

## Effectiveness of planned teaching programme on knowledge regarding first aid in selected conditions among primary school teachers working in schools at Daund, Pune, Maharashtra

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### Abstract

First aid is the temporary and immediate care given to the person who is injured or suddenly became ill. First aid can save a victim's life especially if the victim is bleeding heavily and has stopped breathing. It also prevents additional medical emergencies that can arise from an injury or illness<sup>1</sup>. It is necessary that all of us should be able to perform first aid because we will be eventually finding ourselves in situation requiring it either for others or for ourselves. The risk of injury while traveling, working or playing is so great that most people sustain a significant injury at some time during their lives<sup>5</sup>.

**Objectives:** To assess the existing knowledge of primary school teachers regarding the first aid in selected conditions, To determine the effectiveness of planned teaching programme on knowledge of primary school teachers regarding first aid in selected conditions.

**Hypothesis:** H<sub>1</sub> - There is significant difference between pre-test and post-test level of knowledge scores of primary school teachers regarding first aid in selected conditions.

**Methodology:** Non-probability convenient sampling technique used. A research design selected was one group pre-test and post-test design which belongs to the pre-experimental design. 30 primary school teachers were selected for this study. It was prepared coding for section 'A', which consists of demographic variable and for section 'B', one mark was given for correct answer and zero for incorrect answer. Thus, total of 30 marks were allotted under knowledge. To interpret the level of knowledge, the score were distributed as inadequate knowledge  $\leq 50\%$ , moderately adequate knowledge 51-75% and adequate knowledge  $>75\%$ .

**Result:** The percentage mean difference of knowledge of general information is 6.76 with t value 11.21 and in wound and injury are 19.56 with t value 5.86. With regard to epistaxis mean difference are 5.23 with t value 32.82 and in foreign body are 5.9 with t value 20.92. With regard to bite and stings mean percentage difference is 0.04 with t value is 14.9.

**Conclusion:** The study depicted that there is a significant improvement in knowledge of primary school teachers after planned teaching programme.

**Keywords:** effectiveness, planned teaching programme, knowledge, first aid, primary school teachers, selected conditions

### Introduction

First aid is the temporary and immediate care given to the person who is injured or suddenly became ill. First aid can save a victim's life especially if the victim is bleeding heavily and has stopped breathing. It also prevents additional medical emergencies that can arise from an injury or illness<sup>1</sup>.

According to Carotta M. Reinke, "first aid is an important responsibility of all the persons, because in remote areas and there is very limited access to full-fledged hospitals and dispensaries in nearby vicinity. Therefore we should be able to provide care of those who are injured. The aims of first aid are to preserve life, promote recovery, and prevent worsening of the victim's general condition and quick transport of the casualty to the nearest medical aid if required<sup>2</sup>. First aider can be a common person who may have learnt to standard method of application of first aid best suited to his skills. The person identifies the problem and provides emergency care and when necessary move the persons without causing further injury. First aid can save a victim's life in emergency that can arise from an injury or illness. This is an age when technology has produced complicated machinery and swift means of transport so accidents are on the rise and produce devastating results with loss of life, injuries to the body and mind, under these

circumstances first aid has gained much importance. First aid can be given to a sick or injured person until services of a qualified doctor are obtained<sup>3</sup>.

According to California code of regulation section (c) and administrative director rule, defines first aid as "first aid is any one time treatment and any follow up visit for the purpose of observation of minor scratches, cuts, burns, splinter etc, which do not ordinarily require medical care. Such onetime treatment and follow up visit for the purpose of observation is considered first aid even though provided by a physician or Registered professional personnel". If any person suffers from by an accident or any sudden disease the aid that can be given by those who are near him before taking him to a doctor is called first aid<sup>4</sup>.

It is necessary that all of us should be able to perform first aid because we will be eventually finding ourselves in situation requiring it either for others or for ourselves. The risk of injury while traveling, working or playing is so great that most people sustain a significant injury at some time during their lives<sup>5</sup>.

