



# A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE REGARDING DENGUE FEVER AMONG ADULTS RESIDING IN CHINTHALACHENU URBAN SLUM AREA AT TIRUPATI

## Community Medicine

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## ABSTRACT

**Introduction:** Dengue fever is a viral infection common throughout the tropical regions of the world. It is caused by an "Arbovirus" of the genus flavivirus with four serotypes Dengue virus 1 (DENV-1), Dengue virus 2 (DENV-2), Dengue virus 3 (DENV-3), and Dengue virus-4 (DENV-4).

### Objectives:

- To assess the Pre-test level of knowledge and practice regarding Dengue Fever.
- To assess the post-test level of knowledge and practice regarding Dengue Fever after Structured teaching programme.
- To find the association between the pre-test and post-test level of knowledge regarding Dengue Fever.
- To find the association between the pre-test and post-test level of practice regarding Dengue Fever.
- To find the association between the pre-test level of knowledge with selected Demographic variables.

**Methodology:** Non-probability Quantitative research Approach Design was adopted by choosing 30 samples. **Results:** The results of the study reveals that in pre-test knowledge and practice regarding Dengue fever among 30 respondents, 16(94.1%) had poor knowledge and practice, 8(61.5%) respondents had poor knowledge and average practice, 5(38.5%) respondents had average knowledge and practice and remaining 1(5.9%) respondent had average knowledge and poor practice. In post- test knowledge and practice regarding Dengue Fever among 30 respondents, 28(93.3%) had good knowledge and practice and remaining 2(6.7%) respondents had good knowledge and average practice. There was a significant association between the pre- test and post- test knowledge and practice scores regarding Dengue Fever among 30 respondents, the obtained 't' value regarding knowledge and practice was -30.534 and -21.904 respectively, it was highly significant at  $p < 0.05$  which indicates that the Structured teaching programme on knowledge and practice regarding Dengue Fever among adults was effective.

## KEYWORDS

dengue fever, knowledge, practice, adults.

### INTRODUCTION:

Communicable diseases have affected human life even since earlier time. Among all other communicable diseases the vector borne diseases are still dominating a constitute a major public health issue. These diseases arise because of environmental changes that are caused by human activities and geographical conditions. Dengue fever is one of the major communicable diseases.

Dengue fever is a viral infection common throughout the tropical regions of the world. The term "Dengue" is a Spanish attempt at the swahilli phrase "kidengapepo" meaning cramp – like seizure caused by an evil spirit". Dengue is an acute, febrile viral illness caused by an "Arbovirus" of the genus flavivirus with four serotypes dengue virus 1 [DENV-1], Dengue Virus 2 [DENV-2], Dengue virus 3 [DENV-3] and Dengue virus 4 [DENV-4].

Dengue virus affects both sex and all ages. In the South East Asia, where Dengue is hyperendemic, dengue hemorrhagic fever usually affects children younger than 15 years

The Ministry of Health and Family Welfare reported that, in the year 2017, the highest incidence of Dengue fever was estimated in the state of "Tamil Nadu" about 23,035 cases and 63 Deaths were recorded. Then the second highest incidence of Dengue Fever reported. In the state of "Kerala", about 19,912 cases and 37 deaths were reported. Karnataka is the third most region of having fever reported about 17,018 cases and 5 deaths were reported.

In 2018, the Andhra Pradesh state Health Ministry reported dengue fever cases as 2,642 cases in Guntur, Prakasam, Nellore and Chittoor districts.

Increase in number of Dengue fever cases in Tirupati and other major parts of Chittoor District creating worries to the Medical, Health and family welfare department. Number of positive cases were increasing every day and measures taken by local bodies to control mosquitoes was getting failed Microbiology department of "Sri Venkateswara Medical College", Tirupati confirmed 22 positive cases were recorded out of 78 samples collected for the month of March, 2018. In 2016 year, 166 Dengue positive cases were recorded in the City of Tirupati.

### OBJECTIVES:

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- To assess the post-test level of knowledge and practice regarding Dengue Fever after Structured teaching programme.
- To find the association between the pre-test and post-test level of knowledge regarding Dengue Fever.
- To find the association between the pre-test and post-test level of practice regarding Dengue Fever.
- To find the association between the pre- test level of knowledge with selected Demographic variables.

### METHODOLOGY:

**a) Research design:** The Quantitative research design was adopted

**b) Variables:** Demographic variables study variable. Age, gender, religion, mother tongue, marital status, educational status, occupational status, income, area of residence, previous knowledge, source of knowledge on dengue fever

**c) Setting of the study:** The study was conducted in the urban slum area of selected community setting of Chinthalachenu, Tirupati

**d) Population:** Accessible population consists of Adults who were residing in urban slum area of Tirupati.

**e) Sample size:** 30 adults who are residing at the urban slum area of selected community setting of Chinthalachenu, Tirupati.

