths, and moribund persons. People and livestock die due to drowning. It can also lead to epidemics and water borne diseases.

Secondary effects

These are the second category of effects of floods. It discusses about the impact of floods after a short term. It can be based on effects due to the effects on water supplies, due to diseases, and crops and food supply.

Tertiary/long term effects

These are the long term effects of floods. Under this category, the main concern is about the economical condition of the country and society. Society will suffer economical short age due to: temporary decline in tourism, re building costs, food short age leading to price increase, etc[9]. Flood management is technique to control, prevent and treat the flood and its impacts. It can be divided into two categories[1]. Pre impact measures[2]. Post impact measures. The proper knowledge level and training is necessary to

prevent and control the floods and its impacts. Effective communication is solution to improve the knowledge level of local people regarding managing and careful use natural resources and the effective management of floods[6]. This successively can be done by NSS volunteers of different areas of because they are the helping hands of the needy people. They are always available in the local community increases their demand in flood management team[11]. As the statistical data tell that, loss due to flood increase sine very year globally. In 2000, the loss was 2billion dollars. In 2001 it became 8 billion. In 2002 it increased upto10 billion. Finally, in 2010 the overall loss rises to 25 billion. Natural disasters between 1960 and 1989 affected 233 million people in china alone, claiming 7, 27, 849 lives and injuring 4, 25,162. Disasters are not confined to a particular part of the world they can occur anywhere and at any time. Statistics, gathered since 1969, show the dramatic rice in the number of people affected by disasters[14].

It is very difficult to give instant solutions to thus people who are all living in flood prone area. However, more lasting solutions are required to overcome and reduce the negative effects of flood in gin a sustainable way. For dealing the current problem, it is mandatory to make villagers more educated on floods and its management[22].

Even though the problem is too big, the management and the knowledge about the management of floods not an attention seeking subject due to various unknown reasons. Governments are not giving much importance to such programmes. The prevailing programs are not upto mark of the necessity. The schools and colleges are not giving curriculum related to the management of floods. So, it is very important to give adequate education and knowledge to those people, who can work as the helping hands of needy. It is undoubtedly, NSS volunteers, they give their health, knowledge, and their valuable time for the betterment of the society. Through the supply of proper knowledge and training of NSS volunteers, they can give education to local people about the necessary precautions and can deal with first aid and immediate care of needy and flood affected people. It includes the psychological support, residential arrangements, food supply, prevention, control and early treatment of water born diseases, can meet the normal nutrition all level, can maintain the health of the individuals, can make consultation for them, and can provide advices to them. Overall, they can function as the saviors of local people from floods and can reduce the effects of floods[23].

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of Structured Teaching Programme (STP) on knowledge regarding management of floods among National Service Scheme (NSS) volunteers of Rajeev College of nursing at Hassan.

OBJECTIVES OF THE STUDY

1. Identify the level of knowledge of NSS volunteers of Rajeev College of Nursing on management of floods in terms of pre-test score.
2. Asses the level of knowledge of NSS volunteers of Rajeev College of nursing on management floods after administering Structured Teaching programme (STP).
3. Evaluate the effectiveness of Structured Teaching Programme (STP) on management of floods for NSS volunteers of Rajeev College of nursing.
4. Associate the level of knowledge of the NSS volunteers of Rajeev College of nursing with selected demographic variables.

RESEARCH HYPOTHESES

H1-There will be significant difference between pretests and posttest knowledge scores regarding management of floods among NSS volunteers.

H2-There will be significant association between pretest scores of knowledge with selected demographic variables.

Assumptions

1. This study will create an innovative approach among the NSS volunteers of Rajeev College of nursing for managing floods.
2. This study will promote the level of knowledge regarding flood management among NSS volunteers of Rajeev College of nursing at Hassan.

Delimitations of the study

- This study is limited to 100 NSS volunteers.
- NSS volunteers of Rajeev College of nursing only.
- Study period is limited to 4-6weeks.

Conceptual framework

'General Systems Theory'

In this study the investigator has applied modified Ludwig open system model. It shows the effectiveness of the through put on the client in the selected environment for a particular problem.

Significance of the study

Provide adequate knowledge to the NSS volunteers of Rajeev College of nursing at Hassan for managing floods.

RESEARCH METHODOLOGY

RESEARCH APPROAH

Evaluative approach.

Ethical issues

Permission was obtained from the concerned authority. Written informed consent was obtained from all participants of the study after explaining the purpose and other details. The subjects were asked to maintain confidentiality of the data obtained and about the proceedings of the educational program. The subjects were informed that their participation was voluntary, had the freedom to dropout the training program to any time.

Research design

There search design used in this study is the pre experimental single group pre-test post- test design.

Setting of the study

Rajeev College of Nursing, Hassan.

VARIABLES

Independent variable

Structured teaching programme (STP) on flood management. It includes general aspects of disasters, causes and types of floods, effects of floods, role of NSS volunteers, techniques of flood management and flood directive.

Dependent variable

The knowledge of NSS volunteers on management of floods are the dependent variable in this study.

Extraneous variable

In the present study it refers to the selected demographic variables such as Age, Sex, religion, staying with, Duration of being as NSS volunteer, Previous knowledge about disasters, previous knowledge of floods, Educational status of father and Educational status of mother.

Target population

NSS volunteers.

Sample and sampling techniques

Sample

In this study sample was NSS volunteers of Rajeev College of nursing.

Sample size

The sample comprise of100 NSS volunteers of Rajeev College of nursing.

Sampling technique

In this study non-probability convenient sampling technique was used to select the samples.

SAMPLINGCRITERIA

Inclusion criteria

1. Male and Female NSS volunteers of Rajeev College of nursing at Hassan.
2. NSS volunteers of Rajeev College of nursing at Hassan, who are present at the time of study.

Exclusion criteria

Male and Female NSS volunteers of Rajeev College of nursing at Hassan, who were not present at the time of study.

DEVELOPMENT OF THE TOOLS

Selection of the tool

A structured questionnaire was used to assess the level of knowledge on management of floods, which are prepared by the researcher.

The tool was developed based on,

1. Related review of literature (books, journals, reports, and articles, published and unpublished studies) were reviewed and used to develop the tool.
2. Guidance and consultation with subject experts.
3. Objectives of the study and blue print.

Description of the tool

The tool was divided into two - part I and part II

PART I

Socio demographic variables consists of 10 items, which includes age, gender, type of family, religion, staying, education status of the father, education status of the mother, previous knowledge about disasters, previous knowledge about floods, and experience as NSS volunteer.

PARTII

The multiple choice questionnaire used in this study was prepared by the researcher to measure the knowledge on management of floods.

Scoring Interpretation

Each correct answers cored as 1andremainingscoredas 0.

