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A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME REGARDING DENGUE FEVER AND ITS PREVENTION AMONG MOTHERS OF UNDER-FIVE CHILDREN IN SELECTED ANGANWADI SCHOOLS, KARUMAVILAI, KARUNGAL

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ABSTRACT

The terms "dengue" is a Spanish attempt at the Swahilli phrase "Ki dengapepo" 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 DEN-1, dengue virus 2 DEN-2 dengue virus 3 DEN-3 and dengue virus 4 DEN-4. The earliest reports of a dengue –like disease are from Chin Dynasty China 265-420 AD. Japanese scientist first identified the virus in 1943. By 1956 the four serotype of the virus were indentified and every outbreak of the disease since has been due to virus belonging to one of the four serotypes.In this study pre- experimental research design (one group pre-test and post-test design) is used.The study findings revealed that there is significant association between the levels of knowledge scores among mothers with their demographic variables like age .It was inferred that the age of mothers has statistically significant association with the knowledge level. Hence the stated hypotheses H2 were accepted.The main conclusion drawn from this study was that most of the children had inadequate, moderately adequate and adequate knowledge. After STP, level of knowledge was increased significantly. The present study revealed that there was inadequate knowledge for the mothers regarding dengu fever and its prevention But STP improves the knowledge.

Key words: Dengue Fever, KAP Study, Children.

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INTRODUCTION

The terms "dengue" is a Spanish attempt at the Swahilli phrase "Ki dengapepo" meaning "cramp-like seizure caused by an evil spirit"[1]. Dengue is an acute, febrile viral illness caused by an arbovirus of the genus flavivirus with four serotypes dengue virus 1 DEN-1,dengue virus 2 DEN-2 ,dengue virus 3 DEN-3 and dengue virus 4 DEN-4. The earliest reports of a dengue –like disease are from Chin Dynasty China 265-420 AD. Japanese scientist first identified the virus in 1943. By 1956 the four serotype of the virus were indentified and every outbreak of the disease since has been due to virus belonging to one of the four serotypes[2].

Dengue viruses affect both sexes and all ages .In the South East Asia where dengue is hyperendemic ,dengue haemorrhagic fever usually affects children younger than 15 years Dengue Haemorrhagic fever ,a potentially lethal complication, was recognized during the 1950s and is today a leading cause of childhood mortality in several Asian countries . Dengue viruses are transmitted to humans through the bites of infective female Aedesmosquitoes[3]. The virus circulate in the blood of infected humans for 2-7 days.In children the most

common symptoms are fever, real throat, cough and mild gastrointestinal symptoms, and a usually mild runny nose[4]. At present , the only method of controlling or preventing dengue and dengue haemorrhagic fever is to combat the vector mosquitoes.Without proper treatment, dengue haemorrhagic fever case fatality rate cab exceed 20% with modern intensive supportive therapy, the rate can be reduced to less 1%.

Problem Statement

A study to evaluate the effectiveness of structured teaching programme regarding dengue fever and its prevention among mothers of under-five children in selected Anganwadi schools,karumavilai ,karungal"[5-7]

Objective of the Study:

1. To assess the knowledge among mothers of under five children regarding dengue fever.
2. To develop and conduct structured teaching programme.
3. To evaluate the effectiveness of structured teaching programme by post test knowledge score.
4. To find the association between the knowledge scores and selected demographic variables[8-12].

Research approach:

Research approach is the most significant part of any research. The appropriate choice of the research approach depends upon the purpose of the research study which has been undertaken in order to accomplish the main objectives of the study. An evaluative approach is used in this study [13].

Research design:

In this study pre- experimental research design (one group pre-test and post-test design) is used.

- O_1-pre test, knowledge on dengue fever and its prevention
- X-(intervention) STP
- O_2- post test, knowledge on dengue fever and its prevention

Population

- According to Polit&Hungler (2005) Population refers to the totality or aggregate of all individuals with the specified characteristics
- The population included in the present study is the mothers of under –five children [14].

