



A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING PREVENTION OF SELECTED VECTOR BORNE DISEASES AMONG HOUSEWIVES OF SELECTED RURAL SLUMS AT BANGALORE

Raju Dhanapal Torase^{1*}, Vijayalakshmi M², Hazarat Ali C. Panari³

¹Assistant Professor, Department of Community Health Nursing, Shri GES's College of Nursing, Ankali, Belagavi, Karnataka, India.

²Principal & HoD of Community Health Nursing, Ranebennur College of Nursing, Bangalore, Karnataka, India.

³Professor, Hazarat Ali. C. Panari. Principal, Shri GES's College of Nursing Ankali, Karnataka, India.

Corresponding Author
Raju Dhanapal Torase

Email: - toraseraju73@gmail.com

Article Info

Received: 24/07/2026; **Revised:** 18/08/2026

Accepted: 22/09/2026

ABSTRACT

Background of the Study: The vector-borne diseases result in avoidable ill-health and death which also has been emphasized in National Health Policy and Millennium Development Goals (MDGs). In India the National Vector Borne Disease Control Programme (NVBDCP) under the aegis of National Rural Health Mission (NRHM) is an umbrella programme for prevention and control of major vector borne diseases of public health importance viz. malaria, Japanese encephalitis (JE), dengue, chikungunya, kala-azar and lymphatic filariasis. Objectives Of The Study: To assess the existing knowledge regarding prevention of selected vector borne diseases among housewives of selected urban slums at Bangalore. To evaluate the effectiveness of Structure teaching program on knowledge regarding prevention of selected vector borne diseases among house wives of selected urban slums at Bangalore. To find the association between the post test knowledge scores and selected demographic variables among housewives. Methodology: The research approach adopted for this study is evaluated approach. It helps to explain the effect of the independent variable on the dependent variables. This approach is considered most suitable for this study. The present study was conducted in selected settings in Bangalore. Convenience sampling technique was adopted. The sample size was 50 housewives. The tool was semi structured questionnaire to assess the knowledge of housewives 1 to 25 questions. Results: In the Pre test, the overall knowledge mean value of prevention of vector borne illness of experiment group is significant statistically. It was confirmed using housewives independent paired t-test ($P < 0.05$). In the post test, the overall knowledge mean value of prevention of vector borne illness of experiment group is statistically significant. It was confirmed using housewives independent paired t-test ($P > 0.05$). Interpretation And Conclusion: The findings of this study revealed that structure teaching program will increase the knowledge of housewives. This results indicate that education influence the knowledge level of housewives.

Key Words: Evaluate, Effectiveness, Knowledge, Structure Teaching Programme, vector born diseases, selected vector borne diseases, Housewives, Urban slum, selected socio-demographic variables.



INTRODUCTION

WHO defines health as a state of complete social wellbeing and not merely an absence of disease. A healthy person is an asset to the society. An unhealthy life style and practices among an individual will lead to a disease. The diseases that result from the presence of pathogenic microbial agents, including viruses, bacteria, fungi, protozoa, multicellular organisms, and aberrant proteins known as prions. Despite of several measures of public awareness still the common man is unaware of its prevention and economic burden.¹ Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by mosquitoes, sand flies, triatomine bugs, black flies, ticks, mites, snails and lice. Every year there are more than 7,00,000 deaths from diseases such as malaria, dengue, schistosomiasis, human African trypanosomiasis, leishmaniasis, Chagas disease, yellow fever, Japanese encephalitis and onchocerciasis, globally. The high incidence of VBDs is an indicator for deficient health & well being of the community, resulting in personal and national economic loss due to disease burden.² The major vector-borne diseases, together, account for around 17% of all infectious diseases. Vector borne diseases (VBDs), viz., Malaria, Filariasis, Kala-azar, Japanese Encephalitis (JE) and Dengue are major public health concerns in India. The burden of these diseases are highest in tropical and subtropical areas and they disproportionately affect the poorest populations. Since 2014, major outbreaks of dengue, malaria, chikungunya, yellow fever and Zika have afflicted populations, claimed lives and overwhelmed health systems in many countries.³ The high risk areas for VBD are generally rural, tribal and urban slums inhabited by the poor, marginalized and vulnerable groups. The National Vector Borne Disease Control Programme (NVBDCP) is an umbrella programme for prevention and control of vector borne diseases. To achieve preventive, promotive and curative care services for a healthy nation, the National Health Policy (NHP) has set goals for achieving reduction of mortality.

