A STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE REGARDING SELECTED MOSQUITO BORNE DISEASES AND THEIR PREVENTION AMONG HOUSEWIVES IN A SELECTED URBAN AREA, AGARTALA, TRIPURA (W)

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Abstract

Background: Mosquito borne diseases are diseases caused by bacteria, viruses or parasites transmitted by mosquitoes. They can transmit disease without being affected themselves. When a mosquito bites a human, it injects saliva and anti-coagulants, with subsequent bites the body's immune system develops antibodies and a bite becomes inflamed and itchy within 24 hours. This reaction is common in young children.

Materials and Methods: A descriptive survey study was conducted in Urban area, Agartala, Tripura to identify the knowledge and practice regarding selected mosquito borne diseases and their prevention among 100 housewives with a selected demographic variables were administered a self-developed, validated questionnaire through survey data collection from 8th May to 8th June 2019 .

Result : It has been found that majority of Housewives had moderately adequate knowledge and average practice regarding mosquito borne diseases. Perfectly good co-relation was found between knowledge and practice (0.81).

Conclusion: Though majority of Housewives had moderately adequate knowledge and average practice regarding mosquito borne diseases. Hence, it is concluded that further improvement of knowledge and practice regarding mosquito borne disease is needed in this area.

Introduction:

"Keep your surroundings Mosquitoes free ".

Mosquito borne diseases or mosquito borne illness are diseases caused by bacteria, viruses or parasites transmitted by mosquitoes. With more bites, the sensitivity of the human immune system increases, and an itchy red hive appears in minutes where the immune response has broken capillary blood vessels and fluid has collected under the skin. This type of reaction is common in older children and adults. Some person can become hyper-sensitive with bites causing blistering, bruising, and large inflammatory reactions, a response known as skeeter syndrome.[1]

The mosquito, whose name comes from the Spanish name "small fly", is a type of insect that belongs to the family Culicid. There are thousands of species of mosquitoes, but a distinguishing characteristic is that the female possesses a tube-like mouthpart, called a proboscis, which pierces the skin of the host to draw blood. Female mosquitoes require the nutrients (mainly vitamins) in blood to produce eggs .[2]

Mosquito-borne diseases are those spread by the bite of an infected mosquito. Diseases that are spread to people by mosquitoes include Zika virus, West Nile virus, Chikungunya virus, dengue, and malaria, Japanese Encephalitis.[4]

Methodology:

Research methodology is a systemic way to solve their search problems.

A descriptive survey study was conducted to assess the knowledge and practice regarding selected mosquito borne diseases and their prevention.

Research approach:

In this study the research approach is quantitative research approach.

Research design:

In this the research design is descriptive survey research design.

Research Variables:

In this study, Knowledge and practice is a research variables.

Selected demographic variables:

In this study Age, type of family, Educational qualification, Monthly family income (Rs), drainage system, type of house, source of water supply, Prior information regarding mosquito borne diseases, Previous history of mosquito borne diseases.

Setting of the study:

In this study the research setting is Srilanka Basti, Agartala.

Population: Housewives.

Sample and Sampling Technique:

• **Sample:** In this study the sample are housewives of Srilanka Basti, Agarala,Tripura.
• **Sampling Technique:** In this study the Simple random sampling technique were used.
Sampling Size: In this study the sample size is 100 numbers of housewives.
Inclusion criteria: Housewives who are:

- Residing in urban area.
- Available and willing to participate in study.
- Able to read and write Bengali.

Analysis And Interpretation:
The result was computed using descriptive and inferential statistics based on the Hypothesis and Objectives of the study.
Analysis of data based on the objective of the study
Objectives of the study:

- To assess the knowledge and practice regarding mosquito borne diseases and its prevention among housewives.
- To find the relationship between knowledge and practice score.
- To find out the association between knowledge and practice scores with their selected demographic variables.

The substantive summary of the analysis was under the following sections:
Section1: Description of demographic variables with frequency percentage distribution.
Section2: Classification of respondent's knowledge and practice on selected mosquito borne diseases.
Section3: Description the relationship between knowledge and practice score of housewives in terms of Correlation-coefficient.
Section4: Description of calculated chi square value, df, tabulated value.

Section1:
Description of demographic variables with frequency percentage distribution.

Sl No	Demographic variables	Category	Frequency	Percentage
1	Age	18-38 years	43	43
		39- >58 years	57	57
2	Type of family	Nuclear	71	71
		Joined	29	29
3	educational qualification	Primary level	26	26
		Secondary level	52	52
		High secondary level.	22	22
4	Monthly family income	less than 10,000/-	34	34
		10,000/- -15,000/-	38	38
		more than 15,000 /-	28	28
5	Type of house	Pucca	38	38
		Kutcha	42	42
		Mixed	20	20
6	Drainage system	open drainage	79	79
		closed drainage	21	21
7	Source of water	tube-well	68	68
		grounded water	32	32

Section2:
Classification of respondent's knowledge and practice on selected mosquito borne diseases.
Section2.1.Classification of respondent's knowledge on selected mosquito borne diseases.

n=100

Knowledge level	Category	Respondents	
		n	Percentage (%)
Inadequate	<50%	23	23%
Moderately adequate	50-75%	51	51%
Adequate	>75%	26	26%
Total		**100**	**100%**

Section 2.1: represents that category of the samples based on their knowledge level. It shows among 100 housewives 23(23%) of them have inadequate knowledge (<50%), 51 (51%) of them have moderately adequate knowledge (50-75%), 26 (26%) of them have adequate knowledge (>75%).

