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AWARENESS ABOUT DENGUE FEVER AND RELATED PREVENTIVE PRACTICES AMONGST PEOPLE IN AN URBAN SLUM MEERUT DISTRICT

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ABSTRACT

The World health Organization (WHO) declares dengue and dengue hemorrhagic fever to be endemic in South Asia. Despite the magnitude of the problem, no documented evidence exists in India which reveals the awareness and practices of the country's adult population regarding dengue fever, its spread, symptoms, treatment and prevention. This study was conducted to assess the level of knowledge, attitudes and practices regarding dengue fever in people visiting Urban Health Centre in Meerut UP. Objectives: To assess the knowledge and practices related to control of dengue fever and to assess the differences in knowledge and practices. A cross-sectional study was conducted among persons visiting a UHTC Multan Nagar, Meerut. A pre-tested semi structured questionnaire was used. About 96.59 of individuals interviewed had heard of dengue fever. Television was considered by 55.88% of the respondents as the most common and useful source of information on the disease. Knowledge about symptoms, causes, treatment and prevention of Dengue was found to be low. Practice to control dengue was also poor. The awareness regarding dengue and mosquito control measures was not satisfactory. Community educational programs should focus on awareness and awareness translating into practice.

Key Words: Dengue fever, Knowledge, Attitude, Practices, Urban slum.

INTRODUCTION

Dengue viruses, single-stranded RNA viruses of the family *Flaviviridae*, are the most common cause of arboviral disease in the world [1]. Epidemic dengue fever (DF) and dengue hemorrhagic fever (DHF) have emerged as a global public health problem in recent decades. In fact, the problem has become hyper-endemic in many urban, peri-urban and rural areas, with frequent epidemics [2]. South-East Asia is one of the regions with highest risk of DF/DHF, accounting for 52% of the global risk [3]. Rapid and unplanned urbanization is among one of the factors. Poor living conditions in the low socio - economic areas and slums not only contribute to the spread of the disease but also make it difficult to curb the vector population effectively in these areas [4]. This study aims to determine the knowledge and practices of individuals in relation to dengue and to assess the gap between in knowledge and practices.

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MATERIALS AND METHOD

This cross-sectional study was conducted at the Urban Health Training Centre (UHTC) in Multan Nagar Meerut , which is the field practice area of Community Medicine Subharti Medical College Meerut and providing quality health services to the people. Permission was obtained from the concerned authorises. A sample size of 176 subjects was considered adequate to achieve the objective of the study. Every patient coming out of UHTC

was selected for the study. The study participants were approached and a verbal consent was obtained. A Pre-tested and semi-structured interview schedule was developed in Hindi. Questionnaire consisted of socio-demographic information of the respondents, source of information, knowledge in cause, spread of dengue and practices related to prevention and control of dengue. Interviews were conducted by investigators in the month of September-Dec 2012. Data were entered and analyzed in Microsoft Excel spreadsheet.

RESULTS

A total of 176 individuals were interviewed. 141 (88.11%) were in the age group of 15-44 years. A total of 145 (82.38%) respondents were males. About 110 (62.05%) of the respondents were illiterate and 66(37%) were literate. 145 (82.39%) of the respondents were unskilled workers and 66 (37.95%) were skilled workers. 65(37.00%) were housewives and students.

Most of the respondents i.e., 170 (96.59%) had heard about dengue. Of those participants who had heard about dengue or were aware of it, the important sources of information for them were television 95 (55.88%), health personnel 48 (28.23%), newspapers/magazines 22 (13.04%). Radio was reported as source by 05 (02.94 %) of the respondents.

About the symptoms of dengue, 70(41.17%) of respondents believed "fever" as a symptom of dengue and 12(07.05%) mentioned "rash." Headache was considered as a symptom by 25 (14.70%) of the respondents and joint pain by 10 (05.88%.). 05(02.94%) respondents were aware of "bleeding" as a symptom of dengue.

25 (14.70%) of the respondents reported that Aedes mosquito breeds on sewage water and 63(37.05%) participants considered coolers and water tanks to be the common breeding sites of mosquito (*Aedes*).

Regarding preventive measures, 25(14.70%) opined that wearing long-sleeved clothes will protect from mosquito bites. 22 (13.04%) were aware of emptying of the coolers and 10(05.88%) knew about pouring of kerosene oil inside the coolers as a measure of prevention of mosquito breeding .

48 (28.23%) reported that they regularly checked their coolers for mosquito breeding, around 25 (14.70%) of them emptied the cooler, another 22 (13.04%) poured kerosene oil.

Regarding personal protection against mosquito bites, mosquito repellent mats/liquids were used by 15(08.82%) of respondents, coils were used by 10(05.88%), and repellent creams by 05(02.94%), though all of these were used during the night.

