

# Effectiveness of socio drama on knowledge of selected aspects of first aid

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**Abstract: Background of the study:** First aid is the immediate care given to a victim of injury or illness while awaiting for medical aid. Increased mechanization has resulted in increased disability & occurrence of injuries. Minor injuries become severe if they left untreated, the application of first aid is helpful in saving the life of the victim & prevent further injuries in such emergency situations. The knowledge of first regarding selected aspects of injury may be helpful, strengthening & helpful to a person of young age. **Aim:** The aim of this study was to evaluate the effectiveness of socio drama on knowledge of students regarding selected aspect of first aid. **Material and method:** A quantitative research approach & pre-experimental one group pre-test post test research design was used for this study. 60 students were selected by using simple random sampling technique (lottery method). Data was collected through structured questionnaire. Socio drama was presented before the students after the pre test as intervention. The collected data was tabulated and analyzed using descriptive and inferential statistics. **Results:** The findings of the study revealed that mean post test 22.55 was higher than mean pre test 10.71. The 't' value 57.808 was observed at 0.05 level & the P value =0.00 which is <0.05 shows that there is increase in the post-test level of knowledge. Among all socio demographic variables, the obtained Chi square value for age 3.1 was significant associated with post test knowledge score, which was greater than the table of  $\chi^2$  at 0.05 level of significance. Remaining demographic variables gender, type of family & source available for information on first aid not associated with post test knowledge score. **Conclusion:** The study finding revealed that socio drama was effective in improving knowledge of the students.

**Key Words:** Knowledge, Students, School, Selected aspects of first aid, Minor injuries.

## 1. INTRODUCTION:

First aid is the immediate care given to sudden illness or injury while awaiting the arrival of medical aid. First aid to sick and wounded has been practiced since ancient times. In fact the famous German Surgeon Esmarch (1823-1903) is considered to have conceived the idea of 'first aid'. The aims of first aid are to preserve life, to prevent the worsening of the condition and to promote recovery. Injuries are very common to occur at anytime at any place whether school, home, road or workplace.<sup>1</sup> Teaching first aid in a school setting can be applied to develop knowledge and skills of first aid and injury prevention among rural high school students.<sup>2</sup> Adolescent also is the age group more prone to injuries, characterized by proximity to various types of accidents and emergencies because of their curiosity & excitement towards new things.<sup>3</sup> Teens should have information about basic first aid since emergencies to save the life of a victim. First aid measures can be life-saving. Starting first aid education at early age may be motivational, strengthening & helpful to first aider of young age.<sup>4</sup>

## 2. LITERATURE REVIEW:

**Dayasiri et al. (2017)** a multicenter study was conducted for assessing the effects of Pesticide poisoning on adults in rural Sri Lanka, and the clinical management is associated with significant healthcare costs to the country. This multicenter study was conducted involving all children with acute pesticide poisoning and who were between 9 months and 12 years of age. Data were collected over 7 years (2007–2014), and children from 36 hospitals were recruited. It was concluded that acute pesticide poisoning in paediatric age group (<12 years) is a relatively uncommon yet significant cause of child health-related morbidity and mortality in rural Sri Lanka.<sup>5</sup>

**Uthkarsh Pallavisarji et al. (2017)** a cross sectional descriptive study was conducted in the for assessing Practice and Perception of first aid among lay first responders in a southern district of Tumkur, India. Majority of the responders informed that they had run to the victim or had called for an ambulance. The predominant reason for not providing help was often the 'fear of legal complications' that would follow later. Respondents also reported that they did not have adequate skills to manage an emergency and were willing to acquire knowledge and skills in first aid to help victims. Regular and periodical community-based first aid training programs for first care responders will help to provide care and improve outcomes for injured persons.<sup>6</sup>

**Abdella NA et al. (2015)** an interventional study conducted to evaluate the effectiveness of health educational program on the pediatric first aid knowledge and practice among kindergarten teachers at Port Said. Convenience sampling was used including 50 governorate kindergarten teachers. Data were collected using questionnaire to test teacher's knowledge concerning first aid and an observational checklist to assess their practice towards first aid of common emergency problems as wounds, fractures, epistaxis, choking and burns. The study concluded that the designed health education and training program led to significant improvement of knowledge and practice of kindergarten teachers regarding first aid for children.<sup>7</sup>

