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A STUDY TO ASSESS THE KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING DENGUE FEVER AMONG WOMEN IN SELECTED URBAN COMMUNITY, CHENNAI

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ABSTRACT:

Introduction: A communicable disease can be transmitted from one person to another in several ways, such as contact with blood or body fluids, inhalation of an airborne virus, or insect bites. **Aims and objectives:** A study to assess the knowledge, attitude and practice regarding dengue fever among women in selected urban community, Chennai. **Methodology:** A quantitative research approach was employed to evaluate the knowledge, attitude and practice regarding dengue fever among women in selected urban community, Chennai. The study used a non-probability convenience sampling technique. **Result:** This study shows that most of the women, 47(92.2%) were married, 35(68.6%) had monthly income between 0_12500 pm, 28(54.9%) has corporation water as source of water and 48(94.1%) had close drainage. On assessing the level of knowledge, the women 27 (52.9%) had adequate knowledge. On assessing the level of attitude, the women 35(68.7%) had high attitude. On assessing the level of practice, the women 37(72.5%) had moderate practice. **Conclusion**: This study shows that there was a adequate knowledge, high attitude and moderate practice regarding dengue fever in community. we have to-create more awareness regarding dengue fever.

Keywords: Prevention of Dengue fever, Knowledge, attitude and practice among women.

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INTRODUCTION:

Dengue, a mosquito-transmitted viral disease, was first recognized in Myanmar in the 1960s and has since spread globally. The virus is transmitted by the bite of an infected Aedes mosquito and is endemic in tropical and subtropical regions. The disease is characterized by fever, headache, arthralgia, myalgia, rash, nausea, and vomiting.

The World Health Organization (WHO) reported over 7.6 million dengue cases worldwide in 2024, with Asia accounting for around 70% of the worldwide disease burden. Global urbanization, population growth, and lack of effective mosquito control programs are facilitating the increase in dengue activity. India reported over 32,000 dengue cases in 2024.

Environmental changes and lack of awareness result in an increase in transmission of dengue infection and rise in dengue outbreaks. As of July 24, 2024, Tamil Nadu had recorded 6,565 dengue cases, with cases increasing in Chennai.

Despite the growing recognition of dengue as a critical public health issue, there remains a need for in-depth research focusing on socioeconomic and environmental factors that exacerbate its spread in urban settings. Dengue is prevalent in urban areas due to high population density, poor waste management, and inadequate vector control methods. Urban dwellers' knowledge, attitude, and practice (KAP) of dengue prevention and control remain unsatisfactory.

This study aims to analyze the dengue KAP in urban populations, identify gaps, and inform evidence-based actions to reduce the disease burden. By evaluating what people know about the disease, their attitudes toward prevention and management, and their actual practices, the study seeks to identify areas where educational interventions might be needed. Understanding these factors is crucial for designing effective public health strategies and improving community engagement in dengue prevention.

OBJECTIVE:

- To assess the knowledge, attitude and practice regarding dengue fever among women at selected urban community, Chennai.
- To find out the association between the level of knowledge, attitude and practice of women regarding dengue fever with their selected demographic variables.

HYPOTHESIS:

H1: There is a significant association between level of knowledge, attitude and practice of women regarding dengue fever with their selected demographic variables.

METHODOLOGY:

The study adopts a quantitative research approach and utilizes a descriptive cross-sectional research design. The research variables focus on knowledge, attitude, and practice regarding dengue fever among women in a selected urban community, with demographic variables including age, marital status, educational level, occupation, monthly income, type of family, water storage system, source of water, type of house, and drainage facilities. The study was conducted in Ramapuram, with the target population consisting of women residing in the urban community and the accessible population being women available during data collection. The sample size was 51, and the non-probability convenience sampling technique was employed.

Inclusion and Exclusion criteria:

Inclusion criteria were women available during the data collection period and those willing to participate, while exclusion criteria included healthcare professionals, those unable to read or write, non-residents of the area, individuals with mental illness, and women diagnosed with dengue fever at the time of the study.

