International Journal of Mosquito Research

Suchithra BS
Assistant Professor, Department of Community Health Nursing Nitte Usha Institute of Nursing Sciences Paneer, Deralakatte Post Kotekar Beeri Road Mangalore, Karnataka, India

Study to determining the knowledge and practice regarding prevention of Mosquito-borne disease among adult population in selected rural Community

Suchithra BS

Abstract
Introduction: Mosquito-Borne Diseases or mosquito-borne illness are disease caused by bacteria, viruses, parasites transmitted by Mosquitoes.
Methodology: Descriptive study conducted to assess the knowledge and practice regarding prevention of Mosquito Borne Disease among adult population in selected rural Community. The study was conducted in selected rural area of Athuru under Nitte CHC with 100 sample. The population for the present study were selected adults residing under selected rural area belongings to 20-50 years of age. Subject was selected by using Simple random sampling method. Structured knowledge questionnaire and practice checklist used to collect data.
The results: Showed that 52 (52%) had average knowledge, 33(33%) had good knowledge and 15(15%) had poor knowledge. The practice of people regarding preventive measures revealed that 61(61%) had good practice and 39(39%) had poor practice regarding the preventive measures
Conclusion: This study concluded that majority of adult people had average knowledge.

Keywords: Knowledge, practice, mosquito born disease, adults

Introduction

Mosquito-Borne Diseases or mosquito-borne illness is disease caused by bacterial, viruses, parasites transmitted by Mosquitoes. This can transmit disease without being affected themselves. Mosquitoes play essential role in the transmission of animal diseases. Mosquitoes-borne diseases involve the transmission of viruses and parasites from animal to animal, animal to person or person to person without affecting the insect vectors with symptoms of disease. It is a main leading problem to human kind. Some mosquitoes are vectors for some of the diseases. Typically the diseases are caused by viruses or tiny parasites

Mosquitoes are now called 'public enemy no.1' by the world health organization. There are more than 4500 species of mosquitoes distributed throughout the world under 34 genera, but mostly belongs to *Aedes, Anopheles* and *Culex*. They are visitors of several public and life threatening disease including protozoan's (Malaria), Viral (Yellow fever, Dengue fever, Chikungunya, West Nile virus, Japans encephalitis) or Pelmentic (filariasis) infections. These diseases not only cause mortality or morbidity among the humans and cause social, cultural environmental and economic loss of the society.

Back Ground of the Study

The Mosquito Borne Diseases (MBD'S) of public health importance are complex and their occurrence depends on the interaction of various biological, ecological, social and economic factors. Though several measures for their prevention and control are followed, yet the problem density is too high with 300–500 million cases and 1.1–2.7 million deaths due to malaria alone globally per year. While there are many methods of mosquito control, experts now recommend an "integrated approach" that is, an approach which avoids the excessive use of any one method but tries to combine one or more methods with a view to obtain maximum results with minimum inputs and also to prevent environmental pollution with toxic chemicals and development of insecticide resistance.

Correspondence
Suchithra BS
Assistant Professor, Department of Community Health Nursing Nitte Usha Institute of Nursing Sciences Paneer, Deralakatte Post Kotekar Beeri Road Mangalore, Karnataka, India

The worldwide malaria incidence is estimated to be 300 to 500 million clinical cases per year. India is one of the main affected countries with millions of people die every year due to malaria. Regarding Filariasis about 2.5 million people are exposed to risk factors, about 2 millions are microfilaria carriers and 1.2 million disease cases occur in India. About 50 million cases of dengue occur in India every year and 2.5 million people are under risk of dengue viral infection.

Objectives
1. To find the knowledge of people regarding preventive measure
2. To find the Practice of people regarding preventive measure
3. To find association between knowledge and selected demographic variable
4. To find correlation between knowledge and Practice of people regarding preventive measure

Methods
Research design
Descriptive survey design was adopted in this study.

Setting of the Study
The location for conducting the research is referred to as the setting. This study will be conducted in selected rural area of Athuru under NITTE CHC.

Population
The population for the present study were selected adults those who were residing under selected rural area and belonging to 20-50 years of age.

Sampling Procedure
Simple random sampling method is planned to collect the data.

Sample Size
Sampling size refers to the number of items to be selected from the universe or population to constitute a sample [20]. A total of 100 samples will be selected for the study.

Data collection instrument: The instruments used were
Tool I: The Demographic Performa
Tool II: Structured knowledge questionnaire to assess the knowledge of adult about preventive method adopted for the control of mosquito borne diseases.
Tool III: Check list to assess the practices of adult about preventive method adopted for the control of mosquito borne diseases.
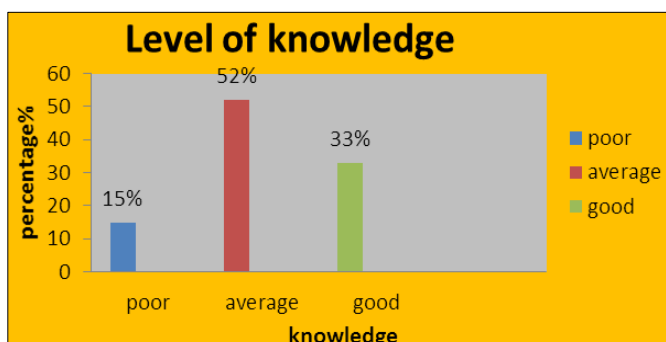
Results
Section 1: Distribution of adults according to the demographic characteristics