Pilot study

The pilot study was conducted in them on the of October 2010 (15-25) by selecting

10 NSS volunteers of Government College of nursing.

RESULTS AND ANALYSIS

Section 1

Distribution of the subjects according to socio-demographic Variables

Table No.2 A shows that the frequencies and percentage distribution of demographic variables such as, Age: 45(45%) volunteers are in the age group of less than 20 years. 55(55%) NSS volunteers are in the age group of 20years and above. Gender 12(12%) are male volunteers and 88(88%) are female volunteers. Type of family: 91(91%) volunteers are belongs to nuclear family and 9(9%) volunteers are belongs to joint family. Religion: 49(49 %) NSS volunteers are belong to Hindu religion, 4(4%) NSS volunteers were belongs to Muslim and 47 (47 %) NSS volunteers were belongs to Christian religion. Staying with: 29(29 %) NSS volunteers were staying with parents, 6(6%) NSS volunteers were staying with relatives and 65 (65%) were staying in hostel.

Table No.2 B shows that the frequencies and percentage distribution of demographic variables such as, Experience as a NSS volunteer: 20(20%) volunteers have 1year experience. 20(20%) volunteers have 2year experience. 60(60%) volunteers have 3 or more than 3year experience. Education status of the father: 8(8%) volunteers father had no for male education, 23(23%) volunteers father had primary school education. 39(39%) of them had Secondary school, 30(30 %) of them had Higher secondary education. Education status of the mother: 4(4%) volunteers mother had no formal education, 20 (20%) volunteers mother had primary school, 28(28%) of them had Secondary school, 48(48%) of them had Higher secondary education. Previous knowledge about disaster management: 7 8(78%) volunteers have little previous knowledge about disaster management. 22(22%) volunteers have no previous knowledge about disaster management. Previous knowledge about floods: 10(10%) volunteers have little previous knowledge about floods. 90 (90 %) volunteers have no previous knowledge about floods.

Section II

Assessment of knowledge of national service scheme volunteers regarding management of floods

Table No.3 Shows that mean, standard deviation and percentage of pretest knowledge score on different aspects of management of floods. The overall pretest knowledge mean value is12.91 and S Dis1.69 of management of floods. The overall pretest mean percentage was 43.03%. The volunteers have high mean percentage of knowledge in flood management and flood directive components 54% it is higher than other 5 aspects. In the pretest mean value for the general aspects of disasteris1. 77SD0.93, types and causes of flood's mean value is 2.36SD1.10, effects of floods mean value is 1.46SD0.81 techniques of flood management mean value is 3.26SD1.19 role of NSS volunteers mean value is 2.98 SDis0.94, flood management and flood directive's mean value is 1.08S Dis0.51 and the mean percentage is 44.25%, 47.2%, 36.5%, 40.75%, 42.57% and 54% respectively.

From the above results according to the first objective of the study, the existing knowledge on management to of floods has been assessed among NSS volunteers before administering the structured teaching program.

Table No.4 describes about the level of knowledge based on the responses for pre-test questionnaire. It

describes that, 20% of NSS volunteers are having moderately adequate knowledge and 80% of NSS volunteers have in adequate knowledge.

Section III

Assessment of post-test knowledge of national service scheme (NSS) volunteers regarding management of floods

Table No.5 shows that the mean percentage, mean and SD of posttest knowledge on management of floods among NSS volunteers in various aspects. In the posttest NSS volunteers have mean value for the general aspects of disastersis2. 90SD0.61, types and causes mean value is 3.76, SD 0.75, effects of floods mean value is 2.92 SD 0.79 techniques of flood management mean value is 6.28 SD 1.06 role of NSS volunteer mean value is 5.76 SD1.06 flood management and flood directive mean value is1.67 SD is 0.51 and mean percentage is 72.5%, 75.2%, 73%, 78.5%, 82.29%, 83.5% respectively. The overall posttest knowledge mean value is 23.29 and SD is 2.39. The overall post-test mean percentage was 77.63%.

From the above results according to the second objective of the study, knowledge on management to of floods has been assessed among NSS volunteers after the structured teaching program.

Table No.6 describes the classification of NSS volunteers as per their posttest knowledge level assessment. It depicts that, 62% NSS volunteers have adequate knowledge and 38% NSS volunteers have moderately adequate knowledge.

Section IV

Comparison of pre and post test knowledge scores regarding management of floods among national service scheme volunteers

Table No.7 shows the pretest mean value for the general aspect of disaster is 1.77 SD 0.93, types and causes mean value is2.36 SD1.10, effects of floods mean value is1.46 SD 0.81 techniques of flood management mean value is 3.26 SD 1.19. Role of NSS volunteers mean value is 2.98 SD is 0.94. Flood management and flood directive mean value is1.08 SD 0.51.

In the posttest volunteers have mean value for the general aspect of disaster is 2.90 SD 0.61, types and causes mean value is 3.76 SD 0.75, effects of floods mean value is 2.92 SD 0.79 techniques of flood management mean value is 6.28 SD1.06. Role of NSS volunteers mean value is 5.76 SD is 1.06. Flood management and flood directive mean value is 1.67 SD 0.51. The 't' value obtained was 12.033, 14.071, 15.589, 21.357, 22.498, and 9.260.

The overall pretest mean value is 12.91 SD 1.69. The overall posttest mean value is 10.38 and SD 2.91. The't' value was 35.729 ($P<0.001$) shows that there is significant increase in the knowledge after the structured teaching programme.

From the above results according to the second objectives, the pretest and post test mean of knowledge on management of floods has been assessed after the structured teaching programme. The paired't' value obtained was 35.729 ($P<0.001$). It is clearly states that the structured teaching program was effective in improving knowledge among NSS volunteers.

Table No.9 shows effectiveness of structured teaching programme. In general aspects of disasters students gained 28.25%, causes and types of floods 28%, effects of floods 36.5% techniques of flood management 37.75%, role of NSS volunteer 39.72%, and in flood management 29.5% after structured teaching program. Considering overall aspects NSS volunteers gained 34.6 % of more knowledge on management of floods after structured teaching program. 34.6% knowledge gain is the net benefit of this study which indicates the effectiveness of STP. From the above results, the third objective, evaluate the effectiveness of STP has done.

Section V

Association between the selected demographic variable and the pretest level of Knowledge

Table No.10 A shows the association between socio demographic variables and the pre-test level of knowledge of NSS volunteers. Based on the fourth objective, the chi square test is used to associate the knowledge on management of floods among NSS volunteers and selected demographic variables. The Chisqu are value shows that the reisno significant association between the age, gender, religion, type of family, staying with, education status of the father and education status of the mother.

Table No10 B shows the association between socio

demographic variables and the posttest level of knowledge of students. The fourth objective, the chisquare test is used to associate the knowledge on management of floods and selected demographic variables. The Chisqu are test value shows that the reisno significant association between the education status of the father, previous knowledge of disasters and education status of the mother. Experience as NSS volunteers and previous knowledge about floods are significantly associated with their pre-test knowledges core. Based on chi square value, 6.667 and 11.111 respectively.

DISCUSSION

This chapter discussed the major findings of the study and reviews in relation to findings, from the results of the previous study. The present study is an effort to assess the effectiveness of structured teaching programme regarding the knowledge on management of floods among NSS volunteers of Rajeev College of nursing, Hassan.

