

# Assessment of Knowledge Regarding First Aid Management of Selected Minor Injuries in Children among Primary School Teachers with a View to Develop an Information Booklet in Selected Schools of Dimoria Block, Kamrup (M), Assam

Sibani Mazumdar<sup>1</sup>, Ranjita Borah<sup>2</sup>

<sup>1</sup>M.Sc. Nursing, Child Health Nursing, Regional College of Nursing, Guwahati  
Email: [sibanimazumdar24\[at\]gmail.com](mailto:sibanimazumdar24[at]gmail.com)

<sup>2</sup> Assistant Professor, Child Health Nursing, Regional College of Nursing, Guwahati  
Email: [ranjita.borah\[at\]gmail.com](mailto:ranjita.borah[at]gmail.com)

**Abstract:** *A quantitative descriptive cross sectional survey research approach with descriptive cross sectional survey research design was adopted to conduct the present study. Setting of the study was selected Primary Schools in Dimoria Block, Kamrup (M), Assam. Total 186 primary school teachers were selected as study sample by multistage random sampling technique. The data were collected through a structured self-administered questionnaire. Data were analyzed in terms of descriptive and inferential statistics. The findings showed that the majority of the primary school teachers' i.e.120 (64.5%) had moderately adequate knowledge followed by 35 (18.8%) had adequate knowledge and 31(16.7%) had inadequate knowledge regarding first aid management of selected minor injuries in children. The study also revealed a significant association between knowledge regarding first aid management of minor injuries in children and age and educational qualification of the participants. The study concluded that majority of the primary school teachers' level of knowledge was moderately adequate regarding first aid management of selected minor injuries in children. It was further established that there was a significant association between knowledge regarding first aid management of minor injuries in children and age and educational qualification of the participants.*

**Keywords:** Knowledge, first aid management, minor injuries, children, primary school teachers

## 1. Introduction

### Background of the study

Child is a unique individual, he or she is not a miniature adult not a little man or woman. The childhood period is vital because of socialization process by transmission of attitude, customs and behavior through the influence of family and community. Children always need special care to survive. Also children are the major consumers of health care. The development of a country can be determined by estimating the health status of children in that country. In India, about 35% to 40% of total population is children below 15 years of age. This group is considered as special risk group as they are vulnerable to various health problems. School life is an important part of children's life, which has a direct impact on their physical and mental health. The school is a place where children spend most of the time and process of socialization occurs there, as they are more active and adventure some. In many countries, school health services are often neglected which is reflected into lack of awareness and education about common illnesses and first aid care. Unfortunately, accidents in nursery schools are fairly common. Especially in schools they are exposed to various types of minor injuries like sports injury, bleeding, fracture, wound etc. Accidents and injury are major causes for disability and death among children. More than 100 children die every hour because of injuries. Unintentional injuries account for almost 90% of these cases which encountered in the childhood are a global public health

problem. It is found as a first order among the causes of mortality and morbidity. According to the world health report, the burden of the disease due to injuries has increased from about 12% in 1990 to 15% by 2000 and expected to increase to about 20% by 2020. The primary school is where a strong foundation of a child's education is set. This is where a child's mind and body must be nurtured and prepared for the future. Primary school children are also highly active physically and hence, more prone to injuries. That is why in addition to academic education imparted here, their physical health also needs to be cared for meticulously. Basic knowledge and understanding of first aid can be invaluable for individuals to be able to provide emergency care in the event of an accident, possibly saving lives and minimizing injury. Everyone can and should learn first aid, i.e. education and training should be universal. This is endorsed by the fact that proper administration of first aid can mean the difference between life and death, prompt verses delay recovery, and temporary verses permanent disability. Teachers are the first ones who should deliver first aid and save their lives and young adults at school. Accordingly, school teachers should have enough knowledge regarding managing first aid in crises. Nonetheless, it was evidenced that most of the teachers do not have enough first aid knowledge and correct practice in some cases. Teacher's awareness about first aid and basic life support constitute of life saving measures and protection from injuries. As injuries remain a threat to school students particularly in primary schools, therefore first aid and basic

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life support are important for them to be able to deal properly with these injuries.

