



PAKISTANI MEDIA AND THE RISING FEAR OF DENGUE FEVER.

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ABSTRACT... Objectives: In this study we analyze how much the general population fear from dengue fever based on their knowledge acquired via media. **Study Design:** Cross-sectional study. **Setting:** Civil Hospital, Karachi, Pakistan. **Period:** 1st August 2019 to 30th September 2019. **Material & Method:** Non-Probability consecutive sample technique was used. Patients with dengue fever were asked to fill a questionnaire which comprised of demographic variables as well as questions regarding their fear of dengue fever based on their information acquired from media particularly news channels. **Results:** Out of 2750 patients who underwent dengue serology, 727 came positive for active dengue viral infection. Of them 204 patients required admission. Patients were asked to rate how much they think dengue fever is lethal. The mean of all responses was 7.8 ($p < 0.005$). When asked about the route of transmission 93% answered the correct mode of transmission. 59.4% ($n=432$) think that dengue fever requires anti-biotics while 40.5% ($n=295$) knew that the management of dengue fever is supportive. We asked the study subjects about what did they know about dengue hemorrhagic fever and dengue shock. Of the 727 individuals, 10.3% ($n=75$) knew regarding any of them. 89.6% had no idea. **Conclusion:** We hereby conclude that although media has done a great job in educating the people, it has also created a fear among the general population regarding dengue fever which the clinicians face every day.

Key words: Dengue fever, Media, Rising Fear.

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INTRODUCTION

Dengue fever is a viral infection transmitted by the *Aedes Aegypti* mosquito. In 2011, 21,204 cases were reported in Pakistan.¹ Uptil now, a total of 50,000 patients in Pakistan have been diagnosed with dengue fever.² There is no vaccine to prevent dengue fever is available, and effective prevention measures to control the spread include reducing breeding sites of aedes mosquito. Storage of water in open spaces leads to breeding to mosquito and spread of virus.³ Media plays a critical role in the prevention of dengue virus infection.⁴ Though its role in educating people regarding its prevention cannot be under-estimated, it is seen that media has also created a fear amongst the population regarding dengue fever. In this study we analyze how much the general population fear from dengue fever based on their knowledge acquired via media.

MATERIALS AND METHOD

This cross-sectional study was conducted in Civil Hospital, Karachi, Pakistan during the duration starting from 1st August 2019 to 30th September 2019.

Patients presenting to the outpatient department on every Thursday were included in the study. A total of 2750 patients presented with high grade fever, chills, body ache and headache. Of them 727 patients had positive dengue serology. These patients were included in the study. Informed consent was taken before including them in the study. Demographic variables were recorded which included age, gender, weight, height. All of them underwent baseline investigations including complete blood picture (CBC), Serum Urea, Serum Creatinine, Serum Electrolytes, Urine detailed report. They also underwent Serology testing for dengue virus-specific antibodies,

types IgG and IgM. Investigations were available 12 hours later and supportive treatment was started irrespective of the laboratory reports. Patients were asked to fill a questionnaire which was comprised of questions related to the role of media in the awareness regarding dengue fever. After filling the questionnaire they were educated about the answers and asked to spread the awareness regarding it.

RESULTS

Out of 2750 patients who underwent dengue serology, 727 came positive for active dengue viral infection. Of them 424 were males and 303 were females. Of the 727 with positive dengue serology, 204 patients required admission. Of them 154 had symptoms for the last three days, 32 had symptoms for more than three days but less than seven days, 8 patients had symptoms for greater than 7 days (Table-I). Patients were asked if they regularly watch news regarding dengue fever 75% (n=546) responded yes (Figure-1). They further concluded that there are a lot of news regarding death related to dengue fever which creates panic among those diagnosed. When asked about the route of transmission 676(93%) answered the correct mode of transmission which is by mosquito bite and can be prevented by limiting the breeding sites of Aedes mosquito (Figure-2). They were further asked if dengue fever is a viral disease or bacterial disease. 67% (n=488) said that dengue fever is viral disease whereas 32.8% (n=239) said that dengue fever is bacterial (Table-II). They were further asked if the treatment of dengue fever involves the use of anti-biotics or just the use of anti-pyretics, analgesics and fluids. 59.4% (n=432) think that dengue fever requires anti-biotics while 40.5% (n=295) knew that the management of dengue fever is supportive. When asked about the role of hydration in dengue fever, 71.8% (n=522) knew that hydration is important for the management of dengue while 28.1% (n=205) was unaware of the role of hydration in dengue fever. They were asked if any vaccine is available for the prevention of dengue fever. 51.7% (n=376) conclude that vaccine is available whereas 48.2% (n=351) conclude that there is no vaccine for the prevention of dengue fever. We asked the study

subjects about what did they know about dengue hemorrhagic fever and dengue shock. Of the 727 individuals, 10.3% (n=75) knew regarding any of them. 89.6% (n=652) had no idea. Of the 50 who knew majority belonged to health care or have some first degree relatives in health care. Media hasn't contributed to the awareness of complications of dengue fever.

Patients were asked to rate how much they think dengue fever is lethal. The mean of all responses was 7.8 (p=0.002). On the completion of questionnaire, we educated the individuals regarding dengue fever, its prevention, management and complications. We asked them to further spread this knowledge.