FINDINGS OF THE STUDY

Based on age: 45(45%) students are in the age group of less than 20years. 55(55%) volunteers are in the age group of 20 years and above. Based on gender: 12(12%) are male volunteers and 88(88%) are female volunteers. Based on Type of family: 91(91%) volunteers are belongs to nuclear family and 9(9%) volunteers are belongs to joint family. Based on Religion: 49(49%) NSS volunteers are belongs to Hindu, 4(4%) volunteers are belongs to Muslim and 47(47%) volunteers were belongs to Christian religion. Based on Staying with: 29(29%) volunteers are staying with parents, 6(6%) volunteers are staying with relatives and 65 (65%) were staying in hostel. Based on experience as a NSS volunteer: 20(20%) volunteers have 1year experience. 20(20%) volunteers have 2year experience. 60(60%) volunteers have 3 or more than 3year experience. Based on Education status of the father: 8(8%) volunteers father had no formal education, 23(23%) volunteers father had primary school education. 39(39%) of them had Secondary school, 30(30%) of them had Higher secondary education. Based on Education status of the mother: 4(4%) volunteers mother had no formal education, 20(20%) volunteers mother had primary school, 28(28%) of them had Secondary school, 48(48%) of them had Higher secondary education. Based on Previous knowledge about disaster management: 78(78%) volunteers have little previous knowledge about disaster management. 22(22%) volunteers have no previous knowledge about disaster management. Based on Previous knowledge about floods: 10(10%) volunteers have little previous knowledge about floods. 90(90%) volunteers have no previous knowledge about floods.

Assess the knowledge regarding management of floods.

Table No.3 shows that mean, standard deviation and percentage of pretest knowledge score on different aspects of management of floods. The overall pretest knowledge mean valueis12.91 and SD is 1.69 of management of floods. The overall pretest mean percentage was 43.03%. The volunteers have high mean percentage of knowledge in flood management and flood directive components 54% it is higher than other 5 aspects. In the pretest mean value for the general aspects of disaster is 1.77 SD 0.93, types and causes of flood's mean value is2.36 SD1.10, effects of floods mean value is 1.46 SD 0.81 techniques of flood management mean value is 3.26 SD 1.19 role of NSS volunteers mean value is 2.98 SD is 0.94, flood management and flood directive's mean value is1.08 SD is 0.51 and the mean percentage is 44.25%, 47.2%, 36.5%, 40.75%, 42.57% and 54% respectively. From the above results according to the first objective of the study, the existing knowledge on management of floods has been assessed among NSS volunteers before administering the Structured Teaching Programme.

The above findings were strongly supported by a study was conducted on floods management on prone areas of Australia. The sample consisted of 1500 rural people.

1030 people had witnessed some form of floods in their real life. The frequency of witnessing floods was very often and often in19% and 42.4% respectively. 28% of them also witnessed serious floods with huge looses of human life and infrastructure. They also participated in the various

rescue and first aid activities. This study concluded that 80% of the sample have knowledge about management of floods[63].

Assess the post test level of knowledge on management of floods

Table No.5 shows that the mean percentage, mean and SD of posttest knowledge on management of floods among NSS volunteers in various aspects. In the posttest NSS volunteers have mean value for the general aspects of disasters is 2.90 SD 0.61, types and causes mean value is 3.76, SD 0.75, effects of floods mean value is 2.92 SD 0.79 techniques of flood management mean value is 6.28 SD 1.06 role of NSS volunteer mean value is 5.76 SD 1.06 flood management and flood directive mean value is 1.67 SD is 0.51 and mean percentage is 72.5%, 75.2%, 73%, 78.5%, 82.29%, 83.5% respectively. The overall posttest knowledge mean value is 23.29 and SD is 2.39. The overall post- test mean percentage was 77.63%. From the above results according to the second objective of the study, knowledge on management of floods has been assessed among NSS volunteers after the structured teaching programme.

The above findings supported by the review of literature a study conducted on the effectiveness of education programme in managing floods. Approximately 1000 youths, attend alternative educational programmes in the United States. For the most part, these students are at high risk for floods. The author explores alternative education programs serving students who display fear and anxiety about floods and discusses research on the impact of floods and the ways of reducing the impacts. After the implementation of educational programmes, there searcher checked the knowledge level of the samples by interview methods. It shows the enhanced level of knowledge among samples[64].

Analyze the effectiveness of structured teaching programme regarding management of floods

Table No.7 shows the pretest mean value for the general aspect of disaster is 1.77 SD 0.93, types and causes mean value is 2.36 SD 1.10, effects of floods mean value is 1.4 SD 0.81 techniques of flood management mean value is 3.26 SD 1.19, Role of NSS volunteers mean value is 2.98 SD is 0.94. Flood management and flood directive mean value is1.08 SD 0.51 In the posttest volunteers have mean value for the general aspect of disaster is 2.90 SD 0.61, types and causes mean value is 3.76 SD 0.75, effects of floods mean value is 2.92 SD 0.79 techniques of flood management mean value is 6.28 SD 1.06. Role of NSS volunteers mean value is 5.76 SD is 1.06. Flood management and flood directive mean value is 1.67 SD 0.51. The t value obtained was 12.033, 14.071, 15.589, 21.357, 22.498, and 9.260.

The overall pretest mean value is 12.91 SD 1.69. The overall post test mean value is 23.29 and SD 2.91. The‘t’ value was 35.729 ($P<0.001$) shows that there is significant increase in the knowledge after the Structured Teaching Programme. From the above results according to the second objectives, the pretest and posttest mean of knowledge on management of floods has been assessed after the structured teaching programme. The paired‘t’ value obtained was 35.729($P<0.001$). It is clearly states that the structured teaching program was effective in improving knowledge among NSS volunteers.

Table No.8 shows effectiveness of Structured Teaching Programme. In general aspects of disasters students gained 28.25%, causes and types of floods 28%, effects of floods 36.5% techniques of flood management 37.75%, role of NSS volunteer 39.72%, and in flood management 29.5% after structured teaching program. Considering overall aspects students gained 34.6 % of more knowledge on management of floods after structured teaching program. 34.6 % knowledge gain is the net benefit of this study which indicates the effectiveness of STP.

The above findings supported by study present effects of a preventive intervention for college students at high risk for floods. There searcher selected 100 college students from various colleges of china. After a pre analysis researcher has given a detailed class about the management of floods. After the1month the knowledge level of the students were checked by the researcher. He found the knowledge level has significantly improved[65].

Associate the knowledge regarding management of floods with selected demographic variables

Table No.10A shows the association between socio demographic variables and the pre-test level of knowledge of NSS volunteers. Based on the fourth

objective, the chisquare test is used to associate the knowledge on management of floods among NSS volunteers and selected demographic variables .The Chisquare value shows that there is no significant association between the age, gender, religion, type of family, staying with, education status of the father and education status of the mother. Table No.10B shows the association between other socio demographic variables and the pre-test level of knowledge of NSS volunteers. Based on the third objective, the chisquare test is used to associate the knowledge on management of floods and selected demographic variables. The Chisquare test value shows that the reisno significant association between the education status of the father, previous knowledge of disasters and education status of the mother. Experience as NSS volunteers and previous knowledge about floods are significantly associated with their pre-test knowledge score. Both groups have higher pretest knowledge.

