



A KNOWLEDGE, ATTITUDE AND PRACTICE PERSPECTIVE STUDY ON THE AWARENESS OF DENGUE FEVER AMONG INTERNS OF A TERTIARY CARE HOSPITAL IN CHENNAI.

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ABSTRACT

Dengue fever (DF) is increasingly recognized as one of the world's major vector borne diseases and causes significant morbidity & mortality in most tropical and subtropical countries of the world. It has also become the most common arbo viral diseases of human. Dengue fever is endemic in most parts of India and continues to be a public health concern. WHO currently estimates that there may be 50–100 million dengue infections world wide. The objective of this study is to determine the level of knowledge, attitude and practice among the interns. A cross sectional study among the interns of the tertiary care hospital was carried out during the month of October 2015. A pre structured and self-administered questionnaire was distributed and the data regarding the knowledge, attitude and practice regarding dengue fever were collected. The data collected were statistically analysed using the SPSS statistical software.

KEYWORDS: Dengue fever, knowledge, attitude, practices, major outbreak



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INTRODUCTION

Dengue fever is a viral disease transmitted by *Aedes aegypti* mosquito¹. The disease is characterized by fever, headache, muscle and joint pain, rashes, nausea and vomiting². Some infection results in Dengue Hemorrhagic Fever (DHF) - a syndrome that in its severe form can threaten the patient's life primarily through increased vascular permeability and shock. Dengue fever and Dengue Hemorrhagic Fever are caused by the four dengue viruses DEN 1, 2, 3 and 4, which are closely related antigenically. Infection with one serotype provides lifelong immunity to that virus but not to the other types³. WHO declares dengue and dengue hemorrhagic fever as endemic in the Asian sub-continent. Dengue is endemic in 112 countries of the world⁴. The case fatality rate of Dengue hemorrhagic fever is around 5 to 7%⁵. The neurological complications of dengue are also possible such as transverse myelitis and guillain-Barre syndrome⁶. Humans are the primary host of the virus. Dengue fever can be transmitted via infected blood products and organ donation⁷. The first major outbreak of dengue was reported in India in 1991. Dengue cases have been reported in all months but high numbers of cases were reported during September to December in Chennai⁸. The factors involved in the exacerbation of dengue cases were unprecedented and unplanned urbanization, increased mobility, growth in *Aedes* breeding habits, climate change, lack of effective mosquito control, and deterioration of public health infrastructure. These factors might have played role in conflagrating scenario in Chennai city also. All the four dengue serotypes (DEN-1, DEN-2, DEN-3 and DEN-4) were reported in Chennai. The reason for a knowledge, attitude and practice study among medical students was conducted because in the absence of a vaccine or specific antiviral drug to treat dengue Fever, vector control and disease prevention are the most important measures in tackling the dengue fever. The recurrence of dengue fever each year and the rising number of cases with each year suggests that vector control efforts⁹ are probably not carried out properly and need to be improved. Dengue vector, human knowledge and human behavior each has been reported to play an important role in the transmission of the disease. Considering the magnitude of the problem the KAP study was carried out to assess the knowledge and attitude of the interns¹⁰ towards dengue and the preventive practices undertaken by them and also to determine the relationship of dengue fever prevention practice and the level of knowledge and attitude. The objective of the study was to assess the knowledge, attitudes and practices regarding dengue fever among the interns of Sri Muthukumaran medical college and research institute.

MATERIALS AND METHODS

A cross sectional self-administered questionnaire based KAP study was done to all interns in the Sri Muthukumaran medical college and research institute. A questionnaire was prepared and developed from literature with slight modification for the use in this study. The questionnaire consisted 3 divisions and in each divisions a separate set of questions were present to test the knowledge attitude and practice of each intern who participated in this study. Inclusion criteria: All interns both boys and girls were included irrespective of their age limit. Exclusion criteria: Interns who are not willing and those who were on leave were excluded. The questionnaire was given individually to 104 interns who were working in various departments in the hospital. The Knowledge, attitude and practices regarding dengue fever was assessed on the "yes" or "no" type of responses in the questionnaire from the interns. The knowledge has 10 questions, attitude 5 questions and practice has 9 questions. Out of 104 interns only 90 responded which included 61 girls and 29 boys. The results were compiled using Microsoft excel and statistically analyzed using SPSS software 20 version.

