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A study to assess the knowledge and attitude of secondary school teachers regarding first aid management of selected emergencies among school children, at selected secondary schools at Ghataprabha, in view to prepare information booklet

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ABSTRACT

“There is nothing more precious to a parent than a child and nothing more important to our future than the safety of our children.”

-Bill Clinton

First aid and emergency care should be provided by the teachers in situations like accidents, vomiting, convulsions, injuries etc. The teacher should have adequate training regarding first aid and emergency measures since teachers act as a pivot in the school health services. The objectives of the study were: To assess the knowledge of secondary school teachers related to First aid management of secondary school children, in selected emergencies, To identify the attitude of secondary school teachers regarding selected emergencies and First aid management, in secondary school children, To find the association between knowledge and of secondary school teachers with selected demographic variables, To find out the correlation between knowledge and attitude of secondary school teachers regarding selected emergencies and First aid management, in secondary school children, and To prepare Information booklet based on selected First aid emergencies management for secondary school teachers. A descriptive approach with descriptive correlation design was used for 50 secondary school teachers drawn through purposive sampling technique in a selected high school at Ghataprabha. The conceptual framework for the study was developed from Orem's self care theory. Incorporated with a modified model. The hypotheses formulated were that there will be an association between knowledge and selected demographic variables. The content validity and reliability of the tools were established. The pilot study was conducted using a structured knowledge questionnaire and likert five point scale. Each participant observation of the attitudes of teachers with the help of five points likert scale, a questionnaire was administered which was collected on the same day. An average of 4-5 observation was done per day following which the knowledge questionnaire was administered to the participant. The collected data were analyzed using descriptive and inferential statistics. The study findings revealed that Majority (48 %) of teachers had poor knowledge and (36%) of teachers had average knowledge and only (16 %) teachers had good knowledge. Age is associated with the level of knowledge of school teachers ($\chi^2 = 14.92 P > 0.05$.) and Experience is associated with the level of knowledge of school teachers ($\chi^2 = 12.99 P > 0.05$). It was also found that there is a positive correlation between knowledge and attitude of school teachers regarding first aid management of emergencies. The 'r' value computed was 0.72. The majority (48 %) of teachers had poor knowledge of first and emergency management of selected emergencies. and (36%) of teachers had average knowledge and only (16 %) teachers had good knowledge. Majority of 15 female respondents have poor knowledge of First aid management of selected emergencies; whereas 9 Male has poor knowledge of first aid management. Only Six Male and two female have good knowledge. Age is associated with the level of knowledge of school teachers ($\chi^2 = 14.92 P > 0.05$.) and Experience is associated with the level of knowledge of school teachers ($\chi^2 = 12.99 P > 0.05$).

Keywords— First aid management, Emergencies, Knowledge, Attitude, Secondary school teachers

1. INTRODUCTION

“Timely first aid saves more lives than heroic surgeries!!!”

-Dr. Dabangshu Dam

Knowledge of first aid, which constitutes life saving treatments for injuries or unexpected illness, is important for every individual at every age. First aid and basic life support are so important that teaching basic First aid should be compulsory in all schools.

“The children of today are the citizens of tomorrow.” A child’s world centers on the home, school and the local community every year over 5 million children of age group 0 to 14 are dying mainly in the developing countries. About 3 million children are dying of unintentional injuries (accidents) resulting from domestic accidents, school accidents, from falls, fire, drowning and poisoning. Accidents are a sudden cause of death or emergency in children. [1]

The goal of First aid is to save life prevents an injury or illness from worsening or to help a speedy recovery. First aid and basic life support are so important that teaching basic first aid should be compulsory in all school. As in the school campus majority of people including teaching faculty are available during school timing and children while playing or any other circumstances are prone to have minor accidents. So it is important for a school teacher to know First aid and how to utilize it in a proper manner without any delay as a First aid save person’s life so it is always better as it is said that “Preparedness is a key element of First aid”. [2]

2. NEED FOR STUDY

“There is nothing more precious to a parent than a child and nothing more important to our future than the safety of our children.”

