

# A Study to Evaluate the Effectiveness of Structure Teaching Programme on Knowledge Regarding Prevention of Dengue Fever among Adults (20-40 Years) in Selected Rural Area, Nashik (M.S)

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**Abstract:** *The research approach used was evaluative approach. The research design selected for the study was a quasi-experimental design. The setting was selected rural areas of Maharashtra. The sample includes 60 adults (20-40 years), sampling technique was used simple random sampling. The Structured interview technique was used to collect data from samples. The pilot study was conducted with 6 samples. Reliability was established by Guttamann split-half method. Data was analysed by using descriptive and inferential statistics. Results: Majority of 22 (36.67%) subjects were between age group of 20-25 years. Majority 31 (51.67%) of subjects were females. Majority 37 (61.67%) of subjects belongs to joint families. Majority 21 (35.00%) of subjects belongs to secondary educational group. Majority 26 (43.33%) were unemployed. Majority 27 (45.00%) of subjects have monthly income 8001-10,000. Majority 59 (98.33%) of subjects have open drainage system. Majority 39 (65.00%) of subjects were not having any source of information. Highly significance difference found between the pre-test and post-test knowledge scores at the level of ( $P < 0.05$ ). Structure teaching programme is proved to be effective in improving the knowledge of adults (20-40 years) at selected rural areas regarding prevention of dengue fever.*

**Keywords:** effectiveness, structure teaching programme, prevention, dengue fever, Adult

## 1. Introduction

Health is a common theme in most culture or community in fact all the community has their concept of health. Health is a fundamental human right and worldwide social goal that the health is essential to be satisfaction of basic human needs and to improve the quality of life. Health is resulting from total functioning of the individual that empower him to achieve personal and social satisfaction.

Good health is a prerequisite of human productive and developmental process. It is essential to economic and technological development. If there is any change in an individual's physical, economical, intellectual, social, developmental or spiritual functioning, will result in diminished health. Nowadays so many communicable diseases are affecting people. Mosquito borne diseases are a major communicable disease.

The origins of the word Dengue are not clear, but one theory is that it is derived from the Swahili phrase "Kadinga pepo", meaning "Cramp-like seizure caused by an evil spirit". The Swahili word "Dinga" may possibly have its origin in the Spanish word "Dengue" meaning fastidious or careful, which would describe the gait of a person suffering the bone pain due to Dengue fever.

Dengue has become a serious health issue worldwide. Out of six vector borne diseases dengue is a type of infection that spreads through a vector known as *Aedes aegypti*, which is recognized by typical white patches on the body of the mosquito. The virus belongs to a member of the genus *flavi-virus* within family *flaviviridae*; it is a positive strand RNA virus.

## 2. Literature Survey

Ashwinikumar et al (2009) conducted to study "the clinical manifestation, trends and outcome of all confirmed dengue cases admitted in a tertiary care hospital," the study included 466 patient's, majority were male (301) and in the age group of 15-44 years (267), results shows that the most common presentation was fever 462 (99.1%), followed by myalgia 301 (64.6%), vomiting (47.6%), headache 222 (47.6%) and abdominal pain 175 (37.6%), the most common hemorrhagic manifestation was *patechiae* 84 (67.2%), 391 (83.9%) cases presented with dengue fever, 41 (8.8%) with dengue hemorrhagic fever, and 34 (7.3%) with dengue shock syndrome. Conclude that community awareness, early diagnosis and management and vector control need to be strengthen.

Gupta P, Kumar P, Aggarwal O.P., et al (1998). A study was conducted to "assess the knowledge and attitudes about dengue and practice of prevention followed by the residents of a rural area and an urban resettlement colony of east Delhi." It was an interview based cross sectional study. A pre structured and pre tested format containing the relevant questions were administered to the subjects. A total of 687 subjects (334 rural and 353 urban) were interviewed. Nearly four fifth (82.3%) of these were aware of dengue. Audiovisual media was the most common source of information in both the areas. Knowledge about the disease was fair to good. Fever was the commonest symptom of the disease known to 92% urban and 83% rural respondents followed by symptoms of bleeding and headache, mosquito was known to spread the disease to 71% rural

and 89% urban respondents. The result shows that More than two third respondents in urban and two fifth in rural areas had used some method of mosquito control or personal protection during the epidemic.

**Joshi P. et al (2000)** conducted “Epidemiological and Entomological investigations in seven affected village s of Ahmadabad district”. It shows that all age groups and both the genders were affected. 33.33% bloods samples of patients showed seropositive suggesting dengue infection. Similarly, Dengue virus antigen was detected in 7 females, Aedes Aegypti out of 2 Males and 26 females tested by indirect immunofluorescent technique. The findings suggest the outbreak of dengue fever occur in that area.

**Kumar A, et al (2000)** a study was conducted on an “outbreak of dengue fever in rural areas of northern India”. They experienced an outbreak of febrile illness. A total of 13 villages in eight affected primary health canters reported fever cases. The etiological agent of the current outbreak, the DEN-2 virus, was isolated from 12 acute-phase sera specimens. Though, in the recent past outbreaks have been reported from the rural areas of southern and western India, the present episode is the first outbreak being reported from the rural areas of northern India. It indicates that increasing frequency of dengue fever outbreaks in rural areas of various Indian states reflects the changing life style of the rural population.

