

ASSESSMENT OF STRUCTURED TEACHING PROGRAMME ON LEVEL OF KNOWLEDGE AND KNOWLEDGE ON PRACTICE REGARDING MANAGEMENT OF DENGUE AMONG MIDDLE AGED WOMEN.

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INTRODUCTION

Dengue fever follows both primary and secondary infections, and is most frequently encountered in adults and older children. Onset of symptoms is characterized by a biphasic, high-grade fever lasting for 3 days to 1 week. Severe headache (mainly retrobulbar), lassitude, myalgia and painful joint, metallic taste, appetite loss, diarrhea, vomiting, and stomachache are the other reported manifestations. Dengue is also known as breakbone fever because of the associated myalgia and pain in joints. patients with DF, 50–82% report with a peculiar cutaneous rash. The initial rash is the result of capillary dilatation, and presents as a transient facial flushing erythema, typically occurring before or during the first 1–2 days of fever. The second rash is seen at 3 days to 1 week following the fever, and presents as a asymptomatic maculopapular or morbilliform eruption. Sometimes, individual lesions may merge and present as widespread confluent erythematous areas with pinpoint bleeding spots and rounded islands of sparing, giving a typical appearance of “white islands in a sea of red. The cutaneous rash is usually asymptomatic, and pruritis is reported only in 16-27% cases. Bleeding episodes are infrequently seen in DF, although epistaxis and gingival bleeding, substantial menstruation, petechiae/purpura, and gastrointestinal tract (GIT) hemorrhage can occur.

A study on dengue management is crucial because while dengue fever is a manageable disease with supportive care, the lack of a specific antiviral treatment and the potential for severe complications necessitate ongoing research and improvement in clinical practices, public awareness, and vector control. Public awareness campaigns are essential to educate people about dengue prevention, recognizing warning signs, and seeking timely medical attention.

The mainstay of therapy for DSS is the rapid restoration of circulating plasma volume. There is a lack of consensus on the optimal choice of intravenous fluids. Historically, the management guidelines by WHO, first proposed in 1975, recommended initial volume replacement with crystalloid solutions, followed by colloids for patients with refractory shock. As DSS entails the leakage of small plasma proteins, colloid preparations with larger molecular weights may offer a theoretical advantage. Colloids stay in circulation longer and increase the colloid oncotic pressure, thus drawing extravasated fluid back into circulation. It has been proposed that much larger volumes of crystalloids need to be infused than colloids in order to achieve the same degree of resuscitation, and this may subsequently lead to fluid overload or pulmonary edema.

Oral rehydration therapy is recommended for patients with moderate dehydration caused by high fever and vomiting. Patients with known or suspected dengue fever should have their platelet count and hematocrit measured daily from the third day of illness until 1-2 days after defervescence. Patients with clinical signs of dehydration and patients with a rising hematocrit level or falling platelet count should have intravascular volume deficits replaced under close observation. Those who improve can continue to be monitored in an outpatient setting, and those who do not improve should be admitted to the hospital for continued hydration. This study assessed structured teaching programme on level of knowledge and knowledge on practice regarding management of dengue among middle aged women.

METHODOLOGY

VARIABLE UNDER THE STUDY

INDEPENDENT VARIABLE : Structured teaching program

DEPENDENT VARIABLE : Middle aged womens

3.4 POPULATION :

Population is an aggregate of totaly of all subject that possess a set of specification.

Target population is the people in selected rural area.

Accessible population for the present study is selected from middle aged women.

3.5 SAMPLE

Married women above 30 years and 30 members. who full filled inclusion criteria.

3.6 SAMPLE CRITERIA

INCLUSION CRITERIA

- ☐ Married womens who are all not having a general knowledge .
- ☐ married womens who can able to read and write.

- ☐ married womens above the age of 30 years.

EXCLUSION CRITERIA

- ☐ married womens who are all not interested in the dengue management .
- ☐ married womens above 40 years .

3.7 DESCRIPTION OF TOOL :

The researcher had developed questionarire after the review of literature “ a study to assess the knowledge of Dengue management among married women above 30 years of age married women in pallavarmedu.