Tools:

The data collection tool consisted of four sections: Part A (demographic variables), Part B (knowledge questionnaire with 10 multiple-choice questions on dengue fever), Part C (practice checklist assessing the level of practice regarding dengue prevention with 12 items), and Part D (attitude rating scale with response options ranging from strongly agree to strongly disagree). The scoring system for Part B involved assigning 1 point for each correct answer and 0 for incorrect answers, with a total score of 10 for this section.

Data collection procedure:

The study was conducted after obtaining informed consent from women people participating in the study. The study participants were selected by using non probability convenient sampling. The data collection was done among 51 women peoples. After data collection health education regarding prevention of dengue was given among the study participants.

Data Analysis plan:

The data for this study were analyzed based on specific objectives and hypotheses using statistical methods. For the first objective, which is to assess knowledge, attitude, and practice regarding dengue fever among women in the selected community, descriptive statistics such as mean and standard deviation were used. For the second objective, which aims to find significant relationships between knowledge, attitude, and practice regarding dengue fever and selected demographic variables, inferential statistics, specifically the Chi-square test, were employed. The analysis was conducted on data obtained from 51 samples.

RESULT:

Table 1: Frequency and percentage distribution of demographic variables of thewomen. **N = 51**

Demographic Variables	F	%
Age in years		
20 – 25	8	15.7
26 – 30	15	29.4
31 – 35	9	17.6
36 – 40	19	37.3
Marital status		
Married	47	92.2
Unmarried	1	2.0
Divorce	3	5.9
Widow	-	-
Educational level		
Primary level	16	31.4
Secondary level	16	31.4
Diploma, degree and above	19	37.3
Occupation		
Employee	10	19.6
Daily workers	8	15.7
Housewife	33	64.7
Monthly income		
0 – 12500 pm	35	68.6
12500 – 25000 pm	12	23.5
25000 – 60000 pm	4	7.8
60000 – 150000 pm	-	-
Type of family		
Joint	17	33.3
Nuclear	34	66.7
Source of water		
Corporation	28	54.9
Ground water	23	45.1
Water storage system		
Drum	22	43.1
Sintex tank	13	25.5
Cement tank	13	25.6

Vessels	3	5.9
Type of houses		
Roof house	29	56.9
Apartment	9	17.6
Terraced	13	25.5
Drainage facilities		
Closed type of drainage	48	94.1
Open type of drainage	3	5.9

The table 1 shows that most of the women, 19(37.3%) were aged between 36 – 40 years, 47(92.2%) were married, 19(37.3%) were diploma / degree holders andabove, 33(64.7%) were housewives, 35(68.6%) had monthly income between 0 – 12500 pm, 34(66.7%) belonged to nuclear family, 28(54.9%) had corporation water as source of water, 22(43.1%) had drums as water storage system, 29(56.9%) werestaying in roof house and 48(94.1%) had closed type of drainage.

Table 2: Frequency and percentage distribution of level of knowledge regardingdengue fever among women

Level of Knowledge	Frequency	Percentage
Mild Knowledge (0 – 4)	3	5.9
Moderate Knowledge (5 – 7)	21	41.2
Adequate Knowledge (8 – 10)	27	52.9

The table 2 depicts that 27(52.9%) had adequate knowledge, 21(41.2%) hadmoderately adequate knowledge and 3(5.9%) had inadequate knowledge regarding dengue fever among women.

Table 3: Frequency and percentage distribution of level of attitude regardingdengue fever among women.

Level of Attitude	Frequency	Percentage
Low Attitude (<15)	4	7.8
Moderate Attitude (15 – 19)	12	23.5
High Attitude (20 – 25)	35	68.7

The table 3 depicts that 35(68.7%) had high attitude, 12(23.5%) had moderateattitude and 4(7.8%) had low attitude regarding dengue fever among women.

Table 4: Frequency and percentage distribution of level of practice regardingdengue fever among women.

