Original Article

"A Study To Assess The Knowledge Regarding Complications Of Dengue Fever And Its Prevention Among The People In Selected Area Of Pune City"

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Doi: 10.47750/pnr.2022.13.S08.610

Abstract

The World Health Organization has ranked dengue as one of the top ten threats to Global health in 2019.The epidemic was controlled by intense measures taken by the health sector. However, the reported dengue cases and dengue deaths in 2019 were significantly higher than that of 2018. Deaths were mostly due to delay in hospitalization of severe dengue patients. The title of the study was to assess the knowledge regarding complications of dengue fever and its prevention among the people in selected area of Pune city.

Objective: To assess the knowledge regarding complications of dengue fever among the people in selected area of Pune city. To assess the knowledge regarding prevention of dengue fever among the people in selected area of Pune city. To associate the knowledge findings with selected demographic variables.

Method: A Quantitative research design was used in this study. The study was conducted in selected area of Pune city. Non probability convenient sampling technique was used. Total 200 samples of peoples were included in the study. Standardized tool was used to assess the knowledge regarding complications of dengue fever and its prevention. The duration for filled the tool was 10 to 15 minutes. The collected data was analysed by using descriptive frequency and percentage method in statistics.

Result: It shows that level of knowledge regarding complication of dengue fever and its prevention among the people. . The major findings are 83.5% of people having average knowledge, the remaining 12% having good knowledge and 4.5% having poor knowledge. It conclude that most of the peoples have some knowledge regarding dengue fever.

INTRODUCTION

"Breakbone Fever" is Dengue fever is another name for the disease. Dengue fever is a common name that all are familiar with.. The World Health Organization has ranked dengue as one of the top ten threats to Global health in 2019 Dengue fever is predominantly seen in tropical and subtropical regions. Asian countries represent 70 percent of the global disease burden of dengue fever. The dengue virus causes dengue fever, which is an infectious illness. Dengue fever is a viral vector-borne disease caused by infection in humans of any of the four serotypes (DENV1, DENV2, DENV3, DENV4) of the dengue virus via the bite of the Aedes mosquito Dengue has global problem in world since second world war. It is endemic in approximately 100 countries. In India, the first epidemic of clinical dengue-like illness was recorded in Madras (now Chennai) in 1780 and the first virologically proved epidemic of dengue fever (DF) occurred in Calcutta (now Kolkata) and Eastern Coast of India in 1963-1964. Vaccine production against dengue fever work is ongoing, as well as medication on dengue fever which directly affected on virus. World Health Organization recommended an Integrated Vector Borne Disease control Programme. Elimination of habitats is the primary method of controlling dengue fever. To prevent dengue eradication and control of mosquitoes which causes dengue Educate the people about dengue the prevention to wear the full sleeves shirts or dressed long socks. The mosquito usually bite in day time that's why Special measures should be taken in the early morning and late afternoon before the sun sets. .Eliminate water which serves mosquito breeding sites at home workplaces and their vicinity. Use mosquito nets at home and environment cleanliness cover water tank by removing the unused plastics old tires, buckets and cleaning clogged gutters. The most effective way of prevention of mosquito to bite and reduce the mosquito number around homes or eliminates their productions sites.

Need of Study

Researcher chooses this topic for study because dengue is an endemic in many parts of India and frequently reported from various parts of India in 2019, India had registered 157,315 cases of dengue infection, causing 166 deaths. Most

Indian states have been classified as having frequent or continuous risk of dengue transmission. Every year, water stagnates in puddles and pools during the monsoon in India and in buckets of stored water during summers in which the dengue mosquitoes breed and spread the dengue infection. A meta-analysis of published studies from India estimated a dengue case-fatality ratio of 2·6% . The dengue disease burden in India is poorly quantified. Existing public health surveillance systems are not sensitive; mild febrile illnesses are less likely to be diagnosed and reported. Although dengue is a notifiable disease in India, studies and modelling estimates suggest that the disease is grossly under-reported. Lack of complete understanding of the (pathogenesis) is one of the main hurdles for developing effective anti-vials for dengue, which is caused by the females of Aedis aegypti and Aedes albopictus mosquitoes we felt that the, peoples are unaware about complications and prevention of dengue fever. Dengue disease presents highly complex pathophysiological, economic and ecologic problems. After exposed to dengue some complications are occurs in the peoples like joint and bone pain, swelling, anaemia, loss of appetite, weight loss. During the community health nursing experience and by studies shows increased of dengue in India and there was lack of knowledge regarding dengue fever and its prevention among peoples.