**Dasgupta A et al (2014)**, conducted a study to evaluate knowledge about selected first-aid skills among school children with appropriate knowledge on prevention, control and management of common illnesses and injuries. A scoring system was devised to quantify the knowledge of students on first aid. Knowledge of school students regarding the management of common illnesses and injuries should be incorporated as a part of school curriculum.<sup>8</sup>

## 2.1 REVIEW OF LITERATURE RELATED TO IMPORTANCE OF FIRST AID FOR SCHOOL STUDENTS:

**Lina Bandyopadhyay et al. (2017)** a study was conducted on to evaluate the effectiveness of educational intervention on the first aid among middle school students of a rural school in West Bengal. A total of 230, 6<sup>th</sup> and 7<sup>th</sup> standard students were given a self-administered questionnaire for assessing their baseline knowledge about management of common injuries followed by educational intervention with a systematically devised teaching module. Post intervention evaluation of their knowledge acquisition was done after 2 weeks with same questionnaire. The study concluded that first-aid training in the school curriculum can be a beneficial in ensuring proper and timely management of illnesses and injuries not only for the school children but also for the community at large.<sup>9</sup>

**Engeland A (2002)** a quasi experimental study was performed to assess the 'effect of first aid training in junior high school'. Data collected by Pre & Post questionnaires to 82 randomly selected schools from students and teachers. Separate questionnaires filled in by teacher show a low degree of implementation of the program. When comparing those classes that really use program with control classes significant differences & concluded that in many of variables both self sufficient emotion in situation required first aid skill and attitude towards giving and learning first aid were important for intended behavior.<sup>10</sup>

**Anderson L et al. (2006)** in a school health program every child is considered as a health worker. That means it is expected that every school going child should have first aid knowledge. Assessment of knowledge of school children for first aid measures for avulsion and replacement of teeth was done in Kuwait City. An interview of 221 Kuwaiti School children revealed that there was low knowledge level regarding tooth avulsion, replacement and first aid measures.<sup>11</sup>

**Moawiah Khatatbeh (2016)**, a study was conducted to evaluate the level of knowledge about the first aid process among the university students in Jordan. The 14 students of the scientific and unscientific faculties at Yarmouk University, Jordan. Data were obtained via questionnaires from 883 students. The study was concluded that students' knowledge about first aid is not at an adequate level. It would be advisable that first aid course be handled as a separate and practical course at secondary school level.<sup>12</sup>

**Mobarak A(2015)**, a study was conducted to assess the awareness of Saudi secondary school students regarding FA and BLS.360 male secondary school children in Taif, Saudi Arabia were surveyed. The study was concluded that first-aid training is crucial to enhance school children's FA skills and to thrust their contribution to health emergency control efforts.<sup>13</sup>

**Afrasyab Khan (2010)** a cross-sectional study was carried out at six colleges of Karachi to assess knowledge, attitude and practices of first aid measures in undergraduate students of Karachi. Three of which were medical colleges and three non-medical colleges. Knowledge was assessed regarding various emergency situations with the help of a questionnaire. The eventual sample size achieved was 446. A total of 446 students were interviewed. Seventy eight students (17.5%) had formal First Aid (FA) training. Students having received formal first aid training scored better than those who had not received training. The study was concluded that first aid training programs should be introduced at school and college level in developing countries to decrease the early mortality and morbidity of accidents and emergencies.<sup>14</sup>

**Times of India (2017)** according to the article The Indian Red Cross Society, decided to train drivers and attendants of school buses in the district to ensure improved security for school children at Gurugram. The training includes sessions on first aid so that they can respond to an emergency. The workshops are part of school safety norms which also require the bus staff to be trained in first aid and home nursing. The officials are planning to train school teachers and other non-teaching staff in the next round. A medical examination of bus drivers and conductors will be facilitated at the camps which will help them in getting their licenses faster.<sup>15</sup>

