



# “A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING SELECTED VECTOR BORNE DISEASES AMONG FARMERS AT RURAL AREA IN CHITTOOR DISTRICT.”

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## ABSTRACT

### OBJECTIVE OF THE STUDY:

1. To assess the knowledge regarding vector borne diseases among the framers selected rural area of Chittoor district.
2. To assess the effectiveness of planned teaching program on Knowledge regarding vector borne Diseases among the farmers of selected rural area of Chittoor district.
3. To find out the association of knowledge about pre-test and post-test the with their selected demographic variable.

### METHODOLODY OF THE STUDY:

The research design used for the study was a descriptive research design. The research approach used for the study was the descriptive approach. The sample size was 60 Farmers. The sample was selected by purposive sampling method and was assessed for a level of vector borne diseases among farmers at selected villages. Analysis of data was done by using descriptive and inferential statistics.

**THE MAJOR FINDINGS OF THE STUDY WERE:**

- 48.30% with age group of 35- 55 years and 30.00% age group of 56-75 years.
- 60.00 % study population were male and 36.70% study population were female.
- 68.30% study population knows Telugu language. 21.70% study population knows Tamil language.
- 86.70% study population comes under married. 6.70% study population comes under widow.
- 55.00% respondents Belongs to informal education, 28.30% respondents belongs to primary education.
- 60.00% study population income were below 5000 Rupees, 23.30% study population income were below 5000-10,000 Rupees.
- 33.30% study population were 1-3 hours working in the field, 41.70% study population were 3-5 hours working in the field.
- 38.30% study population having 1-5 cultivation in square feet, 31.70% study population having 5-10 cultivation land in square feet.
- 56.70% farmers cultivating crop is rice, 21.70% farmers cultivating crop is wheat.
- 80.00% farmers affected with vector borne disease in previous and remaining 20.00% farmers are free from vector borne disease.
- Among participants of pre test 76.70% study population having inadequate knowledge, 20.00% population having moderate knowledge and 3.30% population having adequate knowledge.
- Among participants for post test 11.70% study population were having inadequate knowledge, 20.00% population were having moderate knowledge and 68.30% population were having adequate knowledge.
- Among study population were using distribution mean, standard deviation, t value and p value of pre test and post test knowledge. The mean for pretest knowledge is 8.88% and post test knowledge is 17.85%. the standard deviation for pretest knowledge is 4.038% and post test knowledge is 4.029%. the t value for pretest and post test knowledge is 15.774%.
- Among study population using correlation of knowledge in pre test and post test 0.404.

**CONCLUSION**

The present study aims to evaluate knowledge of planned teaching programme on vector borne diseases among farmers and to prepare on information booklet on the management of vector borne diseases of farmers.

**KEY WORDS**

Assess, Effectiveness , Planned teaching programme , vector borne diseases, farmers.

## INTRODUCTION

*“MY GRAND FATHER USED TO SAY THAT ONCE IN YOUR LIFE YOU NEED A DOCTOR. A LAWYER, A POLICE MAN AND PREACHER BUT EVERY DAY THREE TIME A DAY. YOU NEED A FARMER.”*

FARMER means the people who are working and raising field crops in the field of agriculture especially in villages. They work to grow different crops and might own or work as labour on land owned by others. Vector borne diseases [VBDs] account for 17% of the estimated global burden of all infectious diseases Malaria. The most deadly VBD, caused an estimated 627,000 deaths in 2012. In recent years they have emerged as a major public health problem in India. Particularly dengue fever. Japanese encephalitis and malaria now occur in epidemic proportions almost on annual basis causing considerable morbidity and mortality.

The world's fastest growing VBD is dengue, with a 30-fold increase in disease incidence over last 50 years. Every year there are more than 1 billion cases and over 1 million deaths from VBDs. In India, 25% population live in malaria high transmissions area. The diseases are commonly in tropical and subtropical regions and places where access to safe drinking water and sanitation system is problematic. They are VBDs and the climate change. A steep rise of VBDs is due to several factors such as selection of insecticide resistant vector population, drug resistant parasite population, and lack of effective vaccines against VBDs.

