

Structured Teaching Program : An Effective Strategy for Mosquito Control Practices among High School Children

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ABSTRACT

The present quasi-experimental study focused on identification of effectiveness of structured teaching program practices regarding control of mosquito control measures among high school children at selected high school at rural Vizianagaram district. The study identified that at pre-test, the practice levels are Poor practices 35.3% (12), and the fair practices 64.7% (22). It has been observed that the practices has improved to good practices 100% (34) during post-test. The study also showed that the structured teaching program was effective in improving the practices on mosquito control measures $p < 0.00001$ (significant at 0.05 level). The study also identified that there is no significant association between the selected demographic variables and pre-test knowledge levels.

Keywords : Effectiveness, Structured Teaching Program, Mosquito Control Measures, Practices

I. INTRODUCTION

In India, the common vector borne diseases are Malaria, Filariasis, Dengue and Chikungunya. According to The National Health Mission (NHM), the total number of malaria cases reported in Andhra Pradesh is 3100. There is recurring outbreak of Dengue in Andhra Pradesh, with clinically reported 866 cases¹. There is a strong need to improve the health of people in rural areas from mosquito borne diseases and improve the quality of life by providing preventive care. Structured teaching program can be used as a strategy to impart knowledge on prevention of mosquitoes and persuade school children to improve the mosquito control practices.

Need for the Study:

Maumita de et.al (2015) reported that vector borne disease occur due to interaction of biological, ecological, social and economic factor. Even if people are given information through mass communication and educational approaches, community participation is far below the expectation⁵.

Hanumath Raju et.al stated that Malaria prevalence is more especially *P. falciparum* which is due to lack of awareness and preventive measures in agency areas in Andhra Pradesh⁴.

Vala Mayur et.al (2013) stated that despite of so many efforts to control malaria, dengue and Chikungunya, these diseases are still having a huge impact on health, wellbeing and economy of the people. Key success for mosquito borne diseases control depends not only on services provided by Health Authority but also on knowledge on clinical manifestation, awareness and early care seeking behavior of the community⁸. There is a need to know existing knowledge and practice regarding mosquito borne diseases and its control in community.

Many strategies are required to reduce disease burden. In order to improve the practices of mosquito control measures, the researcher designed a structured teaching program that provides information about mosquito control measures there by the school children can actively involved in mosquito control

practices and also persuade their parents to practice them.

Objectives:

- ✓ To assess the pre-test and post-test practices of mosquito control measures among high school children.
- ✓ To assess the effectiveness of structured teaching program on practices of mosquito control measures among high school children.
- ✓ To find out the association between selected demographic variables and pre-test practices of mosquito control measures.

Limitations:

- ✓ The study is limited to only high school children
- ✓ The study is limited to only school.

Methodology:

Research design: A one group pre-test and post-test design is used to find out the effectiveness of structured teaching program on mosquito control measures.

Sample: A total of 34 samples were selected using simple random sampling technique.

Inclusion Criteria:

- ✓ Students studying in high school.
- ✓ Students of 6th and 7th standard are included in the study.
- ✓ Students who can understand Telugu and English are included in the study.
- ✓ Students who are willing to participate in the study.

Exclusion Criteria:

- ✓ Students who are not willing to participate in the study
- ✓ Students who are absent during data collection time.

Method of data Collection: Data was collected using self-reported questionnaire which was prepared by the researcher and content validity was obtained from the experts in community health nursing. Pre-test data is obtained. Then students are implemented with structured teaching program on mosquito control measures. Post-test data was collected with a gap of two weeks duration.

Description of Tool: It consists of 2 sections.

Section-1: The demographic information like age, sex, religion, class, type of the family, source of health information, type of house and method of disposal of refuse are included in this section.

Section-2: The items pertaining to practices of mosquito control measures are listed. The students are needed to answer the items according to the practices like “Always”, “sometimes” and “never”.

Data Collection procedure: Permission was obtained from the Principal of ZP high School, Maharajupeta at Vizianagaram district in Andhra Pradesh.

Data Analysis: Demographic data was analyzed using frequencies and percentages. T-test was used to find the effectiveness of structured teaching program on the practices of mosquito control measures. Chi-square was used to find the association between selected demographic variables and pre-test practices on mosquito control measures.