RESULTS

The Questionnaire was circulated individually to all the interns and then collected the next day. Out of 104 house surgeons 90 interns responded. The questionnaire consisted of three sets of questions and are all 'yes' or 'no' pattern. The knowledge, attitude and the practices of all interns have been analyzed depending upon the scoring system. Each correct answer was given 1 mark and wrong answer 0 mark. . The self-administered questionnaire had 25 questions totally knowledge 10, attitude 5 and practices 10. The knowledge questionnaire (Table 1) has 10 questions and each correct response was given 1 mark and the percentage of correct answers were recorded and the percentage was calculated. The interns in the hospital were so knowledgeable (95.4%) regarding the causative organism which spreads dengue, the clinical presentation of the disease, the transmission of the vector, availability of drug therapy and the diagnostic tool of the dengue fever. The questionnaire has 5 questions to test the attitude (Table 2) of the interns regarding the dengue fever. The response percentage regarding the attitude (96.6%) towards the disease is also excellent among the interns. The attitude about the social responsibilities, role of municipalities, larval breeding preventive measures and public education were also excellent. The practices regarding the dengue fever analyzed with a set of 10 questions (Table 3) with yes or no response. The practices (97.2%) percentage also were also very good among the interns who participated in this KAP study. The interns were asked about covering the water stagnated places, the role of

mosquito coils and repellants to prevent the bite of the mosquito, community level participation and educating the general public regarding the awareness of the

dengue fever. The results were entered in the tables individually for knowledge, attitude and practices of the dengue fever.

Table 1
Knowledge of Dengue Fever

Knowledge of dengue fever (90)		
Knowledge	Yes	No
Dengue fever is caused by the mosquito <i>Aedes aegypti</i>	89(98.8%)	01
Stagnant water is the main source for mosquito breeding	89(98.8%)	01
Dengue fever affects all age groups	86(95.5%)	04
Chills and high fever, intense headache, muscle and joint Pain are the most common presentation of dengue fever.	87(96.6%)	03
Transmission cycle is "Man-Mosquito-Man"	90(100%)	00
Dengue epidemics start during hot weather.	04	86(95.5%)
Mosquitoes transmitting dengue infection bites only early in the morning	79(87.7%)	11
Drug therapy is available for dengue	05	85(94.4%)
There is a vaccine for dengue.	03	87(96.6%)
NS1 is the best diagnostic tool for identifying dengue	81(90.0%)	09