Considering the severity of the disease it has become need of the hour to adopt preventive and control measures to halt the transmission of dengue. This in turn depends on the community acceptance and participation which again depends on the community knowledge regarding dengue and its prevention so the researcher felt to measure the knowledge regarding complications of dengue fever and its preventions in selected area of Pune city.

METHODOLOGY

The design used for the study was Quantitative research design. The study was conducted in selected area of Pune city. Non probability convenient sampling technique was used. Total 200 samples of peoples were included in the study. Standardized tool was used to assess the knowledge regarding complications of dengue fever and its prevention among peoples. Individuals who met inclusion criteria, were available and willing to participate at the time of data collection were included in the study. The tool consisted of two sections, Section I demographic data and section II questioner related to knowledge regarding complications of dengue fever and its prevention among peoples. The duration for filled the tool was 10 to 15minutes.Confidentiality was assured. The collected data was analysed by using descriptive frequency and percentage method in statistics. To interpret the level of knowledge, the major findings are 160(80%) of people are having average knowledge, the remaining 30 (15%) are having good knowledge and 10(5%) had poor knowledge regarding complications of dengue fever and its preventions.

RESULT

Description of demographic profile.

The majority of the people are in age groups between 20 to 30 (43.5%) and majority of the individuals were females that is 54%.In educational qualification majority 49.5% peoples are having primary education 30% peoples are having secondary education and 17% peoples are graduate. .5% peoples having no education.In occupation majority 45% peoples having job 16% peoples doing business and 29% peoples are home maker. In family income 1.5% peoples income was below 1000, 43% peoples income was 1001 to 2000, 25.5% peoples income was 2001 to 3000, and 30% peoples income was more than Rs3000 and 33.5% peoples are suffering from dengue, 35.5% and 64.5% peoples are not suffer from dengue fever and 10.5 % peoples are hospitalized during dengue fever and 25% are not hospitalized.

SECTION II: Knowledge regarding complication of dengue among the people.

Table no 1 a) To assess the level of knowledge regarding complications of dengue fever among the people n=200

Knowledge	Frequency	Percentage (%)	Mean	SD
Poor (0-2)	10	5	4.33	1.17
Average (3-5)	160	80		
Good (6-8)	30	15		

n=200

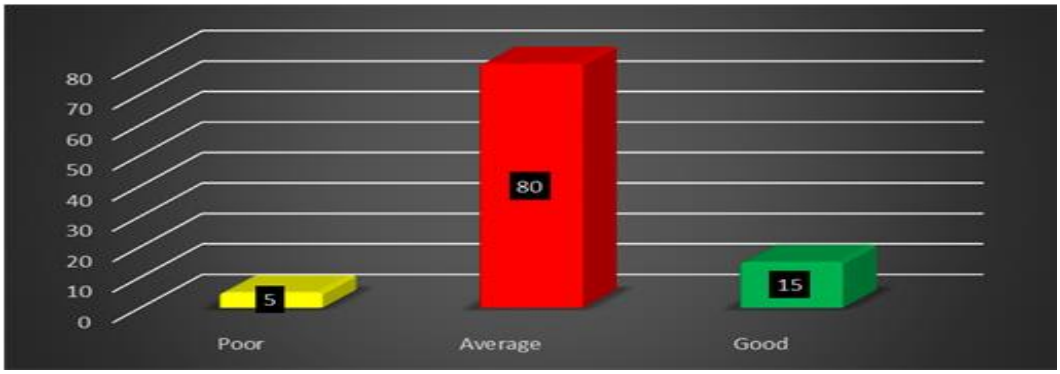

Fig.1: Knowledge level regarding complications of dengue fever among the people.

Table no 1, Fig. 1 shows that knowledge of people regarding complication of dengue fever was determined with mean of 4.33 and standard deviation of 1.17. The study depicts that from 200 peoples, 80% peoples are having average knowledge, 15% peoples having good knowledge and 5% of peoples are having poor. The mean of the level of knowledge regarding complications of dengue fever among the people was 4.3 with SD was ± 1.7.