Level of Practice	Frequency	Percentage
Poor Practice (≤4)	2	3.9
Moderate Practice (5 – 8)	37	72.5
Good Practice (9 – 12)	12	23.5

The table 4 denotes that 37(72.5%) had moderate practice, 12(23.5%) had good practice and 3(3.9%) had poor practice regarding dengue fever among women.

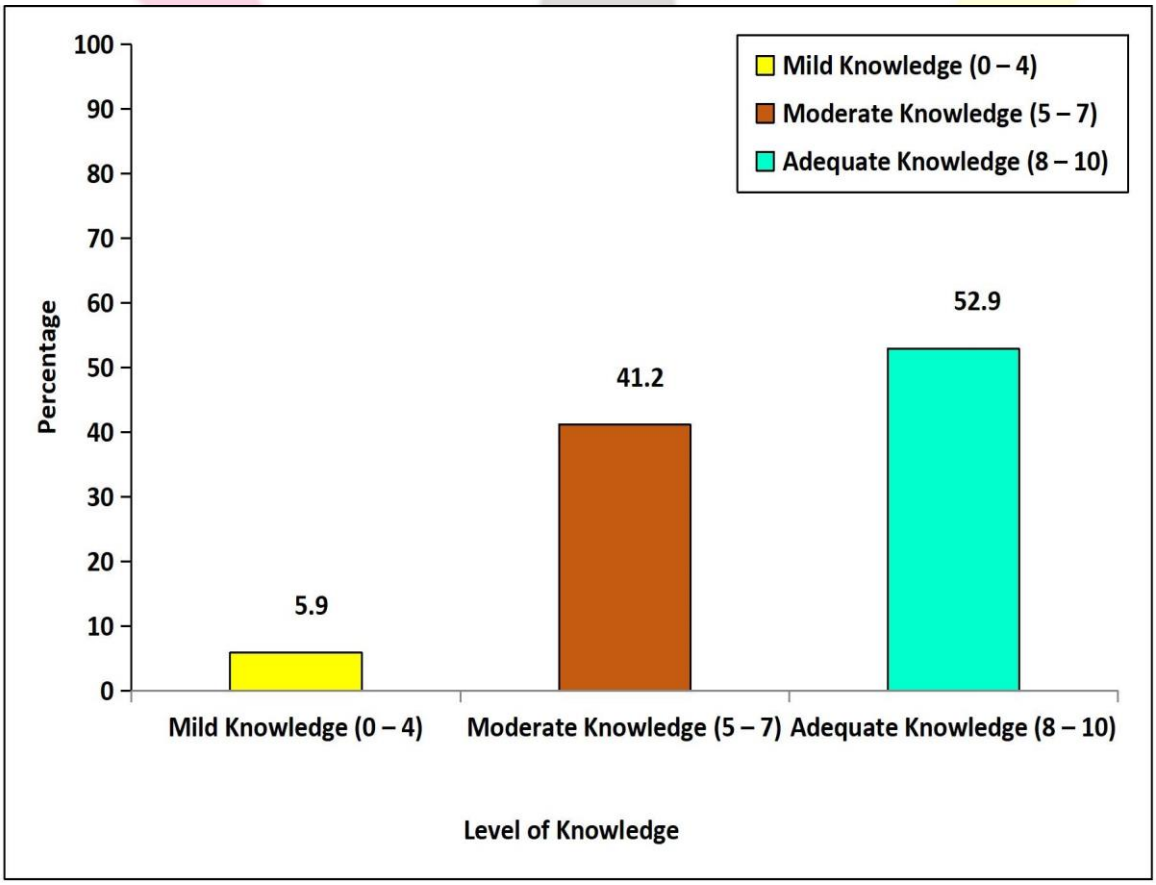

Figure: 1 Percentage distribution of level of knowledge regarding dengue fever among women

