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Knowledge regarding management of dengue fever among staff nurses

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Abstract

Background: The World health Organization (WHO) declares dengue and dengue hemorrhagic fever to be endemic in South Asia. Dengue fever (DF) is increasingly recognized as one of the world's major vector borne diseases and causes significant morbidity & mortality in most tropical & subtropical countries of the world & had become the most common arboviral diseases of human. Dengue fever is endemic in most part of India & continues to be a public health concern.

Aim: To assess the knowledge regarding management of dengue fever among staff nurses.

Setting and Design: The study was conducted in Narayana Medical College Hospital, by using a descriptive design.

Materials and Methods: A total of 100 staff nurses were included in this study by using convenience sampling technique.

Statistical Analysis Used: The collected data was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the objectives of the study.

Results: Shows that with regard to level of knowledge out of 100 samples, 22(22%) have inadequate knowledge and 58(58%) have moderate knowledge and 20(20%) staff nurses had adequate knowledge regarding management of dengue fever. The mean score was 14.58 with the standard deviation of 5.1for the knowledge regarding management of fever among staff nurses. The knowledge on management of fever had significant association with selected socio demographic variables like age, professional qualifications, working area and experience and there is no significant association with sex and family income.

Conclusion: The main conclusion drawn from present study was that majority of the staff nurses were having moderate knowledge regarding management of fever.

Keywords: malaria fever, chicken guinea fever, dengue fever, staff nurses.

1. Introduction

Dengue virus infection is increasingly recognized as one of the world's emerging infectious diseases [1-4]. About 50–100 million cases of dengue fever and 500,000 cases of Dengue Hemorrhagic Fever (DHF), resulting in around 24,000 deaths, are reported annually [5, 6]. Over half of the world's population resides in areas potentially at risk for dengue transmission, making dengue one of the most important human viral diseases transmitted by arthropod vectors in terms of morbidity and mortality [7].

Before 1970, only nine countries had experienced severe dengue epidemics. The disease is now endemic in more than 100 countries in Africa, the America, the Eastern Mediterranean, South-east Asia and the Western Pacific. The American, South-east Asia and the Western Pacific regions are the most seriously affected [8]. Dengue fever is endemic in India & continues to be a public health concern. Major epidemics have been reported from Delhi, capital of India in the years1967, 1970, 1982, 1996, 2003, 2006, 2010 [9, 10].

Dengue, a vector borne disease, has hit all major cities of the country, with the total number of cases in Nov 2012 reached 37,070 including 227 deaths - a sharp increase from 18,860 cases and 169 deaths in 2011 [11].

Dengue fever is caused by a mosquito-borne human viral pathogen that belongs to the genus Flavivirus of the family Flaviviridae (single-strand, non-segmented RNA viruses).There are four dengue serotypes (DEN-1, DEN-2, DEN-3and DEN-4). Dengue is transmitted to humans by two species of Aedes mosquitoes namely, Aedes aegypti (principal vector) and Aedes albopictus. Although infection with one dengue serotype confers lifetime immunity against re-infection by the same serotype, there is no evidence of cross immunity [5].

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A wide clinical spectrum has been classified by the World Health Organization [12] and it is possible for an individual to be infected with DF several times during his life time.

In a developing country like India, preventable diseases such as dengue have the potential to cause the greatest mortality. Despite the magnitude of problem, no documented evidence exists on the knowledge regarding management of fever among staff nurses.

2. Objectives of the Study
- To assess the knowledge regarding management of dengue fever among staff nurses.
- To associate the level of knowledge regarding management of dengue fever with selected socio demographic variables

3. Detailed Research Plan
3.1 Research Approach: Quantitative Approach.

3.2 Research Design: Descriptive design.

3.3 Research Setting: The study was conducted in Narayana Medical College Hospital, Nellore.

3.4 Sampling Technique: convenience sampling technique was used to select the subjects.

3.5 Sample Size: The sample size for the study was 100 staff nurses.

4. Results and discussion
The data was collected from 100 staff nurses between the age group of 22- 45 years.

Table 1: Frequency and percentage distribution of socio demographic variables of staff nurses