-Bill Clinton

The teachers act as a pivot in school health services. They are actively involved in both objectives of school health programme and they impart health education in the academic sense, play a major role in influencing the daily behavior of their student and intervene directly and indirectly in minor and major health problem. Since school teacher is an influential member of the community they create a short bridge between student parents and professional medical services. The teachers are also involved in the health of school children. They act as the first point of detection and referral. [6]

2.1 The purpose of first aid is

- To save life
- Prevent further injury
- To minimize or prevent infection.

The knowledge of first aid when properly applied can mean the difference between temporary or permanent injury, rapid recovery or long term disability and difference between life and death. [11]

3. OBJECTIVES

3.1 Objectives of the study

- To assess the knowledge of secondary school teachers related to First aid management of secondary school children, in selected emergencies.
- To identify the attitude of secondary school teachers regarding selected emergencies and First aid management, in secondary school children.
- To find the association between knowledge and of secondary school teachers with selected demographic variables.
- To find out the correlation between knowledge and attitude of secondary school teachers regarding selected emergencies and First aid management, in secondary school children.
- To prepare an Information booklet based on selected First aid emergencies management for secondary school teachers.

4. METHODOLOGY

4.1 Research approach

The study undertaken is descriptive in nature, which is non-experimental and further, it describes knowledge and attitude of a secondary school teacher’s regarding first aid management of selected emergencies among school children as assessed by a structured questionnaire and Likert scale specifically designed for the study.

4.2 Research design

The research design is the conceptual structure within which research is conducted. It constitutes the blue print for the collection, measurement and analysis of data. Development of tool and planned to assess the knowledge and attitude by structured questionnaire and Likerts scale.

The following steps were taken before the development of the tool:

- Review of literature in the areas related to selected emergencies and first aid management. Knowledge and attitude of teachers regarding first aid management were taken.
- The opinion of different experts in the nursing field was taken.
- Personal experience of the investigator also taken into consideration.

4.3 Variables

Variables are the qualities, properties or characteristics of persons, things or situation that change or vary. Two types of variables are used in this study they are:

