Knowledge, Attitude, And Practice Of Parents Regarding Dengue Prevention

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Abstract:

Background: The age, sex, place of living, socio economic status and other factors make children vulnerable to diseases, disability and death. It was observed that children admitted in a secondary care hospital are affected with Dengue fever. The Southern part of India is an endemic belt of Dengue fever. Creating awareness among the parents and adults regarding Dengue may reduce the incidence of Dengue. Hence, the Investigator studied the knowledge, attitude, and practice of parents regarding Dengue prevention.

Materials and Methods: A cross-sectional descriptive study design was used to assess the knowledge, attitude, and practice of parents regarding Dengue. Simple random technique was used select sample. The sample size was estimated to be 385 based on the previous studies. The study was carried out in the Paediatric setting. Parents willing to participate in the study and those who could understand English, Tamil, and Telugu were included in the study. Data was collected using a demographic proforma and questionnaires on knowledge, attitude and practice prepared and validated by the Investigator.

Results: The study results revealed that the knowledge on dengue prevention is inadequate and their attitude, practice towards dengue prevention is moderate to adequate. The findings of the study will help to reveal the existing knowledge attitude and practice of parents and will help the nursing personnel to plan the effective health teaching practice.

Conclusion: Health awareness and constant reminders will help to adopt appropriate life style practices and good environmental maintenance in-order to stop disease cycle which may be taking the lives of children. .

Keywords: parents, dengue prevention, knowledge, attitude, practice

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I.   Introduction

Dengue fever is referred to as "break bone fever" as it causes severe joint and muscle pain along with the high fever. (1) Dengue is becoming common due to the rapid urbanization, crowded environment, unhygienic conditions of living, water stagnation in discarded things which serve as a breeding place of mosquitos. In India Dengue was reported in the year 1964. (2) It is reported that within the past 50 years the incidence of Dengue among children has escalated to 30 times. (3) Dengue being manifested in different forms and stages has caused enormous fear among the health care providers and the public. A preventable and controllable disease, yet spreading out of control is a great challenge to the health care system of the nation. (4) It not only affects the health of the people, but also causes economic burden to the families and the country on the whole. This study was done to identify and compare the knowledge, attitude and practice of parents regarding dengue attending paediatric set up of a secondary hospital.

II. Material and Methods

Study Setting: The study setting included the in-patient and out-patient paediatric units of a secondary care hospital in South India.

Study Design: A cross-sectional descriptive study design was adopted.

Duration of the study: The duration of the study was six months including 3 months of data collection.

Sample size: The sample size was estimated to be 385 based on the previous available literature. (5)

Sampling Technique: The participants were selected using simple random technique (lottery method). Children admitted in the wards and those attending the out-patient unit of the paediatric setting were listed down 8 children were picked through lottery method and their parents were selected for the study.

Inclusion criteria:

- Parents with children less than 12yrs of age attending the paediatric unit

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Exclusion criteria:
* Parents with children less than 12yrs of age who are not consenting to participate in the study.
* Parents with children less than 12yrs of age who are not able to comprehend the self-administered tool

Data Collection Instrument

The tools for data collection were prepared by the Investigator. Tools included Knowledge Questionnaire on Dengue Fever – There were 11 questions with multiple choice answers. A score of 1 was given for every correct answer and for every wrong answer a score of 0 was given. The scores were converted to percentage and interpreted as inadequate- 50% and below, and adequate - >50%. The Attitude scale had 7 statements with four-point Likert scale as strongly agree – 4, agree – 3, disagree – 2, and strongly disagree. The attitude score was computed as the sum of participant responses. The practice scale contained 7 questions focusing on the prevention aspect.A five-point Likert scale containing always – 4, mostly - 3, sometimes – 2, rarely - 1,and never - 0. The practice score was computed as the sum of participant responses.

