

Effectiveness of Education on The Role of Eco Health in the Prevention of Mosquito Borne Diseases among Women of Mangalore Urban Communities



Social Work

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ABSTRACT

Prevention of disease through ecological or environmental manipulations is much safer, cheaper and more effective approach than all the other means of control. This can be achieved only through Education for which women form the best target group. It is said that 'if you educate a woman then you educate the whole family'. The present study was conducted on women with an objective to ascertain their knowledge on the role of Eco health in prevention of mosquito borne diseases and to evaluate the effectiveness of Education on the role of eco health. Research design used was Pre-experimental design, i.e. 'one group Pre-test, Post-test design'. Universe consisted of SHG (Self Help Group) women of the different adopted communities of an NGO (Non Governmental Organization) in Mangalore. Hundred women above 20yrs formed the sample that was selected using purposive sampling method. Structured Questionnaires were used to collect data from respondents. Findings showed overall Mean and Standard Deviation scores of Pre test Knowledge scores as 17.95 & ±5.876 whereas Mean and SD of Post test knowledge scores was 19.68 & ±5.375. The calculated Paired 't' value was -2.1723 at 0.05 level of significance. Null hypothesis was rejected and research hypothesis was accepted i.e. there is significant difference between mean Pretest and mean Post Knowledge scores. This implies that role of Eco health in prevention of mosquito borne diseases among women improved after implementation of Education to them.

Introduction:

Our Future depends to a large extent on being adequately informed. Education related to health not only means transmission of knowledge but one that leads to altered behavior. It is a process which effects changes in the health practices of people and their knowledge and attitudes related to such changes can be achieved through Education. The need for living in harmony with the environment is important in order to attain real prosperity. Eco health is the science of mutual relationship between living organisms and their environments. Prevention of disease through ecological or environmental manipulations or interventions is much safer, cheaper and more effective approach than all the other means of control. Mosquito borne diseases like Malaria, Dengue, & Filariasis are a hindrance to the development of a society. City of Mangalore in Dakshina Kannada district, has been witnessing a great spurt in construction activities in the recent years owing to rapid industrialization. And this has brought the dreaded disease, malaria to this city, which has spread since 1990. Despite efforts towards curbing malaria and anti malaria drive in Mangalore, cases have continued to rise largely due to resurgence in construction activities. The annual incidence of Malaria in Dakshina Kannada district in 2010 was 6,335 cases and increased to 7,360 cases in 2014 (Srinivas, 2015). Hence its control and prevention is the need of the hour. This can be achieved through Education for which women form the best target group to whom knowledge can be disseminated and Eco health practices can be achieved. This research study aims to educate women on the role of Eco health through an Educational programme and evaluate its Effectiveness.

Objectives of the study:

- To assess the Knowledge of Women on Role of Eco health in the prevention of Mosquito borne diseases.
- To determine the effectiveness of Education on role of Eco health among women of Mangalore Urban communities.

Methodology:

The Research design adopted was Pre-experimental design i.e. 'one group Pre-test, Post-test to assess effectiveness of Education on the role of Eco health. The Study Area included ten urban communities adopted by a social welfare organization for community development work in Mangalore Urban area. The Sample consisted of 100 women of age group 20 years and above. Ten women from each

community were selected using Purposive sampling technique. Women of Urban community area who are willing to participate and were 20 years and above as well as had knowledge of Kannada were included in the sample. Women working in the field of Control and prevention of Vector borne diseases and who were in the Medical and Para medical profession were excluded from the sample.

Tools included Socio demographic Data Sheet, Questionnaire to assess knowledge on Role of Eco health in prevention of mosquito borne diseases and educational tools such as Charts and Handouts and lecture was used. First Pre test was conducted using Tool one (Socio demographic data sheet) and tool two (Questionnaire on role of Eco health). Then Education was given immediately after pre testing. Post test was conducted after ten days using the same Questionnaire without Education.

RESULTS AND DISCUSSION:

Age of the respondents showed that majority (57%) of respondents belonged to age group of 31 to 40 years and 29% were between 41 to 50 yrs. Majority of the respondents had low education i.e. primary (45%) and 11% did have any formal education. 75 % of the respondents belonged to Hindu religion, 15% were Christians and 10% were Muslims. Majority of the respondents had Beedi rolling as their occupation (53%) and 27% were daily wage workers. Monthly family income revealed that 46% had less than Rs.3000 per month, 22% had between Rs.3000 to 4000 and 24% had family income of Rs 4000 to 5000 per month. 57% of respondents hailed from Nuclear families. 48% of respondents lived in Pucca houses while 38% lived in kutcha houses. Majority (89%) of the respondents did not possess their own house and lived in rented houses. 27% respondents had past history of mosquito Borne diseases while 73% did not have such history. 85% respondents opined that there is no stagnant water surrounding their house while 15% agreed to the existence of stagnant water which means some measures have to be taken to address it.