SELECTION OF INSTRUMENTS AND TOOLS

DEMOGRAPHIC VARIABLE

The demographic variable which includes age , gender, religion, place of residence ,types of family, education of the father, education of husband, occupation of father, occupation of husband.

SECTION – B

KNOWLEDGE QUESTIONNAIRE

It contain twenty multiple choose questions to regarding knowledge on dengue , correct one mark answers carries one mark and wrong answers carries zero mark . The possible maximum score is 20 and minimum score is 0.

SCORING INTERPRETATION

LEVEL OF KNOWLEDGE

S.NO LEVEL OF KNOWLEDGE SCORE

- | | |
|----|----------------------|
| 1. | Inadequate knowledge |
| | 0-7 |
| 2. | Moderate knowledge |
| | 8-14 |
| 3. | Adequate knowledge |
| | 15-20 |

VALIDITY

Validity refers how well an instrument as measures what is intended to measure . The content of the instrument was validated by two experts in the field of nursing.

DATA COLLECTION PROCESS:

- The main study was conducted by the researcher through formal written permission from , higher authority prior to data collection.
- As per the inclusion criteria the samples were selected for data collection .The data collection period was four days . The researcher assured and given confidentiality for the data.
- The purpose sampling technique used for data collection .
- Each samples were interviewed with demographic ,variable , knowledge and selfstructure questions as per inclusion criteria and in a private room collected data for each sample . We spent 30 minutes for the sample .
- Finally at the end of the days were we completed data collection procedure with 30 samples. After that we proceed for data analysis.

PLAN FOR DATA ANALYSIS

Data analysis enables the researcher to organize summarize evaluate interpret and communicate numerical information. Data analysis was done by using quantitative and inferential statistics .

RESULTS

TABLE:1 Frequency and percentage distribution of middle aged women based on demographic variables.

S. NO	DEMOGRAPHIC VARIABLE	FREQUENCY (F)	FREQUENCY (%)
1.	Age in years a)Above 25 years b)Above 35 years c)others	12 10 08	40% 33.3% 26.6%
2.	Gender a)male b)female	0 30	0% 100%
3.	Education a)12 th standard b)others	15 15	50% 50%
4.	Place of residence a)rural b)Urban	09 21	30% 70%
5.	Religion a)hindu b)muslim c)Christian d)others	19 05 03 03	63.3% 16.6% 10% 10%
6.	Types of family a)nuclear family b)joint family c)extended family	13 16 01	43.3% 53.3% 3.3%
7.	Education of father a)SSLC b)HSC c)Degree course d)others	09 04 08 09	30% 13.3% 26.6% 30%
8.	Education of husband a)SSLC b)HSC c)Degree course d)others	10 05 02 08	33.3% 16.6% 6.6% 26.6%
9.	Occupation of father a)Daily wages b) farmer c)private employee d) government employee	10 10 02 08	33.3% 33.3% 6.6% 26.6%
10.	Occupation of husband a)daily wages b)farmer c)private employee d)government employee	07 20 02 01	23.3% 66.6% 6.6% 3.3%

The depicts frequency and percentage distribution of demographic variable among middle aged women based on demographic variables. This table consists of age, gender, place of residence , education, religion, types of family , education of father, education of father, occupation of husband, occupation of father.

TABLE :2 Frequency and percentage distribution of pre test and post test level of knowledge regarding dengue management.

S.NO	LEVEL OF KNOWLEDGE	PRE TEST (f)	PRE TEST (%)	POST TEST (f)	POST TEST (%)
1.	Inadequate knowledge (0-7)	07	23.3%	4	13.4%
2.	Moderate knowledge (8-14)	20	66.7%	8	26.6%
3.	Adequate knowledge	03	10%	18	60%

TABLE 3: Comparison between pre test and post test level of knowledge regarding dengue management.