- Dependent variables
- Extraneous variables

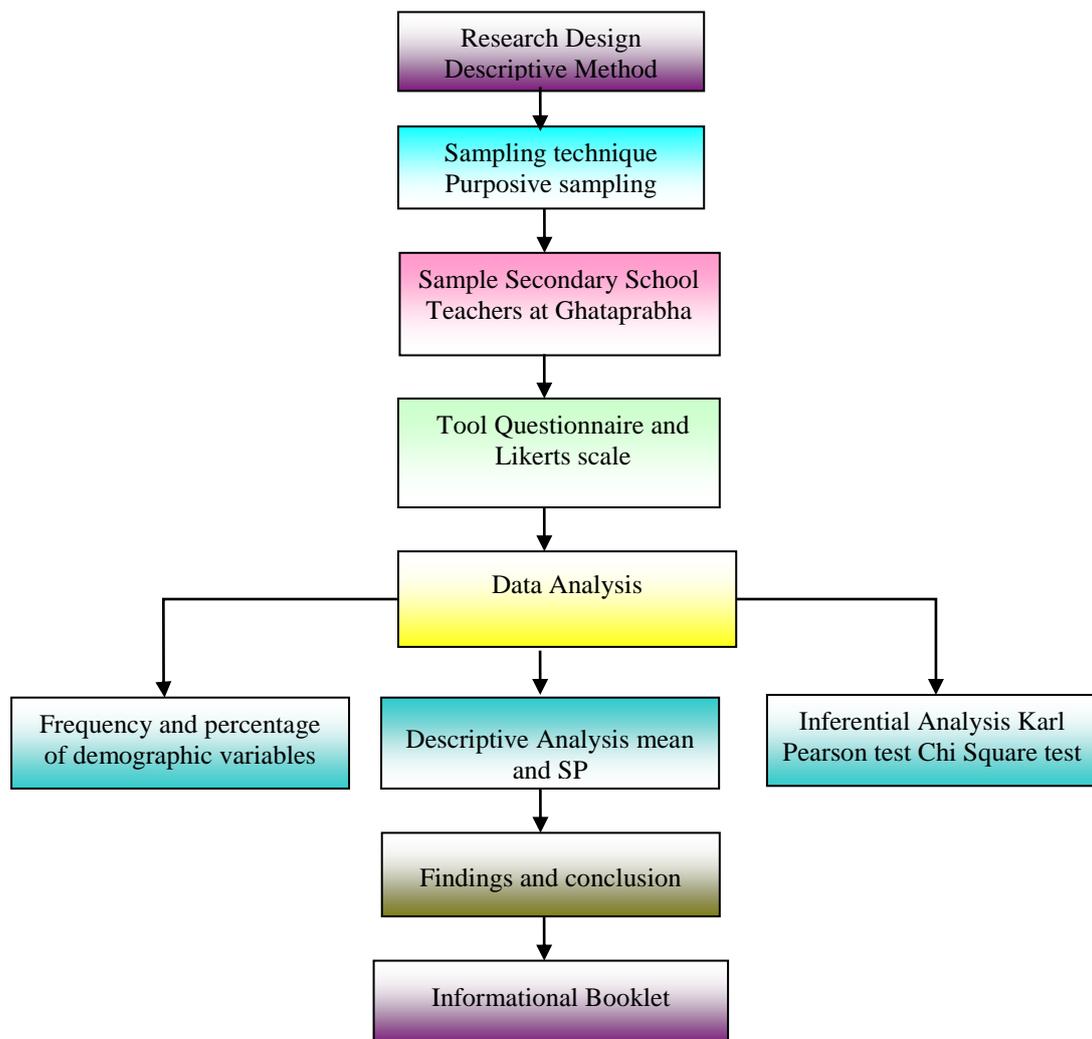


Fig. 1: Research design

4.3.1 Dependent variables: It is the outcome variable of interest that is hypothesized to depend on or be caused by another variable that is the independent variable. [61].

4.3.2 Extraneous variables: A variable that confounds the relationship between the independent and dependent variable and that needs to be controlled either in the research design or through the statistical procedure. [61]

In the present study, dependent variable knowledge and attitude of secondary school teachers regarding first aid management among school children are measured by structured questionnaires and Likerts scale. The extraneous variables are an age in year, general education, gender, and teaching experiences were collected in sociodemo graphic data.

4.4 Setting of the study

The study was conducted at secondary schools at Ghataprabha. Which are reputed and well equipped with modern facility? The researcher selected this setting for the following reasons.

- Availability of the samples
- Familiarity with settings
- Economic feasibility for conducting the study

4.5 Population, sample and sampling techniques

4.5.1 Population: Population includes all possible elements that could be included in research [61]. In this study, the population was secondary school teacher from oriental English Medium Schools and others schools at Ghataprabha. The total population in the study includes 80 teachers.

4.5.2 Sample: Sample is a small portion of the population selected for observation and analysis [61]. The sample for the present study composed 50 teachers.

4.5.3 Sampling technique: Sampling technique is the procedure, which the researcher adopts in selecting the samples for the study [61]. To purposive sampling, subjects were selected from the sampling frame. According to the sampling criteria. Purpose sampling technique was adopted and 50 teachers were selected.

4.6 Data collection technique

Since the purpose of the study was to assess the knowledge and attitude of secondary school teacher among first aid management. Self administered knowledge questionnaire and Likerts scale were found to be appropriate.

4.6.1 Data collection Process: The data collection process involves the precise, systematic gathering of information relevant to the research purpose, questions, or hypothesis of a study [68].

The data collection period extended from 4/4/2011 to 30/5/2011. The teachers were taken by purposive sampling. After the participant observation of the attitudes of teachers with the help of five points likert scale, the questionnaire was administered which was collected on the same day. An average of 4-5 observation was done per day following which the knowledge questionnaire was administered to the participant. The data collection process was terminated after thanking participants for their participation and co-operation.