Number of days to symptoms in admitted patients	Number of Patients
Upto 3 days	154
4 to 7 days	32
More than 7 days	8

Table-I. Number of days to symptoms in admitted patients

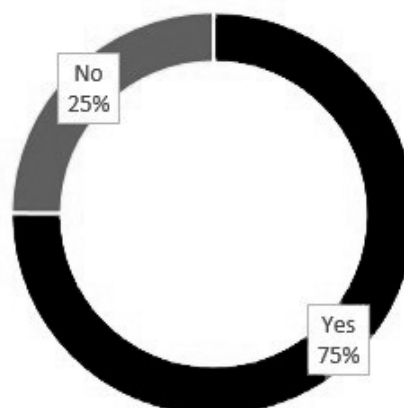


Figure-1. Response regarding news

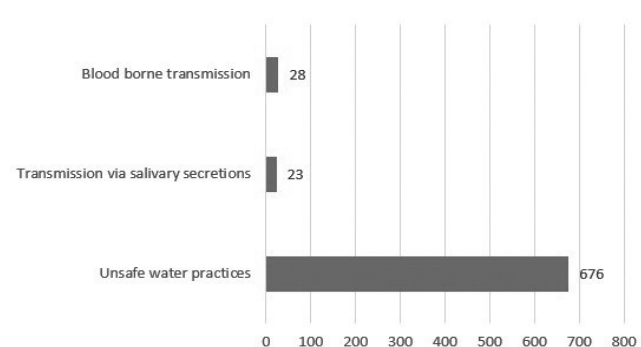


Figure-2. Response against the mode of transmission

	No. of Patients	Percentage
Is dengue fever a viral disease or bacterial disease?		
Viral disease	488	67.2%
Bacterial disease	239	32.8%
Do you think hydration is important in the management of dengue fever?		
Yes	522	71.8%
No	205	28.1%
Do you any vaccine is available to prevent dengue fever?		
Yes	376	51.7%
No	351	48.2%
Do you know about the dengue hemorrhagic fever or dengue shock?		
Yes	75	10.3%
No	652	89.6%
Table-II. Patient's awareness regarding Dengue		

DISCUSSION

Our study concludes that although media has contributed a lot to the awareness and prevention of dengue fever. It has also contributed to the development of fear against dengue fever. Dengue fever is curable with supportive management however the lay man's knowledge is solely based on the information he gained from media and thus fears dengue fever.

A study conducted in India shows that television is the most important source of information on dengue fever in majority of his study subjects.³ So the role of media is crucial most in the awareness of outbreaks of viral infections such as dengue fever. 32.8% of our patients think that dengue is a bacterial disease. We think that for the purpose of ratings, media has lost focus on the appropriate awareness of general population. Media focuses on reporting the incidence and death related to dengue fever. When we asked our study subjects how much you think dengue fever is lethal and asked them to rate their fear on a scale of 0 to 10 we found that the mean of all responses we received was 7.8.

Though media has developed a fear among the general population for dengue fever. It has also helped in providing some awareness. Such as awareness regarding the prevention of dengue

transmission. 93% answered the correct mode of transmission of dengue fever which concludes that the media has provided appropriate awareness on the mode of transmission of dengue and its awareness. However it is concluded that media should pay more attention towards its transmission and management without creating a fear by continuously showing the death toll. A study conducted in Rawalpindi concludes that only 12% of his study subjects use mosquito nets to prevent dengue fever.⁵ Mosquito nets can only be used while sleeping however dengue virus transmission is possible during the day by mosquito bite which can be prevented by the use of mosquito repellants.

The potentially lethal complication of dengue fever is dengue hemorrhagic fever. Only 10.3 % of population is aware of this complication. It involves hypovolemia, impairment of clotting mechanisms and increased vascular permeability. It can also lead to dengue shock.⁶ Media should clarify that the death due to dengue virus is particularly due to dengue hemorrhagic fever or dengue shock. Socio-economic status has a great correlation with the knowledge of prevention of dengue fever in previous studies.⁷ However in our study no association was found between socio-economic status and the fear of dengue virus.

One important step in the management of dengue fever, after subsiding the fever is hydration. It can be oral or intravenous.⁸ Of our study subjects, 26.2% were aware that hydration is an important step in the management of dengue fever. Of our study subjects, 63.6% patients believed that platelet transfusion is crucial in all forms of dengue fever. Media should focus on the awareness of fact the empirical transfusion of platelets is limited to patients with a platelet count less than 20,000-25,000 per mm³ and not every individual is a candidate for transfusion. The threshold for transfusion in any other febrile thrombocytopenia is less than 10,000 platelets per mm³.⁹

The limitations of this study includes the relatively small sample size and the selection of patients tested positive for dengue fever. For the patients with negative dengue serology, the views might

be different and further studies are required to discuss these facts.

CONCLUSION



We hereby conclude that although media has done a great job in educating the people, it has also created a fear among the general population regarding dengue fever which the clinicians face every day. Appropriate awareness without fear is the right of every citizen.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
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2	Majid Ahmed Shaikh	Data collection, Critical revision of the article for important intellectual content.	
3	Syed M. Kashif	Drafting of the article.	