EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 10
Issue: 7
135-140
Year: 2023

A STUDY TO ASSESS THE KNOWLEDGE REGARDING SOURCE REDUCTION OF MOSQUITO CONTROL AMONG ADULTS IN SELECTED AREAS OF PALLITHOTTAM

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Article Received on 04/05/2023 **Article Revised on 25/05/2023** **Article Accepted on 14/06/2023**

ABSTRACT

The research project undertaken was "A study to assess the knowledge regarding source reduction of mosquito control among adults in selected areas of Pallithottam". The objectives of the study was to assess the knowledge regarding source reduction of mosquito control among adults in selected areas of Pallithottam, to assess the attitude regarding source reduction of mosquito control among adults in selected areas of Pallithottam and to find out the association between pretest knowledge score regarding source reduction and selected demographic variables like age, sex, type of family, method of waste disposal, type of drainage, water supply, living area ,stagnation of water around house and previous knowledge about source reduction.[1] Non-experimental descriptive research design was adopted for this study. The study sample was selected by convenience sampling techniques. The tool used for the data collection consisted of socio demographic Performa, structured knowledge questionnaire and attitude scale. Basic introduction of the study was given to the subjects and data was collected from 60 samples using structured knowledge questionnaire. The analysis of data was based on the objective of the study using descriptive and inferential statistics. The findings of the present study revealed that there was significant association between knowledge and demographic variables such as age, gender, waste disposal and stagnation of water.[2] There was no significant association was found between knowledge and demographic variables like type of family, water supply, drainage and previous knowledge. Based on the findings of the study, it is recommended that a similar kind of study can be conducted for a large group and maybe helpful to conduct a seminar or webinar in a large group of samples to create public awareness regarding importance of source reduction of mosquito control.

KEYWORDS: Assess, knowledge, Attitude, structured questionnaire.

INTRODUCTION

Mosquitoes are common flying insects that live in most parts of the world. Over 3,500 types of mosquitoes can be found worldwide. Not all mosquitoes bite people or animals. When mosquitoes bite people, the most common reactions to the bite are itching and swelling.[3]

Nearly 700 million people get a mosquito-borne illness each year resulting in over one million deaths. Roughly 390 million people are infected each year with dengue, and hundreds of thousands more are affected by Zika, chikungunya and yellow fever. In India, malaria, filaria and dengue are the most prevalent diseases spread by mosquitoes. Source reduction primarily aims to prevent development of aquatic stages of mosquito larvae reducing breeding source. The larval habitats will be destroyed by filling depressions that collect water by draining swamps or by ditching marshy areas to remove scanty water.[4]

A cross sectional study to assess the knowledge regarding mosquito borne diseases and control measures practiced by rural population in southern district Tamil Nadu was carried out in Kanyakumari district among 180 individuals selected through multi-stage sampling. Data was collected using a semi structured interview schedule. Among the respondents, 113(62.7%) revealed coconut shells as the most common mosquito breeding place. Coconut shells (66%), Open drainages (61.1%) were reason for water stagnation inside & outside their own compound respectively. 71.1% have seen mosquito larva in stagnant water around their house and among them 75.8% have done something to kill larva. Most common method used was putting bleaching powder in the larva breeding places (39%) followed by source reduction

(26.5%). Bleaching powder was also the most common method (57%) used for prevention of mosquito breeding. 78.9% of the households were using personal protective measures, mosquito coil (59.8%), the most commonly used method. Only38.5% of them said that fogging was done in their area in past 6 months.[5]

STATEMENT OF PROBLEM

A study to assess the knowledge regarding source reduction of mosquito control among adults in selected areas of Pallithottam

OBJECTIVES

- To assess the knowledge regarding source reduction of mosquito control among adults in selected areas of Pallithottam.
- To assess the attitude regarding source reduction of mosquito control among adults in selected areas of Pallithottam.
- To find out the association between pretest knowledge score regarding source reduction and selected demographic variables.

ASSUMPTION

The study assumes that

- Subjects may have inadequate knowledge regarding source reduction of mosquito control.
- Subjects are likely to be interested in knowing more about source reduction of mosquito control.
- Subjects may have doubts regarding source reduction of mosquito control.

Research approach	: Quantitative research.
Research design	**:** Non-Experimental descriptive research design.
Variables	**Demographic variables:** In this study the demographic variables were age, sex, type of family, method of waste disposal, type of drainage, water supply, living area, stagnation of water around house and previous knowledge about source reduction.
Setting of the study	This study was In this study the setting area were Snehatheeram nagar and Sangama nagar in Pallithottam.
Population	: Population for the present study were adults of age group of 35-55 years.
Sample	: adults with the age group of 35-55 years under the inclusion criteria.
Sample Size	:sample size was 60 adults with the age group of 35-55 years.
Sampling Technique	: Convenience sampling technique

RESULT AND DISCUSSION

Table 1: Frequency and percentage distribution of sample according to demographic variables.