## 2.2. REVIEW OF LITERATURE RELATED TO SOCIO DRAMA:

**Haleem DM et al. (2011)** a study conducted on college drinking by help of socio drama method conducted by Haleem DM for students who become addicted to drinking up to extent that can damage their normal health status. The aim of the study is to help students make healthy choices to decrease the harm full effects of drinking. Five students acted out the socio drama according to the socio drama script. During the socio drama the students were involved in a discussion about harm full effects of alcohol & harm reduction technique. Students significantly increased their commitment to use harm reduction techniques. The study was concluded that a socio drama is an effective method of involving students in discussions about college drinking and engaging them in conversation and self-reflection.<sup>16</sup>

**Jones (2001)** a study to illustrate critical issues in end-of-life care using socio drama. The socio drama is helpful to recall the past experience of a person & problem solving among the group. Based on principles of adult learning and communication skills, the socio drama method enables the skilled facilitator to draw on the learner's past experiences as resources for teaching and reflective practice. This article describes the implication of socio drama in end-of-life education with illustrations from actual sessions including key discussion points, a typical instructional plan and staging tips.<sup>17</sup>

**Eckloff M (2011)** an article on socio drama discusses the use of socio drama in improving communication and understanding. It helps to enhance discussion among the students & helps to identify & share establishment of some problems of each other within the group.<sup>18</sup>

**Grieco M (2007)** a workshop was organized to address diversity issues on a residential college campus experiencing problems with prejudice and the acceptance of diversity. In the workshop fifteen participants were selected and a survey was done to identify the problems. A socio drama exercise helped members understand what it was like to be discriminated against. Based on a post-session survey, the group activities were found to be helpful in providing insight and support. The workshop concluded that socio drama can be helpful in addressing social problems such as prejudice in a residential college community.<sup>19</sup>

**Goble J (1990)** the three action techniques are compared with respect to their differing goals and methodologies. The application of the use of didactic psychodrama and socio drama with student nurses undergoing Psychiatric Nurse Training is outlined, together with verbal reports elicited from the students following, a) a 20-week study day program where didactic psychodrama was used on an regular basis, and b) a socio drama workshop. It is concluded that socio drama and didactic psychodrama are powerful action learning methods that can be successfully employed with junior student psychiatric nurses. It is also presented that the underlying details about rationale and procedure of these two methods differ from, those associated with more conventional social skills based training approaches, and these differences have implications for trainers.<sup>20</sup>

**3. RESEARCH DESIGN:** Pre experimental one group pre test - post test research design

**3.1 RESEARCH APPROACH:** Quantitative research approach

### 3.3 VARIABLES

**Independent Variables:** Selected aspects of first aid and socio drama on selected aspects of first aid.

**Dependent Variable:** Knowledge regarding first aid among students.

**Demographic Variables:** Age, gender, type of family & source of information regarding first aid.

**3.4 SETTING:** C. M. Shah Vidyamandir, school at Waghodia.

**3.5 POPULATION:** 60 students of C. M. Shah Vidyamandir ,Waghodia Taluka.

### 3.6 SAMPLE & SAMPLE SIZE

In this study, the samples are students in selected school at Waghodia Taluka. The samples for the present study were 60 students studying in 8<sup>th</sup> standard in C. M. Shah Vidyamandir school at Waghodia Taluka.

**Sampling technique:** Simple random sampling method (lottery method) technique which fulfilled the criteria for selection of the sample.

### 3.7 TOOLS FOR KNOWLEDGE QUESTIONNAIRE

The structured knowledge questionnaire was designed to collect relevant information from students regarding selected aspects of first aid.

### 3.8 METHOD:

#### Instrument used for the study:

**PART A:** Consist of socio demographic variables.

**PART B:** Structured knowledge questionnaire will be used to assess the knowledge regarding selected aspects of first aid. It consists of 30 knowledge questionnaire where the maximum score will be 30 and minimum score will be 0.