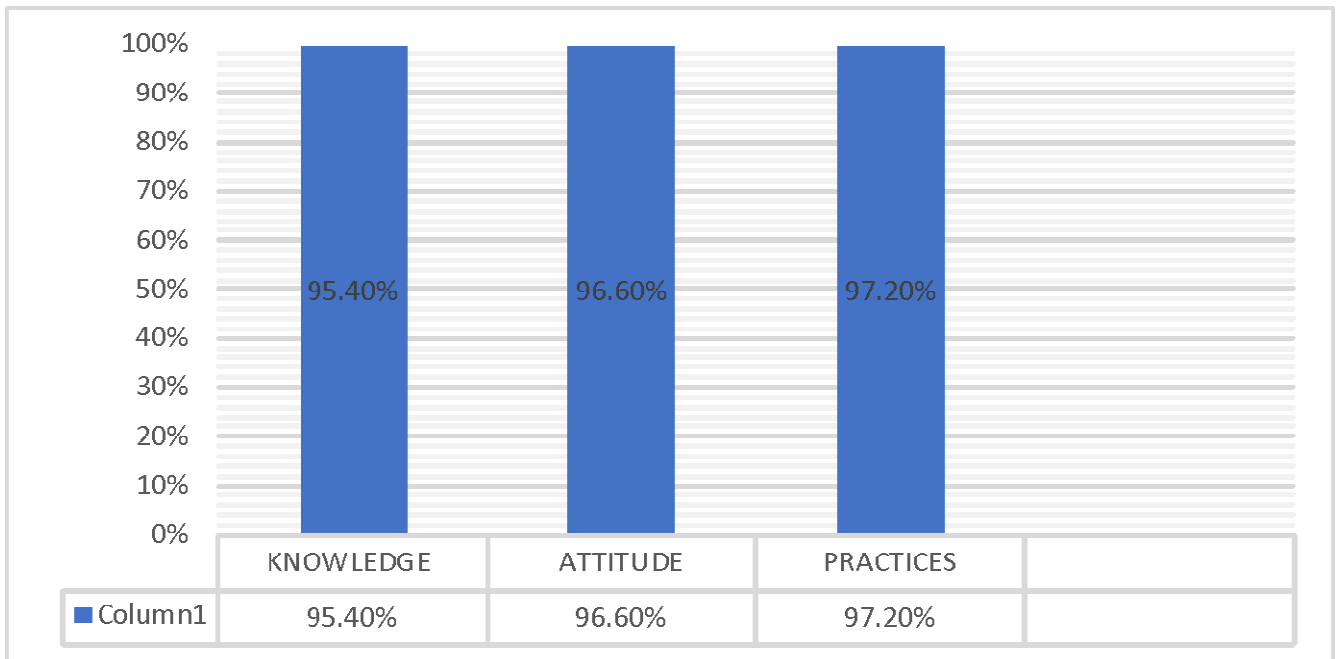
Table 2
Attitudes regarding Dengue Fever

Attitudes towards dengue fever(90)		
Attitudes	Yes	No
Fogging by the municipal council is essential enough for prevention of dengue	07	83(92.2%)
It is the responsibility of the public health staff and local government in the prevention of dengue	90(100%)	00
Elimination of larvae breeding is a complete waste of time.	01	89(98.8%)
It is not necessary to seek immediate treatment for dengue fever as there is no cure for it	04	86(95.5%)
The public education has the most important role in dengue control	87(98.8%)	03

Table 3
Practices towards Dengue Fever

Practices regarding Dengue fever(90)		
Practices	Yes	No
Cover water jars	89(98.8%)	01
Cover water tanks	90(100%)	00
Inspect refrigerator tray.	87(96.6%)	03
Examine mosquito larvae both indoors and outdoor pots	88(97.7%)	02
Drain water from flower pot	85(94.4%)	05
Examine any discarded material that holds water around your house	89(98.8%)	01
Use mosquito net or mosquito coil.	87(96.6%)	03
Use mosquito repellent	87(96.6%)	03
Participate in community fogging.	85(94.4%)	05
Participate in community 'clean our surroundings' activities.	88(97.7%)	02

Figure 1
percentage of knowledge. Attitude and practices among
interns regarding Dengue fever



DISCUSSION

The knowledge attitude and practice study was conducted among the interns in a tertiary care hospital to assess the knowledge attitude and practices of the interns towards the Dengue fever. The questionnaire based study among the interns in various departments were analyzed. The main reason for conducting the KAP study among the interns is because they are the health care professionals who are in very close vicinity to the patients. The main aim of the study was when the interns were very knowledgeable about the disease they can educate the public regarding the prevention of this deadly disease. The interns were so good about all the three aspects of the KAP study and we hoped that in future the spread of the dengue fever will be controlled if we could educate the general public regarding the preventive aspects of the dengue fever. In future there should be a community based KAP study done among the local population also to know their knowledge, attitude and practices about this disease.

CONCLUSION

The interns are well aware of the dengue fever. Their knowledge, attitude and the practices were excellent regarding the dengue fever. The knowledge about the disease should be imparted on the patients whom they often see in outpatient and inpatient departments. The lecture classes, books and newspapers were considered the major source of the data for the knowledge about the dengue fever. They were also asked to participate in community based camps and skids to educate the general population and explain the nature of the disease. They were also asked to keep the water stagnated areas cleaned in and around the hospital for avoiding the breeding of the mosquitos.

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