DEMOGRAPHIC VARIABLE	FREQUENCY	PERCENTAGE (%)
AGE		
35-40 years	14	23.3
41-45years	15	25
46-50years	18	30
51-55years	13	21.6
SEX		
Male	27	45
Female	33	55
TYPE OF FAMILY		
Nuclear	32	53.3
Joint	23	38.3
Extended	5	8.3
METHOD OF WASTE DISPOSAL		
Burning	23	38.3
Dumping	30	50
Tipping	7	11.6
WATER SUPPLY		
Well	12	20
Tube well	24	40
Pipeline	24	40
DRAINAGE SYSTEM		
Proper	44	73.3
Improper	16	26.6
STAGNATION OF WATER		
Yes	31	51.6

No	29	48.3
PREVIOUS KNOWLEDGE		
Yes	30	50
No	30	50

N=60

Table 2: Frequency and percentage distribution of score on knowledge regarding source reduction of mosquito control.

RATING	SCORE	PERCENTAGE (%)
Good knowledge	15-20	76-100
Average knowledge	11-14	51-75
Poor knowledge	<10	<50

20 % of adults have good knowledge on source reduction of mosquito control, 28 % of adults have average knowledge and 52% of adults have poor knowledge.

Table 3: Frequency and percentage distribution of score on attitude regarding source reduction of mosquito control.

SCORE	RATING	FREQUENCY	PERCENTAGE (%)
65-75	Highly positive	3	5
64-55	Positive	31	52
54-45	Neutral	21	35
44-35	Negative	5	8
<35	Highly negative	0	0

Description of attitude scores of adults regarding source reduction of mosquito control.
N=60

Table - 4: Association between knowledge regarding source reduction of mosquito control among adults and selected demographic variables.

Sl.no	Variable	Level of knowledge			Chi square value	df	Table value	Level of significance
		Poor	Average	Good				
1	**AGE**							
	35-40	7	4	3				
	41-45	9	3	3	3.07	6	2.447	S
	46-50	7	6	5				
	51-55	8	4	1				
2	**SEX**							
	Male	16	7	4	4.1	2	4.303	NS
	Female	15	10	8				
3	**TYPE OF FAMILY**							
	Nuclear	15	10	7				
	Joint	13	5	5	2.06	4	2.776	NS
	Extended	3	2	0				
4	**METHOD OF WASTE DISPOSAL**							
	Burning	11	6	6				
	Dumping	17	7	6	4.47	4	2.776	S
	Tipping	3	4	0				
5	**WATER SUPPLY**							
	Well	8	2	2				
	Tube well	11	9	4	2.54	4	2.776	NS
	Pipe line	12	6	6				
6	**DRAINAGE SYSTEM**							
	Proper	25	10	9	2.86	2	4.303	NS
	Improper	6	7	3				
7	**STAGNATION OF WATER**							
	Yes	17	7	7	6.23	2	4.303	S
	No	14	10	5				
8	**PREVIOUS KNOWLEDGE**							

	Yes	17	8	5	0.68	2	4.303	NS
	No	14	9	7				

N=60

Table-4: The association was computed by using chi square test. Regarding age of adults, the calculated value is 3.07 greater than table value 2.447 at 0.05 level of significance. Regarding sex the calculated value 4.1 is less than the table value 4.303 at 0.05 level of significance. Regarding type of family the calculated value 2.06 is less than the table value 4.303 at 0.05 level of significance. Regarding method of waste disposal, the calculated value 4.47 is greater than the table value 2.776 at 0.05 level of significance.

Regarding water supply the calculated value 2.54 is less than table value 2.776 at 0.05 level of significance. Regarding drainage system the calculated value 2.86 is less than the table value 4.303 at 0.05 level of significance. Regarding stagnation of water the calculated value is 6.23 greater than the table value 4.303 at 0.05 level of significance. Regarding previous knowledge the calculated value is 0.68 less than the table value 4.303 at 0.05 level of significance.[6]

There is association between knowledge and demographic variables like age, method of waste disposal and stagnation of water and there is no association found between knowledge and demographic variables like sex, type of family, water supply, drainage system and previous knowledge.

Table 5: Association between attitude regarding source reduction of mosquito control among adults and selected demographic variables.

