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Effectiveness of Video Teaching Programme on Knowledge and Self-Reported Practices Regarding Prevention and First-Aid Management of Convulsions, Minor Injuries among Primary School Teachers

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ABSTRACT

Background: Since ancient times, persons who have had chronic or recurrent convulsive disorders, epilepsy, have been treated with varying degrees of respect. Some cultures considered it a divine curse; more frequently, it was considered a demonic possession. Today people with epilepsy still confront superstition, insensitivity, and discrimination. A large proportion of every child's life is spent at school. Along with academic learning children also learn how to communicate and interact socially with their peers. Studies support that children with epilepsy are for the most part of normal intelligence. Approximately 25% of epileptics experience seizures that are uncontrolled by current forms of treatments. However, depending upon the cause type, and severity of seizures, the social impact of the seizures, and the side effects of anti-epileptic medications, some children may face some challenges with learning and behaviour and require extra help at school. The **objectives** of the study were to assess the existing knowledge and self-reported practices regarding convulsions and selected minor injuries in school children among the teachers before video teaching. To assess the post-test score of knowledge and self-reported practices regarding convulsion and selected minor injuries in school children. To compare the pre and post-test knowledge and self-reported practices regarding convulsion and minor injuries in school children. **Method:** Quantitative research approach has been used for the current study. The research has been conducted among primary school teachers in Sangli, Miraj, Kupwad Corporation Area. Quasi – Experimental one group pre and post – test design was used for the study. A total of 80 samples were selected. The samples were selected by convenient sampling technique. A structured questionnaire of 30 questions was administered to collect data and data was analyzed using descriptive and inferential statistics. 15 of experts did the content validity of tool and Reliability of tool was determined by Test-Re-Test method. Pre-test was conducted along with video teaching programme and post-test was administered on seventh day. **Result:** Before implementation of the video teaching programme 80% of primary school teachers was having poor knowledge score, 20% teachers were having Average knowledge score. The post-test showed that 95% teachers was having good knowledge score, 5% teachers was having Average knowledge score and None of the teachers were having poor knowledge score. **Conclusion:** It shows that Video teaching programme was effective and there was significant improvement in the knowledge and self-reported practices score regarding prevention and first-aid management of convulsion and selected minor injuries among primary school teachers.

Keywords: Knowledge, Minor injuries, Self-reported practices, Prevention and first-aid, Management of Convulsions

INTRODUCTION

Epilepsy is one of the most prevalent neurological conditions and it knows no age, racial, social class, geographic, or national boundaries. The impact of epilepsy rests not only on the individual patient, but also, on the family and indirectly on the community. The burden of epilepsy may be due to the physical hazards of epilepsy resulting from the unpredictability of seizures; the social exclusion as a result of negative attitudes of others toward people with epilepsy; and the stigma, as children with epilepsy may be banned from school, adults may be barred from marriage, and employment is often denied, even when seizures would not render the work unsuitable or unsafe. Furthermore, epilepsy is a disorder associated with significant psychological consequences, with increased levels of anxiety, depression, and poor self-esteem compared with people without this condition. Here we discuss some of the aspects of the global burden⁽¹⁾. The overall prevalence is 3.0-11.9 per 1,000 population and the incidence is 0.2-0.6 per 1,000 populations per year data from recent studies in India on the general population are comparable to the rates of high-income countries (HICs) despite marked variations in population characteristics and study methodologies. There is a differential distribution of epilepsy among various socio-demographic and economic groups with higher rates reported for the male gender, rural population, and low socioeconomic status. A changing pattern in the age-specific occurrence of epilepsy with a preponderance towards the older age group is noticed due to socio-demographic and epidemiological transition⁽²⁾.

Unintentional injuries at school have been identified as a significant public health problem. A major barrier to the development of injury prevention policy has been the absence of national data on the circumstances of injuries to students which occur at school. This study sought to determine the incidence, nature, and circumstances of injuries which resulted in death or hospitalization. Fatalities were identified from national mortality data for 1977-86 inclusive. Coroners' files were then examined to obtain details of the circumstances of injury. Hospitalization cases were identified from the national hospital discharge summary for 1986⁽³⁾.

The results suggest that prevention policy should place emphasis on those in their first 2 years of schooling, falls from playground equipment, provision of protective equipment for sporting activities, sporting activities designed to minimize physical contact, establishment of standardized injury referral procedures, first-aid training, and a standardized injury reporting system^(4,5).