Sample

- Polit&Hungler defines sample as the subset of the population selected to participate in the research study.
- The total sample size consists of 50 mothers of under–five children in selected Anganwadi schools , karungal

Sampling criteria

The following were the inclusive and exclusive criteria for selection of the sample
Inclusion criteria for sampling

SAMPLING CRITERIA:

Inclusion Criteria

- Mothers accompanying with under- five children to Anganwadi Schools
- Mothers of under-five children who are willing to participate in the study
- Mothers of under-five children who can understand and speak Tamil and English or Malayalam

Exclusion Criteria

- Mothers who are not available at the time of data collection

Sampling technique:

- Polit and Hungler (2001) state that the process of selecting a portion of population is to represent the entire population.
- Non–probability, purposive sampling technique will be used[15].

Demographic variables of children

Table 1: The diagrammatic representation of research design.

Group	Pre-Test	Nursing Intervention	Post Test
Mothers of under five	O_1	x	O_2

Table 2: Frequency and percentage distribution of demographic variables of mothers of under five with age, type of family, education, occupation,religion. **N=30**

S NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE %
1	Age		
	20-25	12	40
	26-30	8	27
	31-35	10	33
2	Education		
	Illiterate	20	67

	Primary	5	17
	High school	3	10
	Degree	2	7
3	Occupation		
	Coolie	7	23
	Self employed	5	17
	Private	3	10
	Government	6	20
	Home maker	9	30
4	Type of family		
	Joint	14	47
	Nuclear	16	53
5	Religion		
	Hindu	12	40
	Christian	9	30
	Muslim	3	10
	Others	6	20

Table 3: Frequency and percentage distribution of knowledge regarding dengue fever and its prevention before STP, n=30

Level of Knowledge	**Classification of Respondents**	
	Pre test	
	Number	**Percentage**
Inadequate(<0-40%of score)	19	63
Moderate (41-60% of score)	6	20
Adequate (>61 % of score)	5	17
Total	30	100

Table 3 shows that the level of knowledge score is 19(63%) for inadequate knowledge, 6(20%) for moderately adequate knowledge, and 5(17%) for adequate knowledge.

Table 4: Frequency and percentage distribution of knowledge regarding dengue fever and its prevention after STP, n=30

Level of Knowledge	**Classification of Respondents**	
	Post test	
	Number	**Percentage**
Inadequate (<0-40% of score)	2	7
Moderate (41-60% of score)	5	16
Adequate (>61 % of score)	23	77
Total	30	100

Table 4 shows that the level of knowledge score is 2(7%) for inadequate knowledge, 5(16%) for moderately adequate knowledge and 23(77%) for adequate knowledge.

Table 5: Mean Standard Deviation and independent "t" test value of level of regarding dengue fever and its prevention before & after STP, n=30

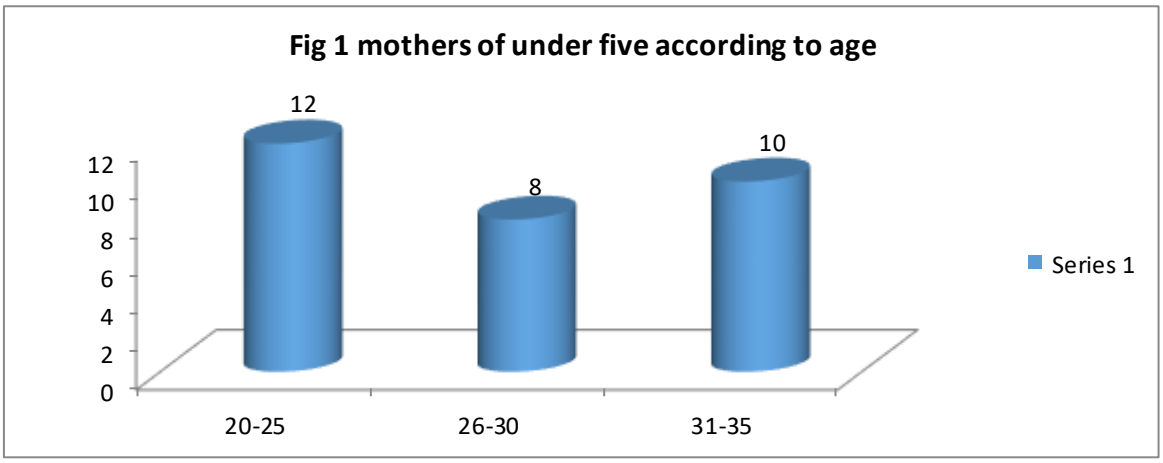
S NO	Level of knowledge and practice on oral health	Mean	Standard deviation	"t" Test value
1	Post Test	9.98	3.27	
2	Pre Test	4.65	3.02	9.318*

