

A DESCRIPTIVE STUDY TO ASSESS KNOWLEDGE REGARDING SELECTED VECTOR BORNE DISEASES AND ITS PREVENTION AMONG ADULTS IN RURAL AREA

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Abstract: The World Health Organization (WHO) estimates that 80% of the world's population was at danger from vector borne diseases which account for 17% of all infectious diseases and more than 700,000 annual fatalities. **Objectives:** To assess the existing knowledge regarding vector borne disease among the adults in selected rural area and to determine the association between level of knowledge and prevention of vector borne diseases among adults with their demographic variables. **Materials and Methods:** 105 subjects participated in this study. Quantitative research approach with descriptive research design was used. Non-Probability Convenient sampling technique was used to select the sample. The data were collected from selected rural area, using socio demographic data sheet and structured knowledge Questionnaire. **Results:** 105 subjects participated in this study with that majority of the subjects 30.5% were from the age group of 31 – 40 years, majority of the subjects 55.2% were male, majority of the subjects 27.6% having primary education level of education, majority of the subjects 31.4% were housewife, majority of the subjects 28.6% having 60001 – 70000 income and majority of the subjects 31.4% were belongs to Hindu religion. The level of knowledge score, out of 105 subject's majority 48.6% of subjects had good level of knowledge score, 45.7% had average level of knowledge score, 3.8% had poor level of knowledge score, 3.8% had poor level of knowledge score and 0% had excellent level of knowledge score. Mean knowledge score of the subjects was 12.19 + 2.869. Minimum score was 04 and Maximum score was 20. **Conclusion:** To assess the knowledge regarding selected vector borne diseases and its prevention among adults in rural area found to be effective in improving their knowledge and prevention. It did not show any association in relation to their selected demographic variables from selected rural area. Hence, based on the above finding it was conducted undoubtedly that the written prepared material by the researcher in the form of the subject to improve their knowledge and prevention regarding selected vector borne diseases among adults.

Keywords: Assess, Knowledge, Vector borne disease, Prevention, Adult, Rural area.

I. INTRODUCTION

The introduction of paper contains the nature of research work, purpose of work, and the contribution of this paper. It contains the references of the previous work done. This template is in Word document, provides authors with most of the formatting specifications required by the author for preparation of their research paper.¹

Health is very precious possession as it is an asset for individual, family, community and the nation. It is these healthy people who will be able to put in efforts and competencies for their own as well as Nation's socio- economic and cultural development. Health as such is not static, it is a dynamic state which exists on a continuum from optimum health to death.²

VBDs are defined as infectious diseases of animals and humans caused by pathogenic agents such as bacteria, helminths, protozoa and viruses transmitted by hematophagous arthropod vectors, which include bedbugs, biting midges, black flies, fleas, kissing bugs, lice, mites, mosquitoes, sand flies and ticks, among others.³

Vector borne diseases are those in which the pathogenic microorganism is spread from an infected person to another person by an arthropod or other agent, occasionally with the assistance of other animals acting as intermediate hosts. With a high morbidity and mortality rate, vector borne diseases affect about half of the world's population.⁴

Malaria is a contagious febrile sickness. Symptoms arise seven days or more (typically 10-15 days) following the infective mosquito bite in a non-immune person. The initial signs of malaria, such as fever, headache, chills and vomiting, may be mild and difficult to identify. Plasmodium falciparum malaria can escalate to severe sickness, often resulting to death, if not treated within 24 hours.⁵

BACKGROUND OF STUDY

The World Health Organization (WHO) estimates that 80% of the world's population was at danger from vector borne diseases which account for 17% of all infectious diseases and more than 700,000 annual fatalities. Pathogens that spread through vectors, the majority of which are bloodsucking insects like mosquitoes or sandflies, are what cause VBDs. Major epidemics of VBDs like dengue fever, chikungunya, zika, and malaria have moved to previously unaffected regions of South America since 2014 overloading the health systems of many nations.⁶

Globally, in 2012, there were an estimated 207 million cases of malaria and 627 000 deaths. Although the highest burden of malaria is in sub-Saharan Africa with deaths mainly among children under five years, the South-East Asia Region ranks second with 2.038 million cases and 1226 malaria deaths reported in 2012.⁷

World Malaria report notes that, there was little progress made in lowering the number of cases of malaria worldwide. India accounts for 87% of all malaria cases in South-East Asia and 4% of the global malaria burden. India has established goals for eliminating malaria by 2030 and is currently in this mode.⁸

Dengue is the most dangerous and rapidly spreading mosquito-borne viral disease in the world, with an incidence that has increased by 30 times in the last 50 years putting 2.5 billion people (more than 40% of the world's population) at risk of infection and 20 million cases occurring annually in more than 100 countries. 5,00,000 persons with severe dengue require hospitalization world-wide, 2.5% of them die each year, and a large majority are children.⁹

NEED OF STUDY

An under developing country, like India carries the major burden of communicable diseases especially those which are caused by sub-standard living and environmental condition. Vector borne diseases like Malaria, Dengue, Filariasis etc. and recently in India with multiple outbreaks since 2005. According to the World Health Organization (WHO), there are about 390 million cases of dengue fever worldwide and of the total number of cases, 96 million require medical treatment.¹⁰

According to World Health Day 2012, 12 states Odisha, Jharkhand, Chhattisgarh, Maharashtra, Madhya Pradesh, Gujarat, West Bengal, Uttar Pradesh, Assam, Rajasthan, Andhra Pradesh, and Haryana reported 1.06 million cases of malaria. The 2017 World malaria Report anticipates 1.31 million cases and 23,990 fatalities as a result of malaria, which is responsible for 216 million cases and 4,45,000 deaths worldwide.¹¹

In India for the past ten years the numbers of dengue cases have gradually increased. The incidence of dengue has grown dramatically around the world in recent decades. The actual numbers of dengue cases are under reported and many cases are misclassified. The prevalence of dengue estimates that 3.9 billion people in 128 countries are at risk of infection with dengue viruses.¹²

OBJECTIVES OF THE STUDY

Primary/general objective

To assess the existing knowledge regarding vector borne disease among the adults in selected rural area.

