



# “A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICES REGARDING DENGUE FEVER AND ITS PREVENTION AMONG THE COMMUNITY PEOPLE OF JIND, HARYANA”

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## ABSTRACT

*Background and aim: Dengue, also known as “tropical flu,” Dengue fever is one of the vector borne diseases that causes Acute Febrile Illness and death in tropical and sub-tropical countries Knowledge, attitude and practice of health-care professionals towards dengue fever prevention and associated factors among health professionals is not yet well known across the country and concern is varied in context and place. The aim of the study was to assess the knowledge, attitude and practices regarding dengue fever and its prevention among the community people of Uchana, Jind (Haryana). Materials and Methods: The descriptive study 40 samples were collected by means of convenience sampling technique. Data were collected with the help of structured knowledge questionnaire, attitude scale, checklist and the data collection method were self reporting. Results: Knowledge level of the samples shows that majority of them have average level of knowledge 33 (82.50%). Samples who had good knowledge was 5 (12.50%). Only few samples 2 (5.00%) had low level of knowledge. Attitude level of the samples shows that majority of them have positive attitude 19 (47.50%). Samples who had neutral attitude was 18 (45.00%). few samples 3 (7.50%) had negative attitude. Preventive practices of the samples show that overwhelming majority of them have good practice 34 (85.00%). Samples who had moderate practice was 6 (15.00%). no samples had poor level of practice. The association between the knowledge, attitude and practices regarding dengue fever and its prevention with the selected demographic variables such as education and occupation of the people. Conclusion: The students shown that no association significant between knowledge, attitude and practice of People regarding dengue fever.*

**KEYWORDS:** Descriptive, knowledge, Attitude, Practices, Dengue fever, People.

## BACKGROUND OF THE STUDY

Dengue, also known as “tropical flu,” It is usually transmitted to human through the bite of an infected *Aedes albopictus* mosquito<sup>[1]</sup> This virus has four known circulating serotypes worldwide. A study carried out by Kamgang et al (2017).<sup>[2]</sup> *Aedes Aegypti* is the vector of dengue fever. *Aedes* is a small, black mosquito with white strips. It can breed in any kind of Storage containers, having even a small quantity of water, desert coolers, drums jars, pots, buckets, flower vases, tanks, bottles, cisterns, plant saucers, tins, tires, roof gutters, refrigerator drip pans, cemetery urns, bamboo stumps, coconut shells, tree holes and many more places where rain water is

stored. Virus is transmitted to humans through the bites of infective female *Aedes* mosquitoes. Mosquitoes generally acquire the virus while feeding on the blood of an infected person. After virus incubation for eight to ten days, an infected mosquito is capable, during probing and blood feeding, of transmitting the virus for the rest of its life. Man is the definitive host and mosquitoes are the intermediate host<sup>[3]</sup>

## INTRODUCTION & NEED FOR THE STUDY

Dengue fever is an infectious mosquito-borne disease by dengue virus. Its symptoms include