Vector borne diseases [VBDs] cause substantial global morbidity and mortality. They account for 17% of all infectious diseases and over 700,000 attributable deaths and 80% of the world's population are at risk of one or more of them [WHO, 2020]. Generally, vectors can be any living organism capable of transmitting infectious pathogens to humans. The typical vectors of vector borne diseases are mosquitoes, Ticks snails and fleas among others.

### **MALARIA GLOBAL BURDEN:**

As the second most populous country in the world, with a population exceeding one billion people, India's public health system faces many challenges including implementation of surveillance programs to accurately estimate and control the national malaria burden. Historically, the highest incidence of malaria in India occurred in the 1950s, with an estimated 75 million cases and 0.8 million deaths per year (World Health Organization, Country Office for India). The launch of the National Malaria Control Program (NMCP) in 1953 resulted in a significant decline in the number of reported cases to <50,000 and no reported mortality, by 1961. In India, *P. Falciparum* (PF) and *P. Vivax* are the most common species causing malaria. *P. Vivax* is more Prevalent in the plains while *P. Falciparum* predominates in forested and peripheral areas. malaria in India is mostly unstable and outbreak occurs frequently in various parts of the country cause mostly by *P. falciparum* infections. The reported PF cases declined from 1.14 million in 1995 to 0.53 million cases in 2012.

Each year WHO world malaria. report provides a comprehensive and up to date assessment of trends in malaria control and elimination across the globe.

It tracks investments in malaria programmes and researcher as well as progress across all intervention areas: prevention, diagnosis, Treatment elimination and servile once. The 2022 report is based on information received from 84 malaria Endemic countries in all WHO regions. Malaria is a public health problem in several parts of India. about 95% population in country resides in malaria endemic areas and 80% of malaria reported in the country is confined to areas consisting 20% of population residing inn tribal, hilly, difficult and inaccessible areas. WHO estimates that India accounts for three – quarter of Malaria cases in south east Asia. As for world malaria report 2012, globally India is on 18 Position in total reported malaria cases and 21<sup>st</sup> position in reported malaria deaths. High malaria burden states in India include seven north -eastern states and nine other states – Orissa, Jharkhand, Chhattisgarh, Madhya Pradesh, Andhra Pradesh, Maharashtra, Gujarat, Karnataka, west Bengal.

### **DENGUE GLOBAL BURDEN:**

Dengue is a mosquito borne infection found in tropic and subtropical regions around the world. In recent years, transmission has increased predominantly in urban and semi urban areas and has become a major international public health concern. Over 2.5 billion over 40% of the worlds population -are now at risk from dengue a mosquito borne infection. WHO currently estimates that there may be 50-100 million dengue infections worldwide every year. Before 1970, only nine countries had experienced severe dengue epidemics. the disease is now endemic in more than 100 countries in Africa, the Americans, the eastern mediterranean , south- east Asia and Westen pacific.

### **BURDEN IN INDIA:**

The disease is now endemic in the entire country .as per the national programme , 31 states reported 74201 cases of dengue and 167 deaths in 2013. Not only is the number of cases increasing as the disease spreads to new areas , but out breaks are also occurring , recurring outbreaks of dengue have been reported from Andhra Pradesh , Delhi, Goa, Haryana, Gujarat, Karnataka, Kerala, Maharashtra, Rajasthan , Uttar Pradesh, Odisha Pondicherry, Punjab, Tamilnadu, and west Bengal. Cases are reported from rural areas as well.

In 2021 28,429 dengue cases and 105 dengue related deaths were reported. in the year 2022 an increasing lend of dengue outbreaks was observed in many countries including Bangladesh first 23 November 2022 a total of 3,643,763 dengue cases and 3380 dengue related deaths were reported globally.

### **CHIKUNGUNYA GLOBAL BURDEN:**

Chikungunya is mosquito- borne viral disease first described during an outbreak in southern Tanzania in 1952. It is an RNA virus that belongs to alpha virus genus of the family Togaviridae. the name ‘ chikungunya ’derives from a word in the Kimakonde language, meaning “ to become contorted” and describes the stooped appearance of sufferers with joint pain (arthralgia).

India experienced massive out breaks of Chikungunya in 1960s and early 1970s mainly in cities. after a gap of 32 years (in 2006), an explosive break of Chikungunya devastated the country affecting more than 1.4 million people in 13 states.