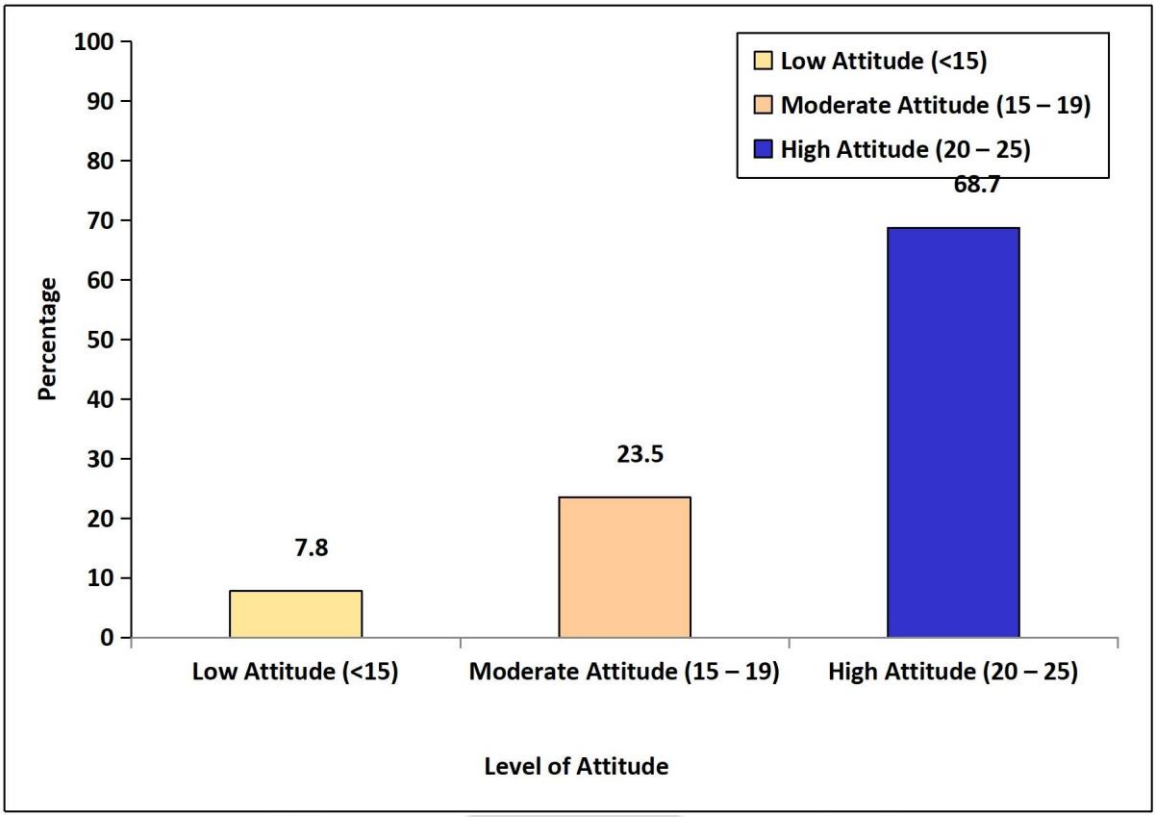

Figure: 2 Percentage distribution of level of attitude regarding dengue fever among women