CONCLUSION

The chapter concluded that, the pretest level of knowledge on management of floods among NSS volunteers was 43.03% and followed by the intervention the posttest knowledge was 77.63%. The overall effectiveness of Structured Teaching Programme was 34.6 %.

Implications of the study

The findings of the study have its implication in nursing education, nursing practice, nursing administration and nursing research.

Nursing education

Educational programme on management of floods is an essential factor to create awareness among nursing students. People are at vulnerable age are more prone to undergo floods and its impacts. NSS volunteers with adequate knowledge can play a vital role in the society to reduce the impact so of floods. Education programme helps the NSS volunteers to identify their roles in society and they got awareness about the management of floods. It may include a part of their curriculum and proper up-to-date knowledge is necessary for the NSS volunteers. The nursing NSS volunteers can play a vital role in managing floods. They can play a huge role in prevention of communicable diseases, first aid measures, referral services, educational services, health assessment, and so on.

Nursing practice

An implication for nursing practice derived from the study is to improve the knowledge on management of floods among selected nursing students, those are NSS volunteers. Nursing personnel have the abundant opportunity to manage the floods and its impacts. Nurses, who are trained and educated about the first aid against floods, can provide the best nursing care to needy, They also can prevent, control the communicable diseases. A nursing NSS volunteer can play an active role in hospital and community. The necessary education and training is too necessary to play the roles in various settings.

Nursing administration

Nursing administrators should take interest in motivating the nursing personnel to improve their educational status by updating their knowledge by conducting education programme for the nursing students and NSS volunteers to improve their knowledge. It helps them to function properly in floods situations. The update knowledge and training is too necessary to function effectively.

Nursing research

The findings of the present study is helpful for the nursing professional and nursing students to conduct further studies to find out the effectiveness of various education and other preventive programme on the management of floods.

SUMMARY

This chapter deals with the summary of the study and its major findings along with implications and recommendations. The present study was conducted to assess the effectiveness of Structured Teaching Programme regarding management of floods among NSS volunteers of Rajeev College of nursing Hassan.

RESULTS

- The overall pretest percentage of knowledge was 43.03%.
- The overall post test percentage of knowledge was77.63%.

- The overall mean of the pre test score was 12.91 and SD 1.69. After the intervention the overall mean of the post test score was 23.29 and SD 2.39. The't' value was 35.729($p<0.001$) shows that the structured teaching programme was effective in improving knowledge among NSS volunteers of Rajeev College of Nursing.
- The percentage of effectiveness of STP was 34.6%.
- The $\chi 2$ value shows that the reisno significance association between the age, gender, religion, staying, type of family, education status of the father and education status of the mother.
- The $\chi 2$ value shows that the reisno significant association in the knowledge with previous knowledge of floods, and experience as NSS volunteer are having high knowledge than others.

TableNo.1: Scoring key for the knowledge

S.No	Score	Level of knowledge
1	<50%	Inadequate
2	50-75%	Moderately adequate
3	>75%	Adequate

Table No.2A: Demographic Profile N=100

S.No	Demographic variables		No. of samples (n)	Percentage%
1	Age	Less than20years	45	45.0
		More than 20years	55	55.0
2	Gender	Male	12	12.0
		Female	88	88.0
3	Type of family	Nuclear	91	91.0
		Joint	9	9.0
4	Religion	Hindu	49	49.0
		Muslim	4	4 0
		Christian	47	47.0
5	Members with whom presently staying	Parents	29	29.0
		Relatives	6	6.0
		Relatives	6	6.0
		Hostel mates	65	65.0

Table No.2B: Demographic Profile N=100

S.No	Demographic variables		No. of samples (n)	Percentage%
1	Experience as NSS volunteer	One year	20	20.0
		Two year	20	20.0
		Three and above years	60	60.0
2	Educational status of father	No formal education	8	8.0
		Primary	23	23.0
		Secondary	39	39.0
		Higher secondary	30	30.0
3	Educational status of mother	No formal education	4	4.0
		Primary	20	20.0
		Secondary	28	28.0
		Higher secondary	48	48.0
4	Previous knowledge about disaster management	Yes	78	78.0
		No	22	22.0
5	Previous knowledge about floods	Yes	10	10.0
		No	90	90.0

Table No.3: Pretest knowledge score on different aspects of management of floods

S.No	Area of Knowledge	No of items	Pre-test Knowledge		
			Mean score	SD	Mean%
1	General aspects of disasters	4	1.77	0.93	44.25
2	Types and causes of floods	5	2.36	1.10	47.2
3	Effects of floods	4	1.46	0.81	36.5
4	Techniques of flood Management	8	3.26	1.19	40.75
5	Role of NSS volunteer	7	2.98	0.94	42.57
6	Flood management and Flood directive	2	1.08	0.51	54
7	Overall pre-test knowledge	30	12.91	1.69	43.03

Table No.4: Distribution of subjects according to pretest level of knowledge N=100

S.No	Level of Knowledge	Frequency	Percentage
1	Moderately adequate Knowledge	20	20.0
2	Inadequate Knowledge	80	80.0
3	Total	100	100.0

Table No.5: Posttest knowledge score on different aspects of management of floods N=100

S.No	Area of Knowledge	No of items	Post-test Knowledge		
			Mean score	SD	Mean%
1	General aspects of disasters	4	2.90	0.61	72.5
2	Types and causes of floods	5	3.76	0.75	75.2
3	Effects of floods	4	2.92	0.79	73
4	Techniques of flood Management	8	6.28	1.06	78.5
5	Role of NSS volunteer	7	5.76	1.06	82.29
6	Flood management and Flood directive	2	1.67	0.51	83.5
7	Overall post-test knowledge	30	23.29	2.39	77.63

Table No.6: Distribution of subjects according to post-test level of knowledge N=100

S.No	Level of Knowledge	Frequency	Percentage
1	Adequate Knowledge	62	62.0
2	Moderately adequate Knowledge	38	38.0
3	Total	100	100.0

Table No.7: Comparison of average knowledge score on management of floods before and after administration of STP

S.No	Area of Knowledge	Pre-test		Post-test		Student's paired t-test
		Mean	SD	Mean	SD	
1	General aspects of disasters	1.77	0.93	2.90	0.61	t=12.033
2	Types and causes of floods	2.36	1.10	3.76	0.75	t=14.071
3	Effects of floods	1.46	0.81	2.92	0.79	t=15.589
4	Techniques of flood Management	3.26	1.19	6.28	1.06	t=21.357
5	Role of NSS volunteer	2.98	0.94	5.76	1.06	t=22.498
6	Flood management and Flood directive	1.08	0.51	1.67	0.51	t=9.260