B. To assess the knowledge level regarding prevention of dengue fever among the people.

Table 2 Knowledge level regarding prevention of dengue fever among the people n=200

Knowledge	Frequency	Percentage	Mean	SD
Poor (0-2)	30	15	3.89	1.25
Average (3-5)	149	74.5		
Good (6-7)	21	10.5		

n=200

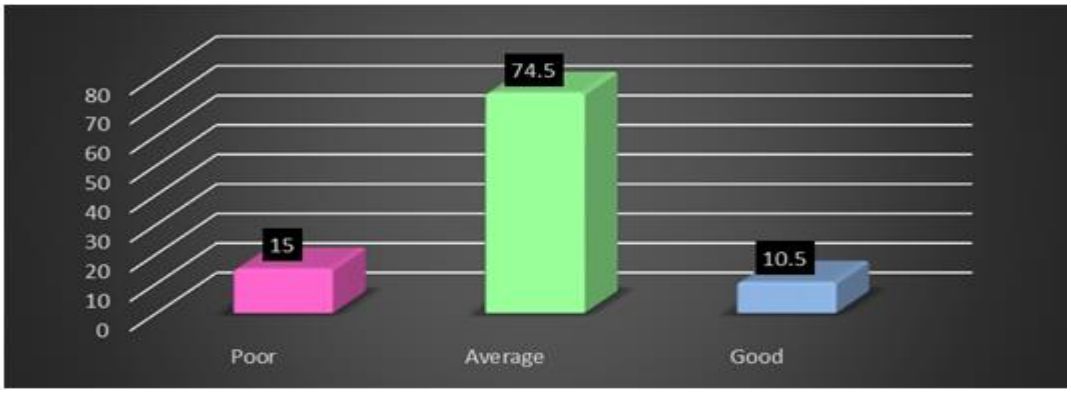

Fig 2: Knowledge level regarding prevention of dengue fever among the people

Data presented in Table2 and fig2 shows that people's degree of understanding about how to avoid dengue disease. The primary conclusion shows that out of 200 individuals (74.5%) have average knowledge, 21 people (10.5%) have good knowledge, and 30 people (15%) have poor understanding. The average degree about dengue fever prevention among the general people is 3.89 with SD is ± 1.25.

C. Assess the knowledge regarding complication of dengue fever and its prevention among the people.

Table 3 Knowledge regarding complication of dengue fever and its prevention among the people. n=200

Knowledge	Frequency	Percentage	Mean	SD
Poor (0-7)	9	4.5	10.88	2.16
Average (8-13)	167	83.5		
Good (14-20)	24	12		

n=200

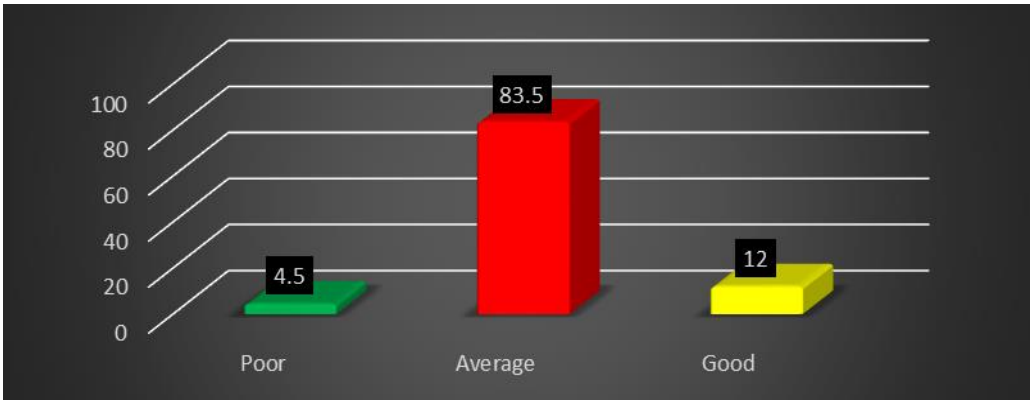

Fig.3 knowledge regarding complication of dengue fever and its prevention among the people.

Data presented in table no 3 and fig 3 shows that level of knowledge regarding complication of dengue fever and its prevention among the people. . The major findings are 167(83.5%) of people having average knowledge, the remaining 24 (12%) having good knowledge and 9(4.5%) having poor knowledge. The mean score of the overall knowledge regarding complication of dengue fever and its prevention among the people is 10.88 with SD is ± 2.16.