*** Significant at level p<0.05**

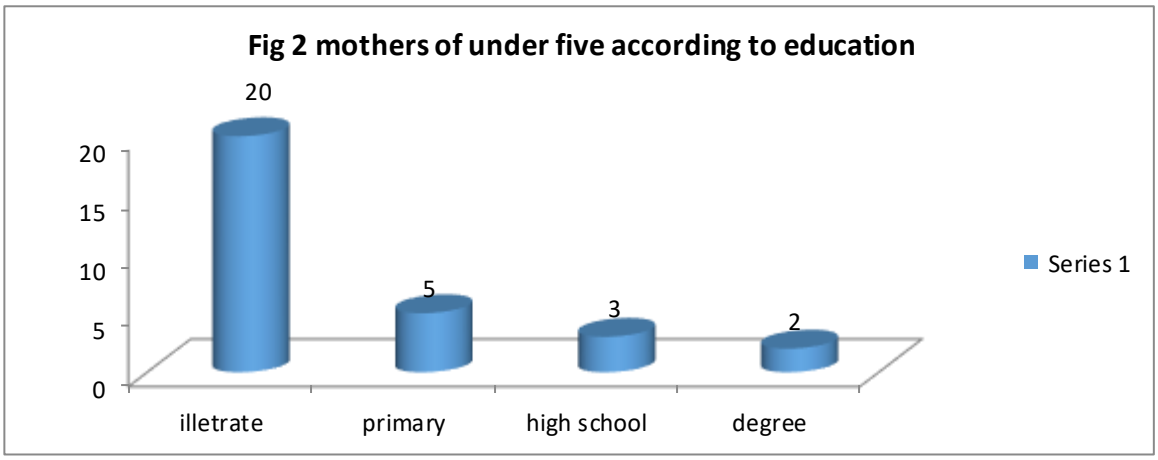
Table 5 shows that the mean value for the post test is 9.98 and the standard deviation is 3.27 and the mean pre test value is 4.65 and standard deviation is 3.02. The tabulated "t" value is 1.77 and the obtained "t" value is 9.318, it is significant at p<0.05 level. H1 is accepted.

H1 :There will be a significant difference between mean post-test knowledge score and mean pre-test knowledge score of selectedmothers of underfive children[16].

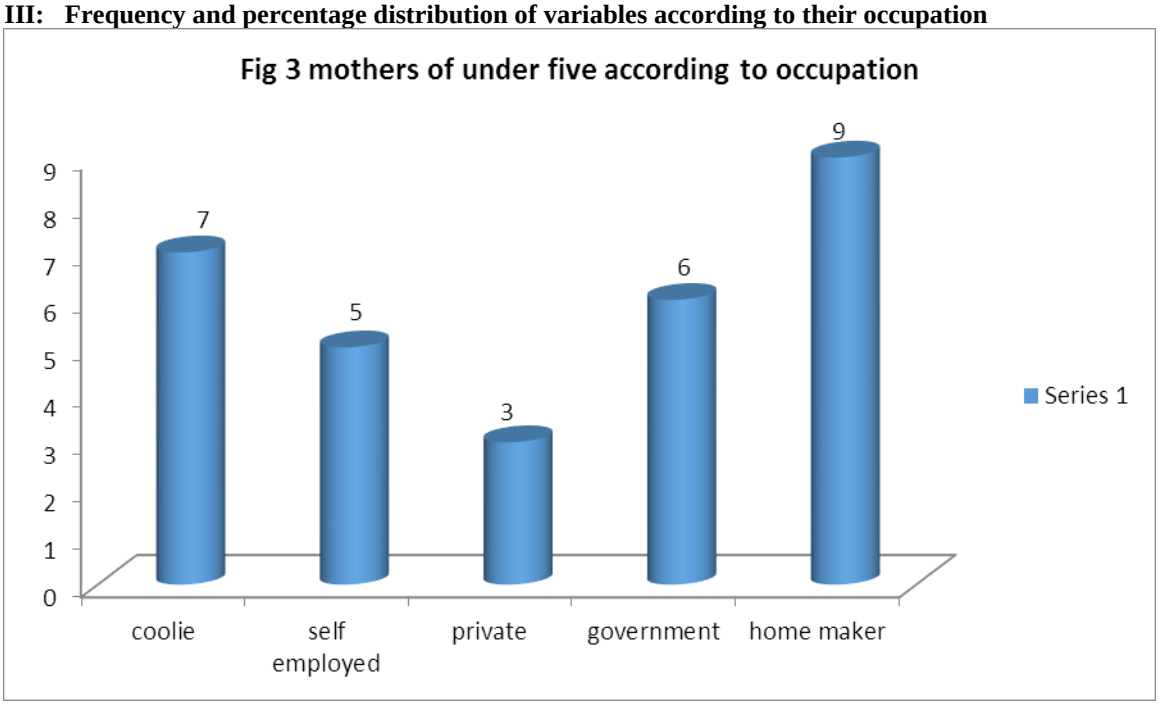
GRAPH 1: Frequency and percentage distribution of variables according to their age



