



# IMPACT OF HEALTH EDUCATION INTERVENTION REGARDING THE AWARENESS OF DENGUE

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## ABSTRACT

**Background:** Dengue is one of the leading causes of morbidity and mortality in the developing world. WHO ranks dengue as the most major mosquito borne viral disease in the world?

**Methods:** This study was a prospective educational interventional study conducted from September to November 2014 in Krishna nagar area, Bhopal, Madhya Pradesh done by pre-designed interviewer questionnaire. The interviewee who was willing to participate in the study was given the questionnaire proforma and was asked to fill the proforma before and after the educational intervention and the results were analyzed.

**Results:** The study involved a total of 107 families who successfully answered all the baseline and follow up questionnaire. A total of 63 % males and a total of 33% females were participated in our study and a total of 18.8% increase in knowledge after the post intervention.

**Conclusion:** The study concludes that community mediated education on dengue disease and its consequences has improved the patient's knowledge, attitude and practice( KAP ) towards disease and this in turn can lead to better adoption of measurements for prevention of dengue fever.

**KEYWORDS :** Dengue, WHO, knowledge, attitude and practice (KAP)

## INTRODUCTION

Till 2003, only eight countries had reported dengue contracted cases. By 2009, countries excluding the Democratic People's Republic of Korea reported dengue outbreaks.<sup>1</sup> Dengue is a viral infection transmitted between to humans by *Aedes* mosquitoes.<sup>2</sup> For some patients, dengue is a life-threatening illness which can lead to mortality if not treated in time.<sup>3</sup> There are currently no vaccines or specific medications, and substantial vector control efforts that have stopped its rapid emergence and global emergence and spread.<sup>4</sup> The worldwide distribution of the risk of dengue virus infection<sup>5</sup> and its public health burden are poorly known.<sup>3, 6</sup> Knowledge of the geographical distribution and burden of dengue is essential for understanding its contribution to global morbidity and mortality, in determining how to allocate optimally use the limited resources available for dengue and vector control, and in evaluating the impact of such activities globally. Additionally, estimates of both apparent and in apparent infection distributions form a key requirement for assessing clinical surveillance and developing and improving vaccine demand and delivery strategies. Previous mapping of dengue risk and dengue affected area, resulted in various approaches combining historical occurrence records and expert opinion to demarcate areas at endemic risk.<sup>7,8,9</sup> More sophisticated risk-mapping technologies for dengue outbreak and area involved have also been implemented.<sup>10,11</sup>

## MATERIALS AND METHODS

This study was a prospective educational interventional study conducted from September to November 2014 in Krishna nagar area, Bhopal, Madhya Pradesh done by pre-designed interviewer questionnaire. The interviewee who was willing to participate in the study was given the questionnaire proforma and was asked to fill the proforma before and after the educational intervention. The following points were covered under the headings

- A. General information
- B. Knowledge about dengue
- C. Preventive practices against dengue
- D. Management of dengue.

Data analysis from the questionnaire were coded and entered into a computerized data base, and results were analyzed. The data collected was documented in both hardcopy and in electronic database created in Microsoft access 2007 for easy retrieval of the data. Development of KAP questionnaire: Validated KAP questionnaire was used in the study. These questionnaires had shown significant results in the study conducted by A.J. Abedi et al.<sup>12</sup>

**Designing and validation of educational material:** The educational material was designed by the project team and it includes the basic introduction about the dengue fever, information regarding how it is transmitted, the major signs and symptoms, the diagnosis procedure, complication of dengue fever, treatment available and the prevention and control measures against dengue fever. The English version of educational material was translated to Hindi. The concurrent validation of English and Hindi educational material was done by a clinical pharmacist and a physician.

## RESULTS-

The study involved a total of 107 families who successfully answered all the baseline and follow up questionnaire. A total of 63 % males and a total of 33% females were present in our study. Our study showed a total of 18.89 % increase in knowledge after the post intervention questionnaires.

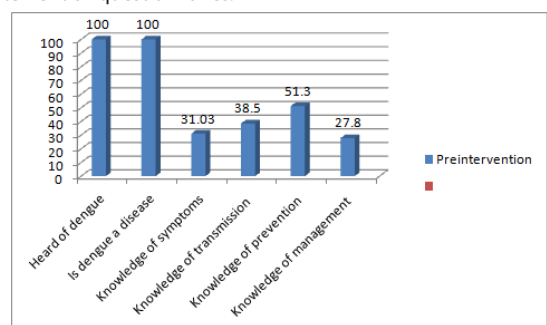
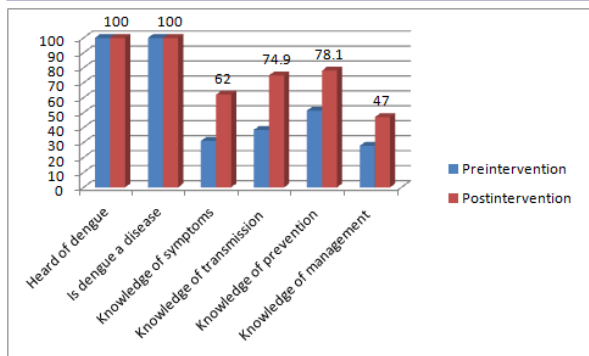


Figure no. 1- Pre intervention result



**Figure no. 2– Post intervention result in respect with Pre-intervention**

Figure no 1 and 2 and table no showing different variables and in pre and post intervention period. In this study after education intervention a total of 100 % of the participants knew what dengue was and that dengue was a disease. There was a total of 30.97 % increase in knowledge about symptoms of dengue, while a 36.4% increase in the knowledge of transmission of dengue infection occurred. About the knowledge of prevention of dengue disease there was an increase of 26.8% and increase of 19.2% about the management of dengue education.

Variables	Pre test, n(%)	Post test, n(%)	P value
<b>Heard of dengue?</b>	107(100)	107(100)	1
<b>Is dengue a disease?</b>	107(100)	107(100)	1
<b>Knowledge of symptoms?</b>	29(31.03)	58(62.0)	0.0001
<b>Knowledge of transmission</b>	36(38.5)	70(74.9)	0.0001
<b>Knowledge of prevention</b>	48(51.3)	73(78.1)	0.0009
<b>Knowledge of management</b>	26(27.8)	44(47.0)	0.013

**DISCUSSION**

The objective of this health education on dengue disease was to inform people about the available scientific knowledge and practice, so that it could bring changes in attitude for a better health and surrounding. The distribution of male and female participant's ratio in our study was almost similar to a study conducted by Madiha syed et al where 61% were males and 39% were females.<sup>14</sup> in this study 100 % of the respondents had heard about the dengue. Another study conducted by Gupta P *et al.* reported that 87.3% of the respondents were aware about the dengue.<sup>13</sup> there was a total of 18.89 % increase in knowledge after the educational intervention was taken about.

**CONCLUSION**

Health education is, as essential as the control of diseases such as dengue and common person should better understand the mechanisms of infection transmission, prevention, and methods of mosquitoes control by health education and intervention. This study concludes that health educational intervention is an effective tool for knowledge attitude and practice, prevention and control of dengue as disease. Based on our findings, it is recommended that future campaigns should involve more aggressive health education in schools and colleges and in local communities. The community and local schools involvement in the prevention and control of dengue is essential, but will not be effective while health education is poor irregular. A sustained routine education in school, colleges and community for dengue prevention and control is essential, and the need for approaches to ensure the translation of knowledge into practice.

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