**Kumar K.R. & Gururaj G (2000)**;A study conducted on “community perception regarding mosquito borne diseases in Karnataka India.” The study indicates that more than 90% of the people interviewed perceived mosquitoes as a problem. However this perception was with regard to the nuisance value of mosquito bite rather than disease causing potential. Quite a large number of people did not know where the mosquitoes bred. More than one third of the interviewees did not know of any preventive measures against mosquitoes at the community level. Conclude that Approaches based on social mobilization and communities aimed at bringing behavior change in the communities are stressed.

**Sales FM., et al (2002)** a study conducted on “dengue epidemic in the State of Rio de Janeiro. At that time, health authorities encouraged community participation in the elimination of vector breeding sites.” For this campaign, a great quantity of information about the disease was extensively publicized in order to guide the population's preventive action. This paper analyzed the three pamphlets most widely distributed at that time in Rio de Janeiro city considering that this information contributed to the construction of disease representation and its prevention. It was observed that even though this information was provided repeatedly it must be revised.

### 3. Problem Definition

A Study To Evaluate The Effectiveness Of Structure Teaching Programme On Knowledge Regarding

Prevention Of Dengue Fever Among Adults (20-40years) In Selected Rural Area”.

Objectives

1. To evaluate the pre -test level of knowledge regarding prevention of dengue fever among the Adults (20 to 40 years) in selected rural area.
2. To evaluate post- test level of knowledge regarding prevention of dengue fever among the adults (20 to 40 Years) in selected rural area.
3. To determine the effectiveness of structure teaching programme regarding prevention of dengue fever among the adults (20 to 40 years) in selected rural area.

### 4. Methodology

Methodology of research organizes all components of the study in a way that most likely to lead to a valid answer to the sub problems that have been posed. Methodology of research indicates the general pattern for organizing the procedure for empirical study together with the method of obtaining valid and reliable data for investigation. Research method refers to steps, procedures and strategies for gathering and analyzing data in research involved. The research methodology is a way to structure a study and to gather and analyze information in a systematic fashion (Polit D.F. & C. T., 2009). Research approach is an umbrella that covers the basic procedure for conducting research. Research approach used for this was quantitative approach. A quasi experimental method, one group pre and post-test Research design was used for the present study to determine the effectiveness of structured teaching programme on knowledge regarding prevention of dengue fever among the adults (20-40 year) of selected rural area. The sample size is **60 adults (20 to 40 years) (male & female)** of selected rural area.

### 5. Result

With the finding 22 (36.67%) people were between age group of 20-25 years, 16 (26.67%) belongs to the age group of 26-30years, 10 (16.67%) belongs to age group of 31-35 years, 12 (20.00%) belongs to age group of 36-40 years. 31 (51.67%) of subjects were female and the rest 29 (48.33%) were males. 37 (61.67%) of adults belongs to joint families, 22(36.67%) belongs to nuclear families and 1 (1.67%) belongs to extended family. 21 (35.00 %) of subjects belongs to secondary educational group, 20 (33.33%) belongs to higher secondary educational group, 17 (28.33%) belongs to graduate. 2(3.33%) belongs to primary educational group and no were illiterate. 26 (43.33%) were unemployed, 15 (25.00%) have self –business, 9 (15.00%) have private service, 6(10.00%) were farmer and 4 (6.67%) have government service, 27 (45.00%) of adults have monthly income 8001-10,000 and more , 21(35.00%) have monthly income <2000-4000, 9 (15.00%) have monthly income 4001-6000, 3 (5.00%) have monthly income 6001-8000. Nearly 59 (98.33%) of adults have open drainage system in their house and 1(1.67%) have closed

drainage system. 39(65.00%) of were not having any source of information, 16 (26.67%) were having information from Television / Radio, 4 (6.67%) were having information from News Paper / Magazines, 1(1.67%) was having information from health personal, 0(0.00%) from educational books, 0(0.00%) from Relatives/ Friends. Majority 37 (52%) of the adult in pre- test having poor knowledge regarding prevention of dengue fever, 22(36.67%) had average Knowledge and 1(1.67%) had good knowledge regarding prevention of dengue fever. Majority 45 (75.0%) of the subject in post- test had average knowledge regarding prevention of dengue fever, 15 (25.05%) of the subject had good knowledge regarding prevention of 0 (0.00%) had poor knowledge regarding prevention of dengue fever, dengue fever. Demographic variables such as type of family, educational status and occupation are having association with pre -test and post- test level knowledge about prevention of dengue fever and demographic variables such as age, gender, monthly income, drainage system, source of information were not having association between pre-test level of knowledge about prevention of dengue fever. Highly significance difference found between the pre -test and post- test knowledge scores at the level of ( $P < 0.05$ ). Structure teaching programme is proved to be effective in improving the knowledge of adults (20-40 years) at selected rural areas regarding prevention of dengue fever.

## 6. Interpretation and Conclusion

The data were analysed by applying descriptive and inferential statistics. The result of the study indicated that adults (20-40 years) of rural areas having poor knowledge before the intervention and after intervention there was an improvement in the knowledge and they gain good knowledge about prevention of dengue fever. The findings of the present study showed that, the post-test knowledge score was higher than the pre-test knowledge score range. The hypothesis are proved and accepted.

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