NEED FOR STUDY:

Convulsions are the most frequent neurological disorder. It is estimated by the WHO that 3- 10 per 1000 of the total population, have epilepsy, while almost one out of 5 children experience a seizure, and almost one out of 200 children have epilepsy. In the school environment, a teacher may be the first adult to witness a child having a convulsion. Each and every child's behaviour will vary according to the type of convulsion; therefore, the teacher should have basic knowledge about the management of convulsion to provide first and foremost care to the child to save their life. Convulsions are a disorder that results from the generation of electrical signals inside the brain, causing recurring seizures. Convulsions are a common chronic neurological disorder. These seizures are transient signs and/or symptoms of abnormal, excessive, or synchronous neuronal activity in the brain. About 50 million people worldwide have convulsions, with almost 90% of these people being in developing countries. Convulsions are more likely to occur in young children or people over the age of 65 years; however, they can occur at any time⁽¹⁾.

RESEARCH PROBLEM STATEMENT

A study to assess the effectiveness of video teaching program on knowledge and self-reported practices regarding "Prevention and first-aid management of convulsions & selected minor injuries" among primary school teachers of selected schools of Sangli, Miraj & Kupwad corporation area.

RESEARCH OBJECTIVES

1.To assess the pre-existing knowledge and self-reported practices on the management of convulsions

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and selected minor injuries in school children among the teachers.

2. To assess the post-test score of knowledge and self-reported practices on the management of convulsion and selected minor injuries in school children among the teachers.
3. To compare the pre and post-test knowledge and self-reported practices on the management of convulsion and minor injuries in school children among teachers

HYPOTHESIS

H₀: There is no significant difference in the knowledge and self-reported practices of school teachers regarding the care of students with convulsions & minor injuries before test.

H₁: There is a significant difference in the knowledge and self-reported practices of school teachers regarding the care of students with convulsions & minor injuries after test.

Operational Definition

1. **Assess:** In this study, "Assess means gathering information through structured questionnaire"
2. **Effectiveness:** In this study, "Effectiveness refers to a significant change in knowledge as determined by change in pre-test and post-test score".
3. **Video Teaching Programme:** In this study, *Video teaching Programme refers to providing information regarding convulsions and selected minor injuries in children to primary school teachers through video teaching programs"
4. **Knowledge:** In this study, "Knowledge refers to the correct response of primary school teachers regarding convulsions and selected minor injuries in children through self-structured questionnaire

RESEARCH METHODOLOGY

Present study was conducted by using quantitative approach with Quasi – Experimental one group pre and post – test design Sample size was calculated by using power analysis. Convenient sampling technique was used for identification of samples. 80 selected primary teachers from various selected schools were taken for the study. Primary school teachers who are not willing to give informed written consent were excluded from the study. Ethical committee permission and consent from the samples were taken before conducting the study. The data collection tool had three sections. Section I with demographic variables of samples, section II Self Structured questionnaire Section III Self-reported practice Checklist was used Reliability was done by using test retest method.

RESULT:

Collected data was analyzed by using statistical method. Frequency and percentage was used to Calculate demographic variables, knowledge questionnaire and self reported practices. Comparison of data was done by calculating mean, standard deviation and p value.

Section I: Demographic Variables

Table No. 1: Frequency and percentage distribution of samples with the selected demographical variables. **n=80**

SN	Demographic Variables	Frequency	Percentage
1	Age in years	20-30	38 47.5%
		31-40	26 32.5%
		41 and above	16 20%
2	Gender	Male	31 38.75%
		Female	49 61.25%
3	Education	B.Ed.	32 40%
		D.Ed.	48 60%

Section II Pretest level of knowledge regarding prevention and first-aid management of convulsions

Table No. 2: Frequency and percentage distribution of level of knowledge regarding prevention and first-aid management of convulsions according to their pre- test.

SN	Level of knowledge	Frequency	Percentage
1	Good (11to16)	3	3.75%
2	Average (6 to 10)	20	25%
3	Poor (0 to 5)	57	71.25%

The above table shows that, most of the teachers 57 (71.25%) have poor knowledge, 20 (25%) have average knowledge and 3 (3.25%) have good knowledge regarding prevention and first-aid management of convulsions.

Table No. 2.1: Frequency and percentage distribution of level of knowledge regarding prevention and first-aid management of minor injuries according to their pre- test.

n=80

SN	Level of knowledge	Frequency	Percentage
1	Good (11to16)	2	2.5%
2	Average (6 to 10)	62	77.5%
3	Poor (0 to 5)	16	20%

The above table shows that, most of the teachers 62 (77.5%) have Average knowledge, 16 (20%) have poor knowledge and 2 (2.5%) have good knowledge regarding prevention and first-aid management of minor injuries.

Table No. 2.2: Frequency and percentage distribution of level of self-reported practices regarding prevention and first-aid management of convulsions and selected minor injuries according to their pre- test.

n=80

SN	Level of self-reported practices	Frequency	Percentage
1	Followed	22	27.5%
2	Not Followed	58	72.5%

The above table shows that, most of the teachers 58 (72.5%) have not followed and 22 (27.5%) teachers have followed checklist regarding prevention and first-aid management of convulsions and selected minor injuries.