METHODOLOGY:

Research methodology refers to Experimental investigations of the ways obtaining organizing and analyzing data. Methodological studies address the development, validation and evaluation of research tools and techniques.³³ This chapter deals with the sample and description of research approach, research design, study setting, sampling technique, development and description and of the tool, data collection technique and plan of data analysis.

SETTING OF THE STUDY AND POPULATION

Setting is the general location and condition in which data collection takes place in the study. The present study was conducted in selected areas in Bangalore.

Target population of the present study includes all housewives who are in selected areas in Bangalore. Population is defined as the entire set of individuals having some common characteristics. In this study population are the housewives. Who fulfilled the inclusive criteria. Accessible population of the present study includes 50 housewives who are selected by randomization.

Sample and Sampling Technique:

Sample is a subset of population in the study. Housewives who are living in selected Slum areas in Bangalore, were selected as sample. Non-probability sampling was used, in that convenience sampling is chosen.

Inclusion Criteria and Exclusion Criteria:

The study includes housewives who are living in slum area, willing to participate in the study. The study excludes housewives who are not available at the time of study. Not willing to participate in the study.

Methods of Data Collection

The data collection was scheduled from 15th September to 24th September. Prior permission was obtained from concerned authority. Oral consent from each participant was obtained and administered the pre test. The Structure teaching programme was given soon after the pre test for the experimental group. Post test was done on the 8th day after Structure teaching programme.

DATA ANALYSIS

Data were collected and observed from the Mothers of children who met the inclusive criteria. The collected data will be conveniently summarized and tabulated by applying descriptive statistics such as mean, percentage, Significance-test and inferential statistics.

Data Collection Tool:

To assess the existing knowledge regarding prevention of selected vector borne diseases among housewives of selected urban slums at Bangalore. Semi structured questionnaire related to aspects Prevention of vector borne illness.

Procedure of data collection:

The data collection was scheduled from 15th September to 24th September. Prior permission was obtained from concerned authority. Oral consent from each participant was obtained and administered the pre test. The Structure teaching programme was given soon after the pre test for the experimental group. Post test was done on the 8th day after Structure teaching programme.

RESULT:

Variables are used to find out Frequency, Percentage and Association. In the Pre test, the overall knowledge mean value of Prevention of vector borne



illness of experiment group is significant statistically. It was confirmed using housewives of independent paired t-test ($P < 0.05$). In the post test, the overall knowledge mean

value of Prevention of vector borne illness of experiment group is statistically significant. It was confirmed using housewives independent paired t-test ($P > 0.05$).

Table 1: Area wise pre test knowledge score of respondents on Prevention of vector bore diseases.

N= 50.

Area	No.Q	Mean	Mean%	SD
General information	10	23.5	47	2.5
Prevention of vector borne diseases	10	25.75	51.5	1.48
Interpretation of Prevention of vector borne diseases	5	32.75	65.5	3.41
Total	25	22.33	44.65	2.46

Table 2: Area wise post test knowledge score of housewives. N = 50.

Area	No. Q	Mean	Mean%	SD
General information	10	36	75	3.8
Prevention of vector borne diseases	10	34.75	69.5	4.55
Interpretation of Prevention of vector borne diseases	9	38.75	77.5	5.07
Total	25	36.5	74	4.39

Table 3: The effectiveness of Structure teaching programme on Prevention vector bore illness. N = 50.