The total knowledge score classified as follows:

Inadequate : <33%

Moderate: 34 - 66%

Adequate : >67%

#### Data collection procedure:

The authorization permission was obtained from the principal of Sumandeep Nursing College, Piparia & the prior permission was obtained from the principal of C. M. Shah Vidyamandir at Waghodia. The main study was conducted on 15/01/2018 after a brief self introduction and getting the rapport to the students who were selected by simple random sampling method (lottery method). The investigator given brief details about the nature of the study and a written consent was obtained from the sample and confidentiality of the responses to be assured. First set of structured questionnaire was given to samples to conduct pre-test and then the socio drama session was presented at selected school including all participants & students. A post-test was conducted after 7 days from the day of pre test & socio drama.

### 4. DISCUSSION:

The aim of study was to assess effectiveness of socio drama regarding on knowledge regarding selected aspects of first aid among school children. The researcher found that children are having inadequate knowledge regarding selected aspects of first aid and socio drama was significantly effective tool for enhancing students' knowledge regarding selected aspects of first aid. A similar study was conducted on first aid among primary school students by **Lina Bandyopadhyay et al. (2017)** to evaluate the effectiveness of educational intervention on the first aid among middle school students of a rural school in West Bengal & concluded that first-aid training in the school curriculum can be a beneficial in ensuring proper and timely management of illnesses and injuries not only for the school children but also for the community at large.<sup>21</sup> **Semwal J et al. (2017)** a cross-sectional study was conducted in randomly selected public school of Doiwal among all the school children of classes 9th to 12<sup>th</sup> to assess their knowledge and attitude about first aid & was concluded that all students had shown their keen interest and positive attitude towards getting knowledge about first aid.<sup>22</sup> **Reveruzzi B1 et al.(2016)** a review on first aid training delivered to school students and the components that are age appropriate to adolescents, concluded that first aid training may have benefits wider than the uptake and retention of knowledge and skills.<sup>23</sup> **Priyangika (2015)** conducted a descriptive cross sectional study to assess knowledge, attitudes and practices on first aid among senior school prefects in relation to the gender and previous exposure to first aid training & concluded that the training of first aid is needed for senior school students.<sup>24</sup> **Mobarak A(2015)** conducted a study to assess the awareness of Saudi secondary school students & concluded that first-aid training is crucial to enhance school children's first aid skills and to thrust their contribution to health emergency control efforts.<sup>25</sup> **Wafik W (2014)** a quasi-experimental study was conducted to assess the effectiveness of a first-aid program delivered by undergraduate nursing students to preparatory school children in governmental preparatory schools in Egypt & found a first-aid training program delivered by nursing students to preparatory school children was effective in improving their knowledge and practice.<sup>26</sup>

### 5. ANALYSIS:

Analysis and interpretation of the data was done using SPSS statistical method to find out the association between post test knowledge score and selected socio demographic variables.

### 6. FINDINGS:

#### SECTION 1: analysis of socio demographic characteristics of the respondents

##### Distribution of the respondents according to age

It was observed that among 60 participants age demographic variable the majority 61% respondents belong to the age group of 14 years, 33.9% respondents belong to 13 years of age & 5.1% respondents belong to 12 years of age.

**Distbution of the respondents according to gender:**

It was observed that among 60 participants gender demographic variable the majority 52% respondents were female & 48% respondents were male.

**Distbution of the respondents according to the type of family:**

It was observed that among 60 participants type of family demographic variable the majority 94.9% respondents belongs to joint family & 5.1% respondents belongs nuclear family.

**Distbution of the respondents according to source of information on first aid:**

It was observed that among 60 participants source of information on first aid demographic variable the majority 62.7% respondents had availability of source of information on first aid & 37.3% respondents had no availability of source of information on first aid.

**SECTION 2: Assessment of pre test knowledge regarding selected aspects of first aid among school students**

Study pre test result shows that among 60 students majority of the respondents (53.3%) had inadequate knowledge, 46.7% had moderate knowledge score and no one had adequate knowledge regarding selected aspects of first aid. Area wise pre test knowledge score shows that introduction of first aid had a mean of 3.40 and mean% of 56.66 %, basic first aid measures had a mean of 2.10 and mean% of 23.33, emergencies in children had a mean of 4.03 and mean% of 67.16%, emergencies in adults had a mean of 1.18 and mean% of 13.11 %.

