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A Study to Assess the Knowledge and Practice on Prevention of Dengue Fever among Rural Residents of Chemmaruthy Panchayath, Varkala

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Abstract

The World Health Organization (WHO) classifies dengue as a disease important in public health. In the absence of an effective vaccine it is essential to impart other remedial measures to reduce the morbidity and mortality rates of dengue fever. The aim of this study is to assess the knowledge and practice of prevention of dengue fever among rural residents of Chemmaruthy Panjayath. A cross sectional survey was conducted in a sample of 400 people residing in the study area. The study revealed that majority of samples (57.8%) had average knowledge on prevention of dengue fever. Majority of samples (77.8%) had limited extent of dengue prevention practices.

Introduction

Dengue fever is one of the most important emerging diseases. It is caused by the infection of dengue virus. The dengue virus is transmitted by bites of Aedes aegypti. Infection with dengue virus can produce a broad range of clinical manifestations including mild- flu like symptoms and the more severe hemorrhagic fever. Dengue in its severe form can threaten the patient's life. Today, Dengue Hemorrhagic Fever affects within 48 hours after the attack of dengue fever. Since Second World War dengue has become a global problem and is endemic in 115 countries. First report of Dengue fever in Kerala came from kottayam in 1997 and after that it became a routine affair in Kerala. Now Dengue has become a leading cause of hospitalization and death among children [1].

Dengue fever treatment entails mainly supportive therapy. As there is no vaccine to protect against dengue, great emphasis is placed on control and preventive measures. Thus assessment of people's knowledge and practice is of great importance to improve integrated control measures [1].

Background

The World Health Organization (WHO) classifies dengue as a disease important in public health. According to the World Health Organization, approximately 2.5 billion people, or 2/5 th of the world's population are now at risk from dengue. The disease is now endemic in over 100 countries. An estimated 50 million dengue infections occur worldwide annually. An estimated 500,000 people with Dengue Hemorrhagic Fever require hospitalization each year. A very large proportion (90%) of them are children aged less than 5 years and about 2.5% of those affected die [2].

India is one of the seven identified countries in the regions regularly reporting incidence of dengue fever outbreaks [4].

The high incidence may be due to the lack of knowledge about prevention, control and complications of dengue fever among people. Recent outbreaks once again underlined the failure in prevention and control of the disease [6].

Review of Literature

The epidemiology and ecology of dengue is more strongly related to human habits and activities. Carelessness of people provides an environment to dengue mosquitoes to grow even in clean water. Prevention of disease through better education; knowledge and Practice is appropriate way to keep disease away and remain healthy [6].

A cross-sectional survey was conducted to assess the knowledge, awareness and Preventive practices on dengue fever in Pondicherry. The results showed that 86% of the participants had heard of dengue, only 25% of participants were aware of clean water as a breeding. Insufficient knowledge of dengue symptoms were found in 59% [7].

A cross-sectional study was conducted to assess the knowledge and practice related to control of dengue fever and to assess the difference in knowledge and practice based on sex and literacy in Delhi. The study results showed that nearly 86% of the participants were aware of the spread of dengue and 73% were aware of correct breeding sites of dengue. Only 52% used coils, 56% used mosquito mats and only 22% used repellent creams [8].

Objectives of the Study

1. To assess the knowledge on prevention of dengue fever among rural residents of Chemmaruthy Panjayath.
2. To assess the practice on prevention of dengue fever among rural residents of Chemmaruthy Panjayath.
3. To find out the association between knowledge and practice on prevention of dengue fever with selected demographic variables.

Methodology

The research approach was quantitative research approach and design adopted was cross sectional survey. Setting of the study was Chemmaruthy Panchayath, Varkala. The sample consisted of 400 adults who are residing in Chemmaruthy Panchayath and are willing to give consent to participate in the study was the participants. The tool for data collection was semi- structured interview schedule was the tool used in the present study.

Results

Baseline Distribution of Sample

This part deals with distribution of rural residents according to their demographic characteristics. The demographic characteristics in the present study are age, gender, marital status, type of family, education, occupation, family income, socioeconomic class and source of information.

Figure 1 shows that 17.5 % of samples belonged to 42 to 47 years, 16.8% belonged to 60 and above years and only 3.3% belonged to 18 to 23 years.

Figure 2 shows that majority of samples (61%) were female and 39% were male.