	N	mean	Mean%	SD	Enhancement	Enhancement%	Df	T	Inference
Pre-test	50	27.5	54.66	2.46	9	20	49	11.94	S
Post-test	50	36.5	74	4.39					

$P < 0.00$ $t(49, 0.001) = 3.46$ S = Significant, NS = Not significant.

Table 4: - Association between Knowledge score and different Demographic variables (Age, Occupation). N = 50

S No	Variables	Below median	Above median	Total	Df	χ^2	P value	Inference
1.	Age							
	18 – 20	15	02	17	3	12.79	7.82	S
	20 – 22	13	13	26				
	22 – 24	01	04	05				
	25 and above	00	02	02				
	Total	29	21	50				
2.	Occupation							
	House wives	07	07	14	1	0.05	3.84	NS
	Working	22	14	36				
	Total	29	21	50				

S = Significant, NS = Not – Significant

Table 5:- Association between Knowledge score and different Demographic variables (Religion, Educational status). N = 50

S No	Variables	Below median	Above median	Total	Df	χ^2	P value	Inference
1.	Religion							
	Hindu	12	8	20	3	0.102	7.82	NS
	Muslim	01	01	02				
	Christian	16	12	28				
	Others	00	00	00				
	Total	29	21	50				
2.	Education Status							
	PUC	23	7	30				



	SSLC	6	14	20	1	10.7	3.84	S
	Total	29	21	50				

Table 6:- Association between Knowledge score and Experience Exposure to education

S No	Variables	Below median	Above median	Total	Df	χ^2	P value	Inference
1.	Total experience							
	0 – 1	14	02	16	3	11.03	7.82	S
	2 – 3	13	12	25				
	4 – 5	02	06	08				
	6 and above	00	01	01				
	Total	29	21	50				
3.	Exposure to education							
	Yes	09	20	29	1	20.6	3.84	S
	No	20	01	21				
	Total	29	21	50				

DISCUSSION

This chapter discusses the major findings of this study.

The aim of this study was to instill the knowledge of housewives.

BASED ON OBJECTIVES:

- Assess the knowledge of housewives regarding Prevention of vector borne illness.
- Table-1 shows that overall knowledge mean value was 27.33, SD was 2.46 and the percentage 54.66.
- Evaluate the effectiveness of a Structure teaching programme on Prevention of vector borne illness among housewives.
- Table-2 shows that overall Post test knowledge mean value was 36.5, SD was 4.39 and Percentage 74.
- Compare on pre and post-test knowledge level of housewives of selected slums at Bangalore.
- Table-3 shows that 't' value was 3.46. The 't' value shows that there is significant increase knowledge on Prevention of vector borne illness after the Structure teaching programme.
- According to the hypotheses 1 significance difference is there, so hypothesis is accepted proved.
- According to the hypotheses 2, modify behavior in gaining knowledge, Hence hypotheses accepted and null hypothesis is rejected.

- Determine association between the mean pre test knowledge scores of housewives regarding Prevention of vector borne diseases with their selected socio-demographic variables.
- Table-4 shows χ^2 value that there is significant association between the Age and Occupation knowledge on Prevention of vector borne illness ($P < 0.05$).
- Table-5 shows χ^2 value that there is significant association between the Religion, Educational status and knowledge on Prevention of vector borne illness ($P < 0.05$).
- Table-6 shows χ^2 value that there is significant association between the Total experience and exposure to education Educational status and knowledge on Prevention of vector borne illness ($P < 0.05$).

CONCLUSION

Education was imparted to care givers through Structure teaching programme as they were the important people who working as Housewives. It was strongly believed that adequate knowledge on Prevention of vector borne illness would definitely enhance the quality of care and they will develop confidence.