SECTION-III To assess the association between the level of knowledge regarding complication of dengue fever and its prevention among the people with selected demographic variables

Table no 1 Association between the level of knowledge regarding complication of dengue fever and its prevention among the people with selected socio demographic variables. n=200

Demographic Variables	Average	Good	Poor	df	Chi Square table	Chi square Calculated	P value	Remark
1. Age.								
a) 20-30 year.	68	15	4	6	12.59	4.29		NS
b) 31-40 year.	61	7	4					
c) 41-50 year.	29	2	1					
d) Above 50 year	9	0	0					
2. Gender –								
a) Male.	81	6	5	4	9.48	5.01	0.28	NS
b) Female.	86	18	4					
c)Transgender	0	0	0					
3. Education –								
a) No formal education.	5	2	0	6	12.59	3.75	0.7	NS
b)Primary education.	82	12	5					
c)Secondary education.	48	10	2					
d)Graduation.	32	0	2					
4. Occupation-								
a) Job .	93	11	6	4	9.48	1.21	0.87	NS
b)Business.	27	5						
c)Home-maker	47	8	3					
5. Number of member in family-								
a) 0	37	8	3	6	12.59	5.05	0.53	NS
b) 1	87	14	3					
c) 2	39	2	3					
d) More than 2	4	0	0					
6. Family income (in Rupees)								
a) Below 10000	2	1	0	6	12.59	3.14	0.89	NS
b) 10001- 20000	72	9	5					
c) 20001-30000	42	6	3					
d) More than 30000	51	8	1					
7. Have you suffer from dengue fever –								
a) Yes	63	4	4	2	5.99	4.39	0.111	NS
b)No	104	20	5					
If, yes are you hospitalized-								
a)Yes.	18	1	2	2	5.99	0.87	0.64	NS
b. No.	45	3	2					

According to the data in Table no 1 shows that there was no significant relationship between the knowledge about dengue fever complications and prevention among persons with certain socio demographic factors.

DISCUSSION

The purpose of the study was to assess the knowledge regarding complications of dengue fever and its prevention among the people and it was found that knowledge of people regarding complication of dengue fever was determined with mean of 10.88 and standard deviation of 1.16. The study depicts that from 200 peoples majority 167(83.5%) of people are having average knowledge, the remaining 24 (12%) having good knowledge and 9(4.5%) having poor knowledge. The mean score of the overall knowledge regarding complication of dengue fever and its prevention among the people is 10.88 with SD is ± 2.16. Similar finding were supported by a study conducted in rural area of Chamarajanagarin 2020 to assess the knowledge regarding dengue fever among the adults and the result shows that out of 200 adults 38.7% of adults have moderate knowledge, and 61.3% of adults have inadequate knowledge about Dengue fever which conclude that adults in rural areas have inadequate knowledge about Dengue fever and its prevention and lack of practices also contribute to high prevalence of Dengue fever. Another similar study was conducted on knowledge, awareness and preventive practices of dengue outbreak in Bangladesh in 2021 in which the result shows that out of 1,010 randomly selected respondents from nine different administrative regions majority

(93.8%) of the respondents had heard about dengue, however, they had still misconceptions about Aedes breeding habitat. Around half of the study population (45.7%) had mistaken belief that can breed in dirty water and 43.1% knew that Aedes mosquito usually bites around sunrise and sunset. Fever indication was found in 36.6% of people which is the most common symptom of dengue. Among the socio-demographic variables, the level of education of the respondents was identified as an independent predictor for both knowledge ($p<0.05$) and awareness ($p<0.05$) of dengue. The preventive practice level was moderately less than the knowledge level though there was a significant association ($p<0.05$) existed between knowledge and preventive practices.

CONCLUSION:

Dengue is the major public health problem leading to increase in disease burden in terms of disability and deaths. Despite the magnitude of problem no documented evidence exists in India Dengue disease presents highly complex physiological, economic and ecologic problems. The increasing burden of dengue has often been linked with climate change, among other factors. India has recorded 63,280 dengue cases as of September 30, 2022, according to the latest data from the National Center for Vector Borne Diseases Control (NCVBDC). Dengue fever is a dread disease and is an emerged public health problem. Several studies recommend that better knowledge of dengue fever leads to better prevention techniques adopted by people to prevent dengue fever. The study was aimed at assessing the knowledge regarding complications of dengue fever and its prevention among the people. The relevant data was collected and analyzed statistically based on the objective of the study. Among 200 peoples residing in selected areas of Pune city 167 people are having average knowledge, the remaining 24 are having good knowledge and 9 are having poor knowledge. It shows that Dengue fever consequences are well-known among the public. The study also reveals that there was no association between the knowledge about dengue fever complications and prevention among persons with certain socio demographic factors.

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