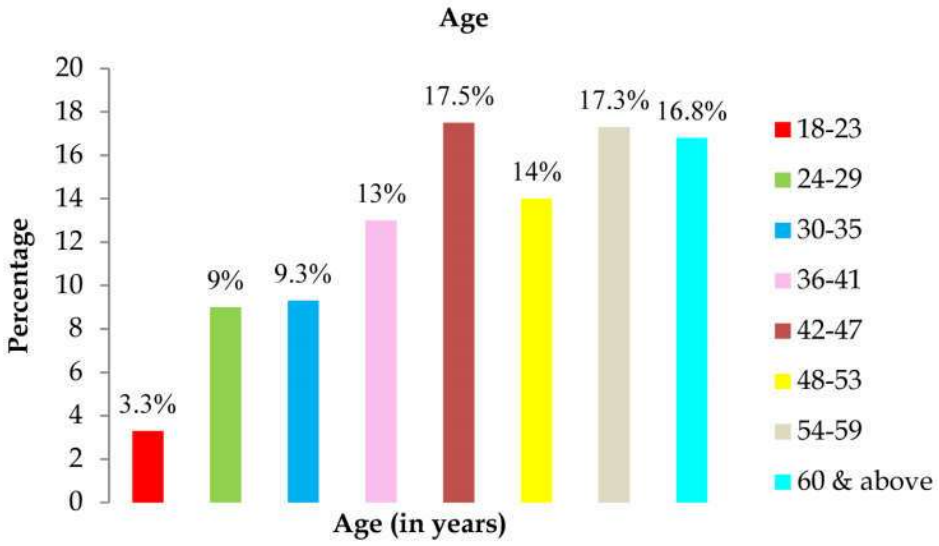

Fig. 1: Bar diagram showing percentage distribution of samples according to age

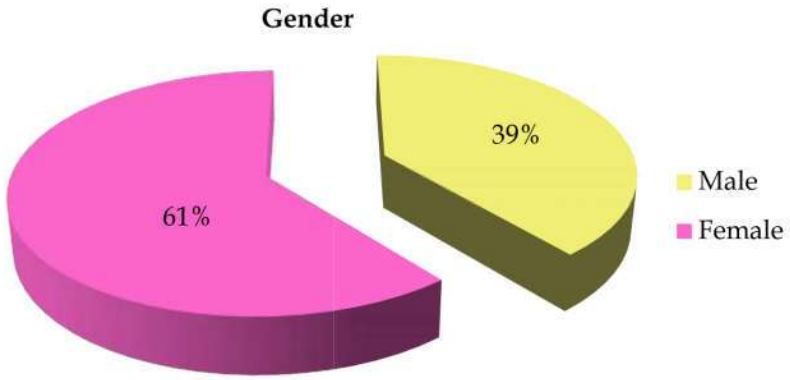

Fig. 2: Pie diagram showing percentage distribution of samples according to gender

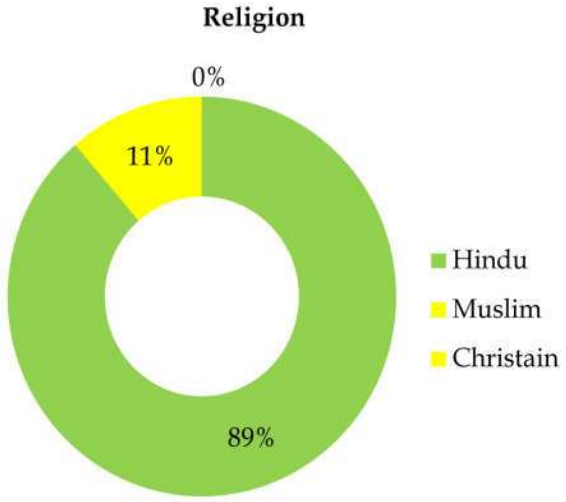

Fig. 3: Doughnut showing percentage distribution of samples according to religion

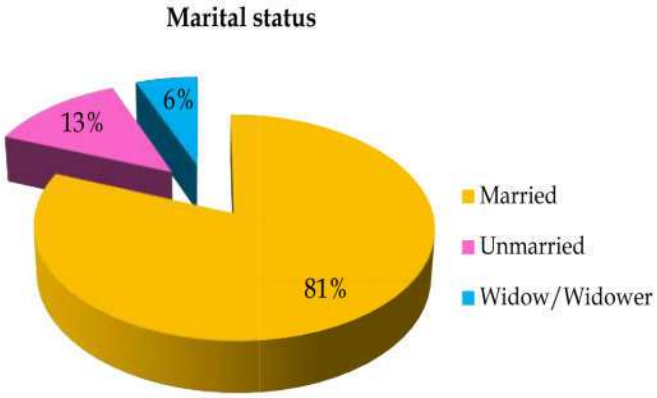

Fig. 4: Pie diagram showing percentage distribution of samples according to marital status

