ORIGINAL ARTICLE

Knowledge, Attitude & Practices towards Dengue Fever: Comparison between community and health care professionals

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ABSTRACT

Background: Dengue virus infection is considered as a major public health concern worldwide. The burden of disease can be reduced with community participation.
Aim: To compare the knowledge, attitude and practice towards dengue fever between community and health care professionals.
Methodology: The study got approved by ethical review board. This cross sectional survey was conducted from January to June 2017, for the community and health care professionals (50 participants each) of King Edward Medical University, Lahore to compare the knowledge, attitude and practice towards dengue fever. A validated questionnaire was used. The study participants were included by non-probability convenient sampling. The participants were explained regarding study protocol and their consent was obtained.
Results: The study participants consisted of 50 doctors and 50 community members. There was statistically significant difference in knowledge between doctors and communities in the area of dengue transmission and clinical features. Regarding attitude, there was statistically significant difference between the responses. However, there was not statistically significant difference between the responses in practices towards dengue fever.
Conclusion: There are significant differences in knowledge, attitude and practices associated with dengue fever between doctors and community. The community needs to be educated more for this very important disease.
Keywords: Knowledge, Attitude, Practice, Dengue, Community, Health care professionals

INTRODUCTION

Dengue virus infection is a one of the major public health issue[1]. World Health Organization (WHO) has estimated the global infection rate of dengue as 390 million[2]. Although there is progress in clinical management and development of vaccines, but still awareness of community is important factor. To prevent dengue infection, there is need to control the breeding sites for the vector mosquitoes, mainly Aedes aegypti and Aedes albopictus[3].

The research conducted previously have showed the views of different community members on dengue infections; but considering the perspective of clinicians there have not been any recent advancement. Such studies have been carried out mostly in Asia[4,5,6]. Thaver et al[7] conducted a knowledge-based study in Pakistan and established that clinicians had a better grip on pathophysiology of dengue fever as compared to diagnosis and treatment of dengue. As a result of these studies, it becomes clear that clinical practice is different in different regions and it also varies with time that makes it vital to appreciate the local and current practices for management of dengue when considering the areas of potential improvement. Therefore, based on this review, this study was planned to compare the knowledge, attitude and practice towards dengue fever between community and health care professionals.

METHODOLOGY

The study got approved by ethical review board. This cross sectional survey was conducted from January to June 2017, for the community and health care professionals (50 participants each) of King Edward Medical University, Lahore to compare the knowledge, attitude and practice towards dengue fever. A validated questionnaire was used. The study participants were included by non-probability convenient sampling. The participants were explained regarding study protocol and their consent was obtained. The study participants were interviewed according to the questionnaire. Data were entered in SPSS 20 for statistical analysis. Chi square test was applied to see the differences between responses.

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RESULTS

The study participants consisted of 50 doctors and 50 community members. Males were 39% male and 60% of the study population was between 15-30 years of age. Among total, 84% population belonged to urban areas. Majority (69%) of the participants were graduates (Table I). There was statistically significant difference in knowledge between doctors and community in the area of dengue transmission and clinical features (Table II). Regarding attitude, community still considers itself safe from dengue and there is statistically significant difference between the responses (Table III). Though, there was no statistically significant difference among the responses in practices about dengue fever (Table IV).

Table I: Demographic characteristics

	Frequency	%age
Gender		
Male	39	39.0
Female	61	61.0
Age in years		
15 to 30 years	60	60.0
30 to 45 years	30	30.0
above 45 years	10	10.0
Residence		
Rural	16	16.0
Urban	84	84.0
Profession		
Doctor	50	50.0
Community	50	50.0
Education		
Illiterate	13	13.0
Primary	5	5.0
Secondary	8	8.0
Higher secondary	5	5.0
Graduation	69	69.0

Table II: Comparison of knowledge about dengue fever among doctors versus community

	Professions		P value
	Doctor	Community	
Have you heard about dengue?			
Yes	50	50	--
Do flies transmit dengue?			
Yes	10	23	0.001
No	40	23	
Not sure	0	4	
Do all mosquitoes transmit?			
Yes	2	26	<0.001
No	48	22	
Not sure	0	2	
Does aides transmit the disease?			
Yes	46	42	0.003
No	4	2	
Not sure	0	6	
Can it be transmitted by person to person contact?			
Yes	1	25	<0.001
No	48	16	
Not sure	1	9	
Can it be transmitted by airborne droplets?			
Yes	3	37	<0.001
No	47	8	
Not sure	0	5	
Can it be transmitted by blood transfusion?			
Yes	21	46	<0.001
No	29	1	
Not sure	0	3	
Can it affect all age groups?			
Yes	49	50	0.315
No	1	0	
Not sure	0	0	
Can it be transmitted by unhygienic food and water?			
Yes	4	40	<0.001
No	46	7	
Not sure	0	3	
Is rash a symptom of dengue?			
Yes	44	30	0.004
No	4	8	
Not sure	2	12	
Does dengue cause fever and headache?			
Yes	49	40	0.007
No	1	1	
Not sure	0	9	
Can dengue lead to internal and external bleeding?			
Yes	48	34	0.001
No	2	4	
Not sure	0	12	
Can dengue be treated by antibiotics in the hospital?			
Yes	4	22	<0.001
No	45	16	
Not sure	1	12	
Can you identify aides mosquito?			
Yes	48	11	<0.001
No	2	34	
Not sure	0	5	
Can dengue be prevented by using bed netting?			
Yes	49	50	0.315
No	0	0	
Not sure	1	0	
Can dengue be prevented by using insecticide sprays?			
Yes	47	50	0.079
No	3	0	
Not sure	0	0	
Do you think mosquitoes breed on stagnant water in ponds?			
Yes	44	48	0.017
No	6	0	
Not sure	0	2	
Do you think water in flowerpots water coolers can breed mosquito			
Yes	49	48	0.22
No	1	0	
Not sure	0	2	