4.6.2 Plan data analysis: Analysis is the systematic organization and synthesis of research data and testing of the research hypothesis using the data [69].

It was decided to analyze the data by both descriptive and inferential statistics on the basis of objectives and hypothesis of the study. Master data sheet (Annexure XIII) was be prepared by an investigator to analyze the data. The data will be analyzed in terms of descriptive (frequency and percentage) and inferential statistics (Chi-square and Karl Pearson co-relation)

The data will be presented under the following headings.

SECTION - I: Description of sample characteristics

Baseline data containing sample characteristics would be analyzed using frequency and percentage.

SECTION - II: Level of knowledge of first aid management

Level of knowledge regarding first aid management would be analyzed using frequency, percentage and mean percentage.

SECTION - III: Level of attitude

Level of attitudes towards first aid management would be analyzed using frequency, percentage and mean percentage.

SECTION - IV: Association between the level of knowledge and selected demographic Proforma

It would be analyzed by using the Chi-Square method.

SECTION - V: Correlation between knowledge and attitude toward first aid management

It would be analyzed by using Karl Pearson correlation.

5. RESULTS

5.1 Age distribution of secondary school teachers

The majority (32 %) of teachers were within the age group of 31-40 years, 26 % of teachers were within 21 -30 years. 24% of teachers were within 41-50 years and only 18 % of teachers were in the age group of 51 and above.

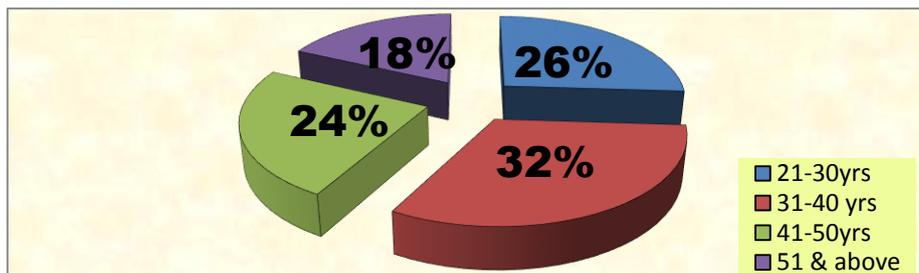


Fig. 2: Pie diagram showing the age distribution of school teachers

5.2 Distribution of school teachers according to their gender

The majority (58 %) of school teachers were Female and (42 %) of school teachers were Male.

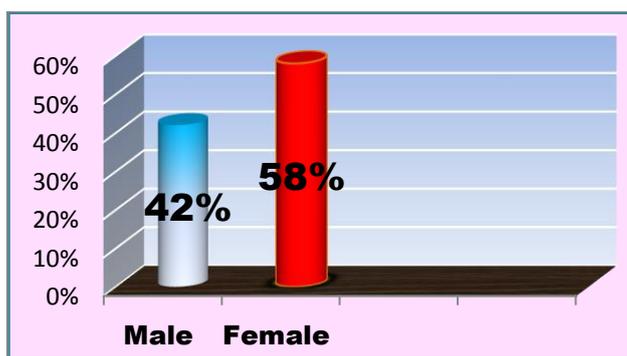


Fig. 3: Cylindrical diagram showing the gender of teachers

5.3 Distributions of school teachers according to educational qualification

The majority (38%) of school teachers educational qualification were D.Ed. and an equal number (22%) of B.Ed and M.Ed teachers. 8 % were from B.P.Ed, and 10 % from others qualification.