**f) Sampling Technique:** Non probability convenient sampling technique was adopted

**g) Sample selection inclusion criteria:** The inclusion criteria Adults between the age group of 25 years to 40 years and who were resided in urban slum area of Chinthalachenu at Tirupati who were understand able to understand Telugu.

**h) Exclusion criteria:** The exclusion criteria were Children and old age peoples in the slum area of selected community at Tirupati.

**i) Development and description of tool:** The tool comprises of 3 parts. Part-1 deals with demographic variables of adults such as Age, gender, religion, mother tongue, marital status, educational status, occupational status, income, area of residence, previous knowledge, source of knowledge on dengue fever. Part-2 deals with structured Questionnaire on knowledge on Dengue Fever includes 21 questions

to assess the knowledge on dengue fever among adults each questions was given four options. Each correct answer was awarded score 1. Each incorrect answer was awarded score '0'. part-3 deals with Checklist on practice for prevention of Dengue Fever includes 18 yes/ no questions. Each correct answer was awarded score 1. Each incorrect answer was awarded score '0'.

## RESULTS

**Table.1: Frequency And Percentage Distribution Of All Demographic Variables N=30**

| S. No. | Demographic Variable |                        | Frequency | Percentage (%) |
|--------|----------------------|------------------------|-----------|----------------|
| 1.     | Age                  | a. 21 - 30 years       | 12        | 40.0           |
|        |                      | b. 31 - 40 years       | 18        | 60.0           |
|        |                      | c. 41 - 50 years       | 0         | 0.0            |
|        |                      | d. 51 - 60 years       | 0         | 0.0            |
| 2.     | Gender               | a. Male                | 17        | 56.7           |
|        |                      | b. Female              | 13        | 43.3           |
| 3.     | Religion             | a. Hindu               | 24        | 80.0           |
|        |                      | b. Muslim              | 6         | 20.0           |
|        |                      | c. Christian           | 0         | 0.0            |
|        |                      | d. Others              | 0         | 0.0            |
| 4.     | Mother Tongue        | a. Telugu              | 23        | 76.7           |
|        |                      | b. Hindi               | 7         | 23.3           |
|        |                      | c. Tamil               | 0         | 0.0            |
|        |                      | d. Others              | 0         | 0.0            |
| 5.     | Marital Status       | a. Married             | 26        | 86.7           |
|        |                      | b. Unmarried           | 4         | 13.3           |
|        |                      | c. Widow               | 0         | 0.0            |
|        |                      | d. Divorced            | 0         | 0.0            |
| 6.     | Educational status   | a. Illiterate          | 19        | 63.3           |
|        |                      | b. Primary Education   | 9         | 30.0           |
|        |                      | c. Secondary Education | 2         | 6.7            |
|        |                      | d. Graduate            | 0         | 0.0            |
|        |                      | e. Post graduate       | 0         | 0.0            |
| 7.     | Occupational status  | a. Cooli               | 30        | 100.0          |
|        |                      | b. Private             | 0         | 0.0            |
|        |                      | c. Government Employee | 0         | 0.0            |
|        |                      | d. Unemployee          | 0         | 0.0            |

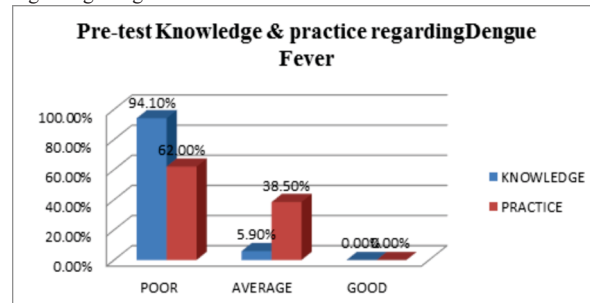
Out of 30 respondents, around 60% (18/30) respondents were belongs to 31 - 40 years age group and the rest of 40% (12/30) respondents were belongs to 21 - 30 years age groups. Out of 30 respondents around 56.7% (17/30) respondents were Male and the rest 43.3% (13/30) respondents were Female. Out of 30 respondents 80% (24/30) were Hindu and 20% (6/30) were Muslim. Out of 30 respondents around 76.7% (23/30) were Mother tongue of Telugu, 23.3% (7/30) were Mother tongue of Hindi. Out of 30 respondents around 86.7% (26/30) were married, 13.3% (4/30) were unmarried. Out of 30 respondents around 63.3% (19/30) were illiterate, 30% (9/30) were Primary Education, and 6.7% (2/30) are Secondary Education. Out of 30 respondents all were Cooli. Out of 30 respondents around 93.3% (28/30) were under 10,000 - 15,000/- income and 6.7% (2/30) were under 15,001 - 25,000/-income. Out of 30 respondents all were belongs to urban slum.