## BURDEN IN INDIA

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## NEED FOR STUDY:

**“Wisdom.... comes not from age, but from education and learning.”**

Special attention is needed for the health problems of agricultural workers, who constitute some three-quarters of the world's working population. Agriculture is not a safe occupation. Agricultural workers face a large number of health problems, many of which arise from their work. In 1990, the National Safety Council of the United States estimated that agriculture was the most dangerous occupation, agricultural work embraces a wide range of activities including animal husbandry; planting and cultivation; harvesting and storage; transport; maintenance and repair; and construction. Animal diseases are also an important environmental problem associated with livestock in agriculture.<sup>5</sup>

Disease spread by vector kill a million people every year and more than half of the world's population at risk of vector borne diseases. In August 2018 Times of India reported 1363 cases of vector borne disease in one month. Vector-borne diseases account for more than 17% of all infectious diseases, causing more than 700 000 deaths annually.<sup>6</sup>

According to WHO on World Health Day 2012 there were 1.06 million cases of malaria reported by 12 states, namely Odisha, Jharkhand, Chhattisgarh, Maharashtra, Madhya Pradesh, Gujarat, West Bengal, Uttar Pradesh, Assam, Rajasthan, Andhra Pradesh, and Haryana. According to global reports that there are 216 million cases and 4,45,000 deaths occur due to malaria and World Malaria Report 2017 estimates those 1.31 million cases and 23,990 deaths due to malaria. According to WHO November 2017 India has 4th highest number of malaria cases and deaths in world.

Malaria is a protozoan disease of the genus of the Plasmodium caused by the bite of infected female Anopheles mosquito, characterized by high fever and rigors. Malaria is a major health problem. The incidence of malaria diseases is increasing year by year due to some reasons maybe due to lack of training personnel, drug resistance, population mobility, natural disaster and lack of knowledge about malaria diseases and its prevention. India had an estimated 10.6 million cases in 2006 that account for approximately 60% of cases in the WHO South-East Region. With over 100 million slides examined every year, all reported cases are confirmed, about half are due to *falciparum*. However, the percentage of cases detected through active versus passive surveillance is not known. The states that are most affected are Uttar Pradesh, Bihar, Karnataka, Odisha, Rajasthan, Madhya Pradesh, Pondicherry and the largest number of deaths were reported from Odisha, followed by West Bengal, Mizoram, Jharkhand, Meghalaya, Karnataka, Tripura and Assam.

## PROBLEM STATEMENT

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## OBJECTIVE OF THE STUDY

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## HYPOTHESIS:

H<sub>0</sub>: There is a no significant difference between pretest and posttest knowledge score regarding Health Education.

## Operational definitions

**Assess:** It refers to the process used to identify the level of knowledge regarding vector born diseases among former

**Effectiveness:** Effectiveness is the capability of producing a desired result or the ability to produce desired output. When something is deemed effective, it means it has an intended or expected outcome, or produce a deep, vivid impression.

**Planned teaching programme:** In this study planned teaching programme refers to planned video assist health education regarding knowledge on vector born diseases.

**Farmers:** In this study it refers to a person engaged in agriculture raising living organisms for food or raw materials.

**Vector born disease:** It is human illnesses caused by parasites, viruses, and bacteria that transmitted by vectors.

## ASSUMPTION

The study assumes that

1. Farmers will have some vector borne disease problem.
2. vector borne disease of farmers can identified using a self structured questionnaire.
3. Knowledge on vector borne disease during pre test and post test will have positive impact on relief of VBD.

## LIMITATION:

1. Study was limited to the farmers at Cherlopalli village in Chittoor.
2. Study was limited to the farmers who were present at the time of data collection at cherlopalli village in Chittoor district.

## DELIMITATION

The study is limited to villages at selected farmers in cherlopalli chittoor ditrict.

## METHODOLOGY

## RESEARCH APPROACH:

The research approach is the broad based procedure of studying the vector borne disease drawing conclusion. The research approach refers to the general set of ordinally disciplined procedures used to acquire dependable and useful information.

Research approach for the present study was quantitative research approach, it is an appropriate method to observe the vector borne disease in farmers in cherlopalli Chittoor (DT) Andhra Pradesh, India.

### 3.2 RESEARCH DESIGN:

Research design is the researchers plan for answering the research questions for testing the research hypothesis.