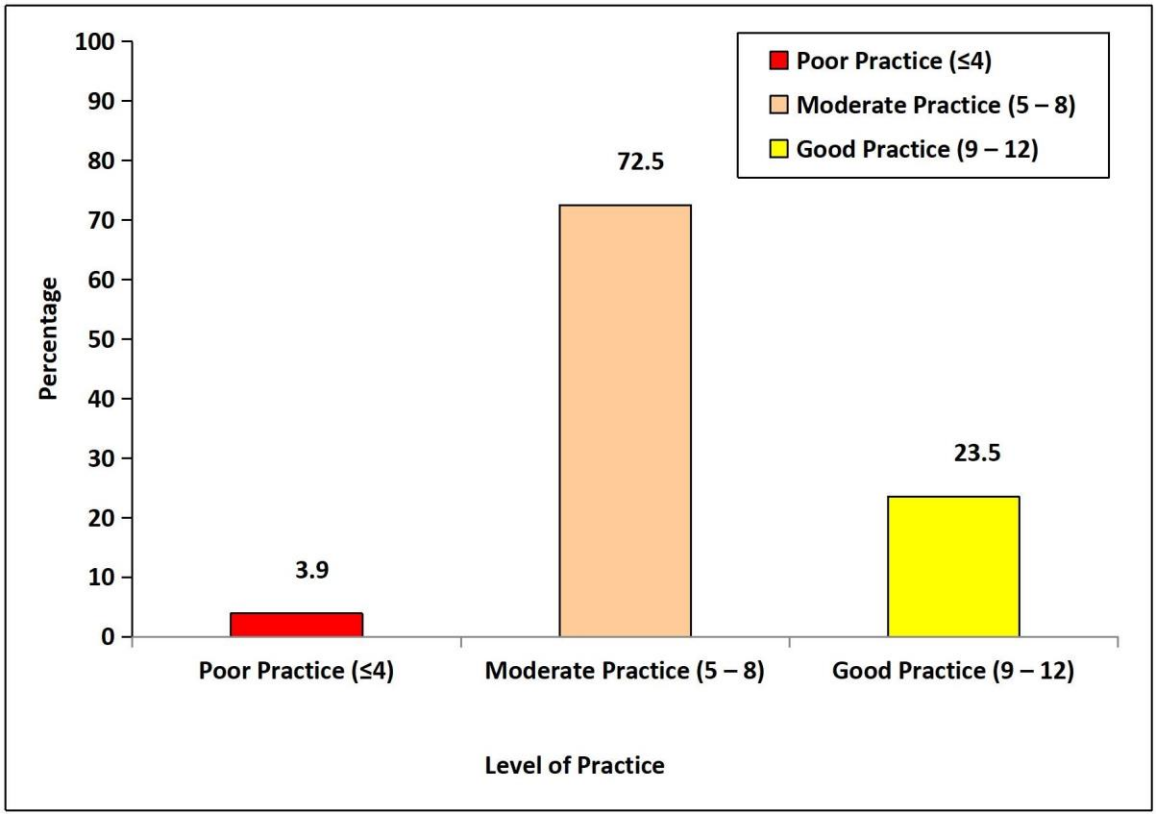

Figure: 3 Percentage distribution of level of practice regarding dengue fever among women

Table 5: Correlation between knowledge, attitude and practice regarding dengue fever among women.

Variables	Mean	S.D	Karl Pearson's Correlation 'r' & p-value
Knowledge	7.39	1.49	**r = 0.336**
Attitude	20.49	3.27	**p=0.016, S***
Knowledge	7.39	1.49	**r = 0.3**
Practice	7.66	2.39	**p=0.033, S***
Attitude	20.49	3.27	**r = 0.427**
Practice	7.66	2.39	**p=0.002, S****

Table 6: Association of level of knowledge regarding dengue fever among womenwith their selected demographic variables.

Demographic Variables	Mild		Moderate		Adequate		Chi-SquareTest & p- value
	F	%	F	%	F	%	
Age in years							
20 – 25	0	0	4	7.8	4	7.8`	χ^2=2.640 d.f=6 p=0.853 N.S
26 – 30	1	2.0	7	13.7	7	13.7	
31 – 35	0	0	3	5.9	6	11.8	
36 – 40	2	3.9	7	13.7	10	19.6	
Marital status							
Married	1	2.0	20	39.2	26	51.0	**χ^2=22.563 d.f=4 p=0.0001 S*****
Unmarried	0	0	0	0	1	2.0	
Divorce	-	-	-	-	-	-	
Widow	2	3.9	1	2.0	0	0	