HS, P-0.000, df=99

Table No.8: Determination of overall mean knowledge score before and after S.T.P N=100

S.No	Knowledge	No of NSS volunteers	Pre-test	Post-test	Mean of differences	Paired t- test
1	Overall Knowledge score	100	12.91	23.29	10.38 (SD=2.91)	35.729

HS, p-0.000, DF-99

Table No.9: Comparison of average knowledge score percentage on management of floods before and after administration of S.T.P N=100

S.No	Area of Knowledge	Pre-test%	Post-test%	Enhancement%
1	General aspects of disasters	44.25	72.5	28.25
2	Types and causes of floods	47.2	75.2	28
3	Effects of floods	36.5	73	36.5
4	Techniques of flood Management	40.75	78.5	37.75
5	Role of NSS volunteer	42.57	82.29	39.72
6	Flood management and Flood directive	54	83.5	29.5
7	OVERALL	43.03	77.63	34.6

HS, P0.00,

Table No.10A: Association between pretest level of knowledge and their demographic variables

S.No	Demographic variables		No. of students (n)	Level of knowledge		Chi-square test
				Moderately adequate	Inadequate	
1	Age	Less than 20years	45	10	35	Chi square test=0. 253 p=0.615
		More than 20years	55	10	45	
2	Gender	Male	12	2	10	Chi square test=0. 095
		Female	88	18	70	
3	Type of family	Nuclear	91	19	72	Chi square test=0. 488
		Joint	9	1	8	
4	Religion	Hindu	49	8	41	Chi square test=2.711 p=0.258
		Muslim	4	2	2	
		Christian	47	10	37	
5	Members with whom Presently staying	Parents	29	6	23	Chi square test=1.605 p=0.448
		Relatives	6	0	6	
		Hostel mates	65	14	51	

Table No.10B: Association between Pre Test Level of knowledge and Their Demographic Variables

S.No	Demographic variables		No. of students (n)	Level of knowledge		Chi-square test
				Moderately adequate	Inadequate	
1	Experience as NSS volunteer	One year	20	2	18	Chi square test=6.667 p=0.036
		Two year	20	8	12	
		Three and above years	60	10	50	
2	Educational Status of father	No formal education	8	2	6	Chi square test=1.832 p=0.608
		Primary	23	4	19	
		Secondary	39	10	29	
		Higher secondary	30	4	26	
3	Educational status of mother	No formal education	4	2	2	Chi square test=2.69 p=0.454
		Primary	20	4	16	
		Secondary	28	6	22	
		Higher secondary	48	8	40	
4	Previous Knowledge about disaster	Yes	78	17	61	Chi square test=0. 714 p=0.398
		No	22	3	19	
5	Previous Knowledge about floods	Yes	10	6	4	Chi square test=11.111 p=0.00085
		No	90	14	76	