Study revealed that majority (59%) of respondents got information on Eco Health from health professionals while 10% obtained it from Mass media and friends/family respectively. 16% respondents do not have any information about Eco health. Regarding precautions taken against mosquito bite 35% use mosquito nets, 27% use mosquito repellants while another 27% prevent mosquito bites through spraying. 57% respondents use burning as a meth-

od of waste management and 24% collect waste and dispose it.64% respondents opined that they have a closed type of drainage system while 36% have open drainage system.

Table 1.1: Distribution of Respondents according to Knowledge Scores

N=100

Knowledge Level	Respondents	
	Pre Test	Post Test
	Percentage	Percentage
Very Poor	0	0
Poor	2	0
Moderate	64	22
Good	34	76
Very Good	0	2
Total	100	100

The data presented in table no.1.1 shows that 64% had moderate knowledge and 34% had good knowledge in pre test while data showed an improvement in the knowledge scores after post test i.e. 76% respondents had good knowledge and 22% had moderate knowledge scores on role of Eco health in the prevention of mosquito borne diseases. These findings showed that most of the participants have moderate Knowledge. It is because they are exposed to some health awareness talks conducted by the NGO who organizes welfare and empowerment programmes for them.

Table 1.2: Area-wise and overall Scores on Effectiveness of Education on Role of Eco Health

N=100

Area	Pre Test			Post Test			Paired 't' value
	Mean	SD	Mean %	Mean	SD	Mean %	
Concepts of Eco health	1.99	0.810	66.33	2.26	0.612	75.33	-2.6595
Related to Mosquito borne diseases	5.61	1.718	62.33	6.09	1.062	67.67	-2.3762
Role of Eco Health	10.35	3.348	57.50	11.33	3.701	62.94	-1.90419
Total	17.95	5.876	59.98	19.68	5.375	65.60	-2.1723

The data presented in table no 1.2 shows that there is increase in the Knowledge level after Education in all the areas. Knowledge related to Concepts of Eco health the Mean score in Pre-test was 66.3% which increased to 75.33% in Post test (Paired't' value showed -2.6595). There was increase in Knowledge scores related to Mosquito borne diseases from 62.33% to 67.67% in pre test and post test scores respectively (Paired't' value showed -2.3762). Also in area related to Knowledge on Role of Eco health in Prevention of mosquito borne diseases the mean score in pre test was 57.50% and after Education post test score raised to 62.94% (Paired't' value showed -1.90419).The paired 't' test was statistically significant at 0.05 level. Overall Mean and Standard Deviation scores of Pre test Knowledge scores was 17.95 & ±5.876 whereas Mean and SD of Post test knowledge scores was 19.68 & ±5.375 respectively. The calculated Paired 't' value was -2.1723 at 0.05 level of significance. Hence Null hypothesis was rejected and research hypothesis was accepted i.e. there is significant difference between Pretest and mean Post Knowledge scores. This implies that role of Eco health in prevention of

mosquito borne diseases among women (respondents) improved after implementation of Education to them.

These findings are congruent to the study conducted by Nagarathnamma (2008) on Effectiveness of Structured teaching programme on prevention of Malaria among adults of selected Urban Slums of Karnataka and its findings showed that mean Post test Knowledge scores (19.54) were higher than mean pre-test knowledge scores (11.72) proving that structured teaching programme was effective in knowledge and practice of adults regarding prevention of Malaria.

CONCLUSION & RECOMMENDATIONS:

As there has been a rise in Malaria cases as well other Mosquito borne diseases in Mangalore for over a decade, the city corporation and health department is putting efforts to address this issue by adopting preventive strategies. Even NGO's who have adopted backward (underdeveloped) communities provide awareness sessions on Mosquito bite diseases to educate community people particularly women. Imparting authentic information, Education and Communication is vital to community people and women form the best target groups which has been the aim of this study. This study revealed that Knowledge on role of Eco health improved after education was administered to the participants. This indicates the importance of Education in promoting health of a community particularly from communicable diseases.