fever, headache, muscle and joints pains and rash resembles measles. The presence of muscle and joint pain gives an alternative name of the dengue fever as "break bone fever." Classical dengue fever cases sometimes develop to more severe life-threatening stage of dengue haemorrhagic fever or dengue haemorrhagic fever with shock.<sup>[4]</sup> Dengue has been endemic for over two countries with mostly a benign and self-limited course. The first major outbreak of dengue was reported in India in 1991.<sup>[5]</sup> conducted a knowledge, attitude and practices (KAP) study in an urbanized residential area of Kuala Lumpur and concluded that there is a need to strengthen health promotion activities to increase the knowledge that forms the basis for preventive practices as part of the strategy to control dengue outbreaks. Other study has shown that good knowledge does not necessarily leads to good practice. This is most likely due to certain practices like water storage for domestic use, which is deeply ingrained in the community.<sup>[6]</sup> World Health Organization (WHO) approximately 2.5 billion people, or two-fifths of the world's population, are now at risk from dengue. The disease is now endemic in over 100 countries. There was an outbreak of dengue in the Federated States of Micronesia which resulted in more than 1,200 cases and two deaths. Starting in July cases have increased on Yap Main Island. Cases of probable dengue were also being reported in the Yap Outer Islands. There were over 890,000 reported cases of dengue in America, of which 26,000 cases were DHF. Dengue infection rates among people who have not been previously exposed to the virus are commonly 40% to 50% during epidemics, but may sometimes reach 80% to 90%. Approximately half-a-million people with DHF are hospitalized each year, out of which many are children.<sup>[7]</sup> Incidence of dengue has been attributed to increased air-travel, increased urbanization, amplified mosquito population due to deterioration in the public health infrastructure and changing climatic conditions. According to the World Health Organization.<sup>[8]</sup> Since there is no vaccine, vector control is the ideal way to control dengue. vector control methods can be successful, only if there is community participation, and for the success of a community-based programmed and important to assess the community perception regarding the disease. Its mode of transmission and breeding sites. Knowledge, attitude and practice studies serve as an educational diagnosis of a population.<sup>[9]</sup>

### OBJECTIVE OF THE STUDY

- To assess the knowledge regarding dengue fever among people in selected community area, Uchana.
- To assess the attitude regarding dengue fever among people in selected community area, Uchana.

- To assess the practices regarding dengue fever prevention among people in selected community area, Uchana.
- To find the association between the knowledge, attitude and practices regarding dengue fever and its prevention with the selected demographic variables.

### ASSUMPTION

- Rural community people may have less knowledge regarding dengue fever.
- People will have a positive attitude regarding dengue fever.
- There will be some practices followed by the people for the prevention of dengue fever.
- Demographic variables will be having more influence on the knowledge.

### HYPOTHESIS

H<sub>1</sub>-There will be no significant association between the knowledge scores on dengue fever and demographic variables of people.

### DELIMITATION

- This study is delimited to single setting, Uchana village.
- This study is delimited to male and females in the age group 15-75

### REVIEW OF LITERATURE

A study was conducted aimed to analyse the status of the dengue infection, a rural issue of Delhi-NCR, Haryana and to identify the significance of dengue symptoms in anti-dengue drug development. The study was conducted when there is high chance of dengue infection at OPD Unit of PR Institute of Medical Science & Research, Delhi-NCR, Sonapat. It includes 158 patients from 24 rural areas of Haryana comprising both males and females from different age groups. Out of 20% cases, 6% were IgG-Positive, 9% were IgM-Positive and 88% were NS1-Positive and rest 80% was normal. It includes 44% cases of thrombocytopenia Bad Khalsa village (28%), age group 18-24 (34%) and males (63%) reported cases of high infection. It was found that people with fewer platelets counts (Rai village) were not suffering from dengue whereas people with more platelets count reported dengue infection.<sup>[10]</sup>

A cross sectional survey among parents of dengue patients admitted in Department of Paediatrics, KIMS Bangalore during a period of 6 months. Parents were interviewed with pre designed questionnaire was divided into 4 parts on knowledge (1) Transmission (2) Signs and symptoms (3) Attitude towards the illness and (4) practices of prevention and treatment. Overall, 195 individuals were interviewed. 7% were illiterate while 18% had a



college degree. 91% individuals knew mosquito as the vector, 32% identified clear stagnant water as the breeding place. 88% identified fever as a symptom while 22% knew about bleeding manifestations. 71% felt dengue as a severe disease and 84% had a positive attitude towards consulting a doctor for the illness. 58% relied on mats and coils for personal protection followed by bed nets (12%). Majority of the awareness was through television followed by radio and newspapers. [11]