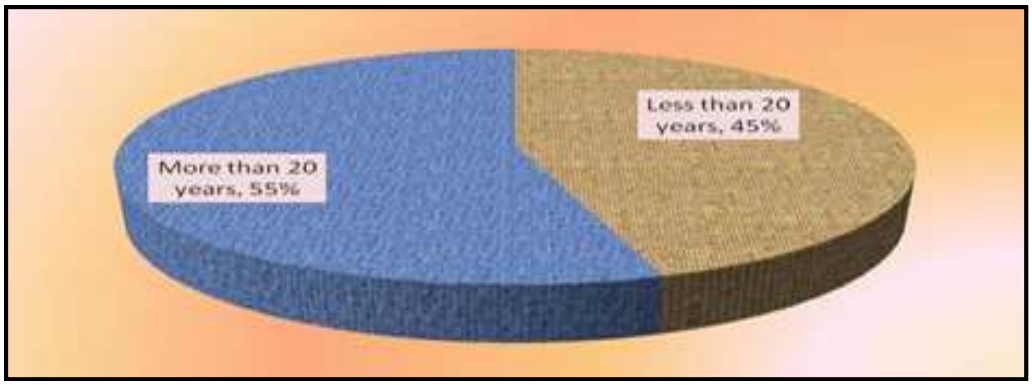

Figure No.1: Distribution of the subjects according to age

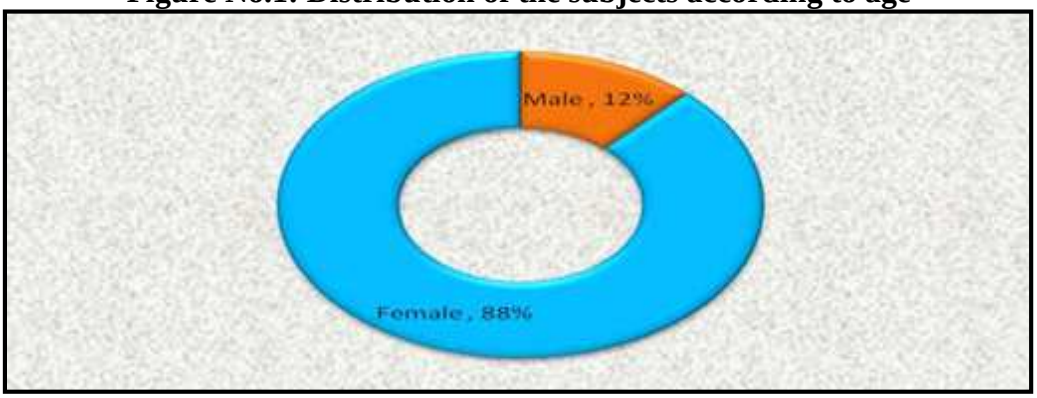

Figure No.2: Distribution of the subjects according to gender

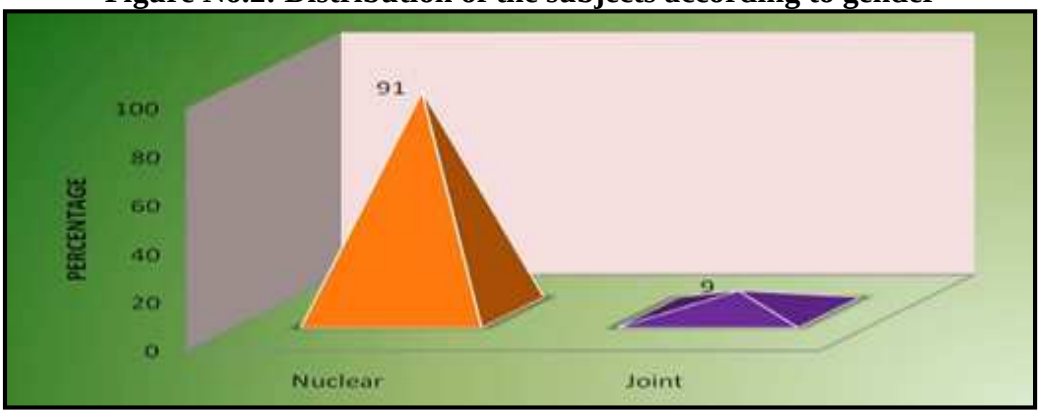

Figure No.3: Distribution of the subjects according to type of family

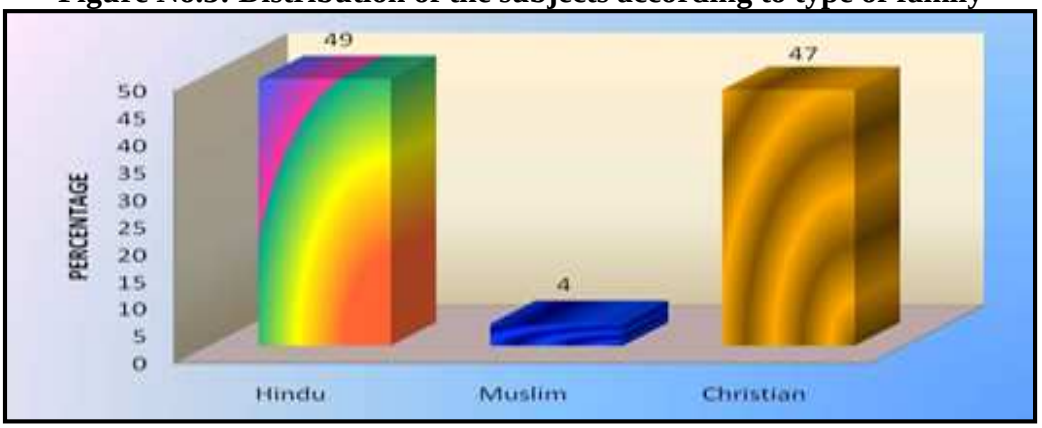

Figure No.4: Distribution of the subjects according to religion

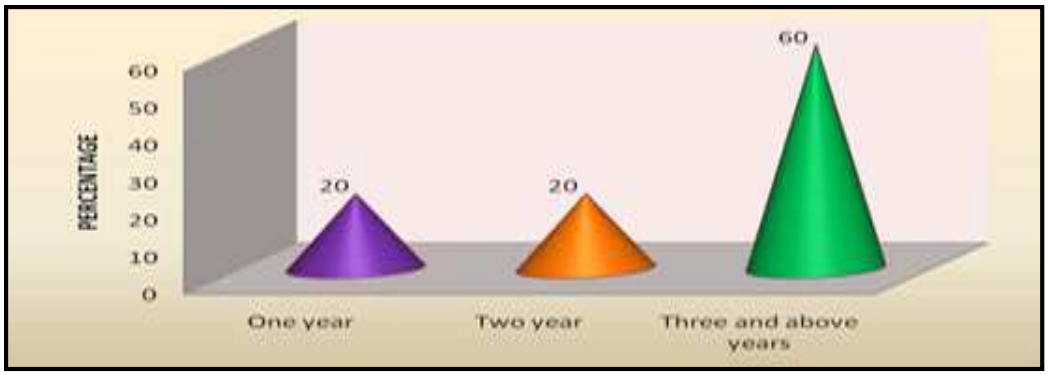

Figure No.5: Distribution of the subjects according to experience as NSS volunteer

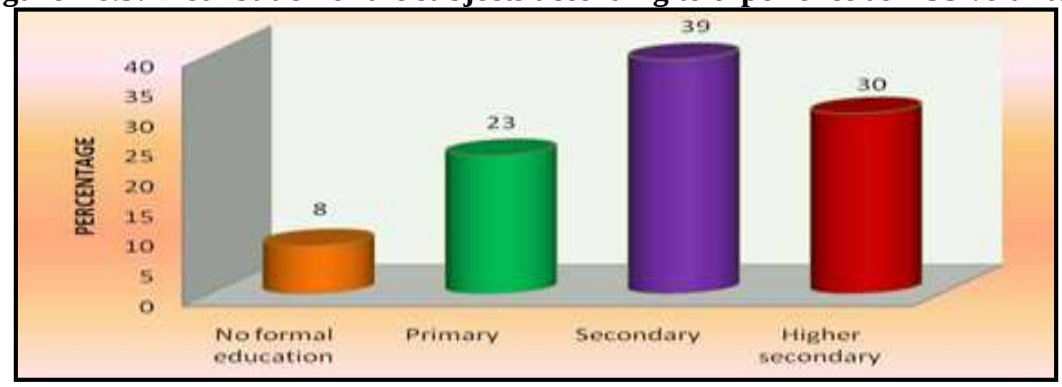

Figure No.6: Distribution of the subjects according to educational status of father

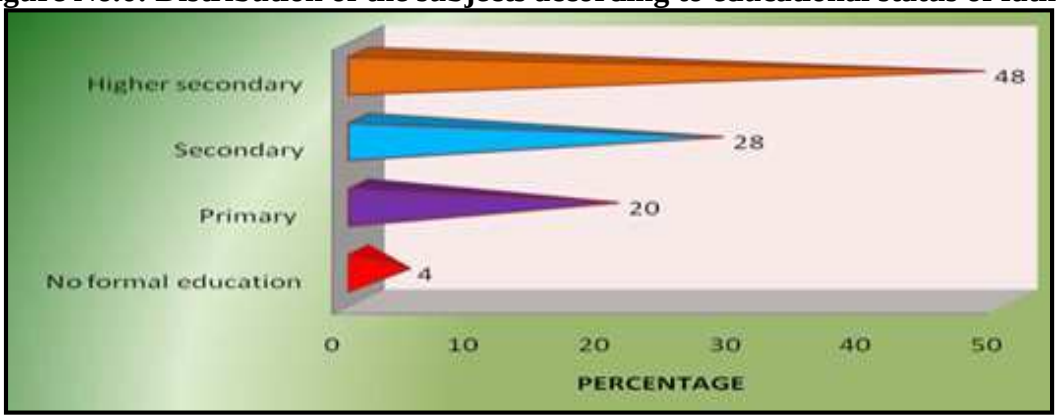

Figure No.7: Distribution of the subjects according to educational status of mother

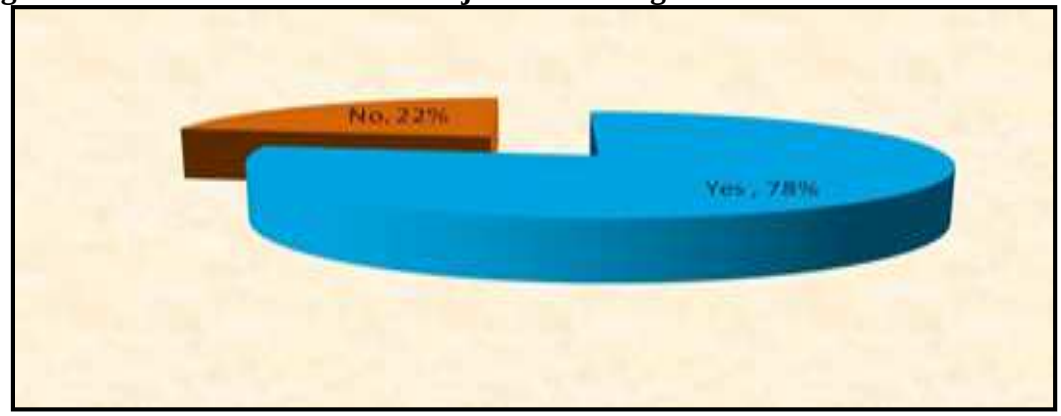

Figure No.8: Distribution of the subjects according to previous knowledge about disaster management

