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Research Paper

Dengue Fever- Awareness And Knowledge Among People In A Dengue Prevalent Area

Medical Science

KEYWORDS : Dengue fever, Dengue awareness, prevention

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ABSTRACT

Dengue is a disease of public health importance. This study was conducted to assess the level of knowledge, attitude and practices regarding dengue fever in dengue prevalent areas. A structured questionnaire was administered through a face-to-face unprompted interview to 252 people. The questionnaire had four parts- socio-demographic characteristics, awareness, knowledge and preventive practices.

The study revealed that only (53.2%) were aware of dengue fever, Relatives and friends were the source of information (41.8% of those who are aware). 28.6% had good 46.8% average, and 24.6% poor knowledge. Preventive practices focused towards prevention of mosquito bites 67.5%, rather than eradication of mosquito. Based on statistical analysis it is found that males and urban population are comparatively more aware than females and rural population.

Conclusion: Majority of the respondents had only average knowledge and did not adapt any preventive practices highlighting the need for dengue awareness programs.

INTRODUCTION:

Dengue presents as a spectrum of increasingly severe clinical manifestations, ranging from classic Dengue Fever (DF) to Dengue Hemorrhagic Fever (DHF) to the most severe form Dengue Shock Syndrome (DSS). Dengue fever has recently re-emerged globally as the most important arboviral disease (Egger et al 2008) The only way to prevent dengue virus transmission is to combat the disease carrying mosquitoes.. There is no specific medicine and only proper and early supportive treatment can relieve the symptoms and prevent complications and death (Nepal Health Research Council 2011).

The epidemiology and ecology of Dengue fever are strongly associated with human habits. Thus evaluation of people's knowledge, attitude and practices is of great importance to improve integrated control measures (Degallier et al 2011).

OBJECTIVE:

This study was undertaken to evaluate the awareness, knowledge and practices regarding dengue fever among people of Tirunelveli which had recent outbreaks of Dengue Fever.

MATERIALS AND METHODS:

The cross sectional study was commenced from November 1, 2015 to December 1, 2015 and 252 subjects above 18 years were incorporated in the study. The data were collected using face to face interview technique.

Inclusion Criteria: The subjects of either sex were included who were willing.

Exclusion Criteria: The subjects who were seriously ill or not willing to participate in the study were excluded.

Ethical Consideration: The study was conducted after the approval of the Institutional Ethics Committee.

Statistical Analysis: Descriptive statistics like percentage mean as well as inferential statistics like chi-square was used for analysis. To compare the level of awareness between urban and rural population; males and females and also between different age groups, t-test was employed and the significant p-value set as 0.05.

The questionnaire was divided into four parts. The first part covered socio demographic characteristics; the second part about their awareness, the third part contained 9 questions regarding knowledge about dengue fever including modes of transmission, vector and symptoms. For each correct answer, a value of 1 point was given so that the total score would be 9. A score of 6 and above was considered 'good knowledge'; a score between 3 and 6 was considered 'average knowledge' and score below 3 as 'poor knowledge'. The fourth part of the questionnaire was used to evaluate the dengue prevention practices.

RESULTS:

Among the 252 respondents, 126 (50%) were males and 126 (50%) were females. The mean age of the population is 45 years (±14 years). About the educational status, many (n=65, 25.8%) have finished primary schooling only. Only a very few people (n=31, 12.2%) have crossed 12th standard. 117 (46.4%) individuals were from urban areas and 135 (53.6%) individuals were from rural areas. The socio-demographic features of the study population are shown in Table 1

TABLE 1
SOCIO-DEMOGRAPHIC CHARACTERISTICS

FACTOR	NO OF RESPONDENTS	PERCENTAGE (%)
SEX		
Males	126	50
Females	126	50
AGE GROUP		
20-29	37	14.7
30-39	57	22.6
40-49	52	20.6
50-59	60	23.8
60-69	39	15.9
70-79	7	2.4
EDUCATIONAL STATUS		
Uneducated	51	20.2
1st -5th	65	25.8
6th-8th	54	21.4
9th, 10th	51	20.2
11th, 12th	13	5.1
Degree	18	7.1
AREA OF RESIDENCE		
Rural	135	53.6
Urban	117	46.4

Nearly 118 (46.8%) of the study population had never heard of dengue fever and are completely unaware. The levels of awareness between males and females, urban and rural population, and between different age groups were compared using chi-

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square test and t-test. It was found that males are significantly more aware than females (p=0.023, p<0.05) (Table 2).

