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A Survey to Assess Knowledge About Dengue Fever, its Symptoms and Prevention among the People of Rural Community in Lahore.

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A B S T R A C T

Dengue has become a worldwide public health problem. Despite reactive efforts by the government in Pakistan, the dengue cases are increasing. Adequate knowledge, a positive attitude, and correct practice for dengue control are essential to eradicate the disease. Hence, this study aims to assess the dengue knowledge, attitude, and practice (KAP). A descriptive cross-sectional study was conducted in a rural community of Lahore, Pakistan in 2021. A sample consisting of 73 participants was selected using non probability sampling technique and interviewed to measure their responses. The study showed that quite a hefty proportion of 71% of the population of rural community possess good knowledge about dengue fever, it's symptoms and preventive measures. There was a strong association between knowledge and attitude regarding the Dengue Fever and between attitude and preventive practices. To conclude findings of this study, a vast majority of the population possessed good knowledge regarding dengue fever, it's symptoms and prevention.

Keywords: Dengue, control, eradication, hemorrhagic fever.

1. Introduction

Dengue is a mosquito-borne disease it is transmitted by the bites of Aedes mosquitoes mainly Aedes Aegypti and Aedes Albopictus. It is considered as most prevalent human arboviral infection worldwide. According to WHO, every year 20,000 deaths occur on account of Dengue worldwide. Dengue fever is an infection caused by any one of the 4 serotypes of the dengue virus (DENV-1, -2, -3 and -4). Dengue fever may appear as a life-threatening disease characterized by dengue hemorrhagic fever and dengue shock syndrome (Hossain et al., 2021). Dengue is a mosquito-borne viral disease caused by female mosquito species mainly Aedes Aegypti and to some extent Aedes Albopictus. Dengue is influenced by temperature, rainfall, humidity, and urbanization. It causes a wide range of disease which ranges from sub-clinical to flu-like symptoms in infected people. Some people have severe symptoms of dengue and complications are excess bleeding, organ impairment, or plasma leakage. Dengue has a higher risk of death. Severe dengue was recognized first in the 1950s during pandemics in Thailand and the Philippines. Dengue has been the leading cause of hospitalization and death among adults in these regions (WHO, 2021). Most researchers previously conducted mainly in Asia and focused on how the members of the community view dengue infection; however, few attempts have been made to date to better understand the viewpoint of clinicians. A study has been conducted in Taiwan among health professionals towards their understanding of mosquito-transmitted diseases showed significant knowledge deficits. Similarly, in a study in Karachi, physicians had general knowledge but they lacked clinical diagnosis and management and needed planning. However, a study conducted in Pakistan showed how professionals had a stronger understanding of dengue pathophysiology than clinical diagnosis and treatment (Yusuf & Ibrahim 2019). Surveillance activities are conducted by the volunteers of health in the village who are coordinated with primary care units. Activities involved are routine household surveys to identify habitats of larvae, destructions of breeding of the mosquitoes, and campaigns for dengue death prevention. However, strategies are lacking for dengue prevention and control in primary schools. Therefore, this study evaluates and compares the knowledge, attitude, and practice in primary school children without the experiences of previous dengue infection. This study provides beneficial information for preventive intervention. (Suwanbamrung et al. 2021).

The study aimed to assess the knowledge, attitude, and practice regarding dengue fever and its home-based management among people of a rural community in Lahore, Pakistan.

2. Methodology

Research design: A descriptive **cross-sectional** study was conducted to assess the knowledge, attitude, and practice regarding dengue fever and its home based management among people of a rural community in Lahore, Pakistan.

Research Setting: This study was performed in a rural community of Lahore, Pakistan.

Study Population: The Population targeted by the study were residents of a rural community of Lahore.

Sampling method: A non-probability convenience sampling method was used to select the sampling elements.

Sample size: A total of 73 individuals living in a rural community were selected for data collection.

Research Instrument: A close-ended structured questionnaire consisting the questions to assess knowledge, attitude, and practice regarding medication error was used to collect the data.

Data Collection: After documenting the informed consent, participants were interviewed using a questionnaire.

Data Analysis: The measured responses were analyzed for descriptive statistics; frequency and percentages were calculated.

3. Results

Total 90 people participated in this study in which 73 people voluntarily part in this study. In which 23.3% are male and 76.7% are female. In18-22 year's age groups people are 5.5% and 23-27 are 31.5% and 28-32 19.2% and Above 33 is 43.8%. All of the people have the religion of Islam.39.7% are housewivesand11.0% are farmers and 49.3% people are do others job and

Table 1. Demographic characteristics of participants

	Variables	**Frequency**	**Percentage**
Gender	Male	17	23
	Female	56	77
Age	18_22	4	5
	23_27	23	32
	28_32	14	19
	above33	32	44
Religion	Islam	73	100
Occupation	Housewife	29	40
	Farmer	8	11
	Others	36	49

Participants' responses were measured and percentages were calculated to find out proportion of population who possess good knowledge regarding dengue fever, its symptoms and measures to prevent its incidence. Most of the participants which is 73% answered appropriately to the questions related to the causes of dengue fever. Sixty-nine percent (69%) of the subjects knew about the symptoms of the dengue fever. When enquired about the transmissibility of dengue virus between person, 63% of the respondents were true in their answers. Questionnaire consisted of some questions related to the prevention of dengue fever/virus and 77% of the sampling elements responded accurately. Table 2 lists the participants' responses in detail.

Table 2: Knowledge of participants regarding dengue fever, it's symptoms and prevention strategies

	No.	**Statements**	**Yes**	**No**	**Maybe**
Knowledge related items	1	Do you know that dengue is caused by a mosquito bite?	76%	22%	4%
	2	Do you think that dengue mosquitoes likely to feed/bite in the afternoon?	25%	70%	5%
	3	Which of the following are symptoms of dengue fever?	86%	10%	4%
		Headache and fever	74%	21%	5%
		Joint pain	82%	16%	2%
		Muscle pain	75%	21%	4%
		Pain in the eyes	71%	21%	8%
		Rashes on the body	30%	52%	18%
		Body aches	44%	33%	23%
	4	Which of the following is true about transmission of dengue fever			
		Dengue virus can be transmitted by flies	23%	71%	6%
		Dengue virus can be transmitted by ticks	34%	55%	11%

	Dengue virus can be transmitted by all types of mosquitos	20%	73%	7%
	Dengue virus can only be transmitted mosquitos belonging to Aedes genera	53%	33%	14%
	Do you think that person to person contact transmits Dengue fever	38%	55%	7%
	Dengue fever can be transmitted by a blood transfusion	44%	53%	3%
	Is dengue fever can be transmitted by sexual intercourse?	17%	82%	1%
5	Mosquitoes breeds in standing water	74%	25%	1%
6	Window screens, bed nets and repellents must be used to prevent mosquitoes bites?	75%	19%	6%
7	Covering water containers can reduce mosquitos breeding	81%	14%	5%

4. Conclusion

To conclude findings of this study, a vast majority of the population possessed good knowledge regarding dengue fever, it's symptoms and prevention. It can be attributed to the fact that every year dengue fever cast huge devastations in Pakistan and for this reason, dengue control activities are focused on information sharing by the help of mass media and communication materials like posters and pamphlets. However, there was a poor translation of knowledge into the preventive practices. Health institutions must make sure the strict compliance population to the dengue control measures and more prospective studies must be planned to explore the different preventive strategies and compliance of population to the these approaches.

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