In post test result shows that among 60 students majority of the respondents (75%) had adequate knowledge, 72% had moderate knowledge score and no one had adequate knowledge regarding selected aspects of first aid.

**SECTION 3: Assessment of effectiveness of sociodrama**

The effectiveness of STP is shown by the comparison between the levels of knowledge at pre-test and post-test of sociodrama on selected aspects of first aid. The 't' value 57.808 was observed at 0.05 level & the P value =0.00 which is <0.05 that shows that there is increased in the post-test level of knowledge. This shows that the socio drama on selected aspects of first aid is effective.

**SECTION 4: assessment of association between selected demographic variables and post test knowledge score, .**

**Section 4.1: Association of post test knowledge score with selected demographic variables**

**Association of post-test with age:**

The obtained x2 value is greater than the table of x2 at 0.05 level of significance. Hence the obtained x2 value is significant for age demographic variable. There is significant association between age and post-test knowledge.

**Association of post-test with gender:**

The obtained x2 value is less than the table of x2 at 0.05 level of significance. There is no significant association between gender and post-test knowledge.

**Association of post-test with type of family:**

The obtained x2 value is less than the table of x2 at 0.05 level of significance. There is no significant association between type of family and post-test knowledge.

**Association of post-test with availability of source of information on first aid:**

The obtained x2 value is less than the table of x2 at 0.05 level of significance. There is no significant association between availability of source of information on first aid and post-test knowledge.

**7. RESULT:**

**SECTION I: Assessment of knowledge score**

**Table 1: Knowledge regarding selected aspectsn of first aid.**

N = 60

| Knowledge aspects              | Max.Score | Pre test     |             |             | Post test    |              |             |
|--------------------------------|-----------|--------------|-------------|-------------|--------------|--------------|-------------|
|                                |           | Mean         | Mean %      | SD          | Mean         | Mean %       | SD          |
| Introduction                   | 6         | 3.40         | 56.66       | 1.012       | 4.37         | 72.83        | 0.807       |
| Basic first aid measures       | 9         | 2.10         | 23.33       | 1.423       | 3.86         | 42.88        | 1.544       |
| Emergencies(children)          | 6         | 4.03         | 67.16       | 1.353       | 5.76         | 96           | 1.55        |
| Emergencies(adults)            | 9         | 1.18         | 13.11       | .792        | 1.63         | 18.11        | 1.032       |
| <b>Overall knowledge score</b> | <b>30</b> | <b>10.71</b> | <b>35.7</b> | <b>2.59</b> | <b>22.55</b> | <b>75.16</b> | <b>3.16</b> |

The pre test mean score of knowledge of the students was 10.71 & the post test mean knowledge score was 22.55 the mean difference of pre test & post test mean knowledge score was 11.84 that there is a significant difference between the mean pre test knowledge scores & post test knowledge score regarding selected aspects of first aid.

**SECTION II: Effectiveness of socio drama on knowledge regarding selected aspects of first aid**

Here, at  $df = 59$  and significance level 0.05 the obtained  $t$  - value is 57.808 is found to be more than table value 2 which suggest the significant difference between experimental and control post test knowledge score.

N = 60

| PAIRED SAMPLES STATISTICS |       |    |                 |         |      |     |
|---------------------------|-------|----|-----------------|---------|------|-----|
| Test                      | Mean  | N  | Mean difference | T value | P    | Sig |
| Pre test                  | 10.71 | 60 | 11.84           | 57.808  | .000 | S   |
| Post test                 | 22.55 | 60 |                 |         |      |     |