Educational level							χ^2=8.923 d.f=4 p=0.063 N.S
Primary level	0	0	8	15.7	8	15.7	
Secondary level	3	5.9	7	13.7	6	11.8	
Diploma, degree and above	0	0	6	11.8	13	25.5	
Occupation							χ^2=4.440 d.f=4 p=0.350 N.S
Employee	0	0	2	3.9	8	15.7	
Daily workers	1	2.0	4	7.8	3	5.9	
Housewife	2	3.9	15	29.4	16	31.4	
Monthly income							χ^2=3.559 d.f=4 p=0.469 N.S
0 – 12500 pm	2	3.9	15	29.4	18	35.3	
12500 – 25000 pm	0	0	5	9.8	7	13.7	
25000 – 60000 pm	1	2.0	1	2.0	2	3.9	
60000 – 150000 pm	-	-	-	-	-	-	
Type of family							χ^2=0.000 d.f=2 p=1.000 N.S
Joint	1	2.0	7	13.7	9	17.6	
Nuclear	2	3.9	14	27.5	18	35.3	
Source of water							χ^2=4.671 d.f=2 p=0.097 N.S
Corporation	2	3.0	15	29.4	11	21.6	
Ground water	1	2.0	6	11.8	16	31.4	
Water storage system							χ^2=6.174 d.f=6 p=0.404 N.S
Drum	1	2.0	12	23.5	9	17.6	
Sintex tank	1	2.0	2	3.9	10	19.6	
Cement tank	1	2.0	5	9.8	7	13.7	

Vessels	0	0	2	3.9	1	2.0	
Type of houses							χ^2=1.798 d.f=4 p=0.773 N.S
Roof house	2	3.9	13	25.5	14	27.5	
Apartment	1	2.0	3	5.9	5	9.8	
Terraced	0	0	5	9.8	8	15.7	
Drainage facilities							χ^2=0.349 d.f=2 p=0.840 N.S
Closed type of drainage	3	5.9	20	39.2	25	49.0	
Open type of drainage	0	0	1	2.0	2	3.9	

*****p≤0.001, S – Significant, N.S – Not Significant**

The table 6 shows that the demographic variable marital status (□2=22.563, p=0.0001) had statistically significant association with level of knowledge regarding dengue fever among women at p≤0.001 level and the other demographic variables did not show statistically significant association with level of knowledge regarding dengue fever among women at p<0.05.

Table 7: Association of level of attitude regarding dengue fever among womenwith their selected demographic variables.

Demographic Variables	**Low**		**Moderate**		**High**		**Chi-SquareTest & p- value**
	F	**%**	**F**	**%**	**F**	**%**	
Age in years							χ^2=1.922 d.f=6 p=0.927 N.S
20 – 25	1	2.0	1	2.0	6	11.8	
26 – 30	1	2.0	4	7.8	10	19.6	
31 – 35	0	0	2	3.9	7	13.7	
36 – 40	2	3.9	5	9.8	12	23.5	
Marital status							χ^2=3.755 d.f=4 p=0.440 N.S
Married	3	5.9	11	21.6	33	64.7	
Unmarried	0	0	0	0	1	2.0	

Divorce	-	-	-	-	-	-	
Widow	1	2.0	1	2.0	1	2.0	
Educational level							
Primary level	2	3.9	5	9.8	9	17.6	χ^2=4.396 d.f=4 p=0.355 N.S
Secondary level	2	3.9	4	7.8	10	19.6	
Diploma, degree and above	0	0	3	5.9	16	31.4	
Occupation							
Employee	0	0	2	3.9	8	15.7	χ^2=3.224 d.f=4 p=0.521
Daily workers	0	0	3	5.9	5	9.8	

*****p≤0.001, S – Significant, N.S – Not Significant**

The table 7 shows that the demographic variables did not show statistically significant association with level of attitude regarding dengue fever among women atp<0.05.

Table 8: Association of level of practice regarding dengue fever among womenwith their selected demographic variables.