REFERENCES

1. Streeton, J. (2014, October 20). *Infections and diseases*. Specialist Practice (Year 3). <https://jackstreetonsp.wordpress.com/2014/10/20/infections-and-diseases/>
2. Northeast Regional Center for Excellence in Vector-Borne Diseases. (n.d.). *What are vector-borne diseases and why do they matter?* <https://www.neregionalvectorcenter.com/what-is-a-vector-borne-disease>
3. World Health Organization. (n.d.). *Vector-borne diseases*. <https://www.who.int/news-room/fact-sheets/detail/vector-borne-diseases>
4. Nagaraj, C. (2003). *National vector borne disease control programme, Karnataka: Annual report 2003* (pp. 26–30).
5. Shivilal, et al. (n.d.). *Mosquito-borne diseases in India*. World Health Organization, Regional Office for South-East Asia.



6. Gubler, D. J., & Clark, G. G. (1995). The emergence of dengue/dengue hemorrhagic fever as a global public health problem. *Emerging Infectious Diseases*, 1(2), 55–57.
7. Abbasi, A., Abbas, K., & Arooj, S. (2016). Dengue fever: A statistical analysis regarding awareness about dengue among university students in Azad Kashmir. *Journal of Health Communication*, 2(1), Article 41.
8. Ridde, V., Agier, I., Bonnet, E., Carabali, M., Dabiré, K. R., Fournet, F., Ly, A., Meda, I. B., & Parra, B. (2014). The need for more research and public health interventions on dengue fever in Burkina Faso. *PLoS Neglected Tropical Diseases*, 8(6), e2859.
9. Sahoo, S. K., et al. (2017). How aware are we regarding vector borne diseases? A community based study in a slum of Kolkata, India. *International Journal of Research in Medical Sciences*.
10. Brady, O. J., Gething, P. W., Bhatt, S., Messina, J. P., Brownstein, J. S., Hoen, A. G., Moyes, C. L., Farlow, A. W., Scott, T. W., & Hay, S. I. (2012). Refining the global spatial limits of dengue virus transmission by evidence-based consensus. *PLoS Neglected Tropical Diseases*, 6(8), e1760.
11. World Health Organization. (n.d.). *Dengue and severe dengue*. <https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue>
12. World Health Organization. (2017). *World malaria report 2017*. <https://www.who.int/publications/i/item/9789241565523>
13. Sharma, R. K., Thakor, H. G., Saha, K. B., Sonal, G. S., Dhariwal, A. C., & Singh, N. (2015). Malaria situation in India with special reference to tribal areas. *Indian Journal of Medical Research*, 141(5), 537–545.
14. Bhatt, S., Gething, P. W., Brady, O. J., Messina, J. P., Farlow, A. W., Moyes, C. L., Drake, J. M., Brownstein, J. S., Hoen, A. G., Sankoh, O., Myers, M. F., George, D. B., Jaenisch, T., Wint, G. R. W., Simmons, C. P., Scott, T. W., Farrar, J. J., & Hay, S. I. (2013). The global distribution and burden of dengue. *Nature*, 496(7446), 504–507.
15. Polit, D. F., & Beck, C. T. (2008). *Nursing research: Generating and assessing evidence for nursing practice* (8th ed.). Lippincott Williams & Wilkins.
16. Sumari, D., Mwingira, F., Selemani, M., Mugasa, J., & Mugittu, K. (2017). Malaria prevalence in asymptomatic and symptomatic children in Kiwangwa, Bagamoyo district, Tanzania. *Malaria Journal*, 16, Article 222.
17. Tadesse, F., Fogarty, A. W., & Deressa, W. (2018). Prevalence and associated risk factors of malaria among adults in East Shewa Zone of Oromia Regional State, Ethiopia: A cross-sectional study. *BMC Public Health*, 18, Article 25.
18. Bikundi, E. M., & Coppieters, Y. (2019). Importance of risk factors associated with malaria for Sub-Saharan African children. *PLoS ONE*, 14(1), e0211205.
19. Roberts, D., & Matthews, G. (2016). Risk factors of malaria in children under the age of five years old in Uganda. *Malaria Journal*, 15, Article 246.