\*Significant at 0.05 (95%) level

\*  $t (0.05) = 2$

\*df = Degree of freedom

\* S = Significant

**SECTION III: Frequency and percentage distribution of demographic variables.**

| SR. NO. | VARIABLES                                    | NO.            | FREQUENCY | %     |
|---------|--|----------------|-----------|-------|
| 1       | Age of student (in year)                     |                |           |       |
|         | A  | 11             | -         |       |
|         | B  | 12             | 3         | 5.1%  |
|         | C  | 13             | 20        | 33.9% |
|         | D  | 14             | 37        | 61%   |
|         | Total  |                | 60        | 100   |
| 2       | Gender                                       |                |           |       |
|         | A  | Male           | 28        | 48%   |
|         | B  | Female         | 32        | 52%   |
|         | Total  |                | 60        | 100   |
| 3.      | Type of family                               |                |           |       |
|         | A  | Nuclear family | 3         | 5.1%  |
|         | B  | Joint family   | 57        | 94.9% |
|         | Total  |                | 60        | 100   |
| 4       | Source of information on first aid available |                |           |       |
|         | A  | No             | 22        | 37.3% |
|         | B  | Yes            | 38        | 62%   |
|         | Total  |                | 60        | 100   |

Here, observed that among 60 participants majority 61% respondents belongs to age belong to the age group of below 14 years, majority 52% of students were female, majority 94.9% respondents were belonging from joint family & majority of students 62.7% students had availability of sources available on first aid.

**SECTION IV: Association of the post- test knowledge score among students with their demographic variables.**

Table 3: Association of the post- test knowledge score among patient with their demographic variable

N= 60

| Sr. No | Characteristics | Level of knowledge |          |          | df | $\chi^2$ | Sig. |
|--------|-----------------|--------------------|----------|----------|----|----------|------|
|        |                 | Inadequate         | Moderate | Adequate |    |          |      |
| 1      | Age in years    |                    |          |          | 2  | 3.1      | S    |
|        | 11years         | 0                  | 0        | 0        |    |          |      |

|   |   |   |    |    |   |      |    |
|---|---|---|----|----|---|------|----|
|   | 12years                                   | 0 | 0  | 3  |   |      |    |
|   | 13years                                   | 0 | 3  | 17 |   |      |    |
|   | 14years                                   | 0 | 12 | 25 |   |      |    |
|   | Total                                     | 0 | 15 | 45 |   |      |    |
| 2 | <b>Gender</b>                             |   |    |    |   |      |    |
|   | Male                                      | 0 | 6  | 22 | 1 | .35  | NS |
|   | Female                                    | 0 | 9  | 23 |   |      |    |
|   | Total                                     | 0 | 15 | 45 |   |      |    |
| 3 | <b>Type of family</b>                     |   |    |    |   |      |    |
|   | Nuclear family                            | 0 | 2  | 1  | 1 | .087 | NS |
|   | Joint family                              | 0 | 13 | 44 |   |      |    |
|   | Total                                     | 0 | 15 | 45 |   |      |    |
| 4 | <b>Source of information on first aid</b> |   |    |    |   |      |    |
|   | No  | 0 | 6  | 16 | 2 |      | NS |
|   | Yes                                       | 0 | 9  | 29 |   |      |    |
|   | Total                                     | 0 | 15 | 45 |   |      |    |

Significant at 0.05 (95%) level

\* df = Degree of freedom

\*  $\chi^2$  = Chi Square

\* NS = Non- Significant

\* S = Significant

Among all socio demographic variables the obtained  $\chi^2$  value for age demographic variable is 3.1 which is greater than the table of  $\chi^2$  at 0.05 level of significance. Remaining demographic variables gender, type of family & source available for information on first aid was not associated with post test knowledge score of the students.

## 8. RECOMMENDATIONS:

Based on the finding of the present study recommendations offered for the future study are:

- Similar study can be conducted on a larger sample to generalize finding.
- A similar study can be conducted with planned educational programme.
- A similar study can be conducted in community settings.
- A comparative study may be conducted to find out the effectiveness between self-structured module and socio drama on same topic.
- A similar study can be carried out to evaluate the effectiveness of socio drama on the first aid measures.
- A study can be conducted by including additional demographic variables.

## 9. CONCLUSION:

It could be concluded from the present study that there was a significant increase in the knowledge of students after attending the socio drama on selected aspects of first aid. It was concluded that sociodrama was effective in increasing the knowledge of students. There is a significant association between age of the student & knowledge regarding selected aspects of the first aid.

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