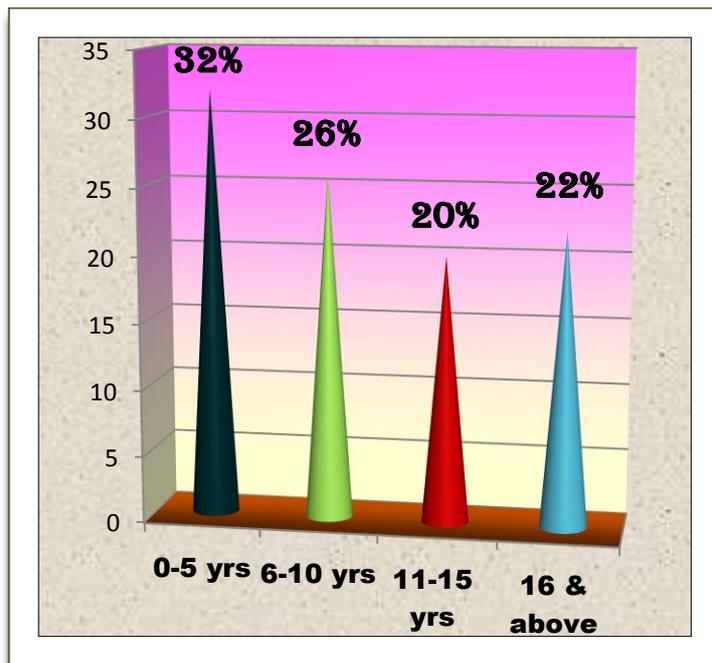


Fig. 4: Cone diagram showing number of experience of teachers

SECTION II: Level of knowledge on First aid management

The majority (48 %) of teachers had poor knowledge and (36%) of teachers had average knowledge and only (16 %) teachers had good knowledge.

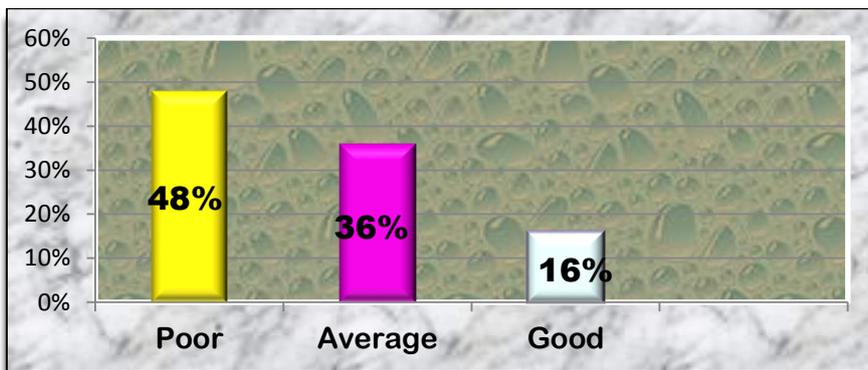


Fig. 5: Bar diagram indicating the level of knowledge of school teachers regarding first aid management