An organized worldwide effort of giving first aid came only in 1877, though first aid was being practiced from ancient times. The famous German surgeon, general Esmatch who was the first concerned the idea of first aid with the formation of St. John Ambulance association of England. In

1922 Red Cross Society of India was established with more than 400 branches all over the India [6]. International Federation of Red Cross and Red Crescent societies consists of 97 million volunteer and members the International Federation is the world’s largest humanization network. Everywhere one of its 178 members, Red cross and Red crescent societies is engaged in first aid programs either training first aides to save life in disaster of all kinds or training the general public in basic life saving techniques and providing first aid services during sport and mass events [7].

**Problem Statement**

“Effectiveness of Planned Teaching Programme On Knowledge Regarding First Aid In Selected Conditions Among Primary School Teachers Working In Schools At Daund, Pune, Maharashtra”.

**Objective of the study**

1. To assess the existing knowledge of primary school teachers regarding the first aid in selected conditions.
2. To determine the effectiveness of planned teaching programme on knowledge of primary school teachers regarding first aid in selected conditions.

**Hypothesis of the study**

**H<sub>1</sub>** - There is significant difference between pre-test and post-test level of knowledge scores of primary school teachers regarding first aid in selected conditions.

**Material and Method**

A research design selected was one group pre-test and post-test design which belongs to the pre-experimental design. Non-probability convenient sampling technique used. 30 primary school teachers were selected for the studies who are working at Daund, Pune.

|                    |    |   |    |
|--------------------|----|---|----|
| Experimental Group | 01 | X | 02 |
|--------------------|----|---|----|

Key: 01-Pre-test, X- Planned teaching programmed, 02- Post test

Structured knowledge questionnaire and teaching plan was prepared to assess the level of knowledge of primary school teachers on selected conditions of first aid. The questionnaire was divided into two sections, section ‘A’ and section ‘B’.

**Section A**

It deals with demographic variables, which include age, sex, religion, marital status, educational status, type of family, years of experience and previous exposures to the topic and attained training programme.

**Section B**

Consists 30 multiple-choice questions to assess the knowledge before and after administering the planned teaching programme. The questions were further divided into 5 Parts

**Table 1**

|        |                                  |              |
|--------|----------------------------------|--------------|
| Part A | General information on first aid | 5 questions. |
| Part B | First aid on wounds and injury   | 15 questions |
| Part C | First aid on Epistaxis           | 3 questions  |
| Part D | First aid on foreign bodies      | 4 questions. |
| Part E | First aid on bites and stings    | 3 questions  |

**Scoring key**

It was prepared coding for section ‘A’, which consists of demographic variable and for section ‘B’, one mark was given for correct answer and zero for incorrect answer. Thus, total of 30 marks were allotted under knowledge. To interpret the level of knowledge, the score were distributed as inadequate knowledge ≤ 50%, moderately adequate knowledge 51-75% and adequate knowledge >75%.

**Reliability**

The reliability of the tool was obtained by split half method. The calculated r value was 0.88 and r` value was 0.93, which shows that tool is highly reliable.

**Data collection procedure**

Formal written permission was obtained from Head Master of all schools of Daund, Pune. 30 primary school teachers were selected by non – probability convenient sampling technique. The planned teaching programmed was conducted on the same day at the end of the pre-test for about 45-50 minutes using charts, flip charts. Post test was conducted with the same tool after seven day. The data analysis was planned to include descriptive and inferential statistics.

**Descriptive Statistics**

1. Frequency and percentage distribution were used to analyse the demographic data and level of knowledge of primary school teachers.
2. Mean, mean percentage and standard deviation were used to assess the level of knowledge of primary school teachers.

**Inferential Statistics**

1. Paired ‘t’ test to assess the effectiveness of planned teaching programme on knowledge regarding selected conditions on first aid.