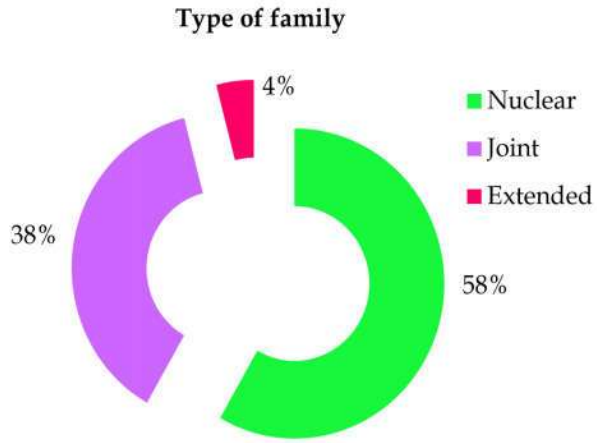

Fig. 5: Doughnut showing percentage distribution of samples according to type of family

Figure 3 shows that majority of samples (88.8%) were Hindus and 11.3% were Muslims. None of them were Christians.

Figure 4 shows that 81% of the samples were married, 13% were unmarried and 6% were widow/ widower.

Figure 5 shows that 58% of the samples belonged to nuclear family, 37.5% belonged to joint family and 4.5% belonged to extended family.

Figure 6 shows that 51.5% of samples had middle school level of education, 22.3% had high school education and only 0.3% had graduation

Figure 7 shows that 37.8% of samples were semi professionals, 25% were skilled workers, 15.8% were semi workers. Only 1% was unemployed.

Figure 8 shows that 37.8% of samples were having income between 7878 and 11,816, 24.3% had income between 11817 and 15753. Only 2.8% had ≤ 1589 income.

Figure 9 shows that 57.3% of samples belonged to lower middle, 33.3% were in upper lower class.

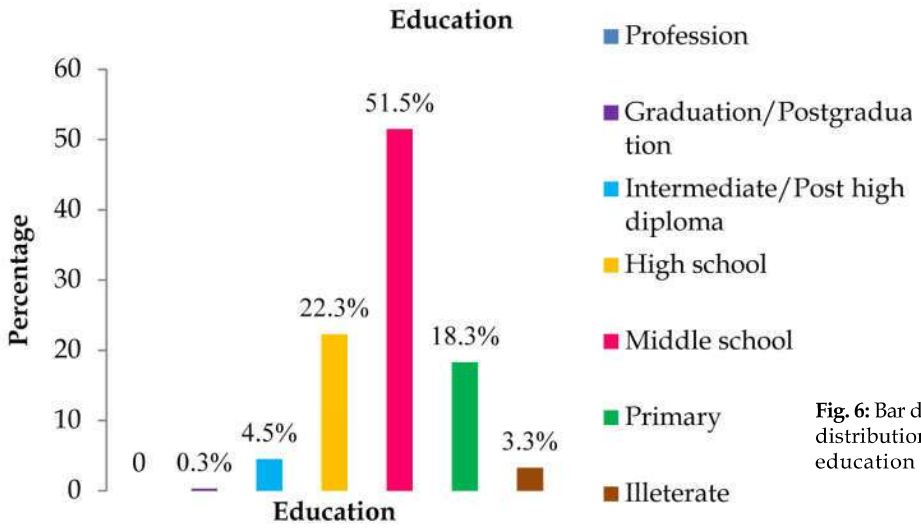

Fig. 6: Bar diagram showing percentage distribution of samples according to education