The tool used for collecting the knowledge, attitude and practice scores does not categorize or define the scores or percentage obtained into low, medium or high. This is because, even though the questionnaire is structured, it is not validated for categorizing the scores or percentages. Therefore, instead of blindly categorizing them into different levels, we are interested to look at how many of the participants scored at least 50% and above and how many doesn't. Odds ratio was calculated using IBM SPSS Statistics for Windows, Version 21.0 (IBM Corp, Armonk, NY, USA). The knowledge, attitude and practice scores were dichotomized into >50% and 50% & less. This was associated against the demographic characters of the patients. Logistic regression was performed to compute adjusted odds ratio (AOR) with 95% confidence interval. The significance of the p value was set at <0.05.

All the three tools were given to 5 Experts (Nursing, Paediatrics, General Medicine, Community Medicine, Social Worker) for content validity. The content validity index was determined and the score was 0.9. The reliability of the study was checked by pre-testing the self-administered tool on 5 samples and it was found to be feasible and understandable. The instrument was also translated into vernacular language (Telugu) and retranslated into English. The reliability of the instrument was checked by translation. Informed consent was taken from all the respondents and confidentiality was ensured throughout the study. Participation in the study was voluntary and no incentives were provided. The study was reviewed and approved by Internal Research Committee.

Data Collection Method

Self-administered tool was provided after getting the consent from the parents attending the paediatric units with their children less than 12 years of age. The approximated time to fill the tool was 15mins. Totally 8 participants were taken per day. The data was collected over a period of 3 months.

III. Result

The demographic profile of the participants is presented in Figure 1. It shows that the majority of the participants were females (60%), belonged to the age group 26 – 35years (59.7%), had completed undergraduate studies (47.5%), lived in joint family (58.2%), and had children in the age group of Pre-Schooler and Schooler (52%).
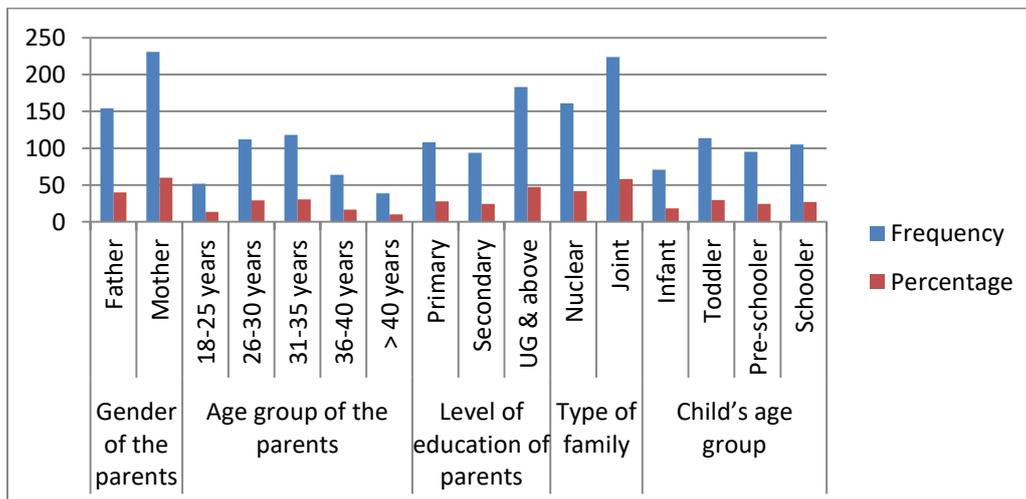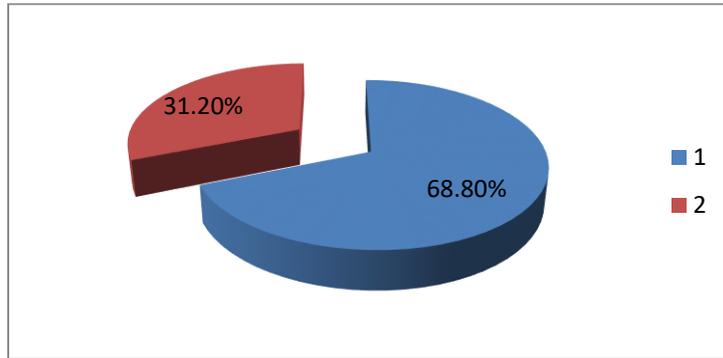