Score Interpretation for Practices

Each practice item is scored as following:

Practice	Score
Always	2 Marks
Sometimes	1 Mark
Never	0 Marks

Score	Interpretation
1-10 Marks	Poor Practices
11-20 Marks	Fair Practices
21-30 Marks	Good Practices

II. RESULTS

Table 1. The frequency and percentage distribution of high school children according to demographic variables
(N= 34)

S.No	Demographic variables	Frequency	Percentage
1.	Age		
	<11 yrs	1	2.9
	11-12 yrs	29	85.3
	13-14 yrs	4	11.8
2.	Sex		
	Female	20	58.8
	Male	14	41.2
3.	Religion		
	Hindus	100	100
	Christians	0	0
	Muslims	0	0
	Others	0	0
4.	Class		
	6 th Class	20	58.8
	7 th Class	14	41.2
5.	Type of family		
	Joint	10	29.4
	Single	24	70.5
6.	Source of information		
	T.V	31	91.2
	Newspaper	2	5.9
	Radio	0	0
	Neighbours	1	3.0
	Others	0	0
7.	Type of House		
	Kutcha	5	14.7
	Pucca	25	73.5
	Slab	3	8.8
	Others	1	3.0
8.	Method of disposal of refuse		
	Dumping	9	26.4
	Burning	15	44.1
	Manure	5	14.7
	Others	0	14.7

Table 2. Comparison of pre-test and post-test Practices on mosquito control measures among high school children (N=34)

	Practice levels					
	Poor Practice		Fair Practice		Good Practice	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Pre-Test	12	35.3	22	64.7	0	0
Post-Test	0	0	0	0	34	100

Table 3. Effectiveness of structured teaching program on Practices on mosquito control measures among high school children (N=34)

Practice	Mean	SD	Mean difference	df	Paired T-test	p-value
Pre-Test	11.7	3.3	14.7	33	20.7	<0.00001*
Post-Test	25.8	2.05				

Table 4. Association between selected demographic variables and pre-test Practice levels of mosquito control measures among high school children (N=34)

S.No	Demographic variables	Knowledge levels			df	X ²	p-value
		Poor Practice	Fair Practice	Good Practice			
1.	Age						
	<11 yrs	1	0	0	2	2.027	0.362
	11-12 yrs	10	19	0			
	13-14 yrs	1	3	0			
2.	Sex						
	Female	8	12	0	1	0.471	0.492
	Male	4	10	0			
3.	Class						
	6 th Class	8	12	0	1	0.471	0.492
	7 th Class	4	10	0			
4.	Type of family						
	Joint	3	7	0	1	0.174	0.6767
	Single	9	15	0			
5.	Source of information						
	T.V	12	19	0	4	1.795	0.4076
	Newspaper	0	2	0			
	Radio	0	0	0			
	Neighbors	0	1	0			
	Others	0	0	0			

6.	Type of House						
	Kutcha	2	3	0	3	3.757	0.2889
	Pucca	7	18	0			
	Slab	2	1	0			
	Others	1	0	0			
7.	Method of disposal of refuse						
	Dumping	3	6	0	3	1.889	0.595
	Burning	5	10	0			
	Manure	1	4	0			
	Others	3	2	0			

III. DISCUSSION

Muninarayana et.al, reported that most organized vector control strategies require public support of one kind or another and the extent of people's cooperation can determine the success or failure of the entire campaign⁶. Singh et.al (2006) stated that the Program implementers need to understand the disease-related knowledge, attitude, and practices of the community, because these are the important determinants of community participation⁷.

The present study proved that this structured teaching program helped in enhancing the practices of mosquito control measures among high school children. The high school children are provided information on diseases caused by mosquitoes, their signs and symptoms, mosquito breeding places and mosquito control measures that improved their mosquito control practices. Table-2 showed that at pre-test, the practice levels are Poor practices 35.3% (12), and the fair practices 64.7%(22). It has been observed that the practices have improved to good practices 100% (34) during post-test.

Table 3 shows that the structured teaching program was effective in improving the practices on mosquito control measures $p < 0.00001$ (significant at 0.05 level). Gubler (1989) described that programmes should stress the importance of source reduction as a method

for control of indoor mosquito breeding for dengue and malaria prevention activities. The daytime biting nature of Aedes mosquitoes and the breeding of Anopheles and Aedes mosquitoes in relatively clean water stored in domestic water containers must be conveyed to the community².

Iloyd et.al (1994) stated that a sound knowledge-base about vector-borne diseases and methods of vector control must be built among the community³.

Implications to Nursing:

Nursing Practice: Community health nurses can utilize similar strategies to provide knowledge on various preventive measures and improve preventive care among the high school children, as they are the future citizens of India, where the future health can be improved by providing knowledge to them.

Nursing Education: This strategy can be used as a reference material in order to provide health education and improve quality of life among high school children on mosquito control measures.

Nursing Administration: The present study findings can be utilized by the authorities to plan and organize health education camps both in community and hospital set-ups. As this is a preventive aspect of health, economic burden on people will be reduced due to ill health of mosquito diseases, thereby improving quality of life.

Nursing Research: Extensive research on child-to-parent approach can be done to transfer information from child to parent thereby preventive aspects of mosquito control measures can be imparted even to adults acting as a new strategy to impart health education.

Recommendation:

- ✓ Similar study can be done with large sample.
- ✓ Comparative study can be done on practices among rural and urban high school children.
- ✓ Similar study can be done on higher age groups.

IV. REFERENCES

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