DESCRIPTIVE STATISTICS	LEVEL OF KNOWLEDGE PRE TEST	LEVEL OF KNOWLEDGE POST TEST	LEVEL OF KNOWLEDGE (N=30) DIFFERENCE PRE AND POST TEST	t-value
Mean	9.77	14.9	5.13	t-9.45 df=29 significant
Standard deviation	0.625	0.838	0.213	t-9.45 df=29 significant

(N=30)

The finding in the above table describe a comparison between the pre test and post test knowledge levels regarding dengue management among 30 participants . The mean pre test and post test score was 9.9 with a standard deviation of 0.625, including a lower and more varies level of knowledge before the intervention. Following the role play , the post test mean score increased to 14.9, with a standard deviation of 0.838. this shows an improvement in knowledge and a slight decrease in variability among participants. The mean difference between the pre test and post test score was 5.13. the calculated t-value was 9.45 with degree of freedom (df)=29, the critical t-value at $p < 0.05$ is ± 2.009 . since the calculated t-value (9.45) is greater than the critical t-value (2.009), the result is highly significant. Hence H1 hypothesis is accepted. This suggests that the educational intervention was effective in improving the participants knowledge regarding the dengue management.

Table 4: Association between post test level of knowledge regarding dengue management and selected demographic variables among middle aged women.

S. NO	DEMOGRAPHIC VARIABLE	LEVEL OF KNOWLEDGE (INADEQUATE MODERATE ADEQUATE)						X2 df
		F	%	f	%	f	%	
1.	Age in years	1						X2= 4.0938* P=0.0430 df=2
	a)Above 25years		3.3	3	10	4	13.3	
	b)Above 35 years	3	10	3	10	6	20	

	c)others	0	0	2	6.6	8	26.6	
2.	Gender	0	0	0	0	0	0	X ² =1.2222 P= 0.2689 df= 1
	a) male	10	33.3	8	26.6	11	36.5	
	b) female							
3.	Education	1	3	4	13.3	10	33.3	X ² =1.2222 P=0.2689 df= 1
	a)12 th standard	3	10	4	13.3	8	26.6	
	b) others							
4.	Place of residence	3	10	7	23.3	11	36.6	X ² =1.8916 P=0.1690 df= 1
	a) rural	1	3	1	3	07	23.3	
	b) urban							
5.	Religion	3	10	3	1	13	10	X ² =6.0147* P=0.0142 df=3
	a)hindhu	0	0	3	10	2	6.6	
	b)muslim	1	3.3	1	33.3	1	3.3	
	c)Christian	0	0	1	3.3	2	6.6	
	d)others							
6.	Types of family	2	6.6	3	10	8	26.6	X ² =2.9006 P=0.0885 df=2
	a)nuclear family	2	6.6	4	13.3	10	33.3	
)joint family	0	0	1	3.3	0	0	
	c)extended family							
7.	Education of Father	1	3.3	4	13.3	4	13.3	X ² =5.1101* P=0.028 df=3
	a)SSLC	1	3.3	1	3.3	5	16.6	
	b)HSC	2	6.6	1	3.3	5	16.6	
	c)degree course	0	0	4	13.3	9	30	
	d)others							
8.	Education of husband	3	10	2	6.6	5	16.6	X ² = 6.5833* P=0.0103 df=3
	a)SSLC	1	3.3	2	6.6	2	6.6	
	b)HSC							

	C) degree course	0						
	d)others	0	0	0	0	2	6.6	
		0	0	4	13.3	9	30	
9.	Occupation of father							
	a)daily wages	0	0	3	10	7	23.3	X ² =10.1667* P=0.0014 df=3
	b)farmer	1	3.3	5	16.6	4	13.3	
	c)private employee	2						
	d)government employee	1	6.6	0	0	6	20	
			3.3	0	0	4	13.3	
10.	Occupation of husband							
	a)daily wages	1	3.3	1	3.3	5	16.6	X ² =9.1637* P=0.0025 df= 3
	b)farmer	2	6.6	1	3.3	5	16.6	
	c)private employee	0	0	0	0	2	6.6	
	d)government employee	1	3.3	0	0	0	0	

*p<0.05, significant and *p<0.001, highly significant.

Showed that the was significant associated between level of knowledge and selected demographic variable, age, religion, education of father ,education of husband, occupation of father, occupation of husband, at p<0.06=5 level , Hence research hypothesis H2 was partially significant.

DISCUSSION

Data analysis shows that the frequency and percentage distribution of demographic variable among middle aged women based on demographic variable . the table consists of age, gender, type of family, religion, education, place of residence, education of father, education of husband. Occupation of father, occupation of husband. Frequency and percentage distribution of pre test and post test level of knowledge regarding dengue management among middle aged women.