GRAPH II: Frequency and percentage distribution of variables according to their education



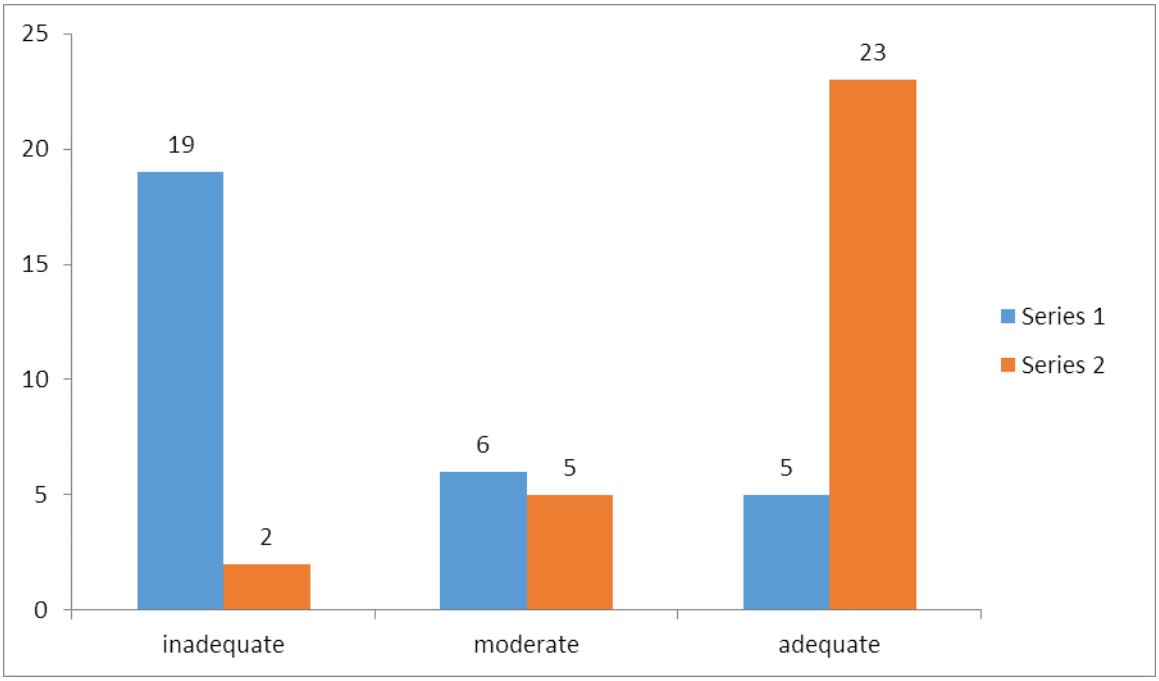
GRAPH III: Frequency and percentage distribution of variables according to their occupation



Section II:

Assessment of knowledge regarding dengue fever and its prevention before and afterSTP

GRAPH IV: Mean Standard Deviation and independent "t" test value of level of knowledgeregarding dengue fever and its prevention before & after STP



DISCUSSION:

The aim of the present study is to assess the effectiveness of STP on dengue fever and its prevention among mothers of under five in selected anganwadi .The study was conducted using pre -experimental one group pre testpost test design. .The sample size was 30, and the samples were selected using purposive sampling technique[17].