A cross-sectional survey was conducted in three urban districts encompassing 383 households. Data on the socio-demographic characteristics and KAPs of the participating household heads were collected using a pre-designed, structured questionnaire. The association of socio-demographic characteristics, knowledge and attitudes of the population with poor preventive practices against dengue fever was then analysed using logistic regression. More than 90.0 % of respondent household heads had correct knowledge about fever, headache and joint pain as common signs and symptoms of dengue fever. Moreover, muscular pain and bleeding were perceived by more than 80.0 % of the respondents as being associated with dengue fever; however, only 65.0 % of the respondents reported skin rash as a sign of dengue fever. More than 95.0 % of respondents agreed about the seriousness and possible transmission of dengue fever; however, negative attitudes regarding the facts of being at risk of the disease and that the infection is preventable were expressed by 15.0 % of respondents. Despite the good level of knowledge and attitudes of the respondent population, poor preventive practices were common. Bivariate analysis identified poor knowledge of dengue signs

and symptoms (OR = 2.1, 95 % CI = 1.24–3.68;  $P=0.005$ ) and its vector (OR = 2.1, 95 % CI = 1.14–3.84;  $P=0.016$ ) as factors significantly associated with poor preventive practices. However, multivariable analysis showed that poor knowledge of the vector is an independent predictor of poor preventive practices of the population (adjusted OR = 2.1, 95 % CI = 1.14–3.84;  $P=0.018$ ). [12]

## METHODOLOGY

- **Research approach:** Quantitative approach.
- **Research design:** Non experimental design.
- **Variables:**  
**Independent variables:** Knowledge, Attitude and Practice.  
**Dependent variables:** Knowledge, Attitude and Practice of community People regarding dengue fever.
- **Setting of the study:** Uchana village, Haryana.
- **Population:** Community people of Uchana village.
- **Sample:** Age group 15-75 who full fill the inclusion criteria will be consider as a sample.
- **Sample size:** Sample size consider 40 people which living in Uchana village, Haryana.
- **Sampling Technique:** Convenient sampling technique had been used for selection of the subject.

## RESULT & INTERPRETATION

**Table 1. Frequency and Percentage distribution of samples according to knowledge regarding dengue fever.**

(n-40)			
S. No	Level of Knowledge	Frequency	Percentage
1.	Low	2	5.00
2.	Average	33	82.50
3.	Good	5	12.50

Knowledge level of the samples shows that majority of them have average level of knowledge 33 (82.50%). Samples who had good knowledge was 5

(12.50%). Only few samples 2 (5.00%) had low level of knowledge.

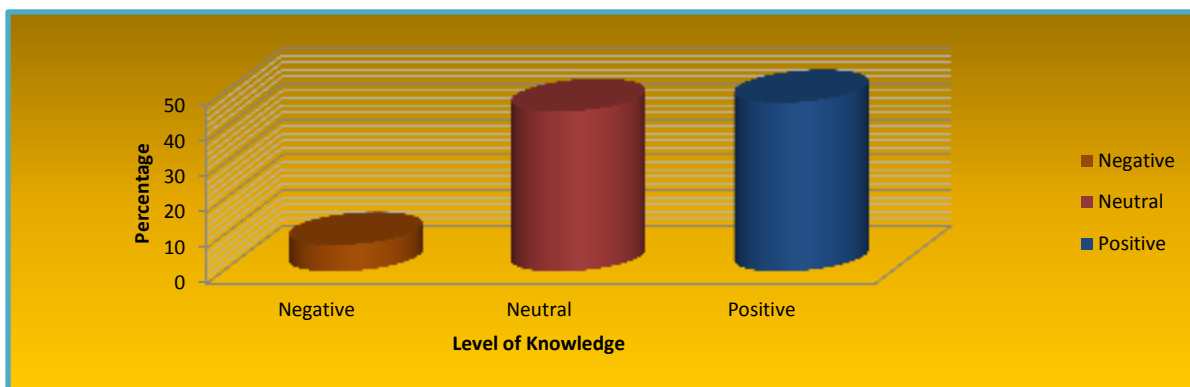


Figure 1. Percentage distribution of samples according to level of knowledge

Table 2. Frequency and Percentage distribution of samples according to attitude regarding dengue fever.