## 2. Literature Review

**A descriptive research study** was conducted by Elsoud MA, Ahmed HAH, Ahmed AMAW and Farg H K (2018) on assessment knowledge of primary schools teachers about first aid at Ismailia City. The study was conducted in seven primary schools in Ismailia city. A total of 140 primary school teachers were selected for the study. Multistage random sampling technique was used for the study. Interview questionnaire and observational checklist was used to assess the knowledge of primary school teachers. The result revealed that majority of the primary school teachers had average knowledge (57%) and knowledge about first aid was not satisfactory among primary school teachers due to lack of information and training. The researchers recommended for introduction of first aid educational and training program at school and college level for early management of injuries and emergencies.

**Hemalatha K and Prabhakar VR** (2015) conducted a community-based cross-sectional study on Prevalence of childhood injuries: A survey of injury epidemiology in rural population of Tamil Nadu, India for 3 months among children aged <18 years in the Rural Health Training Centre (RHTC) Service area of a tertiary care teaching hospital in Tiruchirappalli district of Tamil Nadu. The sample size for the study was 215 household using two-stage cluster sampling. A pretested, semi-structured questionnaire was used to obtain the information about the injuries. Occurrence of injuries during the previous 6 months was included in the study. A total of 410 children had participated in this study. Injuries were found to be more common among children aged 6–9 years compared to children of other age groups. Male children (52.8%) had more number of injuries than female children (47.2%). lower limb (33.9%) was the most common body part injured. Cut injuries and laceration accounted for 56.2% of the injuries. Majority (43%) of the injuries occurred due to fall.

**AlYahya IA, Almohsen HA, AlSaleem IA, Al-Hamid MM, Arafah AM, Al Turki YA, et al.,** (2015-2016) conducted a cross sectional study to assess the knowledge, attitude, and practice about first aid among male school teachers and administrators in Riyadh, Saudi Arabia. About 436 teachers and school instructors working in the city of Riyadh constituted the population. A questionnaire containing socio-demographic properties and the level of knowledge related to first-aid practices was applied under supervision. The knowledge status of the teachers and school instructors connected with basic first aid practices was evaluated with 25 questions (13 multiple choices and 12 exact/false questions). 1 point was given for each item answered correctly. The score was between 0 and 25. It was found that teachers who have good knowledge of first aid ( $\geq 15$  out of 25 points) are 14.9% ( $n = 65$ ). The study suggested that most of the teachers showed weak knowledge of first aid and inappropriate response for common emergency scenarios. Also, the teachers who had training for first aid has a higher likelihood to respond better in those given scenarios, but the majority of the sample had not

received any training to deal with those scenarios. The researchers recommended that teachers must undergo a first aid training program.

**Umarani J, Dsouza RP, Aranha PR and Shilpa GS** (2014) assessed the knowledge of primary school teachers regarding first aid for common ailments in children in selected primary schools at Mangalore. 100 primary school teachers from 4 schools using convenient sampling technique were selected and data was gathered through structured knowledge questionnaire. The results mainly found that 26% teachers had inadequate level of knowledge, 71% had moderately adequate level of knowledge and 3% had an adequate level of knowledge on first aid. The study suggested that primary school teachers lack knowledge on first aid. The researcher recommended that the primary school teachers must undergo training in first aid to treat the common ailments in children at School.

## 3. Research Methodology

**Research Approach:** Quantitative research approach.

**Research Design:** Descriptive cross sectional survey research design was adopted.

**Setting:** Selected primary schools in Dimoria block, Kamrup(M), Assam.

**Population:** In this present study total number of target population was primary school teachers of selected schools in Dimoria Block, Kamrup (M), Assam.

**Sample size:** In the present study, the sample comprised of 186 subjects.

**Sampling Technique:** Probability multistage random sampling technique.

**Sampling Criteria:**

**Inclusion Criteria:**

The primary school teachers who were present at the time of data collection and were willing to participate in study.

**Exclusion criteria:**

The primary school teachers who were sick at the time of data collection and the primary school teachers who had prior training on first aid management of minor injuries.

**Variables:**

- **Socio-demographic variables:** The socio-demographic variables in the study were age, gender, educational level, marital status, number of children (if married), type of family, years of experience in teaching, previous experience of handling injured children in school, types of minor injury handled by primary school teachers, information about first aid management of minor injuries and sources of information about first aid management of minor injuries.
- **Research variables:** In the present study, research variables were Knowledge regarding first aid management of minor injuries in children.

