

# Effectiveness of Video Assisted Teaching Programme on Prevention of Vector - Borne Diseases Among Adults of Selected Village, Karaikal

Santhi. P<sup>1</sup>, Gomathi. P<sup>2</sup>, Joseph Hermaline. R<sup>3</sup>

<sup>1</sup> Associate Professor

<sup>2</sup>Head of the Department, Dept of Community Health Nursing

<sup>3</sup>Vice Principal

<sup>1,2,3</sup> Vinayaka Mission's College of Nursing, Karaikal, VMRF-DU, Salem

**Abstract- Background:** Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. The major vector-borne diseases including malaria, dengue fever, yellow fever, and plague cause a significant fraction of the global infectious disease burden and accounts for around 17% of all infectious diseases. Vulnerability to vector borne diseases is aggravated to multifold with lack of awareness among people to prevent from vector borne diseases. **Objectives:** The study aimed to assess the effectiveness of video assisted teaching programme on prevention of vector borne diseases among adults. **Material & Methods:** Pre-experimental one group - pre test post test design was adopted for this study. The study was conducted at Keezhakasakudy, Karaikal. By using convenience sampling technique 60 adults were selected for this study. Self structured interview schedule was used to collect the data. Both descriptive and inferential statistics were used to analysis the data. **Results:** The study results revealed that in pretest out of 60 study participants, 78.3% (47) had inadequate knowledge and 21.7% (13) had moderately adequate knowledge where in post test the majority 58.3% (35) had adequate knowledge, 41.7% (25) had moderately adequate knowledge and none had inadequate knowledge on prevention of vector borne diseases. **Conclusion:** This study results showed that creating awareness with audio visual aids help to increase the knowledge acquisition among the adults. Hence it is necessary to make awareness with multiple audio visual aids in order to bring better results in prevention of vector borne diseases in the community.

**Keywords-** Assess, Effectiveness, Video Assisted Teaching programme, Prevention, Vector - borne diseases, Adults

## I. INTRODUCTION

Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms of parasites,

viruses or bacteria during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal. Vector-borne infectious diseases such as malaria, dengue fever, yellow fever, and plague, cause a significant fraction of the global infectious disease burden and accounts for around 17% of all infectious diseases. Mosquitoes are the best known disease vector. Other vectors include ticks, flies, sand flies, fleas, triatomine bugs and some freshwater aquatic snails. Distribution of vector-borne diseases is determined by complex demographic, environmental and social factors. Global travel and trade, unplanned urbanization and environmental challenges such as climate change can impact on pathogen transmission, making transmission season longer or more intense or causing diseases to emerge in countries where they were previously unknown. Changes in agricultural practices due to variation in temperature and rainfall can affect the transmission of vector-borne diseases. The growth of urban slums, lacking reliable piped water or adequate solid waste management, can render large populations in towns and cities at risk of bacterial and viral diseases spread by mosquitoes. Together, such factors influence the reach of vector populations and the transmission patterns of disease-causing pathogens.

Vector borne diseases constitute a major public health problem in India. Malaria continues to be important vector-borne disease with an annual morbidity of 4-5 million cases. According to WHO worldwide there were 219 million estimated cases of malaria in 2017 and about 1.1 billion people are at high risk of getting Malaria where as in India total estimated cases were 1.31 million and 23990 deaths in 2017. National health mission reported that in 2017, Tamil Nadu had 5449 reported cases of malaria. Filariasis is another important arthropod disease with an estimated 236 million people living in filariasis-endemic areas. About 5 million people are estimated to be living in areas where guinea-worm diseases are endemic areas with 54 human cases reported in 2019. Statistics on vector borne disease in Puducherry state reported that in 2015 there were 20 malaria positive cases, 195

dengue positive cases and 8 chikungunya cases. Many recent studies revealed that people who usually sleep at outdoor, unhygienic home environment, not using any personal protective measures to control vector bite, socioeconomic conditions, seasons and climatic changes, plants and agricultural farming, migration to the endemic areas and tribal peoples are more vulnerable to get vector borne diseases. Hence necessary knowledge is essential to the development of novel and more effective intervention and mitigation measures for vector-borne diseases.