This study implies that professionals in the field of health and Social work can play an important role in Preventive Health Care by planning effective Educational packages for different target groups, self help groups, etc to promote and enhance health of the people. Study also implies the need to conduct educational sessions in areas were mosquito borne diseases are more prevalent. Social workers can conduct regular visits to all construction sites and other areas with poor sanitation and drainage facilities to identify breeding of mosquitoes and also ensure that no breeding takes place by educating local people particularly women in this area. They can collaborate with health workers and train local leaders on how to identify the presence of larva in stagnant waters and how to take precautions to prevent breeding of mosquitoes. Use of street plays to create awareness can be adopted to educate the community people. If every person of a community possesses good Knowledge on the role of Eco health it would help in reducing the spread of mosquito borne diseases. It is awareness which brings about Behavioural change in disease prevention initiatives.

REFERENCES :

1. Goel S L,2007,*Health education-Theory and Practice*, New Delhi, Deep & Deep Publications Pvt Limited,Pg89-125
2. Goel S L ,Kumar R,2010,*Hospitals in Community Health Care*, New Delhi, Deep & Deep Publications Pvt Limited, Pg1-33
3. Gulani K.K.,(2008),*Community Health Nursing* , Delhi, Kumar Publishing House.
4. Gupta D, Kapoor G, Broor S,(2006),*Changing Epidemiology in Delhi,India*,Virology Journal,2006,Nov 5:3,92.
5. Hati A.K.,(2006)*A study on Dengue and DHS in West Bengal, India*, Journal of Communicable Diseases, March 38 (2):124-129.
6. Ibrahim N K,*An Educational programme conducted for children in Jeddah on Dengue Fever*, URL:http://www.ncbi.nlm.nih.pubmed accessed on 28/11/15
7. Kothari C R, (2007), *Research Methodology-methods and techniques*,2nd edition, New Delhi, New Age Publications.
8. Nagarathnamma G.,(2008),*Effectiveness of Structured teaching programme on prevention of Malaria among adults of selected Urban Slums*

- of Karnataka, Nightingale Nursing times, July, 4(4):18-20.
9. Nitin Joseph et al., (2015), International Journal of Mosquito Research; 2(1):53-59; www.dipterajournal.com/vol 2 issue 1/pdf/2-2-16./pdf, accessed on 27/11/15
 10. Park K., 2012, Essentials of Community Health Nursing, Ms Banarsidas Bhanot Publishers, Jabalpur, Pg 407 – 412.
 11. Park K., 2008, *Text book of Preventive and social Medicine*. 20th ed. Jabalpur: Banarsidas Bhanot Publishers.
 12. Pandya Rameshwari, 2010, *Community Health Education*, Rawat Publications, Jaipur, Pg 17- 48.
 13. Polit DF., 2007, *Nursing Research: Principles and Methods*. 6th ed. Philadelphia: J.B. Lippincott Company.
 14. Ramaiah KD, Vijay Kumar KV, Ramu K. (1996), *Study on knowledge and beliefs about transmission, prevention and control of lymphatic filariasis in south India*. Tropical medicine and International health, 1996 August; 1(4):433-438.
 15. Rath K, Swaink, Mishra, et al. (2005) *Peripheral health workers knowledge and practices related to filariasis*, American Journal of Trop Med Hygiene, Apr; 72(4):430-3.
 16. Ravi Kumar K, G Gururaj, (2005), *Community Perception studies regarding Mosquito borne diseases in Karnataka State, India*, Dengue Bulletin, Volume 29,
 17. <https://www.google.co.in/#q=Dengue+bulletin%2Cvol+29%2C2005%2CK+Ravi+kumar%2CG+Gururaj>
 18. Rosenthal R, Rosnow RI, (1991), *Essentials of Behavioural Research: Methods and Data Analysis*, 2nd Ed., New York: Mc Graw Hill, Inc.
 19. Sharma H., Sharma V P, (1991), *Bio-environmental control of Malaria*, Malaria Research centre, Ranipur, 28(4) 27-35.
 20. Srinivas, (2015), category Archives : Epidemiology, www.malariaparasite.com/ category/ epidemiology, February 25.
 21. Sultana A, (1997) *Malaria Knowledge, Attitude and Practice in Semi urban Population of Rawalpindi*, Journal of Social Health, December: 117(6):381-385.
 22. Syed Ali G, Neeraja K P. (2009), *A study to assess the effectiveness of structural teaching programme on awareness of cataract among the clients with cataract in selected area of Raichur*. Nightingale Nursing Times, Nov; Vol: 5(8), 51-54.