Assess the level of knowledge on mosquito control measures among house wives in selected village, Nellore, Andhra Pradesh and India

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Abstract

Mosquito control is a vital public health practice throughout the world and especially in the tropics because mosquitoes spread many disease like, malaria, dengue, filarial, chikungunya, continuing as major health problem despite the persistent efforts being taken to control them.

Objectives: (1) To assess the level of knowledge regarding mosquito control measures among house wives. (2) To find out the association between the level of knowledge regarding mosquito control measures among house wives with their selected socio demographic variables.

Methodology: A quantitative research study approach was adopted to assess the knowledge regarding mosquito control measures among house wives. Descriptive research design was used to assess the knowledge regarding mosquito control measures among house wives. The study was conducted in Jagadevipeta. The sample of the study was house wives from Jagadevipeta. The Convenience sampling technique was used for selection of the study subjects for the study. The sampling size of the study was 30 house wives.

Results: The study results explains that among 30 house wives of level of knowledge on mosquito control measures as, 1(3.33%) was A, 1(3.3%) were B+, 2(6.6%) were B, 3(10.2%) were C, 23(76.6%) were D categories. The Mean score was 13.8 and Standard Deviation was 2.51of house wives regarding mosquito control measures. There is a significant association between age and source of information with the level of knowledge on mosquito control measures.

Keywords: level of knowledge, mosquito control measures, house wives

Introduction

According to WHO, the main preventive measure is to stop proliferation of mosquitoes by reducing their breeding grounds. The aedes aegypti mosquito should be the main target of control activities, which includes anti larval measures, anti-adult measures, aerosol spray, using mosquito nets, wearing full sleeve clothes and long dresser using insect repellent and staying in screened indoors. These measures have been found to be effective in interrupting transmission and stopping epidemics of disease.

Need for study

In recent years mosquito-borne diseases have emerged as a serious public health problem in countries of the South – East Asia region including India. Many of these particularly Denguefever, Japanese Encephalitis (JE) and Malaria now occur in epidemic form all most on an annual basis causing considerable morbidity and mortality.

Assumptions

There will be some knowledge regarding mosquito control measures among house wives.

Delimitations

The study was limited to house wives, who are residing at Jegadevipeta – Nellore; Samplesize was 30, Age group above 25-35 years.

Conceptual frame work

Nursing conceptual consists of grand theories that are closely associated both conceptuallyand practically to the every activity of nurse educators, researchers, and care givers.

The initial version of these model appeared in nursing literature in 1980 and factors are health than health protection as illness prevention behavior. It was established by PENDER. There is special attention for three areas:

Individual characteristics and experienced
Health promotion model notes that each has unique person characteristics and experiences that affect subsequent actions. The demographic variables of house wives are age, educational status, type of family, family income, source of information.

Behavior specific knowledge and affect
The set of variables for behavior specific knowledge and affect significance have important motivation. The variables can be modified through house wives actions to assess the knowledge regarding mosquito control measures.

Behavior out comes
Health promoting behavior is the desired behavioral outcome and in the health promotion model. It consists of positive outcome and negative out comes. Early measures can be takes to identify the levels of knowledge regarding mosquito control measures.

Methodology
A quantitative research study approach was adopted to assess the knowledge regarding mosquito control measures among house wives. Descriptive research design was used to assess the knowledge regarding mosquito control measures among house wives. The study was conducted in Jagadevipeta. The samples of the study were house wives from Jagadevipeta. The Convenience sampling technique was used for the selection of study subjects for the study. The sampling size of the study was 30 house wives who meet inclusion criteria of the study.

Description of the tool
The investigator developed structured questionnaire to assess the knowledge on mosquito control measures among house wives. The tool is divided into two parts.

Part-I: It deals with the demographic data of the house wives as age, education, type of family, family income and source of information.

Part-II
It deals with the structured questionnaire on knowledge regarding mosquito control measures.

Scoring key
Score interpretation is categorized as one and zero was respectively to each correct and working answer. The tool score was calculated by adding frequency and percentages. The interpretation of scoring is grades as follow. The assigning of grades as A+ grade for more than 80%,A grade for more than 75%, B+ grade for more than 65%, B grade for more than 55%, C grade for more than 50%, D grade for less than 50%.

Table 1: Scoring key on knowledge of mosquito control measures.

Grade	Score
A+	More than 85%
A	More than 75%
B+	More than 65%
B	More than 55%
C	More than 50%
D	Less than 50%

Pilot study
Pilot study was conducted from 11/4/16 to 15/4/16 for 5 days after getting formal permission from the Jagadevipeta grama panchayat, Nellore, Andhra Pradesh. Initially, the consent was obtained from the 5 house wives and samples were selected by convenience sampling technique. After self-introduction was given to the participants, structured questionnaire was administered. It took 30 minutes for answering questionnaire and the pilot study results concluded that, the tool was reliable (r=0.9).

Data collection procedure
The data collection procedure was done for 2 weeks from 18/4/16 to 30/4/16 after obtaining the formal permission from the study samples. 30 samples were selected by convenience sampling technique. 30 house wives who fulfilled inclusion criteria were include for this study. After obtaining, informed consent from the samples and structured questionnaire was provided to collect the data from the house wives. It took 30 minutes from each sample to complete the questionnaire from the housewives.