- Suresh. K. Sharma (2016)

For the present study descriptive research design adapted with survey method.

### 3.3 SETTING OF THE STUDY:

The setting was chosen the basis of investigator feasibility in terms of availability of required sample. planned teaching programme on vector borne diseases The present study is conducted selected village in cherlopalli after obtaining permission from the sarpanch of cherlopalli village.

### 3.4 POPULATION:

A population is the entire set of individuals or objects that have same characteristics.

- Polit and Hungler (2010)

The population comprises of farmers at cherlopalli.

### 3.5 SAMPLE:

Sample is the subset of the population selected to participate in research study. The sample for the present study consists of farmers.

### 3.6 SAMPLE SIZE:

A sample size consist of 60 farmers at selected villages.

### 3.7 SAMPLING TECHNIQUE:

Sample technique refers to the process of selecting a portion of population.

- C. Kothari (2011)

Sampling technique refers to the process of selecting a portion of the population to represent the entire population. For the present study, Purposive sample technique was based on researchers Knowledge about the population included in the convenient and economical.

### 3.8 CRITERIA FOR SAMPLE SELECTION

#### Inclusive criteria:

- Farmers who are available at the time of data collection
- Farmers who are affected with vector born diseases at Chittoor district

**Exclusive criteria:**

- Farmers who are sick at the time of data collection
- Farmer who are don't know the English or Telugu to understand
- Farmer who are not willing to participate in this study

**3.9 DESCRIPTION OF VARIABLES:**

Variables are concepts at different level of abstraction that are concisely defined to promote their measurement or manipulation within study.

- **Polit and Beck (2012)**

**Independent variable:**

It is a stimulus or activity that is manipulated or varied by the researcher to create effect on the dependent variable.

The independent variable is defined as the presumed cause.

- **Polit and Beck (2012)**

The independent variables are age, sex, language known Marital status, educational status ,income per month, number of working hours in field, cultivation land in square feet, type of crop, farmers, have effect on vector borne disease.

**Dependent variables:**

It is the outcome response due to the effect of the independent variables which research events to predict or explain. The dependent variables is defined as the presumed effect.

- **Polit and Beck (2012)**

**SCORING**

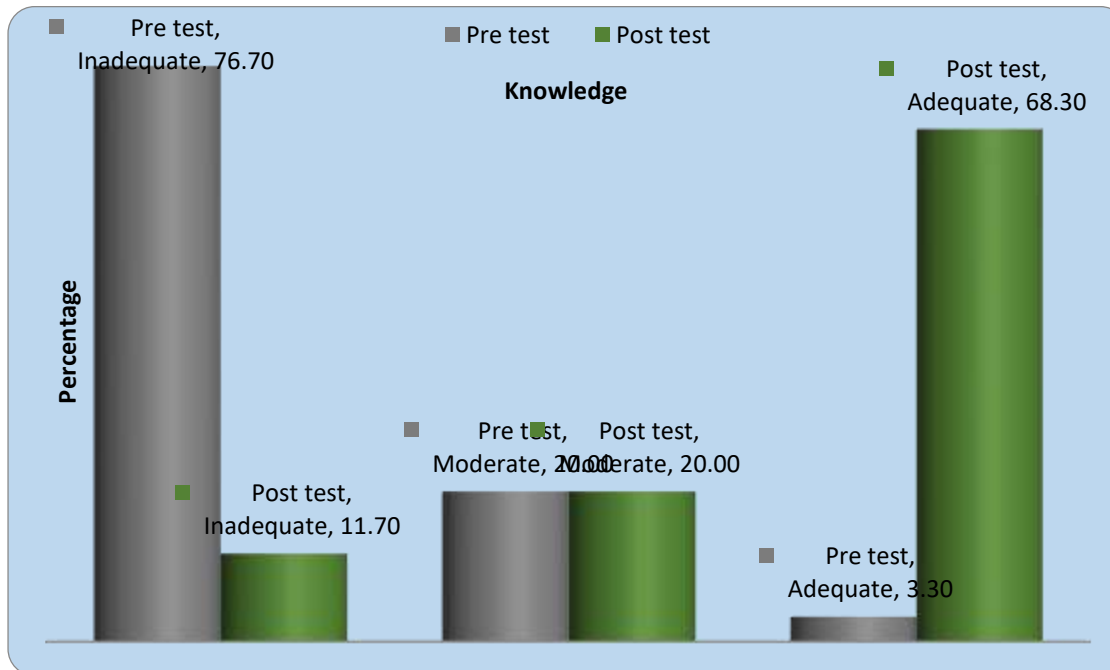
Scoring key prepared for

Section-1:By scoring the demographic variables.