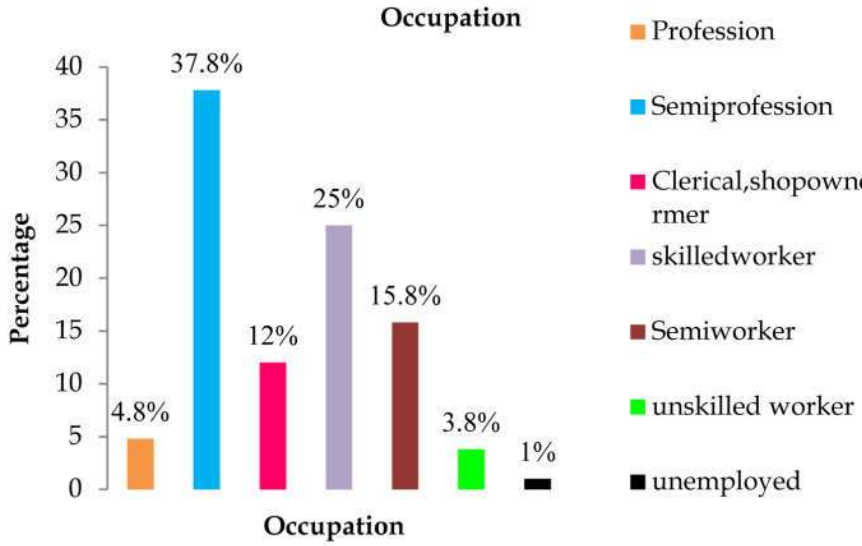

Fig. 7: Bar diagram showing percentage distribution of samples according to occupation.

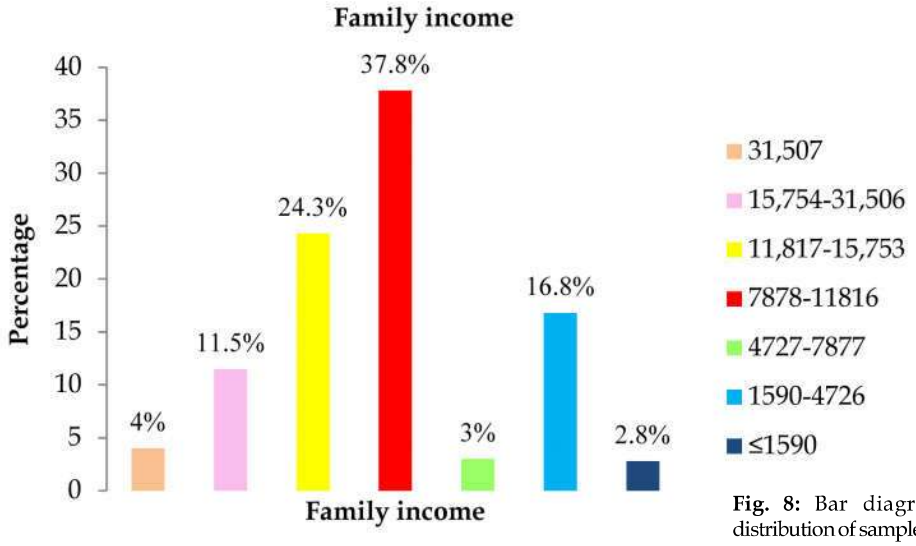

Fig. 8: Bar diagram showing percentage distribution of samples according to family income

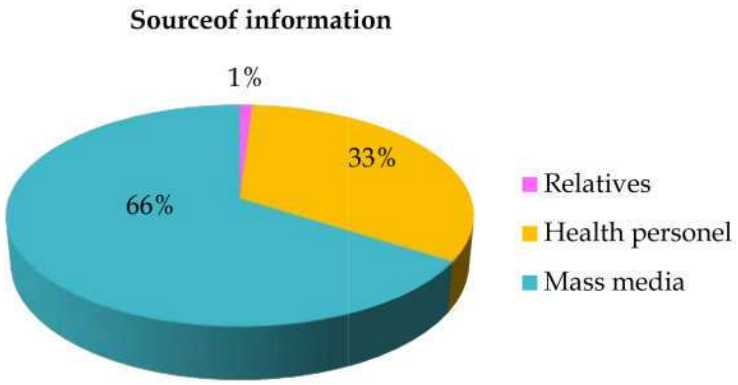

Fig. 10: Pie diagram showing percentage distribution of samples according to source of information