- **Data collection Tools & Technique:** Socio-demographic performa was used to collect the baseline information of the respondents and structured self administered questionnaire was used to assess the knowledge of primary school teachers.

#### 4. Results

The present study revealed that:

- Majority of the primary school teachers i.e. 82 (44.1%) were of the age group of 36-45 years, followed by 72 (38.7%) in the age group of 25-35 years, while 26 (14.0%) belonged to the age group of 46-55 years and only 6 (3.2%) of them were less than 25 years of age.
- Majority i.e. 106 (57.0%) primary school teachers were female and 80 (43.0%) of them were male.
- Majority of the primary school teachers i.e. 148 (79.6%) out of 186 were graduate followed by 28 (15.1%) were post graduate and only 10 (5.4%) of them were HS passed.
- Majority of the primary school teachers i.e. 173 (93.0%) out of 186 primary school teachers were married followed by 11 (5.9%) were unmarried and 2 (1.1%) of them were a widow/widower.
- Majority of the primary school teachers i.e. 97 (55.4%) out of 175 had one children followed by 43 (24.6%) had more than one children and minimum number i.e. 35 (20.0%) had no children.
- Majority i.e. 87 (46.8%) primary school teachers had teaching experience between 6-10 years followed by 83(44.6%) had teaching experience between 1-5 years, 15 (8.1%) had teaching experience of more than 10 years and minimum number i.e. 1 (0.5%) have less than 1 years of teaching experience.
- Majority of the primary school teachers i.e.123 (66.1%)had previous experience of handling injured children in school and 63 (33.9%) did not had previous experience of handling injured children in school.
- Majority of the primary school teachers faced was fall 27 (22%) as one of the minor injuries followed by nose bleed i.e. 25 (20.3%), choking i.e. fainting i.e. 19 (15.4%), foreign body in the eye i.e.16 (13%), foreign body in the nose i.e.13 (10.6%) and finger cut i.e. 11 (8.8%).
- Majority of the primary school teachers i.e. 142 (76.3%) primary school teachers have previous information regarding first-aid and minimum i.e. 44 (23.7%) does not have any information about first aid.
- Most common source of information about first-aid i.e.82 (57.7%) was reported to be through health personnel, friends and relatives and the rest i.e. 60 (42.3%) was through mass media.

#### 5. Discussion

Discussion as per the objectives of the study:

**Objective 1: To assess the knowledge of primary school teachers regarding the first aid management of selected minor injuries in children in selected schools of Dimoria block, Kamrup (M), Assam.**

The analysis of the data in this study revealed that majority of the primary school teachers i.e. 120 (64.5%) out of 186 primary school teachers have moderately adequate knowledge followed by 35(18.8%) had adequate knowledge and minimum number i.e. 31(16.7%) had inadequate knowledge regarding first aid management of selected minor injuries in children. The overall mean score was 16.57 and the standard deviation was  $\pm 5.33$ .

The findings of the study is consistent and similar to the descriptive study conducted by Kaur N, Savitri and Kaur M (2006) to assess the level of knowledge regarding the first aid management among school teachers in selected schools of district Mohali, Punjab. The findings of this study revealed that 77.5% of the participants had average knowledge, whereas 12.5 % had good knowledge and the rest 10% had poor knowledge regarding first aid management of minor injuries.

In contrast to the present study, a descriptive study was conducted by Bansal S (2019) on knowledge regarding first-aid among teachers at selected primary schools Kashipur, Udham Singh Nagar District. This study indicated that 70% of teachers had inadequate knowledge, 20% had moderate knowledge and 10% had adequate knowledge.

**Objective 2: To determine the association between the knowledge of primary school teachers regarding first aid management of selected minor injuries and selected demographic variables.**

The present study revealed that there is a significant association between knowledge and the age ( $p= 0.013$ ) and educational qualification ( $p= 0.000$ ) of the primary school teachers.