Figure 1. Demographic profile of the participants

The study revealed that majority of the participants had inadequate knowledge (68.8%). Mean knowledge score is 4.60 and standard deviation is 1.83

Attitude interpretation of the individual in prevention of dengue fever:

Attitude score	Numbers	Percentage
Less than 50%	17	4.4%
50% & above	368	95.6%

95.6% of the respondents showed positive attitude towards the prevention of dengue. Mean attitude score is 19.55 and standard deviation is 3.59

IV. Practice interpretation of the individual in prevention of dengue fever:

Practice score	Numbers	Percentage
Less than 50%	81	21%
50% & above	304	79%

79% of the respondents showed adequate practical knowledge on dengue prevention.

V. Correlation of Knowledge, attitude and practice scores:

Variables	Pearson Correlation Coefficient (r)	p value	95% CI	
			Lower limit	Upper limit
Knowledge vs attitude	0.242	<0.001	0.142	0.335
Knowledge vs practice	0.175	0.001	0.061	0.276
Attitude vs practice	0.241	<0.001	0.138	0.336

The correlation statistics showed a weak positive correlation between knowledge and attitude with r value of 0.242, p<0.001. Also weak positive correlation was observed between attitude and practice. With r value of 0.241, p<0.001.

VI. Association between Knowledge and the other demographic variables

Variables		Knowledge score >50%	Knowledge score ≤50%	OR (95% CI)	p value	AOR (95% CI)	p value
Gender of the parent	Female	92 (39.8%)	139 (60.2%)	2.98 (1.83 – 4.84)	<0.001	3.41 (2.04 – 5.70)	<0.001
	Male	28 (18.2%)	126 (81.8%)				
Age category of the parents	>30 years	78 (35.3%)	143 (64.7%)	1.58 (1.01 – 2.48)	0.042	1.98 (1.18 – 3.33)	0.010
	≤30 years	42 (25.6%)	122 (74.4%)				
Education of the parents	UG & above	70 (38.3%)	113 (61.7%)	1.88 (1.22 – 2.92)	0.004	1.65 (1.04 – 2.60)	0.033
	Higher secondary & lower	50 (24.8%)	152 (75.2%)				

Table 6 showed female parents had adequate knowledge than male parents regarding dengue prevention (OR 2.98, p<0.001). Parents aged 30 years and above had adequate knowledge regarding dengue prevention compared to less than 30 years aged parents (OR 1.58, p 0.002). Also parents who had undergraduate degree and above had adequate knowledge (OR 1.88, p 0.004). There was no significant association noted between attitude, practice with demographic variables like gender, age, education and family type.

VII. Discussion

The purpose of this study was to assess knowledge attitude and practices of individuals regarding prevention of dengue fever and it was found that majority of the subjects had inadequate knowledge (68.8%), 31.2%, had adequate knowledge. The study finding also revealed that majority of female (39.8%) had adequate knowledge then male (18.2%), p value (<0.001). it was identified that 79% of parents had adequate practice and 95.6% of the parents had adequate attitude towards dengue prevention. The respondents had good attitude and prevention of dengue fever, however they faced challenges such as greater access to correct information on dengue fever. There was no correlation between knowledge about dengue and attitude and practices. There was no significant association noted between attitudes, practice with demographic variables like gender, age, education.

VI. Conclusion

This study stated that the knowledge on dengue prevention is less, though their attitude and practice towards dengue prevention is adequate. Adequate health education on dengue and other mosquito-borne diseases is necessary to create awareness on prevention of dengue.(6) Medical personals have a crucial role in providing health education on prevention of dengue in outpatient department as well inpatient services.(7) It is important to educate the public regarding prevention of dengue fever through health care personnel. So that there will be reduction of the incidence rate of dengue fever.(8) The state needs the dengue surveillance system to monitor and control a mosquito borne viral diseases. Health awareness and constant reminders will help to adopt appropriate life style practices and good environmental maintenance in-order to stop disease cycle which may be taking the lives of children.(9)

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