Level of knowledge compared to the experience of school teachers

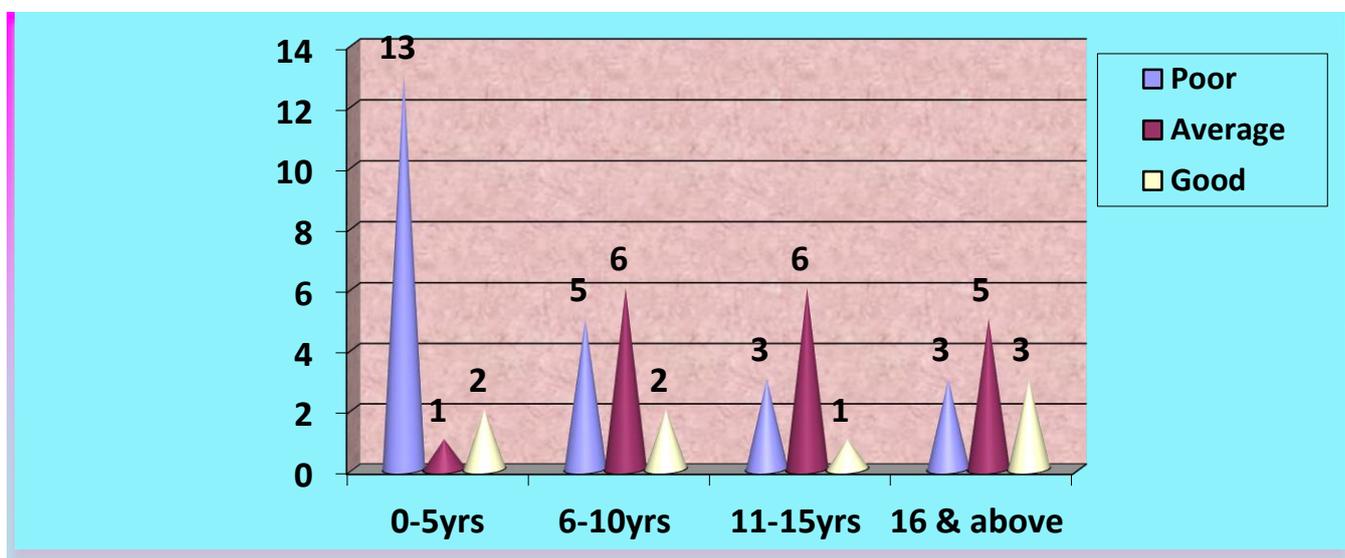


Fig. 6: Cone diagram showing Level of knowledge compared to the experience of a school teachers

Data presented in the figure shows that the respondents in 0-5 yrs have majority of poor knowledge compare to another group of experience of years. In all years of experience have average knowledge of first aid management.

Area wise distribution of mean percentage knowledge:

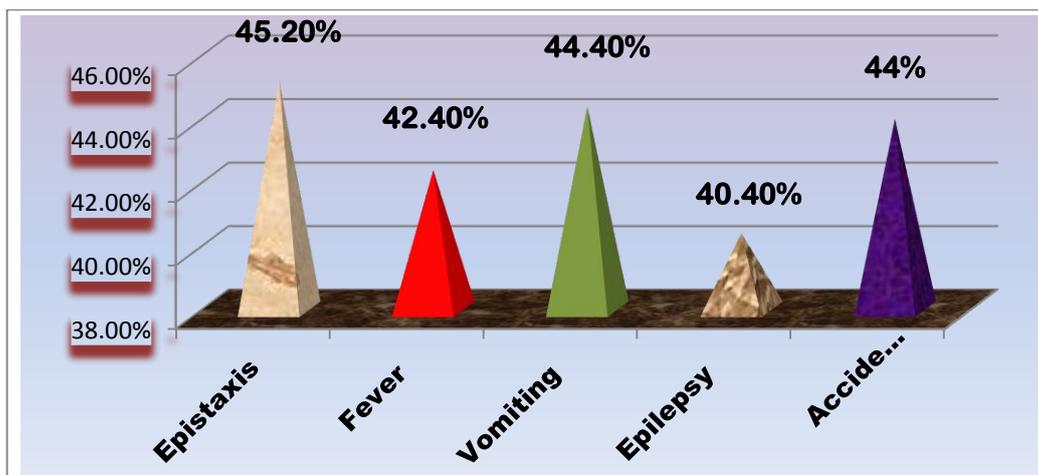


Fig. 7: pyramidal diagram showing Area wise distribution of mean percentage knowledge

Data presented in the figure shows that the school teachers exhibited a high knowledge score (45.20%) in the area of first aid management of Epistaxis compare to another area.

SECTION IV: ASSOCIATION BETWEEN KNOWLEDGE AND SELECTED DEMOGRAPHIC VARIABLES.

This section deals with the analysis of the association between the level of knowledge of secondary school teachers regarding first aid management of selected emergencies among school children and the age of teachers. Gender and level of experience. Using a chi-square test.

In order to find out the association between levels of knowledge of secondary school teachers regarding first aid management of selected emergencies among school children and the age of teachers. Gender and level of experience.

Association between the level of knowledge and year of teachers

The following null hypothesis was formulated. And alternative hypothesis

Ho: There will be no association between the level of knowledge of secondary school teachers and the age of teachers.