Plan for data analysis
The data was analyzed in term of objectives of the study by using descriptive statistics and inferential statistics.

I. Descriptive statistics
1. Frequency and percentage distribution- To describe the demographic variables.
2. Mean and Standard deviation- To assess the level of knowledge of house wives.

II. Inferential statistics
Chi squire test: To associate the level of knowledge regarding mosquito control measures.

Data analysis and interpretation: The data were analyzed based on the objectives of the study. The data collected from the 30 house wives in Jagadevipeta, Nellore.

Presentation of the data
The data was organized and presented under the following sections:

Table 2: Knowledge levels on mosquito control measures among house wives.

Level of knowledge	Frequency (F)	Percentage (%)
A	1	3.3
B+	1	3.3
B	2	6.6
C	3	10.2
D	23	76.6
Total	30	100

It shows that among 30 house wives of level of knowledge on mosquito control measures, 1(3.33%) was A, 1(3.3%) were B+, 2(6.6%) were B, 3(10.2%) were C, 23(76.6%) were D categories.

Table 3: Mosquito control measures knowledge Mean and standard Deviation.

Category	Mean	Standard deviation
Knowledge	13.8	2.51

It shows that mean knowledge score is 13.8 and standard deviation is 2.51.

There is a significant association between age and source of information with level of knowledge on mosquito control measures except educational status, type of family, and monthly income with level of knowledge on mosquito control measures.

Major findings of the study

Frequency and percentage distribution based on level of knowledge on mosquito control measures among house wives.

Age

Among 30 house wives of age categories-13 (43.3%) were between 20-25 years, 7(23.4%) were between 26-30 years, 10 (33.4%) were between 31- 35 years.

Educational status

Educational status of house wives explains-10(33.3%) had to primary education, 9(30.5%) had secondary education, 10(33.3%) had graduation, 1(3.33%) had post-graduation.

Type of family

Type of family of house wives belongs to-15(50%) were under small family, 13(43.4%) were under large family and 2(6.66%) were under extended family.

Family income

Family income of house wives- 6(20%) earn less than Rs. 5000/-, 10(33.3%) earn Rs. 5001- 7000/-, 10(33.3%) earn Rs. 7001-9000/-, 4(13.4%) earn >Rs.9001/-.

Source of information

Source of information of house wives knowledge obtained by -4(13.3%) knowledge obtained through mass media, 3(10%) knowledge obtained through drama, 4(13.3%) knowledge obtained through newspaper and 19(63.4%) knowledge obtained through health personal.

Assess the level of knowledge on mosquito control measures among house wives

- Level of knowledge on mosquito control measures among 30 house wives in that 1(3.3%) were A, 1(3.3%) were B+, 2(6.6%) were B, 3(10.2%) were C, 23(76.6%) were D.
- Level of knowledge on mosquito control measures among 30 housewives, the mean score were 13.8 and Standard deviation was 2.51.

Nursing recommendations for future research

- A study can be taken to assess the effectiveness of structured teaching programme on mosquito control measures among house wives.

- A descriptive study can be taken up by using large sample of house wives for assessing the knowledge on mosquito control measures.
- A comparative study can be done to assess the practices of mosquito control measures among house wives.
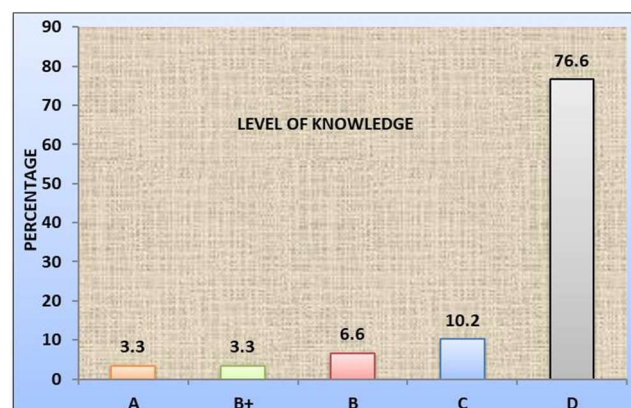

Fig 1: Knowledge levels on mosquito control measures among house wives**.**

Conclusion

The findings of the study concluded that majority of the house wives had D-grade regarding knowledge on mosquito control measures among house wives. The study indicates that there is a need to educate the house wives on mosquito control measures and to improve the knowledge of house wives on mosquito control measures.

References

1. Georly George. The text book of Community Health Nursing. First edition. Jaypee publishers P112-114.
2. I clement. The text book of Community HealthNursing. First edition. Jaypee publishers P110.
3. Judith Ann Allender. The text book of Community Health Nursing. Sixth editti on. Lippincott Williams & Wilkins publishers P158-159.
4. Park K. The text book of Preventive & Social Medicine nineteenth edition.
5. Bhanot Publishers P626-628.
6. Robert Wallace B. The text book of Public health & Preventive medicine. Fifteenth Publisher P266.
7. Mishanev Skii MN: Mosquito control measures: Indian preventive medicine journal of Indian academy of community 2008, P41.
8. Danstrickman: Parasites & vector: Indian journal of community 2014;74.