**Result**

**Data analysis and interpretation**

The analysis and interpretation of data collected from 30 primary school teachers. The data has been tabulated and analysed according to the objectives.

**Section I:** Demographic variables of primary school teachers The frequency and percentage distribution of primary school teachers with respect to age, majority of the subjects 19 (63.3%) belongs to the age group of 36 and above and only 3(10%) were in the age group of 21-25 yrs. In relations to sex, majority of the subjects, 22(73.3%) were females and only 8 (26.7%) were males. In relation to religion, the majority of the subjects 26 (86.7%) were Hindu religion and only 1(3.3%) was Muslim. Regarding marital status, majority of the subjects 25 (83.33%) were married and only 5 (16.7%) was unmarried. On considering the educational status, majority of the subjects 18(60%) were D.Ed, 7 (23.3%) of them were B.Ed and only 5 (16.7%) have general education like B.A, BS etc.

On considering type of the family, most of subjects 16 (53.33%) belong to nuclear family and 14 (46.7%) were staying in joint family. In relation to years of experience, most of subjects 18 (60%) had more than 10 years of experience and only 2(6.66%) of them had less than 1 yrs of

experience. On considering previous exposure to topic, most of subjects 26(86.7%) did not have expose to the topic and only 4 (13.3%) had exposes to topic.

**Section II:** To determine the level of knowledge about first aid among primary school teachers.

**Table 2:** Pre-test on different aspects of level of knowledge about first aid among primary school teachers.

| S.N | Knowledge about first aid | Statements | Min – Max score | Respondents Level of knowledge |      |          |
|-----|---------------------------|------------|-----------------|--------------------------------|------|----------|
|     |                           |            |                 | Mean                           | SD   | Mean (%) |
| 1   | General information       | 5          | 0 – 5           | 2                              | 1.03 | 40       |
| 2   | Wound & injury            | 15         | 0 – 15          | 6.46                           | 5.42 | 40.06    |
| 3   | Epitasis                  | 3          | 0 – 3           | 1.03                           | 0.06 | 34.33    |
| 4   | Foreign body              | 4          | 0 – 4           | 1.63                           | 0.58 | 40.75    |
| 5   | Bite & stings             | 3          | 0 – 3           | 1.4                            | 0.31 | 46.66    |

**Overall Pre-test level of knowledge among primary school teachers**

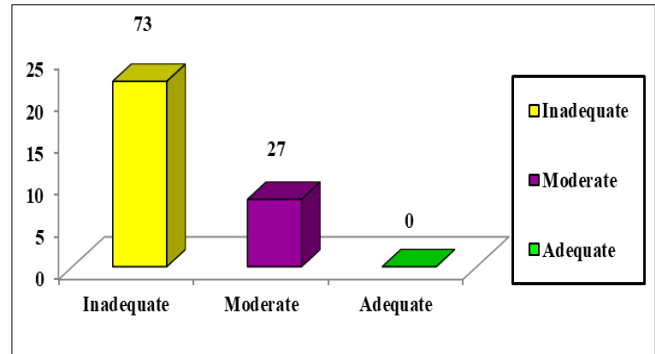
**Table 3**

| Statistics | Score |
|------------|-------|
| Mean       | 12.52 |
| Mean%      | 41.73 |
| SD         | 7.4   |

**Pre-test level of knowledge about first aid among primary school teachers.**

**Table 4**

| Level of knowledge | Category | Respondents |                |
|--------------------|----------|-------------|----------------|
|                    |          | Number      | Percentage (%) |
| Inadequate         | < 15     | 22          | 73.33%         |
| Moderate           | 16 – 22  | 08          | 26.66%         |
| Adequate           | 23 – 30  | 00          | 00%            |
| Total              |          | 30          | 100%           |



