

# Effect of Video Assisted Teaching on Prevention and Management of Dengue among Mothers in a Selected Rural Community, Kancheepuram District, Tamil Nadu, India

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## Abstract

Dengue is one of the most common mosquito borne diseases in India and it is most prevalent condition in the community. The number of cases of dengue goes up high during monsoon season as the mosquito breed in stagnant water and in warm and humid weather. The study topic was “Effects of video assisted teaching on prevention and management of dengue among mothers in selected rural community, Kanchipuram District, Tamil Nadu, India”. The objectives of the study were to assess the pre and post-test knowledge of mothers regarding prevention and management of dengue, to assess the effectiveness on video assisted teaching among the mothers in the rural community and to find out the association between pre-test knowledge scores regarding prevention and management of dengue with selected demographic variable. Quantitative research approach was used for this study. Quasi-experimental, one group pre-test post-test design was used for this study. The sample consists of 194 mothers. Self structure questionnaire was used to assess the effect on video assisted teaching on prevention and management of dengue. The data collection period was one week. The data was collected in 194 mothers in the age group between 20 to 60 years in pooncheri rural community. The samples are selected by using simple random sampling technique. The data was analyzed and tabulated. The results shows pre-test knowledge scores on prevention and management on dengue was 51% (98) had moderate knowledge, 43% (84) had inadequate, 6%(12) had adequate knowledge. Post-test knowledge scores after video assisted teaching on prevention and management on dengue was 9%(18) had moderate knowledge and 91% (176) had adequate knowledge. Study shows that there was significant association between pre-test and post-test knowledge of mothers with T Value of 25.76 which was statistically significant at  $p < 0.05$  level. The post-test knowledge score was greater than the pre-test knowledge score (pre-test-13.70 < post-test-21.57).

**Keywords:** Knowledge, video assisted teaching, prevention, management, dengue fever.

## Introduction

Dengue is one of the most common mosquito borne disease in India. It causes a high fever and a rash. Unlike most mosquitoes, dengue causing mosquitoes bite during the day. These mosquitoes breed in stagnant water and in warm and humid weather. This is why the number of cases of dengue go up high during monsoon season<sup>1</sup> (Nivedita Gupta et al 2012).

Dengue viruses are arboviruses capable of infecting human and causing diseases. A Prevalence of *Aedes aegypti* and *Aedes albopictus* together with the

circulation of dengue virus of more than one type in a particular area tend to be associated with outbreak of dengue hemorrhagic fever and dengue shock syndrome<sup>2</sup> (Chaturvedi U S 2014).

The earliest known documentation of dengue fever like illness was in the Chinese Encyclopedia of symptoms in Chin Dynasty (CE 265-420). The illness was called ‘Water poison’ and was associated with flying insects near water. Outbreak of febrile illnesses compatible with dengue fever have been recorded throughout history, with first epidemic described in 1635 in West Indies.

In 1779-1780 the first confirmed, outbreak reported, almost simultaneously in Asia, North America and Africa. Benjamin Rush coined the term break bone fever to describe the intense symptoms reported by one of his patients. A dengue like epidemic in East Africa in the early 1820's was called, in Swahili, Ki denga pepo (it is a sudden taking over by the spirit). The English version of this term 'Dandy Fever' was applied to an 1827-28 Caribbean outbreak and in the Spanish Caribbean colonies, the term was altered to 'dengue'<sup>3</sup>(**Guzmaan MG 2010**)

**Need for Study:** The incidence of dengue has increased by 30 folds from 1960-2010. This increase is believed to be due to urbanization, population growth, increased international travelers and global warming<sup>4</sup> (Itrat A 2008).

With regard to Dengue fever epidemic in Chennai, a study on clinical profile and outcome was done in the month of October to December 2001. It showed 59 sero positive cases were reported in the hospital during the study, of which 5 were DSS, 11 were DHF and 20 were DF. The age groups affected are between 7 months to 12 years<sup>5</sup>(**Doke 2001**)

In the year 2012, 14,203 cases were suspected in Kanchipuram District. 13308 cases were tested, 18% of the tested samples - positive for DF and 9 deaths. Due to dengue, increase of death rates in rural community compared to urban – mainly due to lack of awareness on prevention<sup>6</sup>(**Devaleenal B 2015**)

So the major responsibilities lay with health care providers to impart knowledge. So the researchers proposed to conduct the study on prevention and management of dengue among rural community.

### **Objectives of the Study:**

1. To assess the pre and post- test knowledge of mothers regarding prevention and management of dengue.
2. To assess the effectiveness of video assisted teaching among the mothers in the rural community.
3. To find the association between pre-test knowledge scores regarding prevention and management of dengue with selected demographical variables such as age, educational status, occupation, previous history of illness.

### **Operational Definitions:**

**Assess:** Refers to the process to identify the level of knowledge of adults towards prevention of dengue fever.

**Effectiveness:** It refers to the difference in pre test scores and post test scores on prevention of dengue fever.

**Video assisted teaching program :**It is series of visual information given through slide shows regarding prevention of dengue fever.