Demographic Variables	Poor		Moderate		Good		Chi-Square Test & p- value
	F	%	F	%	F	%	
Age in years							
20 – 25	0	0	5	9.8	3	5.9	χ^2=3.247 d.f=6 p=0.777 N.S
26 – 30	0	0	12	23.5	3	5.9	
31 – 35	1	2.0	6	11.8	2	3.9	
36 – 40	1	2.0	14	27.5	4	7.8	
Marital status							
Married	1	2.0	34	66.7	12	23.56	χ^2=8.182

Unmarried	0	0	1	2.0	0	0	d.f=4 p=0.085 N.S
Divorce	-	-	-	-	-	-	
Widow	1	2.0	2	3.9	0	0	
Educational level							
Primary level	0	0	12	23.5	4	7.8	χ^2=1.240 d.f=4 p=0.872 N.S
Secondary level	1	2.0	12	23.5	3	5.9	
Diploma, degree and above	1	2.0	13	25.5	5	9.8	
Occupation							
Employee	1	2.0	6	11.8	3	5.9	χ^2=2.385 d.f=4 p=0.665 N.S
Daily workers	0	0	7	13.7	1	2.0	
Housewife	1	2.0	24	47.1	8	15.7	
Monthly income							
0 – 12500 pm	1	2.0	28	54.9	6	11.8	χ^2=7.547 d.f=4 p=0.110 N.S
12500 – 25000 pm	1	2.0	8	15.7	3	5.9	
25000 – 60000 pm	0	0	1	2.0	3	5.9	
60000 – 150000 pm	-	-	-	-	-	-	
Type of family							χ^2=5.037 d.f=2 p=0.081 N.S
Joint	0	0	10	19.6	7	13.7	
Nuclear	2	3.9	27	52.9	5	9.8	
Source of water							χ^2=1.179 d.f=2 p=0.555 N.S
Corporation	1	2.0	22	43.1	5	9.8	
Ground water	1	2.0	15	29.4	7	13.7	
Water storage system							

Drum	1	2.0	18	35.3	3	5.9	χ^2=7.137 d.f=6 p=0.308 N.S
Sintex tank	1	2.0	6	11.8	6	11.8	
Cement tank	0	0	11	21.6	2	3.9	
Vessels	0	0	2	3.9	1	2.0	
Type of houses							χ^2=3.055
Roof house	1	2.0	19	37.3	9	17.6	d.f=4 p=0.549 N.S
Apartment	0	0	8	15.7	1	2.0	
Terraced	1	2.0	10	19.6	2	3.9	
Drainage facilities							χ^2=3.222 d.f=2 p=0.190 N.S
Closed type of drainage	2	3.9	36	70.6	10	19.6	
Open type of drainage	0	0	1	2.0	2	3.9	

N.S – Not Significant

The table 8 shows that the demographic variables did not show statistically significant association with level of practice regarding dengue fever among women atp<0.05.

DISCUSSION:

The study found that 37.3% of women were aged between 36-40 years, 92.2% were married, 37.3% held a diploma/degree or higher, 64.7% were housewives, and 68.6% had a monthly income between ₹0-12,500. Additionally, 66.7% belonged to nuclear families, 54.9% had corporation water, 43.1% used drums for water storage, 56.9% lived in roof houses, and 94.1% had closed drainage systems. In terms of knowledge, 52.9% of women had adequate knowledge about dengue fever, 41.2% had moderately adequate knowledge, and 5.9% had inadequate knowledge. Regarding attitude, 68.7% had a high attitude, 23.5% had a moderate attitude, and 7.8% had a low attitude towards dengue fever. In terms of practice, 72.5% had moderate practice, 23.5% had good practice, and 3.9% had poor practice regarding dengue fever. The mean knowledge score was 7.39±1.49, attitude score was 20.49±3.27, and practice score was 7.66±2.39. A mild positive correlation was found between knowledge and attitude (r=0.336), knowledge and practice (r=0.03), and attitude and practice (r=0.427), all statistically significant at $p<0.01$ and $p<0.05$ levels. Marital status showed a significant association with the level of knowledge (χ^2=22.563, p=0.0001), while other demographic variables did not show a significant association with knowledge, attitude, or practice at $p<0.05$. These results indicate that knowledge about dengue fever influences both attitude and practice, with marital status being a significant factor in knowledge levels.

CONCLUSION

This study shows that there was a adequate knowledge, high attitude and moderate practice regarding dengue fever in community. we have to-create more awareness regarding dengue fever.

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