Table No. 3: Frequency and percentage distribution of level of knowledge regarding prevention and first-aid management of convulsions according to their post-test.

n=80

SN	Level of knowledge	Frequency	Percentage
1	Good (11to16)	68	85%
2	Average (6 to 10)	12	15%
3	Poor (0 to 5)	0	0%

The above table shows that, most of the teachers 68 (68%) have good knowledge and 12 (15%) have average knowledge regarding prevention and first-aid management of convulsions.

Table No. 3.1: Frequency and percentage distribution of level of knowledge regarding prevention and first-aid management of minor injuries according to their post- test.

n=80

SN	Level of knowledge	Frequency	Percentage
1	Good Knowledge (10 to 14)	72	90%
2	Average Knowledge (5 to 9)	8	10%
3	Poor Knowledge (0 to 4)	0	0%

The above table shows that, most of the teachers 72 (90%) have good knowledge, 8 (10%) have Average knowledge regarding prevention and first-aid management of minor injuries.

Table No. 3.2: Frequency and percentage distribution of level of self-reported practices regarding prevention and first-aid management of convulsions and selected minor injuries according to their post-test.

n=80

Level of self-reported practices	Frequency	Percentage
Followed	70	87.5%
Not Followed	10	12.5%

The above table shows that, most of the teachers 70 (87.5%) have followed and 10 (12.5%) teachers have not followed checklist regarding prevention and first-aid management of convulsions and selected minor injuries.

Table No. 4: Comparison between pre-test and post-test knowledge scores regarding Prevention and first-aid management of convulsions.

n=80

Aspects	Mean	S.D.	Median
Pre- test	5.03	2.3408	5

Post- test	11.76	2.2061	12
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The table 4 shows that, according to knowledge level, the mean score of knowledge before giving video teaching program was 5.03, median 5 and S.D. is 2.3408 and the mean score of knowledge after giving video teaching program was Mean 11.76, median 12 and S.D. is 2.2061.

Table No. 4.1: Comparison between pre-test and post-test knowledge scores regarding Prevention and first-aid management of minor injuries.

n=80			
Aspects	Mean	S.D.	Median
Pre- test	6.112	1.9159	6
Post- test	8.037	2.4310	8

The table 4.1 shows that, according to knowledge level, the mean score of knowledge before giving video teaching program was 6.112, median 6 and S.D. is 1.9159 and the mean score of knowledge after giving video teaching program was Mean 8.037, median 8 and S.D. is 2.4310.

SECTION III: Comparison between pre-test and post-test knowledge scores

Table No. 5: Comparison between pre-test and post-test scores of video teaching programme on knowledge regarding prevention and first-aid management of convulsion and selected minor injuries.

n=80						
Knowledge score	Mean	S.D.	Median	Paired t- test	p- value	Interpretation
Pre- test	10.5	3.475	10	7.8278	0.00001 < 0.05	Significant
Post- test	22.4	3.388	23			

The above table shows that, according to knowledge level, the mean score of knowledge before giving video teaching program was 10.5, median 10 and S.D. is 3.475 and the mean score of knowledge after giving video teaching program was Mean 22.4, median 23 and S.D. is 3.388 and t-value is 16.333 and p-value 0.000011 which is less than 0.05. Therefore, the video teaching program was found effective.

DISCUSSION: The present study intended to find out the effectiveness of video teaching program on knowledge and self-reported practices regarding “Prevention and first-aid management of convulsions & selected minor injuries” among primary school teachers of selected schools of Sangli, Miraj & Kupwad corporation area. The finding of present study are discussed with reference to the objective, hypothesis stated and with findings of other similar study.

In our study total 80 samples were included out of 80 samples 31 (38.75%) were male and 49(61.25%) were female selected by convenient sampling technique. The study shows that there is an increasing in level of knowledge of primary school teachers.

CONCLUSION: The purpose of the study was to find the effectiveness of video teaching programs on knowledge and self-reported practices regarding “Prevention and first-aid management of convulsions &

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selected minor injuries” among primary school teachers. A quantitative research approach is used. Quasi-experimental one-group pre- test post-test design was used for the study. It was considered to be the most suitable method for beginners in the field of experimental research and was very simple and convenient to conduct these studies in a natural setting^(6,7,8).

Based on objectives, collected data were analysed by using descriptive and inferential statistics. The statistical post-test mean score showed that the video teaching program was effective and there was a significant improvement in the level of knowledge and self-reported practices regarding “Prevention and first-aid management of convulsions & selected minor injuries” among primary school teachers^(7,8).

Conflict of interest: Nil

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