The findings of the present study are similar to a study conducted by Pandey R, Chauhan R, Dobhal S, Dabral S, Nathani S, Negi S. et al (2007) on first-aid knowledge among health assigned teachers of primary school showed no association between selected demographic variables such as gender, level of schools, years of experience, and education provided by teacher, but educational qualification of teacher and type of school was found to have a significant association. Another study conducted by AlYaha IA, Almohsen HA and Alkharfi MA (2019) on assessment of knowledge, attitude and practice about first-aid among male school teachers and administrators in Riyadh, Saudi Arabia found that the teachers in the age group of (46-60) had significantly higher scores compared to other age groups and the difference was highly statistically significant with the value of (0.000) which indicates that there is significant association between the age of the participants with level of knowledge regarding first-aid management.

In contrast to the present study, a study conducted by Kaur N, Savitri and Kaur M (2006) to assess the level of knowledge regarding the first aid management among school teachers in selected schools of District Mohali, Punjab found that there is no significant association between the knowledge score and the selected demographic variables.

### Objective 3: To develop and validate an information booklet for the primary school teachers regarding first aid management of selected minor injuries in children.

In the present study information booklet was developed on first-aid management of minor injuries in children for the primary school teachers and at the end of the interview schedule it was distributed to the primary school teachers of selected schools in Dimoria block, Kamrup (M), Assam.

In contrast to the present study, Balai MK and Tripathi N (2017) conducted a study on effectiveness of planned teaching program on knowledge regarding first aid in selected conditions among primary school teachers working in selected schools, at Adarsh Nagar, Jaipur. In this study the researcher adopted the evaluative approach to find out the effectiveness of planned teaching program on knowledge regarding first aid management.

## 6. Conclusion

This study assessed the knowledge regarding knowledge regarding first aid management of selected minor injuries in children among primary school teachers with a view to develop an Information Booklet in Selected Schools of Dimoria Block, Kamrup (M), Assam. The findings of the study revealed that majority of the primary school teachers i.e. 120 (64.5%) out of 186 primary school teachers have moderately adequate knowledge followed by 35(18.8%) had adequate knowledge and minimum number i.e. 31(16.7%) had inadequate knowledge regarding first aid management of selected minor injuries in children. The present study revealed that there is a significant association between knowledge and the age and educational qualification of the primary school teachers. It is therefore recommended that periodic assessment and training of primary school teachers on first aid management will equip them with skills to handle and manage the situation confidently and treat the children at school.

## 7. Recommendations

### Nursing practices

- Education can be provided to the primary school teachers regarding first aid management of minor injuries in school by the nurses.
- Nurses can demonstrate first aid management to primary school teachers in a medical camp at schools.
- Evidence based practices about first aid management among primary school teachers in nursing practice can be encouraged for community health and pediatric nurses.
- Student nurse can be posted in school health clinics to obtain skills in meeting the needs of the injured children by providing care and management.

### Nursing education

- Adequate awareness on programmed teaching and demonstration should be made on the first aid management in the curriculum.
- Literature related to first aid management can be made available in nursing institutions.
- Information booklet can be prepared and given to school teachers regarding basic first aid guidelines.

- Orientation to the school teachers can be provided regarding common problems such as, fainting, seizure, etc by the nurses.

### Nursing administration

- First aid training program can be organized especially in rural community among ASHA and other Community health workers so as to acquire skills and knowledge on how minor injuries can be handled and managed before proper medical treatment arrives.
- Mock drills should be allowed by the authority to teach the teachers regarding first aid management.
- Nurse administrators can instruct the school authorities to provide a safe environment to the children.
- Workshops and training programs can be organized by the nurses to train the teachers regarding first aid management.
- Pediatric and community nurses may be appointed in the schools.

### Nursing research

- Encourage further studies on first aid management such as choking, fracture, bleeding, and prevention of injury.
- Conduct more research on knowledge, attitude, and prevalence of injury among school children and disseminate the findings through seminars, workshops and journals.
- Similar study can be conducted on a larger sample and in a different setting for better generalization.
- An experimental study can be conducted to assess the effectiveness of workshop on first aid management minor injuries among primary school teachers in different setting.
- A comparative study can be conducted between urban and rural primary school teachers on first aid management on minor injuries.
- Comparison between the government and private primary school teachers regarding knowledge of first aid management can be done

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### Author Profile



**Sibani Mazumdar**, M.Sc. Nursing, Child Health Nursing, Regional College of Nursing, Guwahati, Assam.

**Ranjita Borah**, Assistant Professor, Child Health Nursing, Regional College of Nursing, Guwahati, Assam.