



ORIGINAL RESEARCH PAPER

Surgery

AWARENESS, PRACTICE, MYTHS, FACTS AND IMPACT OF HEALTH EDUCATION IN DENGUE CONTROL IN A RURAL POPULATION

KEY WORDS: : Health Education; Awareness; Dengue

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ABSTRACT

Introduction: Prevention of breeding of Aedes mosquito is an effective method for dengue control. Practice of source reduction to prevent breeding depends on the knowledge of the community, which can be improved by health education.

Aim: The aim of this study to assess the knowledge, awareness, practices and impact of health education in dengue control.

Methods: Self-developed questionnaire made for testing of Knowledge about Dengue fever, transmission & vector control; Knowledge on Aedes breeding sources; Aedes aegypti larval indices before imparting the health education and after imparting so was administered to the respondents for the survey.

Results: Before imparting health education, the scores for Knowledge about Dengue fever transmission and vector control in the community was 5.80 ± 2.45 whereas after imparting the health education it was escalated to 14.67 ± 3.84 .

Conclusion: Health education was effective in improving the practice of source reduction in a community with poor practices of vector biting and breeding habits.

INTRODUCTION

Dengue fever is a mosquito-borne viral infection found in most tropical and subtropical areas of the world [1]. The incidence of dengue has grown dramatically in recent decades. The World Health Organization (WHO, 2009) estimated that almost two-fifths (2.5 billion) of the world's population is at risk from dengue fever, and this trend was expected to rise over the next coming years. It has been rapidly spreading in all regions of WHO in recent years. Dengue is endemic in 112 countries of the world. The case fatality rate of Dengue hemorrhagic fever is around 5 to 7%. Symptoms typically begin three to fourteen days after infection [2]. Statistical data as generated by National Vector Borne Disease Control Programme, DGHS, Ministry of Health & Family Welfare, Government of India pertaining to dengue cases reflects that the dengue cases reported in 2017 has increased in approximately 5.43 folds from 2010. Similarly the Deaths occurred in India due to Dengue fever has increased to 226 in 2017 from 110 in 2010 and highest death cases notified during 2016 being 245. If we compare state wise reported cases of Dengue and thereby resulting deaths due to this in 2016, then it can be observed that highest number of cases were reported in West Bengal being 22865 and death cases being 45 (Report available up to 09 Sep 2016). Dengue fever can be transmitted via infected blood products and organ donation. To tackle increasing dengue cases in urban, peri-urban and rural areas because of expanding urbanization, deficient water and solid waste management, the emphasis is on avoidance of mosquito breeding conditions in homes, workplaces and minimizing the man-mosquito contact. Improved surveillance, case management and community participation, inter-sectoral partnership, ratification and enforcement of civic bye laws and building bye laws are emphasized for this vector borne disease. This increase occurred despite energetic outdoor insecticide fogging campaigns conducted by local authorities with the support of Ministry of Health to control the Aedes mosquito in urban, semi-urban, and rural areas. Looking at the cost-effectiveness of the preventive measures over the treatment charges for Dengue fever in private hospitals, there is an urgent need to bring about awareness in people regarding the preventive measures in controlling dengue fever. Prevention programs are more effective if the knowledge and vector control practices of the population are understood and applied in the main stream of intervention activities. As there is no effective vaccine at present to prevent the disease or a drug to cure DHF, the only measure available to Control it, is to prevent its transmission by the vector, Aedes aegypti mosquito (2,3). The changing strains of virus become more virulent and hinder the efficacy of vaccines. Years before Places like Nilgiris (Kotagiri) per say didn't favour the spread of dengue due to lack of vector mosquitoes but now-a-days due to stagnation of water and

unhygienic practices by means of storage of water to overcome the problem of water scarcity, it has resulted into breeding of the Aedes in certain communities. Also many of the imported cases cause panic in the people. In the modern era of social media, facts and fear about the illness spread like the virus itself. In a way it benefit them well that the people report to medical setup in the initial phase of the illness and suspected dengue. The news of dengue deaths, platelet transfusions and long hospital stay make people think that it's a life threatening illness. However the reality says it's very benign and curable illness promulgate the eradication of dengue fever through IEC activities and vector control practices. Rapid diagnostic test and ELISA favours early detection of the dengue hence resulting good treatment outcome. In fact most of the positive detected cases don't warrant hospital admission, but will be cured in the natural course of illness at home. Here lies the essence of imparting warning signs of dengue fever to the public.