**Fig 1:** Percentage Distribution of Pre Test Level of knowledge of first aid in primary school teachers.

**Post-test on different aspects of level of knowledge about first aid among primary school teachers.**

**Table 4**

| S.N | Level of knowledge  | Statements | Min – Max score | Respondents Level Of knowledge |      |          |
|-----|---------------------|------------|-----------------|--------------------------------|------|----------|
|     |                     |            |                 | Mean                           | SD   | Mean (%) |
| 1   | General information | 5          | 0 – 5           | 4.03                           | 0.51 | 80.6     |
| 2   | Wound & injury      | 15         | 0 – 15          | 12.33                          | 4.09 | 82.2     |
| 3   | Epitasis            | 3          | 0 – 3           | 2.6                            | 0.24 | 86.66    |
| 4   | Foreign body        | 4          | 0 – 4           | 3.4                            | 0.24 | 85       |
| 5   | Bite & stings       | 3          | 0 – 3           | 2.6                            | 0.24 | 86.66    |

**Overall Post-test level of knowledge among primary school teachers**

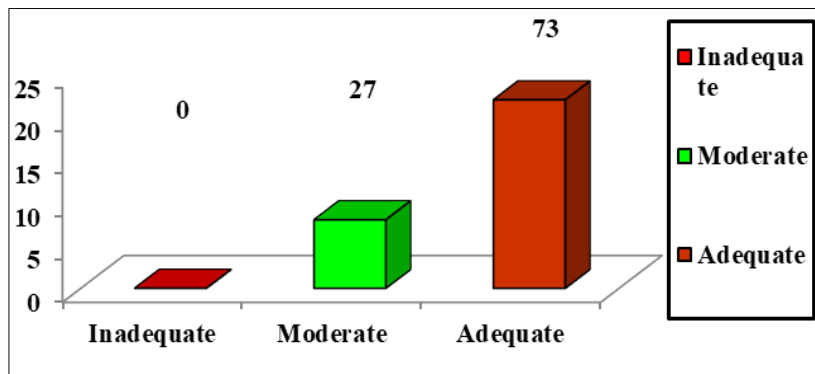
**Table 5**

| Statistics | Score |
|------------|-------|
| Mean       | 24.96 |
| Mean%      | 83.2  |
| Sd         | 5.32  |

**Post-test level of knowledge about first aid among primary school teachers.**

**Table 6**

| Level of knowledge | Category | Respondents |                |
|--------------------|----------|-------------|----------------|
|                    |          | Number      | Percentage (%) |
| Inadequate         | < 15     | 00          | 00%            |
| Moderate           | 16 – 22  | 08          | 26.66%         |
| Adequate           | 23 – 30  | 22          | 73.33%         |
| Total              |          | 30          | 100%           |



**Fig 2:** Percentage Distribution of Post Test Level of knowledge among primary school teacher

**Section III:** To assess the effectiveness of planned teaching programme on knowledge regarding selected conditions of first aid.

**Table 7:** Difference between Pre-test Post knowledge score of primary school teachers.

| Knowledge aspects on First Aid | Respondents level of Knowledge (%) |       |      |           |       |      |               |       |      | Paired “t” Test |
|--------------------------------|------------------------------------|-------|------|-----------|-------|------|---------------|-------|------|-----------------|
|                                | Pre test                           |       |      | Post test |       |      | Effectiveness |       |      |                 |
|                                | Mean                               | Mean% | SD   | Mean      | Mean% | SD   | Mean          | Mean% | SD   |                 |
| General information            | 2                                  | 40    | 1.03 | 4.03      | 80.6  | 0.51 | 2.03          | 6.76  | 0.99 | 11.21           |
| Wound & injury                 | 6.46                               | 40.06 | 5.42 | 12.33     | 82.2  | 4.09 | 5.87          | 19.56 | 5.47 | 5.86            |
| Epitaxis                       | 1.03                               | 34.33 | 0.06 | 2.6       | 86.66 | 0.24 | 1.57          | 5.23  | 0.25 | 32.82           |
| Foreign body                   | 1.63                               | 40.75 | 0.58 | 3.4       | 85    | 0.24 | 1.77          | 5.9   | 0.46 | 20.92           |
| Bite & stings                  | 1.4                                | 46.66 | 0.31 | 2.6       | 86.66 | 0.24 | 1.2           | 0.04  | 0.44 | 14.91           |