Data analysis shows that frequency and percentage distribution of demographic variable among middle aged women according to their level of knowledge 10(60%)were belong to adequate knowledge, 76.6(26.6%) were belong to moderate knowledge adequate knowledge ,23.3(13.3%) were belong to inadequate knowledge.

Comparison between pre test and post test level of knowledge regarding dengue management.

The finding reveled that the pretest and post test knowledge level regarding dengue management among 30 members . the mean pre test score was 9.9 with a standard deviation of 0.625, indicating a lower and more varied level ok knowledge before the intervention. Following the role play , the post test mean score increased to 14.9, with a standard deviation of 0.838. this shows an improvement in knowledge and a slight decreases invariability among participants. The mean difference between the pretest and post test score was 5.13. the calculated t-value was 9.45 with the degrees of freedom (df)=29, the critical t-value at p<0.05 is + 2.009 . since the calculated t-value (9.45) is grater than the critical t-value (2.009), the result is highly significant. Hence H1 hypothesis is accepted. This suggest that the educational intervention was effective in improving the participants knowledge regarding the dengue management .

Data analysis showed that there was significant associated between level of knowledge and selected demographic variable , age and location of residence at $p < 0.05$ level , hence research hypothesis H2 accepted .

The finding of the present study are supported by several national or international studies that emphasize the importance of structured teaching programme in improving knowledge about dengue management among middle aged women.

Association between post -test level of knowledge and selected demographic variables.

The finding reveled a statistically significant association between the level of knowledge regarding dengue management and selected demographic variables such as age at $p < 0.05$, while gender , place of residence , religion , types of family , education of father, education of husband, occupation of father . occupation of husband showed a highly significant association at $p < 0.01$. that indicates this factor had on impact on the knowledge level of middle aged women. Hence the research hypothesis H2 was partially accepted .

This presents study reveled that the knowledge regarding dengue management among middle aged women at Kanchipuram . level of knoeledge 10(60%), were belong to adequate , 76.6(26.6%) were belong to moderate adequate knowledge . the results shows in this study that inadequate knowledge regarding.

CONCLUSION

The findings of this study have a significant implication of nursing practice ,education , administration, and research , particularly in community area knowledge among middle aged women through giving a role paly