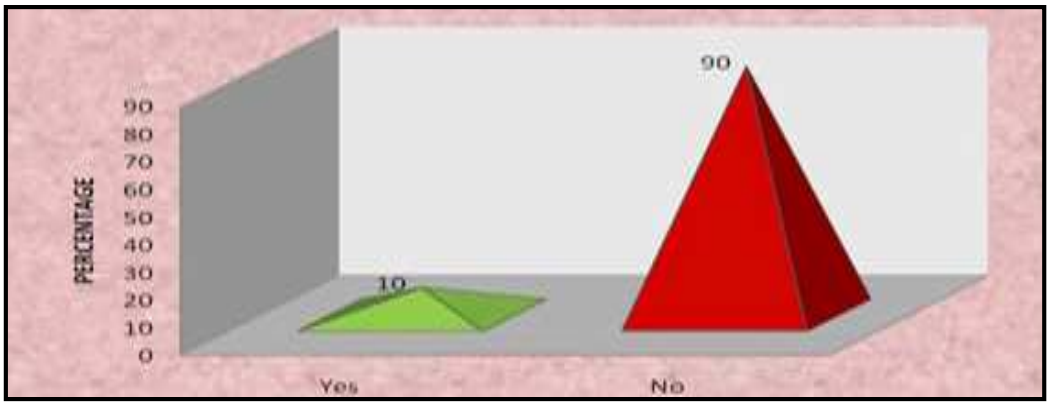

Figure No.9: Distribution of the subjects according to previous knowledge about flood

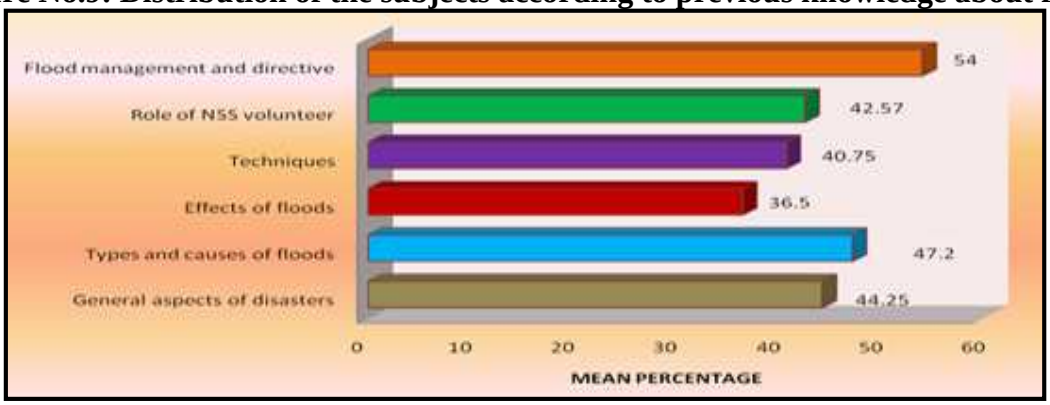

Figure No.10: Pretest knowledge score on different aspects of management of floods

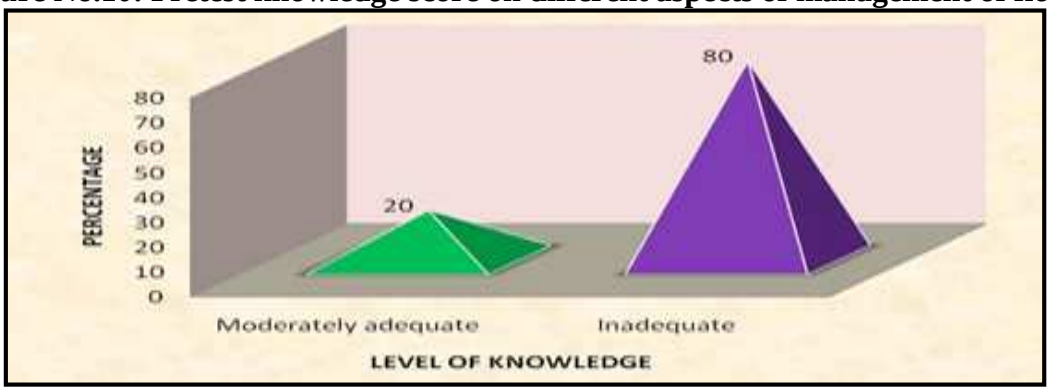

Figure No.11: Distribution of subjects according to Pre-test Level of Knowledge

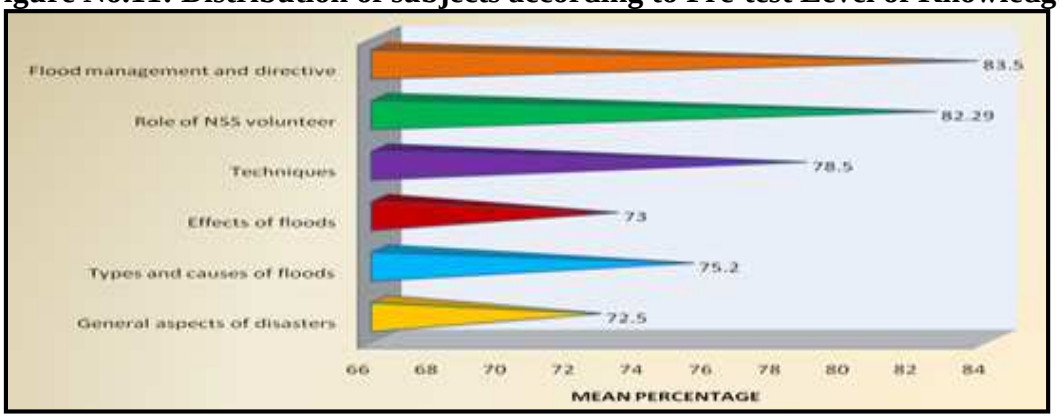

Figure No.12: Posttest knowledge score on different aspects of management of floods