Significance at 0.001% level, t (0.001, 29 df) = 3.39

**Assessment of overall level of knowledge of first aid among primary school teachers before and after planned teaching programme.**

**Table 8**

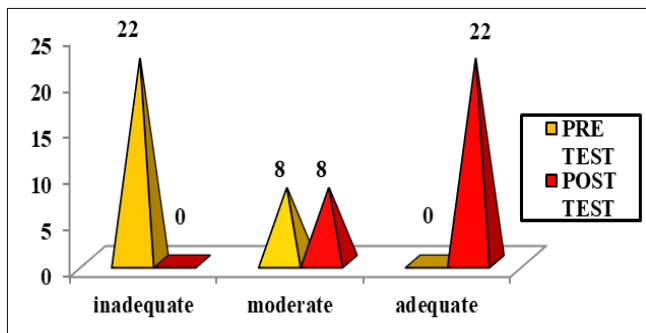
| Knowledge aspects on first aid | Respondents level of knowledge (%) |       |     |           |       |      |               |       |       | Paired “t” test |
|--------------------------------|------------------------------------|-------|-----|-----------|-------|------|---------------|-------|-------|-----------------|
|                                | Pre test                           |       |     | Post test |       |      | Effectiveness |       |       |                 |
|                                | Mean                               | Mean% | Sd  | Mean      | Mean% | Sd   | Mean          | Mean% | Sd    |                 |
|                                | 12.52                              | 41.73 | 7.4 | 24.96     | 83.2  | 5.32 | 12.46         | 41.53 | 18.80 | 3.62            |

Significant at 0.001% level, t (0.001, 29 df) = 3.39

**Comparison of Pre – test and Post – test level of knowledge of first among primary school teachers**

**Table 9**

| S.N   | Level of knowledge | Range of percentage | Classification of respondents |       |           |       |
|-------|--------------------|---------------------|-------------------------------|-------|-----------|-------|
|       |                    |                     | Pre test                      |       | Post test |       |
|       |                    |                     | F                             | %     | F         | %     |
| 1     | Inadequate         | < 15                | 22                            | 73.33 | 0         | 0     |
| 2     | Moderate           | 16 – 22             | 8                             | 26.66 | 8         | 26.66 |
| 3     | Adequate           | 23 - 30             | 0                             | 0     | 22        | 73.33 |
| Total |                    |                     | 30                            | 100   | 30        | 100   |



**Fig 3:** Percentage Distribution of Pre Test and Post Test Level of Knowledge

**Summary**

The present study revealed that the mean score obtained for overall knowledge was 12.52 in pre-test and in post-test 24.96. The improvement mean score for overall knowledge was 12.46 with ‘t’ value of 3.62 which was highly significant at P < 0.001 level, this showed effectiveness of planned teaching programme on knowledge regarding first aid in selected conditions among primary school teachers. Hence the hypothesis H<sub>1</sub> was accepted.

**Conclusion**

The present study assessed the knowledge of primary school teachers regarding first aid and found all 100% of primary

school teachers had inadequate knowledge in pre-test and in the post test, a maximum number of primary school teachers, 22 (73.33%) had adequate knowledge and 8 (26.66%) of them had moderate knowledge. It shows that there is a significant improvement in knowledge of primary school teachers after planned teaching programme.

**Recommendation**

1. The study can be conducted on larger samples
2. The study can be done in different setting.
3. The same study can be done with an experiment research approach having a control group.
4. Comparative study can be done between rural and urban schoolteachers.
5. Comparative study can be done between primary school teachers and secondary school teachers

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