H1: There will be an association between the level of knowledge of secondary school teachers and the age of teachers.

The chi- square test was computed in order to determine the significance of the association between levels of knowledge of secondary school teachers regarding first aid management of selected emergencies among school children and the age of teachers.

Table 7: Association between the level of knowledge of secondary school teachers and the age of teachers

Selected variable	Knowledge			Chi-square	d. f.
	Poor	average	Good		
Age in yrs					
21-30	10	1	2	14.76	6
31-40	9	4	3		
41-50	2	9	1		
51 and above	3	4	2		

$$\chi^2 = 12.59 \text{ P} > 0.05$$

Referring χ^2 tables for 6 df. $\chi^2 = 0.05, 12.59$; calculated χ^2 ie. Higher than $\chi^2_{0.05}$ hence the null hypothesis is rejected and the alternative H1 hypothesis is accepted. From table No 7 it is seen that the calculated chi. Square value is $\chi^2 = 14.92 \text{ P} > 0.05$ is more than the table value. This indicates age is associated with the level of knowledge of school teachers.

SECTION V: correlation between knowledge and attitude of secondary school teacher regarding first aid management of emergencies

This section deals with the analysis of co-relation between the level of knowledge and attitude of secondary school teacher regarding first aid management of emergencies.

Table 10: Correlation between knowledge and attitude of school teachers regarding first aid management of emergencies

Selected variables	Co-efficient of correlation	d. f.
Level of knowledge and Attitude	0.72	48

The findings in table No. 10 show that there is a correlation between knowledge. The attitude of school teachers regarding first aid management of emergencies. The 'r' value computed was 0.72 hence, it is interpreted that there is a positive correlation between knowledge and attitude of school teachers regarding first aid management of emergencies.

6. DISCUSSION

Major findings of the study

6.1 Section I: Sample characteristics:

- Majority (58%) female school teachers and 42% were male teachers.
- Main age group of school teachers (32%) was age group 31-40 yrs.
- 38% of school teachers were from D.Ed. and only 8% were from physical education.
- The majority (32%) were having 0-5 yrs. of experience in teaching language subject.
- 32% were having information about first aid management were from printed media.

6.2 Section II: Level of knowledge regarding first aid management

- Out of 50 Secondary school teachers majority, 24 school teachers (48%) had poor knowledge regarding first aid management of emergencies 18 teachers (36%) had an average knowledge. Whereas only 8 teachers (16%) had good knowledge regarding first aid management of selected emergencies.
- In comparison to demographic characteristics, 18 female respondents have poor knowledge of first aid management of selected emergencies. Whereas 6 male has poor knowledge of first aid management . Eight female and ten male have average knowledge among First aid and emergency management. Comparative Five Male and 3 Female have good knowledge among first aid and emergencies management of selected emergencies.
- The majority (32%) of school teachers are from 31-40 yrs. of age out of that 18% had poor knowledge 8% had an average knowledge and only 6% had a good knowledge about first aid and emergency management
- In area wise distribution of knowledge score of school teachers, it was observed that 45.20% had knowledge in first aid management and only 40.40% had knowledge about first aid management of epilepsy. In an area of the knowledge school teachers had an average knowledge.

6.3 Section III: Level of attitude toward First aid management of selected Emergencies

- Out of 50 school teachers, only 7(14%) of school teachers have a positive attitude. 15(30%) had an average attitude and majority 28(56%) had a poor attitude toward First aid management of selected Emergencies.
- In comparison to the demographic charlatanic majority of Female (40%) have a poor attitude toward first aid management of selected Emergencies whereas only 18% Male had a poor attitude. 8% of Male had good attitude whereas only 6% of Female had a good attitude toward first aid management of selected Emergencies.
- In area, wise distribution of attitude 34.85% of General thinking 32.26% had feeling and only 31.60% had believed towards first aid management of selected Emergencies among school children.