Structured interview questionnaire was prepared for the study. It consists of questions on knowledge regarding dengue fever and its prevention among The knowledge and practice level were analyzed using descriptive statistics (mean, standard deviation, frequency, percentage distribution) and inferential statistics (independent "t" test, chi –square test). Discussion and findings were arranged on objective of the study.

The first objective of the study was .to assess the knowledge among mothers of under five children regarding dengue fever

The mean value of pretest score is 4.65 and standard deviation is 3.02 and the level of knowledge score is 19(63%) for inadequate knowledge,6(20%) for moderately adequate and 5(17%) for adequate knowledge.

The second objective of the study is determining the effectiveness of STP among mothers of under five

The mean value of post test score is 9.98 and standard deviation is 3.27 and the level of knowledge score is 2(7%) for inadequate knowledge, 5(16%) for moderately adequate and 23(77%) for adequate knowledge[18].

The tabulated value is 1.77 and the obtained "t" 9.31 value is which is significant at $p<0.05$ level. Hence the stated hypotheses H_1 is accepted[19].

Thus it is inferred that STP was effective in improving knowledge among mothers of under five children regarding dengue fever

The third objective of the study is to find out the association between the levels of knowledge with their selected demographic variables through post- test.

The study findings revealed that there is significant association between the levels of knowledge scores among mothers with their demographic variables like age .It was inferred that the age of mothers has statistically significant association with the knowledge level. Hence the stated hypotheses H_2 were accepted.

Summary and recommendations:

This chapter presents a brief account of the present study. Conclusions are drawn from the findings and the implication of the results is started. It also includes recommendations for future research in this area[20].

Summary

The present study was done to to assess the effectiveness of structured teaching programme regarding dengue fever and its prevention among mothers of under-five children in selected Anganwadi

The objectives of the study were:

1. To assess the knowledge among mothers of under five children regarding dengue fever.

2. To develop and conduct structured teaching programme.
3. To evaluate the effectiveness of structured teaching programme by post test knowledge score.
4. To find the association between the knowledge scores and selected demographic variables [21].

Pre experimental one group pre testpost test research design was used to assess the effectiveness of.structured teaching programme regarding dengue fever and its prevention among mothers of under-five children in selected Anganwadi

Purposive sampling technique was adopted to select the samples based on inclusion and exclusion criteria. The total sample size was 30.

Data regarding demographic variables were collected from mothers of under-five. Structured interview questionnaire was used for the study .The tool consists of questionnaire on knowledge regarding dengue fever and its prevention. STP was given after pretest. After 7 days with same questionnaire post test was done.[22]

The collected data were analyzed by using both descriptive statistics (mean, standard deviation, frequency, percentage) and inferential statistics (independent "t" test and chi-square test) and results were drawn.

Major Study Findings

Major study findings of the study are:

The mean value for the post test is 9.98 and the standard deviation is 3.27 and the mean pre test value is 4.65 and standard deviation is 3.02. The tabulated "t" value is 1.77 and the obtained "t" value is 9.318, it is significant at $p<0.05$ level

CONCLUSION:

The main conclusion drawn from this study was that most of the children had inadequate, moderately adequate and adequate knowledge. After STP , level of knowledge was increased significantly.

The present study revealed that there was inadequate knowledge for the mothers regarding dengu fever and its prevention . But STP improves the knowledge.