**Prevention:** It refers to the measures to be taken at primary, secondary, tertiary levels of care

**Dengue fever:** It is an acutely infectious mosquito borne viral disease.

**Mothers:** It refers to mothers in the rural areas in the age group of 20 to 49.

### **Methodology**

**Research Approach:** Quantitative research approach was used.

**Research Design:** The quasi-experimental design.

**Research Setting:** The study will be conducted in Poonchery Village, Kanchipuram District, Tamil Nadu.

**Population:** It includes the mothers in the age group of 20 years and below 60 years.

### **Sample Criteria:**

#### **Inclusion Criteria:**

- Mothers with age group the between 20 years and below 60 years.
- Mothers who are residing at selected village.
- Mothers who understand and can able to speak Tamil language.
- Mothers who are present during the data collected.

#### **Exclusion Criteria:**

- The study excluded for Mothers who are not willing to participate in the study.
- Physical disabilities like Deaf and dumb.
- Mental disability.

**Sampling Size:** The sample size - 194 mothers

**Sampling Technique:** Simple random technique

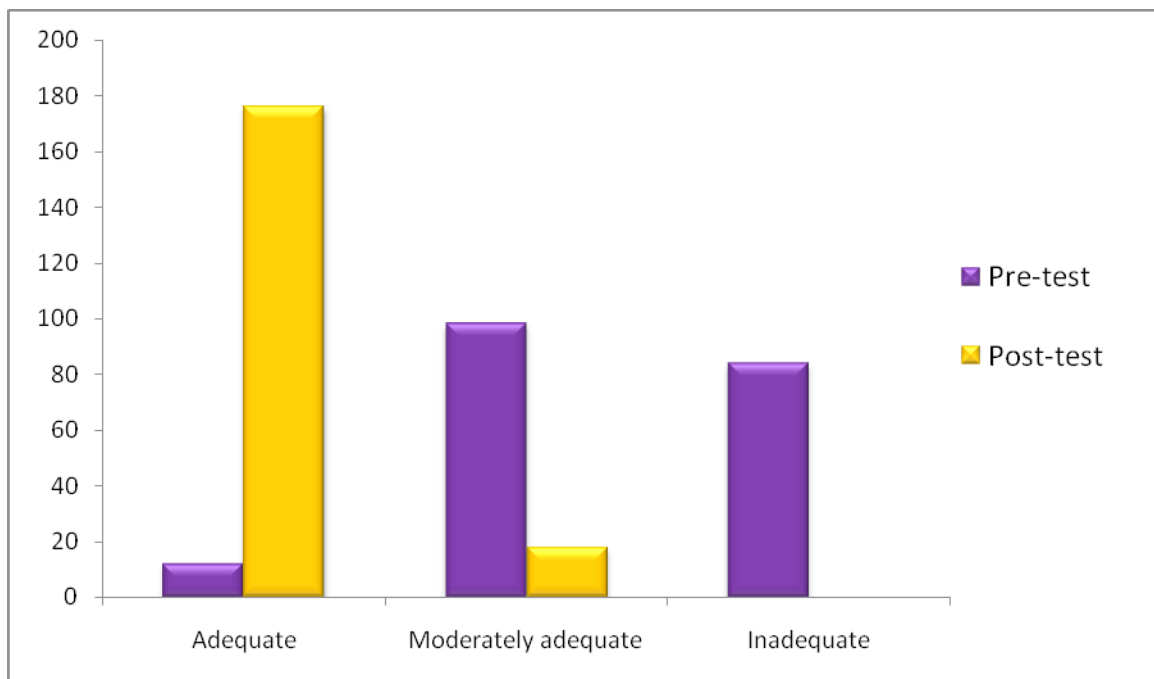
**Data Collection Procedure:**

- Data collection period-10 days.
- Selected samples by using simple random sampling technique.
- Consent obtained from each participant of the study.
- Pre-test knowledge was assessed by structured questionnaire before the video assisted teaching programme – 10-30 minutes in each house during home visit.

- The video was played in each house lasting for 20 minutes.
- Post-test knowledge was assessed using the same tool 15 minutes later.

**Data analysis and interpretation:** descriptive statistics for frequency, percentage distribution of demographic variables such as age, religion, marital status, educational status, occupation, previous history of illness and for previous family history of illness and Chi-square was used for association of knowledge scores on prevention and management of dengue.

**Knowledge Score:**



**Fig. 1: Percentage distribution pre-test and post-test level of knowledge on prevention and management of dengue fever**

**Results and Discussion**

The collected study was tabulated and analyzed. In the population majority 51% (98) of mothers having moderate knowledge, 43% (84) having inadequate knowledge, only 6% (12) of them having adequate knowledge regarding prevention and treatment of dengue. After the video assisted teaching on prevention and management of dengue the result is 91% (176)

having adequate knowledge, 9% (18) having moderately adequate knowledge and none them were having inadequate knowledge regarding prevention and treatment of dengue.

**Conclusion**

This study shows mothers have less knowledge in pre-test and the Video assisted teaching is effective in

increasing the knowledge level among mothers in post-test on prevention and management of dengue.

**Source of Funding:** No other source

**Ethical Clearance:** Obtained

**Conflict of Interest:** Nil

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