7. CONCLUSION

The knowledge of first aid and emergency management is essential for secondary school teacher since teachers spend most of their time with children, teacher's knowledge of what action to take in time of minor or major injuries is crucial to student's safety first Aid training is a mandatory requirement for employee in the work place the fact that teachers are surrounded by children for a significant amount of time, some teachers may actually find themselves in a situation where emergently intervention is required proper reaction to injuries could mean saving a child's life [43].

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

- The majority (58%) of the female school teachers and 42% were male teachers.
- Main age group of school teachers (32%) belonged to group 31-40 yrs.
- 38% of school teachers were from D.Ed. and only 8% were from physical education.
- The majority (32%) were having 0-5 yrs. of experience in teaching.
- 32% of teachers were teaching language subject.
- Majority 34% were having information about first aid management were from printed media.
- Out of 50 school teachers, 48% of teachers had poor knowledge 36% had average knowledge and only 16% of school teachers had good knowledge.

In comparison to demographic charlatanic majority female 18 respondents had poor knowledge where as only 6 Male had poor knowledge where as only,

- Female respondent had good knowledge regarding first aid management of the emergency.
- Out of 50 school teachers, 20 respondent of Female are having a poor attitude where as 9 Respondent of Male had a poor attitude.
- 8% of the male had a good attitude toward first aid management. Whereas only 6% of the male had a good attitude toward first aid management of selected Emergencies.

7.1 Implications and recommendations

The findings of the study have the following implications in the area of Nursing practice, Nursing Administration, Nursing Education and Nursing Research.

7.1.1 Nursing education

- Nurse educator has to pay more attention to the training of the nursing students regarding first aid and emergencies management among school children. So that they can impart appropriate knowledge to school teachers.
- More emphasis has to be placed in the Curriculum on common first aid and Emergencies occurring in a school.
- Student Nurses can be motivated to organized school health programmes to enhance the knowledge and attitude of school teachers toward first aid and emergency management.
- Encourage the students Nurse to participate actively in health awareness in school health and awareness campaign.

7.1.2 Nursing practice

- Nurses must educate the school teachers on common first aid and emergencies management among school children.
- Nurses have to develop an Information booklet to educate school teachers.
- Nurses also conduct a workshop, a seminar on first aid and emergency management among school children.
- Student nurse can be posted in school health clinics to obtain skills in meeting the needs of the client by providing care and management.

7.1.3 Nursing research

- A similar study can be conducted on a large scale.
- An in depth study on other emergencies condition and its first aid management can be conducted.

The findings of the study shows that the majority of the secondary school teachers lack knowledge about first aid management of common emergencies condition like epistaxis, fever, vomiting, accidental injuries epilepsy mostly the teacher must know first aid and emergency management as they are most of the time with the school children's and teachers are next to parent to take care of children when they are in a school. Based on the finding the professional and the student nurses can conduct further studies on first aid and emergencies management in school during a disaster, first aid and CPR training for school teachers,

7.1.4 Nursing administration

- Nurse administrative has to plan and organize a training programme for the nursing personnel on first aid and emergency management among school children.
- Nurse administrator has to organize educational programmes in school and community settings.
- Necessary administrative support has to be provided to conduct health educational workshop in school campus with appropriate A.V. Aids, mass media, posters, role plays, drama and puppet show.

7.1.5 Limitations

- The study was confined to a small number of subjects, which resulted in reduced power in statistical analysis.
- The study was confined to select secondary school of Ghataprabha limits the generalizability.
- No standardized tools were available therefore the investigator prepared a tool for the purpose of this study.

7.1.6 Suggestions

The following suggestions are made on the basis of the present study to educate the secondary school teachers regarding first aid management of emergency conditions.

- The emphasis in general curriculum on first aid and emergency management among school children.
- Regular demonstration classes should be included for gaining skills in providing first aid and emergency management.
- Adequate supervision and guidance of children during school days by the school teachers.
- Every year training of first aid and emergencies management by the professional workers to the school teachers.
- First aid training also can be provided to the school children.
- A suitable environment for working could be maintained through the provision of adequate supplies and equipment of first aid kits in a school.

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