(n-40)

S. No	Level of Attitude	Frequency	Percentage
1.	Negative	3	7.50
2.	Neutral	18	45.00
3.	Positive	19	47.50

Attitude level of the samples shows that majority of them have positive attitude 19 (47.50%). Samples

who had neutral attitude was 18 (45.00%). few samples 3 (7.50%) had negative attitude

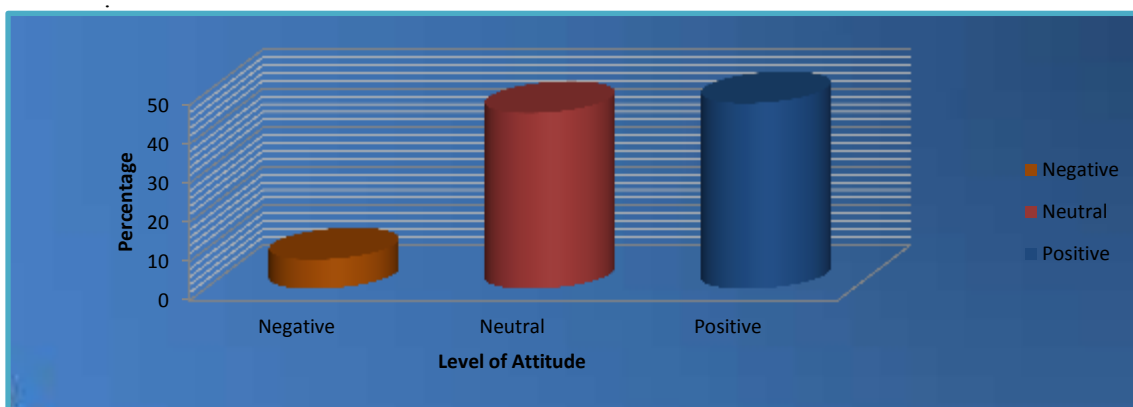


Figure: 2. Percentage distribution of samples according to level of attitude

Table 3. Frequency and Percentage distribution of samples according to practice regarding dengue fever.

S. No	Level of practice	Frequency	Percentage
1.	Poor	0	0.00
2.	Moderate	6	15.00
3.	Good	34	85.00

(n - 40)

Attitude level of the samples shows that overwhelming majority of them have good practice 34

(85.00%). Samples who had moderate practice was 6 (15.00%). no samples had poor level of practice.

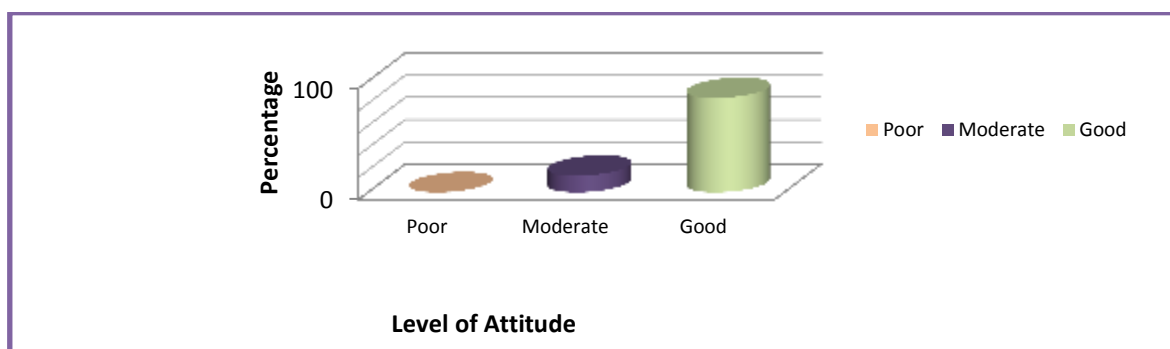


Figure: 3. Percentage distribution of samples according to level of practice.