Table 1: [n=100]

Sl. No	Sample Characteristics	Frequency [f]	Percentage [%]
1	**Age In Years**		
	20-30	30	30
	30-40	30	30
	40-50	40	40
2	**Gender**		
	Male	15	15
	Female	85	85
3	**Religion**		
	Hindu	55	55
	Muslim	18	18
	Christian	27	27
4	**Education**		
	Illiterate	7	7
	Primary	32	32
	Secondary	38	38
	Degree	20	20
	Other	3	3
5	**Information**		
	Yes	80	80
	No	20	20
6	**Source of Information**		
	Family members	6	6
	Friends	10	10
	Mass media	40	40
	Health education	20	20
	Others	4	4
7	**Occupation**		
	Unemployment	6	6
	Coolie worker	11	11
	Self employee	14	14
	Professional	9	9
	House wife	48	48
	Others	12	12
8	**Exposure Malaria**	7	7
	Dengue	1	1

	Filariasis	3	3
	Chikungunya	10	10
	Not exposed	79	79

Section 2: The result of assessment of knowledge of people regarding the mosquito borne disease

The bar diagram reveals that 52 (52%) had average knowledge, 33(33%) had good knowledge and 15(15%) had poor knowledge.

Section 3: Practice of people regarding preventive measures
The practice of people regarding preventive measures reveals that 61(61%) having good practice and 39(39%) had poor practice regarding the preventive measures.

Section 4: Association between knowledge and selected demographic variables
There is no association between knowledge and demographic variables

Section 5: Correlation between knowledge and practice of people regarding preventive measures

Sl. No	Variables	Pearson correlation	p
1	Knowledge and practice	.114	.259

Since p value is >.05, there is no liner relation between knowledge and practice.

Discussion
- Majority of adults 40(40%) were in the age group of 40-50 years, 30(30%) were in the age group of 20-30 years & remaining 30(30%) were in the age group of 30-40 years.
- Majority of adults 85(85%) were females and only 15(15%) were males.
- The highest number of adults 55(55%) were Hindus, 27(27%) were Christians and remaining 18(18%) were Muslims.
- Majority of the samples 38(38%) were completed high school education, 32(32%) were completed primary education, 20 (20%) with degree education, 7(7%) were illiterate and remaining 3(3%) were belonging to other category.

In present study Majority of the adults 48(48%) were housewives, 14(14%) were self-employees, 12(12%) were belonged to other category, 11(11%) were coolie workers, 9(9%) were professionals and 6(6%) were unemployed. The study conducted by Boratne A V, Jayanthi V, Datta SS

conducted study to identify the existing knowledge of study population regarding mosquito borne disease. The result showed that 384 (79.17%) males and 887 (74.60%) females were aware about these mosquito-borne diseases through television followed by health care providers (16.43%) and through newspaper (12.84%).
- The highest number of adults 79(79%) were not exposed to any of the mosquito borne diseases given, 10(10%) were exposed to Chikungunya, 7((7%) were exposed to Malaria, 3(3%) were exposed to Filarial and remaining 1(1%) was exposed to Dengue.

The present study reveals that 52 (52%) had average knowledge, 33(33%) had good knowledge and 15(15%) had poor knowledge. Ghosh A, Mukherjee S, Dutta T conducted study was to understand the level of knowledge and perceived risk regarding mosquito-borne infectious disease. The open ended questionnaire was used to collect the data. The result showed that in the study population about 41.17% knows about various type of mosquitoes and the scientific names, whereas 58.82% have information about mosquitoes and associated diseases but have no knowledge about various kinds of Mosquitoes and their scientific names [8].

Interpretation and Conclusion
The findings of the study revealed that there is no significant association between the level of knowledge and demographic variable. The study also found out that there is no correlation between knowledge and practice of people regarding preventive measures.

Reference
1. Park K. Park's text book of preventive and social medicine baton publication 20th edition. 672.
2. Beyneman D. Medical parasitology in: medical microbiology, Brooks, G.F, J.S, Butel and S.A Morse(eds) 23rd edition McGraw-Hill, Boston, 2004, 661-701
3. Lergeler C. Insecticide treated bed nets and curtains for preventive malaria. Cochrane database syst Rev. 2000; 2:CD000363
4. Snehalatha KS, Ramaiah KD, Vijay Kumar KN, Das PK. The mosquito problem and type and cost of personal protection measures used in rural and urban communities in Pondicherry region, South India. Acta Trop. 2003; 88:3-9.
5. Ghosh A, Mukherjee S, Dutta T, *et al*. Community Perceptions Regarding Mosquito Borne Diseases in Some Selected Localities of Bankura, a Peri-Urban Area of West Bengal, India. Journal of Mosquito Research, 2013, 3(7).
6. Kumari N. A Text Book of Community Health Nursing-1, Edition, Pee Vee Publication, Jalandhar. 2000; 1(4):491.
7. Ghosh A, Mukherjee S, Dutta T, *et al*. Community Perceptions Regarding Mosquito Borne Diseases in Some Selected Localities of Bankura, a Peri-Urban Area of West Bengal, India. Journal of Mosquito Research, 2013, 3(7).
8. Boratne AV, Jayanthi V, Datta SS, *et al*. Predictors of Knowledge of Selected Mosquito Borne Diseases Among adults of Selected Mosquito Borne Diseases Among Adults of Selected Peri urban Areas of Pondicherry