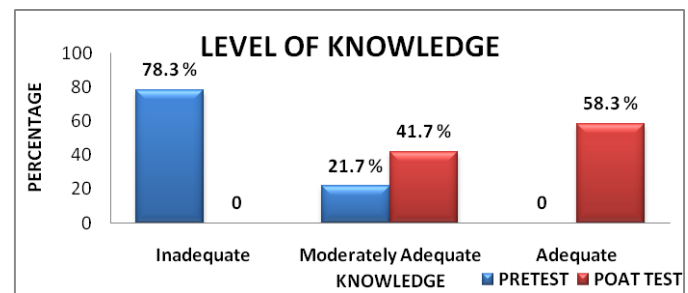
**II. MATERIALS AND METHODS**

A Quantitative Pre-experimental one group- pre test post test design was adopted for this study. The study was conducted at Keezhakasakudy village, Karaikal. Convenience sampling techniques was used to select 60 adults for this study. Adults both males and females between the age group of 20 – 45 years were included in this study. Pretested self structured interview schedule was used to collect the data from the participants. The tool had two sections. Section A consisted of 12 items on demographic profoma of study participants and Section B consisted of 30 items on knowledge on prevention of vector borne diseases. The reliability of the tool was tested by split half method. (r=0.8) Pilot study was conducted among six participants to check the feasibility and practicability of the study. It was found feasible to conduct the study. After explaining the purpose of the study, informed consent was obtained from each adult. Self structured interview schedule was used to collect the data from each participant before VAT. It took 15 – 20 minutes to collect information from each participant. Video assisted teaching on prevention of vector borne disease was given to the participants after pre-test. After one week, the post test was conducted by using the same tool individually from each participant. Descriptive statistics such as mean, mean percentage, standard deviation were used to analysis the level of knowledge. Inferential statistics such as chi-square was used to associate the knowledge with demographic variables, and ‘t’ test was used to find the relation between pre test and post test knowledge level.

**III. RESULTS**

The majority of the study participants 23% (14) were belonged to the age group of 31-35 years. The majority of the adults 67% (40) were males and the only 33% (20) were females. 23% (14) of adults had up to primary education and diploma/degree education and only 15% (8) were illiterate. The highest 55% (33) of the study participants were self employed and only 13% (8) were unemployed. The majority of the samples 55% (33) were belonged to the income of

Rs.5,000-Rs.10,000/-, and only 12% (7) had the income below Rs.5, 000/-. The majority of the study participants 35% (21) were belonged to Hindu religion. Most of the study participants 44% (26) were living in a nuclear family. Most of the study participants 48% (29) had kitchen garden in their home where as 52% (31) had not have any kitchen garden in their home. With regard to the type of drainage system present in the house, the majority of the house 53% (32) had open drainage and only 47% (28) had closed drainage in their house. Based on the presence of pet animal or rearing of domestic animal in the house the majority 27% (16) had dog, 35% (15) had rearing of either cow or other domestic animals and 13% (8) had goat and only 10% (6) had cat as pet animal. The highest 42% (25) of the study participants had information from news paper, 28% (17) had information from health care personnel and 15% (9) had information from radio/television and 15% (9) had information from friends and relatives.



**Fig: 1 Level of knowledge on prevention of vector borne diseases**

In post test the highest mean score was 2.5833 with standard deviation of 0.4972 where as in pre test the lowest mean score 1.2167 with standard deviation of 0.4155 was obtained.

**Table: 2 Effectiveness of video assisted teaching on prevention of vector borne diseases among adults**

**N=60**

TEST	MEAN	S.D	't' VALUE	df	'p' VALUE
Effectiveness of video assisted teaching	10.817	5.104	16.416*	9	0.000

\*significant at 0.05 level

The present study revealed that there was no statistically significant association between the pre test knowledge on prevention of vector borne diseases with any of the demographic variables of the adults.

**IV. DISCUSSION**

The result of the present study revealed that in pretest out of 60 study participants, the majority 78.3% (47) had

inadequate knowledge, 21.7% (13) had moderately adequate knowledge and none had adequate knowledge. This showed that the majority of the adults didn't have adequate knowledge on prevention of vector borne diseases. This may be due to not exposed to the information and having less formal education. The findings of this study revealed that 23% had primary education and 15% were illiterate which may be the reason for majority of participants with inadequate knowledge. In post test there was increased in level of knowledge on prevention of vector borne diseases among adults to 58.3% (35) of adequate knowledge, 41.7% (25) of moderately adequate knowledge and none had inadequate knowledge. The result of this study was supported by the similar study conducted by Arpit Prajapati et al on impact of educational intervention regarding mosquito borne diseases and their control measures among the link workers of Urban Health Centers (UHCS) of Ahmedabad city revealed that before intervention no any link worker had good knowledge, while 37% had poor and 63% had fair knowledge regarding mosquito borne diseases and control measures which was improved after training good knowledge (61%) and fair knowledge (39%).

In this study the mean score of knowledge on prevention of vector borne diseases was improved from pretest (1.2167 with standard deviation of 0.4155) to post test (2.5833 with standard deviation of 0.4972). This was supported by the findings of similar study conducted by Sunil Ansa et al on Effect of Video Teaching on Knowledge in Prevention and Management of Selected Mosquito Borne Fever among Mothers of Children showed that the mean post- test knowledge score ( $29.32 \pm 2.86$ ) was significantly higher than the mean pre-test knowledge score.

In this study the effectiveness of the video assisted teaching on prevention of vector borne diseases was significant in improving knowledge level among adults. In this study in paired 't' test, the calculated 't' value 16.416 is greater than the table value 0.000 at 59 degree of freedom with 0.05 level of significance. The similar observation was found in the study conducted by Krishna Vaishnavi P on the Effectiveness of Structured Teaching Program on Knowledge Regarding Mosquito Control Measures among High School Children in Selected Rural Area in Vizanagaram District which proved that the structured teaching program was effective in providing knowledge on mosquito control measures.

## V. CONCLUSION

Adequate awareness is essential to bring positive attitude and desired behavior among adults. Present study showed that creating awareness with audio visual aids help to

increase the knowledge acquisition among the adults than just giving health education. So it is necessary to make awareness with multiple audio visual aids to bring desired attitude change and better results in prevention of vector borne diseases in the community especially in rural areas.

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