Sl. No	Demographic variables	Frequency	Percentage	Total
1.	**Age**			
	a) 22-25 yrs	42	42%	
	b) 26-30 yrs	37	37%	100%
	c) 31-45 yrs	21	21%	
	d) 36-40 yrs	0	0%	
2.	**Professional qualifications**			
	a) ANM	17	17%	
	b) GNM	31	31%	100%
	c) BSC Nursing	34	34%	
	d) P.BSC Nursing	18	18%	
3.	**Family income**			
	a) Below Rs.4000/-	25	25%	
	b) Rs.4000-8000/-	40	40%	100%
	c) Rs.8000-12,000	28	28%	
	d) Above Rs.12,000/-	7	7%	
4.	**Working experience**			
	a) < 1 yr	29	29%	
	b) 2yrs-3yrs	38	38%	100%
	c) 4yrs-5yrs	23	23%	
	d) Above 5 yrs	10	10%	
5.	**Gender**			
	a) Male	1	1%	100%
	b) Female	99	99%	
6.	**Department working**			
	a) Medical	32	32%	
	b) Surgical	30	30%	100%
	c) ICU	19	19%	
	d) OT	19	19%	

4.1 Level of knowledge regarding management of fever among staff nurses

Table 2: Frequency and percentage distribution of level of knowledge regarding management of dengue fever among staff nurses [N=100]

Level of knowledge	Frequency	Percentage of Staff Nurse
Inadequate	22	22%
Moderate	58	58%
Adequate	20	20%

Table: 2 shows that with regard to level of knowledge out of 100 samples, 22(22%) have inadequate knowledge and 58(58%) have moderate knowledge and 20(20%) staff nurses had adequate knowledge regarding management of dengue fever.
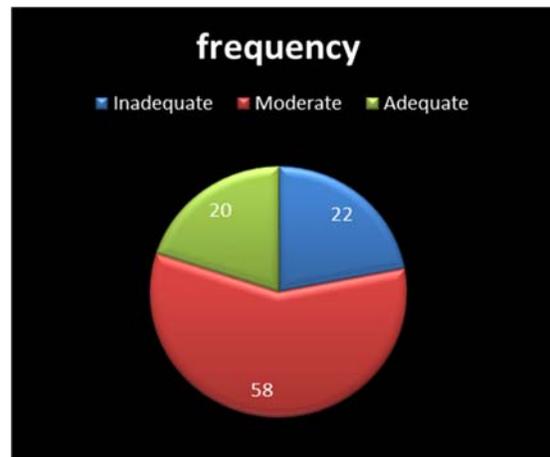

Fig 1: Frequency distribution of Level of knowledge regarding management of dengue fever among staff nurses

Table 3: Distribution of mean, median, mode and standard deviation of level of knowledge regarding management of dengue fever among staff nurses

Mean	Median	Mode	Standard deviation
14.58	17	16	5.1

The section shows that, for the level of knowledge regarding management of dengue fever among staff nurse, the mean is 14.58, median is 17, mode is 16 and the standard deviation is 5.1

4.2 Association between Demographic Variables and Level of Knowledge
The association shown that the demographic variables like age, professional qualification, working experience, working area are significant whereas sex and family income are not significant.

5. Conclusion
The main conclusion drawn from present study was that
- Majority of the staff nurses were having moderate knowledge regarding management of dengue fever.
- The knowledge of staff nurses regarding management of dengue fever is not dependant on sex and family income.
- The knowledge of staff nurses regarding management of dengue fever is dependent on professional qualification, experience, area of working and age.

6. Recommendation

Educational interventions to target community, colleges and schools are urgently needed. Raising the knowledge levels of staff nurses, who are care provider at various level of health system, is important. Health education and Behaviors change communication can play a major role in informing and encouraging citizens to be responsible, and to participate in preventing and controlling DF. School & college based education is vital and compliment community outreach education.

7. Acknowledgements

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