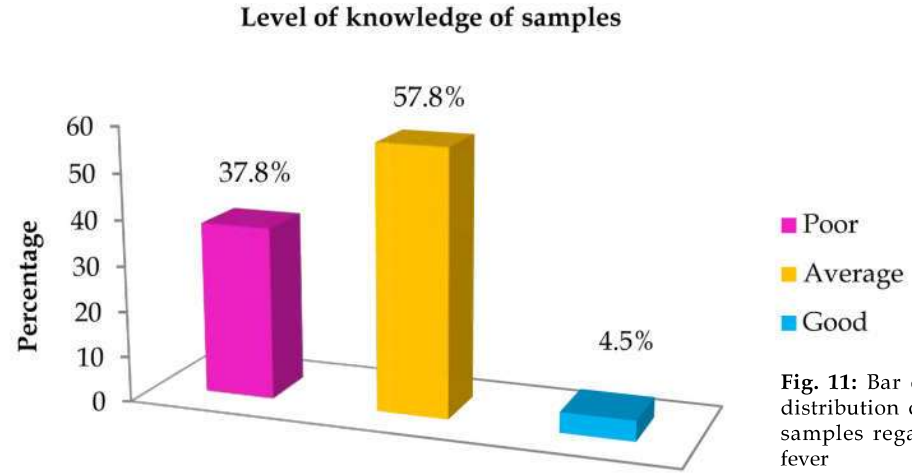

Fig. 11: Bar diagram showing percentage distribution of overall knowledge level of samples regarding prevention of dengue fever

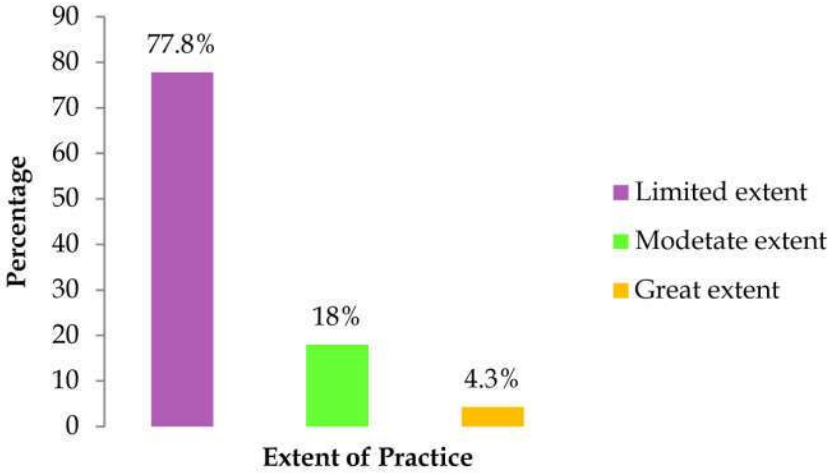

Fig. 12: Bar diagram showing percentage distribution of extent of practice of samples regarding prevention of dengue fever

Only 9.5% belonged to upper middle. None of them were in upper class and lower class.

Figure 10 shows that all samples received information regarding prevention of dengue fever and among them majority of samples (66%) received information from mass media.

Analysis of knowledge on prevention of dengue fever

This part deals with assessment of knowledge of participants on prevention of dengue fever. In order to assess the knowledge level of participants, the percentage scores were arbitrarily as follows: poor knowledge ≤ 50%, average knowledge 51-75% and good knowledge >75%

Figure 11 depicts that more than half of the samples (57.8%) had average knowledge and 37.8% had poor knowledge. Only 4.5% had good knowledge.

Analysis of practice on prevention of dengue fever

This part deals with assessment of extent of practice of participants on prevention of dengue

Table 4: Relationship between knowledge and practice on prevention of dengue fever

Variable	Correlation coefficient, (*r*)	p - value
Knowledge Practice	-0.052	0.281

fever. In order to assess the extent of practice of participants, the percentage scores were arbitrarily as follows: limited extent ≤ 50%, moderate extent 51-75% and great extent >75%.

Figure 12 shows that majority of samples (77.8%) had limited extent of practice and 18% had moderate extent of practice. Only 4.3% of samples had great extent of practice on prevention of dengue fever.

Relationship between knowledge and practice on prevention of dengue fever

This part demonstrates the extent of relationship between participants' knowledge and practice towards prevention of dengue fever. It is measured in terms of a parameter, correlation coefficient *('r')*.

There exist no statistical significant correlation between knowledge and practice (r = - 0.052 with a computed p value 0.281; p> 0.05). Significance of correlation was tested using t- test.

Conclusion

The researcher conducted a study in which majority of samples (57.8%) had average knowledge on prevention of dengue fever.

Majority of samples (77.8%) had limited extent of dengue prevention practices. In the present study there is no significant association between knowledge and practice on prevention of dengue fever with selected demographic variables.

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