Sl.no	Variable	Level of knowledge					Chi square value	df	Table value	Level of significance
		Highly positive	Positive	Neutral	Negative	Highly negative				
1	**AGE**									
	35-40	1	7	6	0	0				
	41-45	1	10	5	0	0	9.2	9	2.262	S
	46-50	0	9	5	4	0				
	51-55	1	5	5	1	0				
2	**SEX**									
	Male	1	13	12	1	0	2.76	3	3.182	NS
	Female	2	18	9	4	0				
3	**TYPE OF FAMILY**									
	Nuclear	2	17	12	1	0				
	Joint	1	12	8	2	0	4.33	6	2.447	S
	Extended	0	2	1	2	0				
4	**METHOD OF WASTE DISPOSAL**									
	Burning	1	13	7	2	0				
	Dumping	1	18	8	3	0	12.05	6	2.447	S
	Tipping	1	0	6	0	0				
5	**WATER SUPPLY**									
	Well	0	6	4	2	0				
	Tube well	2	14	6	1	0	4.45	6	2.447	S
	Pipe line	1	11	11	2	0				
6	**DRAINAGE SYSTEM**									
	Proper	2	20	15	4	0	0.67	3	3.182	NS
	Improper	1	11	6	1	0				
7	**STAGNATION OF WATER**									
	Yes	2	17	9	3	0	0.64	3	3.182	NS
	No	1	4	2	2	0				
8	**PREVIOUS KNOWLEDGE**									
	Yes	2	15	11	2	0	1.14	3	3.182	NS
	No	1	16	10	3	0				

N=60

Table-5: The association was computed by using chi square test. Regarding age of adults, the calculated value is 9.2 greater than table value 2.262 at 0.05 level of significance. Regarding sex the calculated value 2.76 is less than the table value 3.182 at 0.05 level of significance. Regarding type of family the calculated

value 4.33 is greater than the table value 2.447 at 0.05 level of significance. Regarding method of waste disposal the calculated value 12.05 is greater than the table value 2.447 at 0.05 level of significance.

Regarding water supply the calculated value 4.45 is greater than table value 2.447 at 0.05 level of significance. Regarding drainage system the calculated value 0.61 is less than the table value 3.182 at 0.05 level of significance. Regarding stagnation of water the calculated value is 1.14 is less than the table value 3.182 at 0.05 level of significance. Regarding previous knowledge the calculated value is 0.64 less than the table value 3.182 at 0.05 level of significance.

In short there is association between attitude and demographic variables like age, type of family, waste disposal and water supply and there is no association found between attitude and demographic variables like sex, drainage system, stagnation of water and previous knowledge.

DISCUSSION

The present study was conducted to evaluate the knowledge and attitude regarding source reduction of mosquito control among adults in selected areas of pallithottam. The data was collected from 60 participants who met the criteria for the study. The statistical analysis of data was discussed in relation to the objectives and need for the study.[7]

OBJECTIVES OF THE STUDY

1. To assess the knowledge regarding source reduction of mosquito control among adults in selected areas of Pallithottam.
2. To assess the attitude regarding source reduction of mosquito control among adults in selected areas of Pallithottam.
3. To find out the association between pretest knowledge score regarding source reduction and selected demographic variables.

ASSUMPTION

The study assumes that

1. Subjects may have inadequate knowledge regarding source reduction of mosquito control.
2. Subjects are likely to be interested in knowing more about source reduction of mosquito control.
3. Subjects may have doubts regarding source reduction of mosquito control.

RESULT

The results were computed under sections 1,2,3 and 4.

1. Description of knowledge regarding source reduction of mosquito control among adults

The present study revealed that 20% participants had good knowledge, 28.33% had average knowledge, 51.66% had poor knowledge.

2. Description of attitude regarding source reduction of mosquito control among adults

The present study revealed that 5% of adults had highly positive attitude, 51.66% had positive attitude, 35% had neutral attitude and 8.33% had negative attitude.

3. Description of the association between pretest knowledge score and selected demographic variables.

The association was computed by chi square test. In the case of age of adults the chi square value is 3.07 which is greater than table value 2.45 at 0.05 level of significance therefore significance is there. In the case of gender the chisquare value is 4.1 which is less than the table value of 4.3 at 0.05 level of significance, therefore there is no significance. In the case of type of family the chi square value is 2.06 which is less than the table value of 2.78 at 0.05 level of significance, therefore there is no significance. In case of waste disposal, the chi square value is 4.47which is greater than the table value of 2.78 at 0.05 level of significance, therefore significant is there. In case of water supply the chi square value is 2.54 which is less than the table value of 2.78 at 0.05 level of significant, therefore no significant is there. In case of drainage the chi square value is 2.86 which is less than the table value of 4.30 at 0.05 level of significance therefore no significant is there. in case of stagnation of water chisquare value is 6.23 which is greater than the table value of 4.30 at 0.05 level of significant therefore significance is there. In case of previous knowledge the chi square value is 0.68 which is less than the table value of 4.30 at 0.05 level of significance, therefore no significance is there.[8]

The study found that there was significant association between knowledge and demographic variables such as age, gender, waste disposal and stagnation of water. No significant association was found between knowledge and demographic variables like type of family, water supply, drainage and previous knowledge.[9]

CONCLUSION

The present study aimed to assess the knowledge and attitude regarding source reduction of mosquito control among adults in selected areas of Pallithottam. The study result shows that there is 51.66% of participants had poor knowledge on source reduction only 5% had highly positive attitude towards source reduction of mosquito control[10]. It shows source reduction is needed to control mosquito borne diseases in Pallithottam area.

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