Section2.2: Classification of respondent's practice on selected mosquito borne diseases.

n=100

Practice level	**Category**	**Respondents**	
		n	Percentage (%)
Poorly practice	<50%	22	22%
Averagely practice	50-75%	51	51%
Well practice	>75%	27	27%
Total		**100**	**100%**

Section 2.2. Represents that category of the samples based on their practice level. It shows among 100 housewives 22(22%) of them comes under poorly practice level (<50%), 51 (51%) of them comes under averagely practice level (50-75%), 27(27%) of them comes under well practice level (>75%).

Section3:

Description the relationship between knowledge and practice score of housewives in terms of Correlation-coefficient.

n=100

SL NO	**Criteria**	**Mean score**	**'r' value**
1.	Knowledge score of housewives	12.92	0.81
2.	Practice score of housewives	8.34	

Correlation coefficient(r) = 0.81

Section3. Represents that relationship between Knowledge score and practices score. The value of correlation coefficient (r =0.81) shows there is a perfect correlation between knowledge and practice scores.

Section4:

Description of calculated chi square value, df, tabulated value.

Section 4a: Description of calculated chi-squire value, df, tabulated value on knowledge.

n=100

Demographic variables	**Calculated Chi square value (χ^2)**	**df**	**tabulated Value**	**remark**
Age (year)	0.729	2	5.99	NS
Type of family	0.288	2	5.99	NS
Educational qualification	4.309	4	9.49	NS
Monthly family	1.852	4	9.49	NS
Income (Rs)				
Type of house	4.949	4	9.49	NS
Drainage system	2.169	2	5.99	NS
Source of water	5.587	2	5.99	NS

NS= Not significant at 0.05 level

Section 4a. represents the association between knowledge scores with their selected demographic variables.

Since the calculated value of $\chi 2$ is less than table value, the null hypothesis is accepted. There is no significant association between knowledge and select demographic variable at 0.05 level of significance.

Section 4b: Description of calculated chi-squire value, df, tabulated 'p' value on practice.

n=100

Demographic variables	Calculated Chi square value (χ^2)	df	tabulated Value	remark
Age (year)	1.418	2	5.99	NS
Type of family	0.337	2	5.99	NS
Educational qualification	0.595	4	9.49	NS
Monthly family	1.826	4	9.49	NS
Income (Rs)				
Type of house	6.028	4	9.49	NS
Drainage system	0.123	2	5.99	NS
Source of water	0.371	2	5.99	NS

NS= Not significant at 0.05 level
Section 4b. represents the association between practice scores with their selected demographic variables.
Since the calculated value of $\chi 2$ is less than table value, the null hypothesis is accepted. There is no significant association between knowledge and select demographic variable at 0.05 level of significance.

Discussion:

It is evident from the present study that among 100 housewives 23(23%) of them have inadequate knowledge (<50%), 51 (51%) of them have moderately adequate knowledge (50-75%), 26 (26%) of them have adequate knowledge (>75%). On their practice level. It shows among 100 housewives 22(22%) of them comes under poorly practice level (<50%), 51 (51%) of them comes under averagely practice level (50-75%), 27(27%) of them comes under well practice level (>75%).

This study is supported by a similar study conducted by M. Roberto, R. Alexandre, Q. Edgar, et al (Sep 2016), A cross sectional survey was conducted to assess Knowledge, Attitude and Practices Related on Prevention of Mosquito Borne Diseases and Sanitation Conditions among 110 households in a Salvadoran Urban Community. Data was collected by structured questionnaire method. The result shows that majority of respondents (98.2%) had direct supply of drinking water; however, 96.4% of respondents were agreed that they had an inconsistent water supply. Regarding Mosquito Borne Diseases prevention respondents showed high acceptable knowledge (76.8%), high favorable attitude (92.1%) and an acceptable implementation of practices toward prevention reproduction of mosquitoes (58.5%) and a poor implementation of practices to prevent mosquito bites (38.3%).[11]

The relationship between Knowledge score and practices score. The value of correlation coefficient (r =0.81) shows there is a perfectly correlation between knowledge and practice scores. Hence the null hypothesis is rejected and research hypothesis is accepted.

This study is supported by a similar study conducted by L. Xiaobo, W. Fangjun, Cirendunzhu, et al 2014, A descriptive study was conducted to assess Community Knowledge and Experience of Mosquitoes and Personal Prevention and Control Practices among 591 households in Lhasa, Tibet. Data was collected by structured questionnaire. The result shows that the correlation between the knowledge, experience and practices scores. The correlation analysis shows a significant positive linear correlation between knowledge and experience scores ($r = 0.157$, $p < 0.01$), knowledge and practice scores ($r = 0.221$, $p < 0.01$), and experience and practice scores ($r = 0.266$, $p < 0.01$).[12]

There is no significant association between knowledge and practice score with their selected demographic variables. Hence the null hypothesis (Ho2,HO3) is accepted and research hypothesis is rejected.

This study is supported by a similar study conducted by B. S. Suchithra 2018, A Descriptive study conducted to assess the knowledge and practice regarding prevention of Mosquito Borne Disease among 100 adult population in selected rural Community Mangalore, Karnataka. Data was collected by Structured knowledge questionnaire and practice checklist used to collect data. The result shows that 52 (52%) had average knowledge, 33(33%) had good knowledge and 15(15%) had poor knowledge. The practice of people regarding preventive measures reveals that 61(61%) having good practice and 39(39%) had poor practice regarding the preventive measures. There is no association between knowledge and demographic variables. Since p value is >.05, there is no liner relation between knowledge and practice.[13]

Conclusion:

If community people have knowledge regarding mosquito borne diseases and they practice all preventive measures at home it will help to reduce the incidence rate. The overall finding of the study revealed that majority of Housewives had moderately adequate knowledge and average practice regarding mosquito borne diseases. Hence, it is concluded that further improvement of knowledge and practice regarding mosquito borne disease is needed in this area.

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