Table III: Comparison of attitude about dengue fever among doctors versus community

Attitude	Professions		P value
	Doctor	Community	
I consider myself at risk for dengue			
Strongly agree	21	0	<0.001
Agree	23	43	
Disagree	4	3	
Strongly disagree	2	4	
Not sure	21	0	
All the dengue infected persons should be isolated			

Strongly agree	20	2	<0.001
Agree	21	45	
Disagree	7	1	
Strongly disagree	0	2	
Not sure	2	0	
Dengue fever can be prevented			
Strongly agree	21	0	<0.001
Agree	27	44	
Disagree	1	3	
Strongly disagree	1	0	
Not sure	0	3	
Our Government has responsibility of taking preventive measures for dengue			
Strongly agree	37	26	0.031
Agree	12	24	
Disagree	0	0	
Strongly disagree	1	0	
Not sure	0	0	
Dengue fever is a fatal disease			
Strongly agree	13	0	<0.001
Agree	30	48	
Disagree	2	0	
Strongly disagree	4	0	
Not sure	1	2	
If available, i will advise all patients to have dengue vaccine			
Strongly agree	14	0	<0.001
Agree	26	48	
Disagree	2	0	
Strongly disagree	2	0	
Not sure	6	2	
I would like to get more information about Dengue			
Strongly agree	30	30	0.22
Agree	15	20	
Disagree	2	0	
Strongly disagree	1	0	
Not sure	2	0	

Table IV: Comparison of practices about dengue fever among doctors versus community

	Professions		P value
	Doctor	Community	
Do you use insecticide sprays around your home			
Yes	46	36	0.024
No	3	13	
Not sure	1	1	
do you use bed netting while sleeping			
Yes	9	25	0.002
No	40	25	
Not sure	1	0	
Do you use mosquito coils			
Yes	38	34	0.373
No	12	16	
Not sure	0	0	
Do you cover all water filled containers in home			
Yes	42	46	0.193
No	7	2	
Not sure	1	2	
Do you prefer full clothing at evening			
Yes	39	41	0.617
No	11	9	
Not sure	0	0	
Have you ever used mosquito repellants or creams			
Yes	44	39	0.234
No	6	9	
Not sure	0	2	
Do you ensure proper disposal of garbage			
Yes	49	42	0.049
No	1	7	
Not sure	0	1	
Do you use smoke to fly away mosquitoes?			
Yes	11	21	0.032
No	39	29	
Not sure	0	0	
have you ever contacted professional pest control for dengue prevention			
Yes	25	16	0.178
No	24	32	
Not sure	1	2	
Do you try to eliminate stagnant water in tire tubes or flower vases in your home and surroundings			
Yes	41	44	0.412
No	8	4	
Not sure	1	2	
Do you use window screens			
Yes	30	24	0.454
No	19	24	
Not sure	1	2	
Have you ever used mosquito eating fish for reducing mosquitoes			
Yes	49	38	0.001
No	0	0	
Not sure	1	12	

DISCUSSION

As a result of our study, it becomes clear that there is good knowledge, good attitudes and practices concerning Dengue fever control among doctors, but when compared with community, the difference was statistically significant. The perception of knowledge on Dengue Fever found as a result of this study can be compared to that perceived in similar KAP studies carried out in Pakistan and Jamaica[8,9]. The meager knowledge concerning Dengue fever, its common signs and symptoms, among our study subjects implies that this disease can easily be mistaken for other frequent causes of pyrexia such as influenza, typhoid, etc., that leads to delays in need for medical assistance until disease gets complicated as reported in a research conducted in Jamaica[8]. This low level of knowledge on Dengue fever may ascertain to the fact that there have been no regular campaigns for the knowledge of dengue except at time of outbreak in 2010 and that the disease only just came forth in the country[10].

Regarding attitude towards DF control, there was statistically significant difference in responses of attitude between doctors and community. This implies that most of the people had identified the threat of getting infected with Dengue and took measures for prevention and control. In a study done in Malaysia almost same results were found on the attitude of people on risk of getting the infection[11].

In our study, the common practices were clearly related to knowledge and attitude towards the disease. In related researches done in Malaysia an incongruity was reported between the knowledge and

practices[11]. In general, in our study, the level of practices was many times advanced than the level of knowledge. This is in contrast with likewise unforeseen findings in a study conducted in Thailand where subjects who had better knowledge of Dengue vector and the conditions were Dengue can breed, had more likely breeding sites in their surroundings than the subjects with low level of knowledge[12] In an additional study done in Thailand, the reported practice of measures of prevention was also found to be more as compared to the reported knowledge of preventive measures[13].

This study has its own limitations. The study was single centered, and was conducted on small sample size, the result of which cannot be generalized. More qualitative studies are needed to address this important issue on larger scale.

CONCLUSION

The results of this study provide significant insights into the differences in breach in knowledge, attitudes, and practices towards dengue fever in a resource-limited locality. There are significant differences in knowledge, attitude and practices associated with dengue fever between doctors and community. The community needs to be educated more for this very important disease.

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