Secondary Objectives

To determine the association between level of knowledge and prevention of vector borne diseases among adults with their demographic variables.

METHOD OF SELECTION OF STUDY SUBJECT (ELIGIBILITY CRITERIA)

INCLUSION CRITERIA

- Adults who are willing to participate in the study.
- Adults who are present at the time of data collection.

EXCLUSION CRITERIA

- Adults who are working in medical field.
- Adults who are under gone health education program regarding vector borne disease.

ETHICAL ASPECTS

- Permission will be obtained from institutional ethics committee.
- Prior permissions to be taken from sarpanch of gram panchayat.
- Written informed consent from subject will be obtained.

II. METHODOLOGY

Quantitative research approach with descriptive research design was used. 105 subjects were selected by using sample calculation formula with the help of prevalence rate. Adult population who belonged to 20 to 40 years residing in rural area. Non-Probability Convenient sampling technique was used to select the sample. The data were collected from selected rural area, using socio demographic and structured knowledge Questionnaire.

TOOLS:

Socio demographic data: It contains data regarding age, educational status, type of family, occupational status, income status.

Knowledge questions: This section contains 30 questions to assess the knowledge regarding selected vector borne diseases and its prevention among adult in rural area.

Statistical analysis: The data was analyzed, by using descriptive and inferential statistics on the basis of objectives and hypothesis of the study. Association of knowledge scores and demographic variables were analyzed by chi-square test.

Scoring Technique

TABLE I: grading of knowledge score among subject (rural area)

Level of knowledge score	Percentage of marks	Marks
Poor	0-20%	01-06
Average	21-40%	07-12
Good	41-60%	13-18
Very good	61-80%	19-24
Excellent	81-100%	25-30

III. ANALYSIS AND INTERPRETATION

SECTION A: DISTRIBUTION OF SUBJECTS IN RELATION TO THEIR DEMOGRAPHIC VARIABLES.

In this study frequency and percentage wise distribution of subject in relation to their age in years, gender, educational qualification, occupation, yearly income and religion regarding selected vector borne diseases and its prevention among adults in selected rural area respectively.

Distribution of subjects in relation to their age in years: Majority of the subjects 30.5% were from the age group of 31 – 40 years, 29.5% were from the age group of 20 – 30 years, 28.6% were from the age group of 41 – 50 years and 11.4% were 51 – 60 years of age.

Distribution of subjects in relation to their gender: Majority of the subjects 55.2% were male, 44.8% were female and 0% were transgender.

Distribution of subjects in relation to their educational qualification: Majority of the subjects 27.6% having primary education level of education, 25.7% having illiterate, 23.9% having secondary level of education, 22.9% having graduate level of education and 0% having post-graduate level of education.

Distribution of subjects in relation to their occupation: Majority of the subjects 31.4% were housewife, 25.7% were doing labor, 22.9% were doing government service and 20% were doing private service.

Distribution of subjects in relation to their yearly income: Majority of the subjects 28.6% having 60001–70000 income, 24.7% having 40000 – 50000 income, 23.8% having 50001 – 60000 income and 22.9% having above 70000 income.

Distribution of subjects in relation to their religion: Majority of the subjects 31.4% were belongs to Hindu religion, 30.3% were Buddhist, 21% were belongs to Muslim and 17.1% were belongs to Sikh religion.

SECTION B: ASSESSMENT OF KNOWLEDGE REGARDING SELECTED VECTOR BORNE DISEASES AND ITS PREVENTION AMONG ADULTS IN RURAL AREA.

This section has dealt with the assessment of knowledge regarding selected vector borne diseases and its prevention among adults in rural area. The levels of knowledge score were categorized under categories: poor, average, good, very good and excellent.

In this study shows the frequency and percentage wise distribution of subjects in relation to their level of knowledge regarding selected vector borne diseases and its prevention among adults in rural area. Majority 48.6% of subjects had good level of knowledge score, 45.7% had average level of knowledge score, 3.8% had poor level of knowledge score, 3.8% had poor level of knowledge score and 0% had excellent level of knowledge score. Mean knowledge score of the subjects was 12.19+2.869. Minimum knowledge score was 04 and Maximum Knowledge score was 20.

SECTION C: ASSOCIATION OF KNOWLEDGE SCORE REGARDING SELECTED VECTOR BORNE DISEASES AND ITS PREVENTION AMONG ADULTS IN RURAL AREA WITH SELECTED DEMOGRAPHIC VARIABLES.

This section dealt with the association of level of knowledge score of subjects with selected demographic variables.

It did not show any association in relation to their selected demographic variables from selected rural area. Hence, based on the above finding it was conducted undoubtedly that the written prepared material by the researcher in the form of the subject to improve their knowledge and prevention regarding selected vector borne diseases among adults.

IV. CONCLUSION

After the detailed analysis, this study lead to the following conclusion that knowledge and prevention of vector borne diseases in selected rural area found to be effective in improving the knowledge of the subjects.

There is significant association between the selected vector borne diseases and its prevention among adults with their demographic variables is occupation. There is no significant association between the selected vector borne diseases and its prevention among adults with their demographic variables is age in years, gender, educational qualification, yearly income and religion.

Hence, based on the above finding it was concluded undoubtedly that the written prepared material by the researcher is helped to improve the knowledge of selected vector borne diseases and its prevention of the subjects.

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