AIM

The aim of this study to assess the knowledge, awareness, practices and impact of health education in dengue control.

MATERIALS AND METHODS

This community based study was conducted rural area at Keradamattam village, Kotagiri, Tamil Nadu, India in 2017. Totally 165 participants were enrolled in the study out of which 153 respondents participated in the study. Inclusion criteria: All aged 15 and above. Exclusion: Migrants from other areas (not representative, loss to follow up). Map of the village obtained from VHN, seven streets Chosen by lot method, participants from the street are interviewed. Self-developed questionnaire made for testing of Knowledge about Dengue fever, transmission & vector control; Knowledge on Aedes breeding sources; Aedes aegypti larval indices before imparting the health education and after imparting so was administered to the respondents for the survey. The Questionnaire was pilot tested and validated and then administered by the interviewer in the local language (Tamil). During the conduct of interviews, people revealed many of the misconceptions/myths related to Dengue and the research team eradicated the myths among the community by explaining the actual facts about Dengue during imparting the health education.

RESULTS

Before imparting health education, the scores for Knowledge about Dengue fever transmission and vector control in the community was 5.80 ± 2.45 whereas after imparting the health education it was escalated to 14.67 ± 3.84 . Similarly before imparting health education, the scores for the knowledge of the community regarding Aedes mosquito breeding sources in the community was 7.42 ± 2.59 whereas after imparting the health

education it was escalated to 9.14 ± 2.83 . The major improvements were also notified in percentages of house infested with larvae and pupae; water holding containers infested with larva and pupae; number of positive containers per 100 houses inspected and finally number of pupae per 100 houses inspected which are as follows.

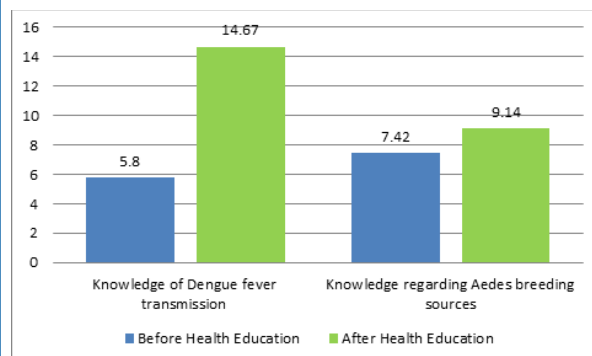


Figure 1 Comparison of Score before and after Health education to the community

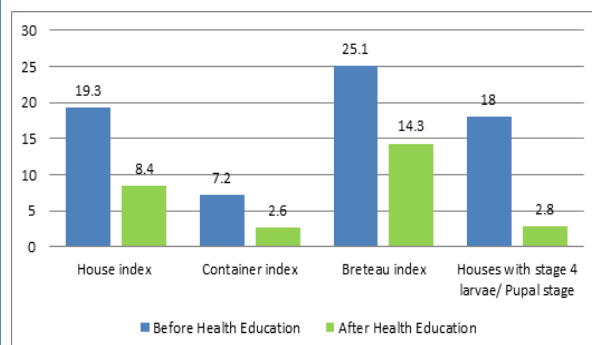


Figure House to house visits to assess Aedes breeding

CONCLUSION

This study clearly reflected that Respondents' knowledge was at border line but attitude and prevention practices for Dengue fever prevention and protection in the community was moderate before imparting the health education. It was pertinent that there was need of awareness among the community about the dengue preventive measures. The situation warrants more concentrated focus on educating people about the preventive measures through public health workers, social workers, electronic and print media. It should be the endeavor of the public health workers to bring a marginal change in attitude and practices towards elimination of mosquito breeding sources. Therefore Moral ethics on Good hygiene and sanitation sessions has to be conducted in regular intervals in rural areas regarding mosquito control measures.

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