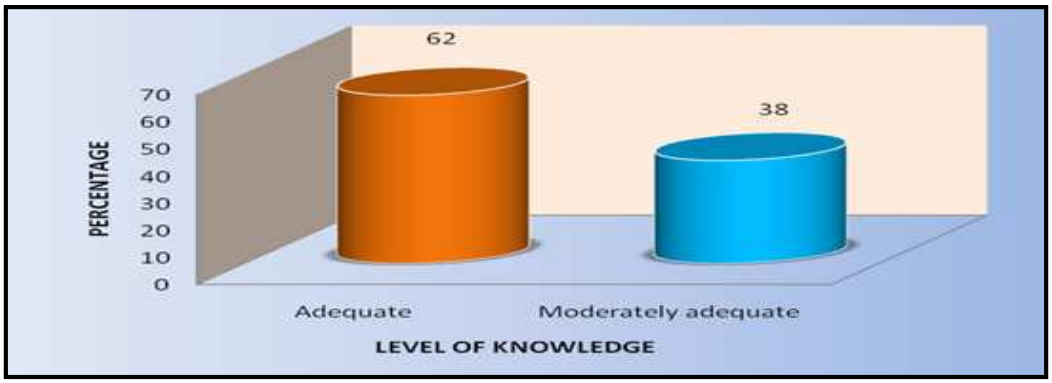

Figure No.13: Distribution of subjects according to post-test level of knowledge

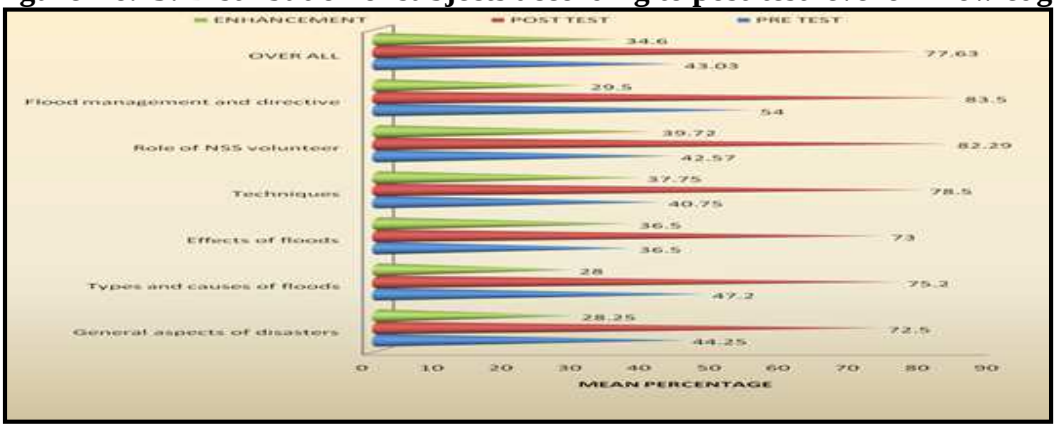

Figure No.14: Comparison of average knowledge score percentage on management of floods before and after administration of STP

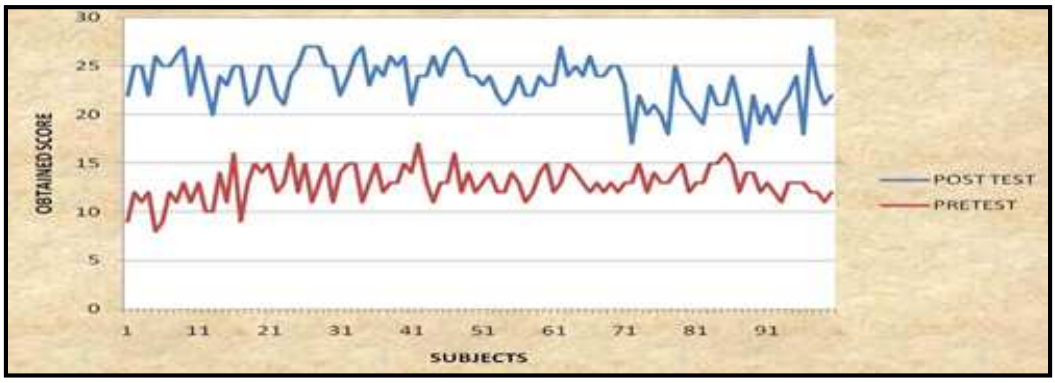

Figure No.15: Line diagram showing comparison of each subject pre-test and post- test knowledge score

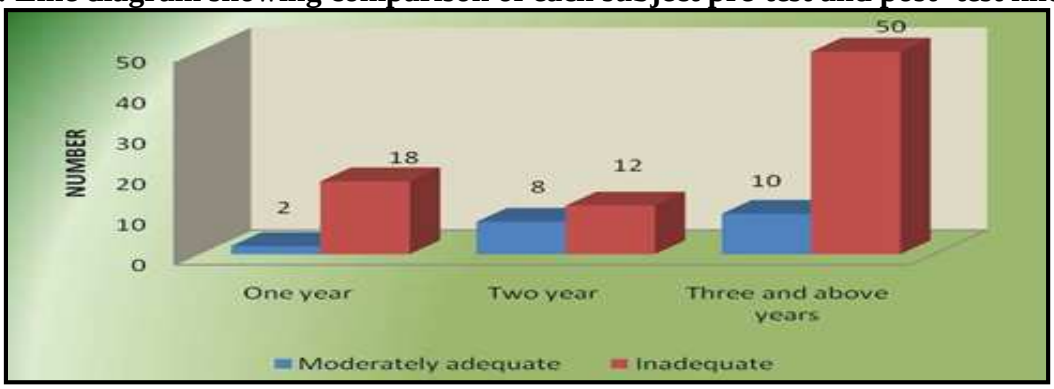

Figure No.16: Association between pretest level of Knowledge and Experience as NSS volunteer

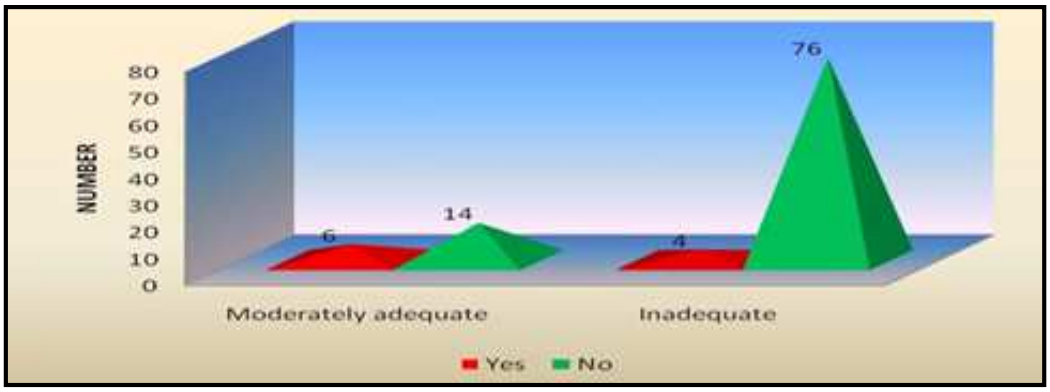

Figure No.17: Association between pretest level of Knowledge and Previous knowledge about floods

CONCLUSION

The findings of the study recommended for the further interventional approaches to improve the knowledge on management of floods among NSS volunteers of various colleges. Education about management of floods will promote the confidence of NSS volunteers to manage the disasters especially floods. The present study proved the necessity of the education program in management of floods.

RECOMMENDATIONS

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

A similar study can be replicated on a large sample to generalize the findings, A similar study can be conducted other degree colleges, Comparative study can be conducted between NSS units of various colleges.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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