REFERENCES

- 1.Global distribution and burden of dengue. *Nature*. 2013;496:504–507. doi: 10.1038/nature12060. [DOI] [PMC free article] [PubMed] [Google Scholar]
- 2.World Health Organization . Dengue: guidelines for diagnosis, treatment, prevention and control. New. Geneva: World Health Organization; 2009. [PubMed] [Google Scholar]
- 3.World Health Organization . Dengue haemorrhagic fever: diagnosis, treatment, prevention, and control. 2. Geneva: World Health Organization; 1997. [Google Scholar]
- 4.Bandyopadhyay S, Lum LCS, Kroeger A. Classifying dengue: a review of the difficulties in using the WHO case classification for dengue haemorrhagic fever. *Trop Med Int Health*. 2006;11:1238–1255. doi: 10.1111/j.1365-3156.2006.01678.x. [DOI] [PubMed] [Google Scholar]
- 5.Dung NM, Day NP, Tam DT, et al. Fluid replacement in dengue shock syndrome: a randomized, double-blind comparison of four intravenous-fluid regimens. *Clin Infect Dis*. 1999;29:787–794. doi: 10.1086/520435. [DOI] [PubMed] [Google Scholar]
- 6.Ngo NT, Cao XT, Kneen R, et al. Acute Management of dengue shock syndrome: a randomized double-blind comparison of 4 intravenous fluid regimens in the first hour. *Clin Infect Dis*. 2001;32:204–213. doi: 10.1086/318479. [DOI] [PubMed] [Google Scholar]
- 7.Wills BA, Nguyen MD, Ha TL, et al. Comparison of three fluid solutions for resuscitation in dengue shock syndrome. *N Engl J Med*. 2005;353:877–889. doi: 10.1056/NEJMoa044057. [DOI] [PubMed] [Google Scholar]
- 8.Chaurasia R, Zaman S, Chatterjee K, Das B. Retrospective review of platelet transfusion practices during 2013 dengue epidemic of Delhi. *India Transfus Med Hemother*. 2015;42:227–231. doi: 10.1159/000371500. [DOI] [PMC free article] [PubMed] [Google Scholar]
- 9.Pothapregada S, Kamalakannan B, Thulasisingam M. Role of platelet transfusion in children with bleeding in dengue fever. *J Vector Borne Dis*. 2015;52:304–308. [PubMed] [Google Scholar]
- 10.Lye DC, Archuleta S, Syed-Omar SF, et al. Prophylactic platelet transfusion plus supportive care versus supportive care alone in adults with dengue and thrombocytopenia: a multicentre, open-label, randomised, superiority trial. *Lancet*. 2017;389:1611–1618. doi: 10.1016/S0140-6736(17)30269-6. [DOI] [PubMed] [Google Scholar]
- 11.Prashantha B, Varun S, Sharat D, et al. Prophylactic platelet transfusion in stable dengue Fever patients: is it really necessary? *Indian J Hematol Blood Transfus*. 2014;30:126–129. doi: 10.1007/s12288-013-0242-7. [DOI] [PMC free article] [PubMed] [Google Scholar]
- 12.Sundar V, Bhaskar E. Effect of platelet transfusion on clot strength in dengue fever with thrombocytopenia related bleeding: a thromboelastography-based study. *Transfus Med Hemother*. 2019;46:457–460. doi: 10.1159/000495118. [DOI] [PMC free article] [PubMed] [Google Scholar]
- 13.Khan Assir MZ, Kamran U, Ahmad HI, et al. Effectiveness of platelet transfusion in dengue fever: a randomized controlled trial. *Transfus Med Hemother*. 2013;40:362–368. doi: 10.1159/000354837. [DOI] [PMC free article] [PubMed] [Google Scholar]

- 14.Rajapakse S, de Silva NL, Weeratunga P, Rodrigo C, Fernando SD. Prophylactic and therapeutic interventions for bleeding in dengue: a systematic review. *Trans R Soc Trop Med Hyg.* 2017;111:433–439. doi: 10.1093/trstmh/trx079. [DOI] [PubMed] [Google Scholar]
- 15.Chuansumrit A, Apiwattanakul N, Sirachainan N, et al. The use of immature platelet fraction to predict time to platelet recovery in patients with dengue infection. *Paediatr Int Child Health.* 2020;40:124–128. doi: 10.1080/20469047.2019.1697574. [DOI] [PubMed] [Google Scholar]
- 16.Patil R, Bajpai S, Ghosh K, Shetty S. Microparticles as prognostic biomarkers in dengue virus infection. *Acta Trop.* 2018;181:21–24. doi: 10.1016/j.actatropica.2018.01.017. [DOI] [PubMed] [Google Scholar]
- 17.Chuansumrit A, Wangruangsathid S, Lektrakul Y, et al. Control of bleeding in children with dengue hemorrhagic fever using recombinant activated factor VII: a randomized, double-blind, placebo-controlled study. *Blood Coagul Fibrinolysis.* 2005;16:549–555. doi: 10.1097/01.mbc.0000186837.78432.2f. [DOI] [PubMed] [Google Scholar]
- 18.Nguyen TH, Nguyen TH, Vu TT, et al. Corticosteroids for dengue - why don't they work? *PLoS Negl Trop Dis.* 2013;7:e2592. doi: 10.1371/journal.pntd.0002592. [DOI] [PMC free article] [PubMed] [Google Scholar]
- 19.Tam DT, Ngoc TV, Tien NT, et al. Effects of short-course oral corticosteroid therapy in early dengue infection in Vietnamese patients: a randomized, placebo- controlled trial. *Clin Infect Dis.* 2012;55:1216–1224. doi: 10.1093/cid/cis655. [DOI] [PMC free article] [PubMed] [Google Scholar]
- 20.Zhang F, Kramer CV. Corticosteroids for dengue infection. *Cochrane Database Syst Rev.* 2014;2014:CD003488. [DOI] [PMC free article] [PubMed]