**Table 2: Frequency & Percentage Distribution Of Pre-test Level Of Knowledge And Practice Regarding Dengue Fever N=30**

|                                          |         | Pre-test level of knowledge |         |         |         |       |         | Chi-square value | Significant value (P-value) |
|------------------------------------------|---------|-----------------------------|---------|---------|---------|-------|---------|------------------|-----------------------------|
|                                          |         | Poor                        |         | Average |         | Good  |         |                  |                             |
|                                          |         | Count                       | Row N % | Count   | Row N % | Count | Row N % |                  |                             |
| Pre-test practice regarding Dengue Fever | Poor    | 16                          | 94.1%   | 1       | 5.9%    | 0     | 0.0%    | 4.887            | 0.027 S                     |
|                                          | Average | 8                           | 61.5%   | 5       | 38.5%   | 0     | 0.0%    |                  |                             |
|                                          | Good    | 0                           | 0.0%    | 0       | 0.0%    | 0     | 0.0%    |                  |                             |

Out of 30 respondents 94.1% (16/30) respondents had poor knowledge and practice, 61.5% (8/30) respondents had poor knowledge and average practice, 38.5% (5/30) respondents had average knowledge and practice, and remaining 5.9% (1/30) had

average knowledge poor practice in Pre-test regarding Dengue Fever. Up on applying the Chi-Square test the observed P-value was significant at  $P < 0.05$  (i.e., 0.027). It indicates that there was association between pre -test level of knowledge and practice regarding Dengue Fever.



**Table 3: Frequency & Percentage Distribution Of Post -test Level Of Knowledge And Practice Regarding Dengue Fever After Structured Teaching Programme. N=30**

|                                           |         | Post-test level of knowledge |      |         |      |      |       |
|-------------------------------------------|---------|------------------------------|------|---------|------|------|-------|
|                                           |         | Poor                         |      | Average |      | Good |       |
|                                           |         | F                            | %    | F       | %    | F    | %     |
| Post-test practice regarding Dengue Fever | Poor    | 0                            | 0.0% | 0       | 0.0% | 0    | 0.0%  |
|                                           | Average | 0                            | 0.0% | 0       | 0.0% | 2    | 6.7%  |
|                                           | Good    | 0                            | 0.0% | 0       | 0.0% | 28   | 93.3% |

Structured Teaching Programme was conducted on knowledge and Practice regarding Dengue fever among 30 respondents who were resided in urban slum. out of 30 respondents 28(93.3%) had good knowledge and practice and remaining 2(6.7%) respondents had good knowledge and average practice in Post-test regarding Dengue fever.

**Table 4 Effectiveness Of Structured Teaching Programme On Practice Regarding Dengue Fever N=30**

|                     | N  | Mean  | Standard Deviation | T- Value | P-Value (<0.05) |
|---------------------|----|-------|--------------------|----------|-----------------|
| Pre-test practice   | 30 | 6.13  | 2.030              | -21.904  | < 0.000         |
| Post -test practice | 30 | 14.90 | 1.242              |          |                 |

The Paired sample t-test the observed P-value was significant at  $P < 0.05$ . It indicates that there was effectiveness in Structured Teaching Programme (STP).

## DISCUSSION

The present findings also revealed that there was effectiveness of Structured teaching programme on knowledge and practice regarding Dengue Fever among adults resided in urban slum and there was no significant between calculation values and percentage values of Demographic variables of Age, Gender, Religion, Mother Tongue, Marital status, Educational status, Occupational status, Income per annum in rupees and Area of residence. Percentage values were less than calculating values so there was no significant.

**First objective** was to identify the pre-test level of knowledge and practice among adults out of 30 adults 16 (94.1%) respondents had poor knowledge and practice 8(61.5%) respondents had poor knowledge and average practice 5(38.5%) respondents had average knowledge and practice and remaining 1(5.9%) respondent had average knowledge and poor practice regarding Dengue Fever.

**Second objective** was to know the post-test level of knowledge and practice among adults out of 30 adults 28 (93.3%) had good knowledge and practice and remaining 2(6.7%) respondents had good knowledge and average practice regarding Dengue Fever.

**Third objective** was to know the effectiveness of Structured teaching programme. The obtained 't' value was -30.534, it was highly significant at  $p < 0.05$ . It indicates that the Structured teaching programme was more effective on knowledge and practice regarding Dengue Fever among adults resided in urban slum.

## CONCLUSION:

The conclusion drawn from this study was that there was effectiveness of Structured teaching programme on knowledge and practice regarding Dengue Fever. The 'p' value was observed as 0.000 which was interpreted as significant at  $p < 0.05$  after applying paired 't' test. It

indicates that there was effectiveness in Structured Teaching programme. The study reveals that the participants were gained in-depth knowledge regarding Dengue Fever and also improved their practice levels regarding prevention of Dengue Fever.

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