**Tab-11 : Correlation between pretest and post test variables of farmers**

Sl.No	Level of Knowledge	Pre test		Post test	
		Frequency	Percent	Frequency	Percent
1	Inadequate	46	76.7	7	11.7
2	Moderate	12	20	12	20
3	Adequate	2	3.3	41	68.3
	<b>Total</b>	<b>60</b>	<b>100</b>	<b>60</b>	<b>100</b>



**Fig 11 : Percentage distribution of the respondents according to their Knowledge**

**Inference:** The above table shows and figure reveals that pre test values are 46(76.70%) population having inadequate knowledge, 12(20.00%) population having moderate knowledge and 2(3.30%) population having adequate knowledge.

The above table shows and figure reveals that post test value are 41(68.30%) population having adequate knowledge, 12(20.00%) population having moderate knowledge and 7(11.70%) population having inadequate knowledge

### OBJECTIVE-1

- To assess the knowledge regarding vector borne diseases among the framers selected rural area of Chittoor district.
  - Table 11 reveals that pre test values are 46(76.70%) population having inadequate knowledge, 12(20.00%) population having moderate knowledge and 2(3.30%) population having adequate knowledge.
  - The same table 11 reveals that post test values are 7(11.70%) population having inadequate knowledge, 12(20.00%) population having moderate knowledge and 41(68.30%) population having adequate knowledge.
  - Table 12 paired sample reveals that mean, standard deviation, t-value and p-value for pre test and post test knowledge on farmers.
  - The mean for pre test knowledge is 8.88 and post test knowledge is 17.85.
  - The standard deviation for pre test knowledge is 4.038 and post test knowledge is 4.029.
  - The t-value for pre test and post test knowledge is 15.774.

**OBJECTIVE-2**

2. To assess the effectiveness of planned teaching program on Knowledge regarding vector borne Diseases among the farmers of selected rural area of Chittoor district.
  - Table 13 reveals that correlation of knowledge in pre test and post test variables of farmers.
  - The findings supported with the study conducted a comparative study to assess the opinion and level of satisfaction of the farmers regarding vector borne diseases the sample consist of 60 farmers were selected using purposive sampling technique the result shows pre test knowledge and post test knowledge correlation 0.404.

**OBJECTIVE-3**

3. To find out the association of knowledge about pre-test and post-test the with their selected demographic variable.
  - Table 14 reveals that association between the level of knowledge on farmers and selected demographic variables.

The association between the pre test with selected demographic variables among study population using chi-square test, show significant association between pre test knowledge and selected demographic variables that is age, gender, language known, marital status, educational status, income per month, number of working hours in field, cultivation land in square feet, type of crop, and effect of vector borne disease at any time, previous knowledge and source at  $>0.05$  level.

**CONCLUSION:**

In our study totally 60 farmers were participated in the study. The pre test values are 46(76.70%) population having inadequate knowledge, 12(20.00%) population having moderate knowledge and 2(3.30%) population having adequate knowledge. The post values are 7(11.70%) population having inadequate knowledge, 12(20.00%) population having moderate knowledge and 41(68.30%) population having adequate knowledge. Reveals the correlation of knowledge in pre test and post test among farmers is 0.404. The association between the pre test with selected demographic variables among study population using chi-square test, show significant association between pre test knowledge and selected demographic variables that is age, gender, language known, marital status, educational status, income per month, number of working hours in field , cultivation land in square feet, type of crop and effect of vector borne diseases at any time, previous knowledge and source at  $>0.05$  level. The association between the post test with selected demographic variables among study population using chi-square test, show significant association between post test knowledge and selected demographic variables that is age, gender, language known, marital status, educational status, income per month, number of working hours in field , cultivation land in square feet, type of crop and effect of vector borne diseases at any time, previous knowledge and source at  $>0.05$  level.

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