Recommendations:

- The same study can be conducted in different settings such as schools, colleges, etc
- The study can be conducted in school children of any age.
- The study can be done in large samples.
- The study can be conducted as a descriptive study among school teachers to assess their knowledge on dengue fever and its prevention

REFERENCES

1. Raj. How to Prevent Dengue?. http://www.mtherald.com/how-to-prevent-dengue
2. OP. Ghai, Piyush Gupta, VK Paul. (2000). Essential Pediatrics. 5th Edition. New Delhi: Messrs. Arnold Heinemann; 188.
3. Dengue Fever: Essential data. The History and Natural History of Dengue Fever.
4. http://www.cbwinfo.com/biological/pathogons/DENV.htm.
5. Suzanne Moore Shepherd. (2007). *Dengue Fever. Nov*. 26. http://www.emedicine.com/med/byname/Dengue-Fever.htm.
6. Dengue and Dengue Hemorrhagic fever. http://www.sdnbd.org/dengue_fever.htm
7. WHO. (2000). Dengue/Dengue hemorrhagic fever. *Weekly Epidemiological Reports* 75, 24, 193-200.
8. Harris E, Videa E, Perez L. (2000). clinical Epidemiological and Virological features of dengue fever in the 1998 epidemic in Nicaragua. *Am J Trop Med and Hyg.* 63, 5-11.
9. Prevalence and Incidence of Dengu Fevers. http://www.wrongdiagnoses.com/d/dengue_fever/prevalence.htm
10. viajayakumar TS, Chandy S, Sathish N, Abraham M, Abraham P, Sridharan G. (2005). Is dengue emerging as a major public health problems ?. *Indian Journal Medical Research*. 121(2), 100-7.
11. 2006 Dengue outbreak in India. Date:01/09/2005 URL:http://www.thehindu.com/2005/09/01/stories/2005090113560300.htm
12. Ann Arbor. Background on dengue fever from the World Health Organisations Science Daily (July 31, 1997). http://www.sciencedaily.com/releases/1997/07/970731054942.htm
13. Beckett CG, Kosasih H, Tan R, Widjaya S, Listianingsih E, Ma ' roef C, Wuryadi S, Alisjahbana B, Rudiman I, McArdle JL, Porter KR. (2004). Enchancing knowledge and awareness of dengue during a prospective study of dengue fever. *Southeast Asian Journal Tropical Medical Public Health*. 35(3), 614 -7.
14. BT Basavanthappa. (2005). *Nursing Research*. New Delhi: Jaypee Publication, 49.
15. Ranjit S, Kessoon N, Jaya Kumar I. (2005). Aggressive Management of Dengue shock syndrome may decrease mortality rate. *Pediatric Critical Care Medical*. 6(4), 412-9.
16. Paramasivan R, Thenmozhi V, Hiriyan J, Dhananjeyan K, Tyagi B, Dash AP. (2006). Serological and entomological investigations of an outbreak of dengue fever in certain rural areas of Kanyakumari District, Tamil Nadu. *Indian Journal Medical Research*. 123(5), 697-701.
17. Caballero Hoyos R, Torres Lopez T, Chong Villarreal F, Pineda Lucatero A, Altuzar Gonzalez M, Lopez Coutino B. (2006). Cultural Conceptions on dengue in urban contexts in Mexico. *Rev Saude Publication*. 40(1), 126-33.

18. Kittayapong P, Chansang U, Chansang C, Bhumiratana A. (2006). community participation and appropriate technologies for dengue vector control at transmission foci in Thailand. *Journal America Mosquitoes control associations*. 22(3), 538-46.
19. Favier C, Degallier N, VilarinhosPde T, de CarvalhoMdo S, Yoshizawa MA, Knox MB. (2006). Effects of climate and different management stratergies on Aedesaegypti breeding sites. *Tropical Medical International Health*. 11(7), 1104-18.
20. Kabilan L, Balasubramanian S, Keshava SM, Thenmozhi V, Sekar G, Tewari SC, Arunachalam N, Rajendran R, Satyanarayana K. Dengue disease spectrum among infants in the 2001 dengue epidemic in Chenni, Tamil Nadu, Indi.
21. Cho-Min-Naing. (2000). Assessment of dengue hemorrhagic fever in Myanmar. *Southeast Asian Journal Tropical Medical Public Health*. 31(4), 636-41.
22. Claro LB, Tomassini HC, Rosa ML. (2004). Dengue Prevention and control: a review of studies on knowledge, beliefs, and practices. *Cad Saude Publications*. 20(6), 1447-57.