Tables 1. Socio-demographic characteristics of respondents

Characteristics		No. (%)
Age	15-44 years	141 (88.11%)
	< 45 years	35 (19.89%)
Sex	Male	145 (82.38 %)
	Female	31 (17.62%)
Education	Illiterate	110 (62.05%)
	Literate	66 (37.95%)
Occupation	Unskilled Workers	145 (82.39%)
	Skilled Workers	66 (37.95%)
	Housewife and students	65 (37.00%)

Tables 2. Knowledge about Dengue

Heard about Dengue Fever	Yes	170 (96.59%)
	No	06 (3.41%)
If heard, Source of Information	Television	95 (55.88%)
	Health Personnel	48 (28.23%)
	Newspaper / Magazines etc	22 (13.04%)
	Radio/ FM	05 (02.94%)
Symptoms Of Dengue	Fever	70 (41.17)
	Rashes	12 (07.05)
	Headache	25 (14.70)
	Joint Pain	10 (05.88)
	Bleeding	05 (02.94)
	Don't Know	48 (28.23)
Spread of Dengue		
Breeding habits of Aedes mosquito	Aedes Mosquitoes	95 (55.88%)
	Seweage water	25 (14.70%)

	Coolers and water tanks to be the common breeding sites of mosquito (*Aedes*). And bites during day time	63 (37.05%)
Awareness about Prevention		
Practices	1. Wearing long sleeves cloths	2 5 (14.70%)
	2. Emptying of the coolers	22 (13.04%)
	3.Pouring of Kerosene oil inside the cooler etc	10 (05.88%)
	4.Don't Know	113 (66.47%)
	1. Check their cooler for mosquitoes bleeding	48 (28.23%)
	2.Emptied the cooler	25 (14.70%)
	3.Poured kerosene oil	22 (13.04%)
	4.Use of Mosquitoes mat/ Liquids	15 (08.82%)
	5. Used coils	10 (05.88%)
	6.Repellent Cream	05 (02.94%)

DISCUSSION

In this study (96.59%) respondents had heard about Dengue. A study done in Brazil revealed that 78% subjects knew about dengue [5] whereas in Thailand, 67% were aware about dengue [6].

The possible explanation for the observed better awareness could be due to repeated exposure to health education messages widely available through mass media like television. In the present study, television (55.88%) was the most important source of information This is similar to a study from south Delhi, [7] and Kuala Lumpur. [8] The number of regional as well as television channels has increased in the recent years. The major source of information on dengue like television is a very important source of information and this can be further used to disseminate more awareness regarding dengue. Although the role of newspapers was also found to be important, despite of the fact that majority respondents were illiterate. This could be due to better ingress of print media among the local population. It was found that the role of health personnel in creating awareness in respect to DF was not satisfactory as only 48 (28.23%) me information from health workers.

The knowledge of symptoms was much lower, especially the dengue specific symptoms of bleeding and rash which were mentioned by only 02.94% and 07.05%, of the study participants, respectively. This is a cause of concern and it needs due attention because improved awareness in this regard would lead to better treatment seeking behaviour and thereby early diagnosis and treatment. 99(55.88%) respondents were aware that dengue is spread by *Aedes* mosquito. 25(14.70%) reported sewage water as the common breeding site as against 63(37.05%) reporting coolers and water tanks.

25(14.70%) were aware that wearing long sleeve clothes prevent the disease. 22(13.04%) knew that emptying coolers would help in prevention. 10(05.88%) reported pouring kerosene in cooler water would prevent mosquito breeding / disease spread.

Large majority of the respondents 113(66.47%) were not aware of preventive measures. 48(28.23%) were regularly checking coolers for mosquito breeding and 25(14.70%) were emptying it periodically, 22(13.04%) were pouring kerosene in cooler water.

Regarding personal protective measures, 30(30.2%) were using various forms of mosquito repellents, mats & liquids (08.82%), coils (05.88%), repellent creams (02.94%). This highlights the existing gap in the knowledge with respect to the biting habits of *Aedes* mosquito.

These results suggested that the study population was not using adequate preventive methods aimed at controlling both the vector's breeding and its spread.

CONCLUSION

The current study documented the knowledge and practices regarding dengue among the population of a periurban area of Meerut, as poor. We have found a low level of knowledge in our study. However, isolated knowledge on symptoms and prevention is adequate; with preventive measures mainly focused towards protection from mosquito bites. Creation of awareness among the local population by the health workers was poor. Mass media, In this regard played a successful role. Understanding people's perception and their practices could help in identifying target areas and also in formulating strategies to combat these outbreaks.

Based on the study findings, authors suggest that future campaigns should involve more aggressive thorough active involvement of health workers and community representatives as well. Mass media can also be used as a tool for community awareness. 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.

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