Table 4. Level of association between level of knowledge and selected demographic variables. (n - 40)

S. No	Demographic Variables	Level of Knowledge			Chi Square	'P' Value
		Low	Average	Good		
1.	<b>Gender</b>				2.105	0.349
	a. Male	2	19	2		
	b. Female	0	14	3		
2.	<b>Age (Years)</b>				4.928	0.553
	a. 15 - 30	1	11	3		
	b. 31 - 45	0	17	1		
	c. 46 - 60	1	4	1		
	d. 61 - 75	0	1	0		
3.	<b>Occupation</b>				0.477	0.333
	a. Farmer	1	5	3		
	b. Government Job	1	6	0		
	c. House Wife	1	13	1		
	d. Private Job	0	4	0		
	e. Student	0	5	1		
4.	<b>Education</b>				2.555	0.862
	a. Illiterate	0	1	0		
	b. Primary	1	11	1		
	c. Secondary	1	9	1		
	d. Higher Secondary	0	12	3		
5.	<b>Religion</b>				6.340	0.175
	a. Hindu	1	28	5		
	b. Muslim	0	3	0		
	c. Christian	1	2	0		
6.	<b>Monthly Income</b>				6.676	0.352
	a. 2000 -4000	1	4	1		
	b. 4001 -6000	1	4	0		
	c. 6001 -8000	0	10	1		
	d. 8001 and above	0	15	3		
7.	<b>Source of Information's</b>				4.472	0.613
	a. Family and Friends	1	7	0		
	b. Television and Radio	1	14	4		
	c. Magazines and News Paper	0	3	0		
	d. Health Team Members	0	9	1		



**Association between knowledge and gender the null hypothesis can be stated as follows:**

**Table 5. Level of association between level of attitude and selected demographic variables  
(n - 40)**

S. No	Demographic Variables	Level of Attitude			Chi Square	'P' Value
		Negative	Neutral	Positive		
1.	<b>Gender</b>				6,450	0.40
	a. Male	2	14	7		
	b. Female	1	4	12		
2.	<b>Age (Years)</b>				9.679	0.139
	a. 15 - 30	1	8	6		
	b. 31 - 45	2	10	6		
	c. 46 - 60	0	0	6		
	d. 61 - 75	0	0	1		
3.	<b>Occupation</b>				19.166	0.14
	a. Farmer	0	4	5		
	b. Government Job	2	0	5		
	c. House Wife	1	11	2		
	d. Private Job	0	2	2		
	e. Student	0	1	5		
4.	<b>Education</b>				3.280	0.773
	a. Illiterate	0	1	0		
	b. Primary	1	5	7		
	c. Secondary	0	6	5		
	d. Higher Secondary	2	6	7		
5.	<b>Religion</b>				22.759*	0.000
	a. Hindu	0	18	16		
	b. Muslim	1	0	2		
	c. Christian	2	0	1		
6.	<b>Monthly Income</b>				4.802	0.569
	a. 2000 - 4000	0	4	2		
	b. 4001 - 6000	1	3	1		
	c. 6001 - 8000	1	5	5		
	d. 8001 and above	1	6	11		
7.	<b>Source of Information's</b>				8.467	0.206
	a. Family and Friends	0	4	2		
	b. Television and Radio	1	3	1		
	c. Magazines and News Paper	1	5	5		
	d. Health Team Members	1	6	11		



To test the association between attitude and gender the null hypothesis can be stated as follows:

**Table 6. Level of association between level of Practice and selected demographic variables (n - 40)**

S. No	Demographic Variables	Level of Practice			Chi Square	'P' Value
		Poor	Moderate	Good		
1.	<b>Gender</b>				2.43	0.622
	c. Male	0	4	19		
	d. Female	0	2	15		
2.	<b>Age (Years)</b>				1.743	0.627
	e. 15 - 30	0	1	14		
	f. 31 - 45	0	4	14		
	g. 46 - 60	0	1	5		
	h. 61 - 75	0	0	1		
3.	<b>Occupation</b>				1.096	0.895
	f. Farmer	0	2	7		
	g. Government Job	0	1	6		
	h. House Wife	0	2	12		
	i. Private Job	0	0	4		
	j. Student	0	1	5		
4.	<b>Education</b>				1.178	0.759
	e. Illiterate	0	0	1		
	f. Primary	0	3	10		
	g. Secondary	0	1	10		
	h. Higher Secondary	0	2	13		
5.	<b>Religion</b>				8.089	0.18
	d. Hindu	0	3	31		
	e. Muslim	0	1	2		
	f. Christian	0	2	1		
6.	<b>Monthly Income</b>				2.408	0.352
	e. 2000 - 4000	0	1	5		
	f. 4001 - 6000	0	0	5		
	g. 6001 - 8000	0	3	8		
	h. 8001 and above	0	2	16		
7.	<b>Source of Information's</b>				6.536	0.88
	e. Family and Friends	0	2	6		
	f. Television and Radio	0	0	19		
	g. Magazines and News Paper	0	1	2		
	h. Health Team Members	0	3	7		

To test the association between practice and gender the null hypothesis can be stated as follows:

## NURSING IMPLICATIONS

### Nursing education:

The nurses play a key role in educating people regarding Oral hygiene to children in Hospitals and schools. Increasing awareness and understanding of the phenomena among the general population will result in high level of Oral hygiene and that will spontaneously reduce the morbidity of children due to problems of oral cavity. The investigator as a nurse felt the need that nurses should act as facilitators to educate adolescents, teachers, general population, and clinical patients regarding the oral hygiene.

### Nursing research:

Nurses being the largest group in health care delivery system should take initiative to conduct further research studies on dengue fever. The study will motivate the beginning researcher to conduct same study with different variables on a large scale considering individual aspects. The public and private agencies should also encourage research in this field through materials and funds. The findings of the present study are helpful for the nursing professionals and nursing teachers to conduct further studies to find out the knowledge, attitude and



practice of People which are providing education on improving the knowledge regarding dengue fever.

### Nursing administration:

Nurse administrator should take interest in motivating the nursing personnel to improve their professional knowledge and skill by attending the workshops, conferences, seminars on dengue fever. Nurse administrator should arrange regular in-service education program to the health care workers for gaining knowledge. The nurse administrators should explore their potentials and encourage innovative ideas in the community People related dengue fever.

### Nursing practice:

Nurse owes a great responsibility in educating the people regarding dengue fever. Nurses by getting knowledge and impact into their clinical practice. Many nurses can conduct evidence base nursing practice by referring to these results. Nurses can use to assess the level of knowledge regarding dengue fever in clinical as well as in community settings that will play a vital role in reducing the morbidity of dental origin.

### RECOMMENDATION

- A similar study can be conducted in large sample in different areas.
- A study to assess the knowledge, practice and attitude of adolescents regarding dengue fever can be studied.
- On the basis of findings following recommendations are offered for further research:
- A comparative study can be conducted in different setting like rural and urban areas.
- A video teaching programme can be conducted in large scale to the community people in Haryana to improve dengue fever.

### CONCLUSION

The study was conducted on rural community people of Uchana to find the knowledge, attitude and practices regarding dengue fever.

The major findings for the study showed that:

- Knowledge level of the samples shows that majority of them have average level of knowledge 33 (82.50%). Samples who had good knowledge was 5 (12.50%). Only few samples 2 (5.00%) had low level of knowledge.
- Attitude level of the samples shows that majority of them have positive attitude 19 (47.50%). Samples who had neutral attitude was 18 (45.00%). few samples 3 (7.50%) had negative attitude.
- Preventive practices of the samples show that overwhelming majority of them have good practice 34 (85.00%). Samples who had

moderate practice was 6 (15.00%). no samples had poor level of practice.

- There is no significant association between knowledge, attitude and practices regarding dengue fever with the selected demographic variables. (Gender, Age, Occupation, Education, Religion, Monthly income and Source of information)

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