TABLE 2:
AWARENESS: Males Vs Females

SEX	AWARENESS (YES)	AWARENESS (NO)	Chi Square (X^2)	df	p-value
Males Females	76 58	50 68	5.1637	1	0.023*
TOTAL	134	118			

df-degrees of freedom, * - p<0.05

When urban and rural population are compared, it was found that urban population is significantly more aware than rural population (p=0.0261, p<0.05) (Table 3)

TABLE 3
AWARENESS: Rural Vs Urban Population

AREA	AWARENESS (YES)	AWARENESS (NO)	Chi-square (X^2)	df	p-value
Rural Urban	63 71	72 46	4.9459	1	0.0261*
TOTAL	134	118			

df- degrees of freedom, *-p<0.05

Relatives and friends (n=56, 41.8% of those who were aware) were the major and most useful source of information followed by health personnel, Radio/TV and newspapers . About the knowledge of dengue fever including its vector, modes of transmission, symptoms, recurrence, 28.6% (n=72) had good knowledge (Score of 6 and above out of 9), 46.8% (n=118) had average knowledge (Score of 3,4,5 out of 9) and 24.6% (n=62) had only poor knowledge (Score of 0,1, 2 out of 9) (Table 5).

TABLE 4
Level of knowledge in scores

Level of knowledge	Score (out of 9)	Rural	Urban	Total
Good Average Poor	6 and above 3-5 <3	31(22.9%) 67(49.6%) 37(27.4%)	41(35%) 51(43.6%) 25(21.4%)	72(28.6%) 118(46.8%) 62(24.6%)
TOTAL		135	117	252

In the preventive aspect of dengue fever, majority (n=170, 67.5%) use mosquito coils. Others use mosquito nets or spray insecticides. About 57 (22.6%) respondents never adapt any preventive practices .

DISCUSSION:

The current study documented the knowledge and practices regarding dengue in Tirunelveli district which had several dengue outbreaks in recent times. Understanding people's perception and practices could help in identifying target areas and also in formulating strategies to control these outbreaks.

Only half of the respondents (53.2%) in this study had previously heard of dengue fever. In another study from urban resettlement area in South Delhi, by Acharya et al 90% respondents were aware of dengue which is high when compared to our study. The possible explanation for this poor awareness could be lack of exposure to health education messages through mass media like television and newspapers.

Relatives and friends was the most important source of information (41.8%). In contrast, television was the most important source of information in studies from South Delhi by Acharya et al 2005, East Delhi by Gupta et al 1998 and Kuala Lumpur By Hairi et al 2003 In our study the role of television was only 20.9%. When the role of newspapers is considered, it is seen that only 14.9% are aware through newspapers. the role of health personnel in creating awareness in respect to dengue fever was not satisfactory as only one fourth (22.4%) of those who were aware got the relevant information from health staff.

In our study, 22.9% and 35% respondents from rural and urban areas had good knowledge about dengue. This is very low when compared to the study by Gupta et al 1998 which concluded that 71% and 89% respondents from rural and urban areas respectively from Delhi according to Gupta et al had good knowledge regarding dengue fever Knowledge was significantly better in urban areas. While, rural areas have very little awareness which most probably may be due to lack of education.

Urban inhabitants also used their knowledge with good effect to facilitate prevention of dengue fever. Measures aimed at preventing water stagnation were undertaken. This is in accordance with the studies done in Thailand that reported a significant reduction in dengue vectors and DHF cases in areas having clean-up campaigns before and during rainy seasons (Van Bentham et al 2002). Prevention of mosquito bites were mainly through mosquito coils rather than mosquito nets which can pose significant acute and chronic health risks (Weili Lu et al 2003)

Health education programs should not only focus on providing knowledge and creating awareness but also ensure that this knowledge gets translated into practice as well.

CONCLUSION:

The awareness about dengue fever among the study population was inadequate. Even those who were aware had only average knowledge and hence the practice of preventive measures was also poor. Aggressive health education seems to be the need of the hour for prevention of future epidemics.

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