Dengue fever: Knowledge attitude and practice among Indian community

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Abstract
Background: Dengue is a mosquito-borne viral infection. About half of the world's population is now at risk. There are an estimated 390 million infections each year. Dengue is endemic in 29 States and union territories. The rapid increase in human population, lack of awareness among people and increased breeding of vector mosquitoes.

Objective: To assess knowledge, practice awareness of dengue fever among rural population of India.

Material and Methods: Keyword searches of Pub Med, EBSCO, research gate online search of database.

Result: The knowledge and awareness regarding dengue fever is very poor among rural community of India. Preventive measures are not adequately used in Indian rural community due to lack of knowledge.

Conclusion: This study result shows that there was lack of knowledge about dengue fever because of that preventive practices for dengue fever were also affect.

Keywords: Dengue fever, knowledge, practices, rural, India

Introduction
Dengue is a mosquito-borne viral infection. The global incidence of dengue has grown dramatically in recent decades. About half of the world's population is now at risk. The global incidence of dengue has grown dramatically in recent decades. About half of the world's population is now at risk. There are an estimated 390 million infections each year (WHO, 2019) [1]. In India dengue fever has been known since 19th century and its cases had been reported from all parts of country (Kumar Ashok et al. 2010) [2].

After 1996, outbreak with a total number of 16517 cases and 545 deaths, upsurge of cases were recorded in 2003 with 12754 cases and 215 deaths. Subsequently, in the year 2005 again, 11985 cases along with 157 deaths had been reported respectively. In 2008, total 12561 cases and 80 deaths have been reported. Dengue is endemic in 29 States/UTs. After 1996, outbreak with a total number of 16517 cases and 545 deaths upsurge of cases were recorded in 2003, 2005, and 2008. In 2009 total 15535 cases and 99 deaths have been reported. During 2010, till November 25725 cases and 99 deaths have been reported (Government of India, 2010 to 2011) [1].

Dengue fever had been reported regularly in Tamil Nadu, Delhi, Maharashtra, Bihar and other states of India Dengue fever had been reported State. Dengue cases reported all the months but higher in September to December months (Kumar Ashok et al. 2010) [2].

India endemic for dengue till 30 November 2015 there was already 90040 cases of dengue fever and death due to dengue fever already reported in according to ministry of health and family welfare (Mohapatra Shana et al. 2017) [3].

Material and Methods
The primary focus of this review on knowledge, attitude and practice among rural population of India regarding dengue fever. Studies included in the review were identified by keyword searches of Pub Med, EBSCO, Research Gate, online search of database. Keywords searched included dengue fever, knowledge, awareness, practice, rural population, behavior. All study used in this review based on quantitative approach.
Eligibility criteria
- Study assess knowledge, practice and attitude regarding dengue fever,
- Study conducted on Indian rural population.

The research design used for these reviews was cross sectional study. All study collected data by semi structured questionnaire, structured questionnaire and stratified random sampling technique most commonly used in these studies and multistage cluster sampling techniques also used in one of the study. In Reviews data was collected by researcher in hospital setting OPD patients and rural population in India. The review focused on the period of 2010 to 2014 most of Indian study regarding knowledge, practice and attitude related to dengue fever among rural population in India. Probability sampling technique is most commonly used in these studies. After data collection most of studies used SPSS for statistical calculation of data, descriptive inferential statistics were also used.

Result
Majority of participant had knowledge regarding dengue the important source of information is telephone but poor preventive measures used by participant. The knowledge and awareness about dengue fever was inadequate. People had lack of knowledge that dengue mosquito bite at day time and breeds in clean water. The participants of the study used all preventive measures at night time. Television and health professionals are the major source for study participants. The knowledge and awareness about dengue fever was inadequate in rural area regarding mosquito control measures Knowledge about dengue among rural population are low they had positive attitude for application of preventive measures. Preventive practices are good for other vector borne disease.

<table>
<thead>
<tr>
<th>Problem Statement/ Author</th>
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<th>Tools</th>
<th>Time Duration</th>
<th>Outcome</th>
<th>Remark</th>
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</thead>
<tbody>
<tr>
<td>Knowledge awareness and practice regarding dengue among rural and slum communities in north Indian city, India. Malhotra Geetu et al.</td>
<td>Chandigarh city, India, 2011</td>
<td>Research variable Knowledge attitude and practice.</td>
<td>Questionnaire</td>
<td>June to July 2011</td>
<td>The knowledge regarding dengue fever is inadequate</td>
<td>Awareness regarding preventive measures for dengue fever was poor among rural and slum population. So there are need for health education program regarding dengue fever prevention.</td>
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Table 2: Study characteristics awareness and practice regarding dengue fever among rural population of India

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<tr>
<td>High level of awareness but poor practices regarding dengue fever control a cross-sectional study from north India Chinnakali palanivel et al.</td>
<td>AIMS Delhi outpatient department and 2010</td>
<td>Research variable Awareness, and practice</td>
<td>Questionnaire</td>
<td>July Month 2010</td>
<td>Study result shows that in this study participants had high level of knowledge but preventive practices were poor</td>
<td>Motivational Campaigning and monitoring is needed for uses of preventive measured for dengue fever</td>
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Table 3: Study characteristics knowledge, attitude and practice regarding dengue fever among rural and urban population of India

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<tr>
<td>Study of knowledge attitude and practice regarding dengue in the urban and rural field practice area of tertiary care teaching hospital in Pune, India Singru samie et al.</td>
<td>Tertiary care teaching hospital In Pune, India. 2011</td>
<td>Research variable Knowledge attitude and practice regarding dengue</td>
<td>Semi structural Questionnaire</td>
<td>April to June 2011</td>
<td>Urban population samples were more aware about dengue symptoms and breeding site. This study finding also shows that there is no difference in preventive practices between urban and rural study participants</td>
<td>Urban populations are more aware about dengue fever but there is need for using preventive measures by urban and rural community</td>
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Table 4: Study characteristics awareness and practice regarding dengue fever among rural population of India

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<tbody>
<tr>
<td>Awareness and practice towards dengue fever in Kammangala village, Bangalore Karnataka, India C pradep et al.</td>
<td>Kammangala village field practice area of Delhi institute of medical sciences and research center Bangalore. 2014 to 2015</td>
<td>Research variable Awareness Knowledge Regarding dengue fever</td>
<td>Semi-structural questionnaire</td>
<td>July 2014 to December 2015</td>
<td>Knowledge and practice regarding dengue is not satisfactory The major source of the information for this study participant was mass media</td>
<td>Dengue is a life threatening condition in rural community due to lack of knowledge, awareness about disease and its preventive measures. Need health care awareness program by health care provider</td>
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Table 5: Study characteristics knowledge, attitude and practice regarding dengue fever among rural population of India

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<tr>
<td>Knowledge attitude and practice regarding dengue fever among general patients of rural tertiary care hospital in Sasaram, Bihar Mohapatra sahana et al</td>
<td>Narayan medical college and hospital 2015</td>
<td>Research variable Knowledge, attitude, and practice</td>
<td>Questionnaire (close ended)</td>
<td>November to December 2015</td>
<td>Majority of participant were able to identify fever as a important symptom of dengue. All participant uses preventive measurer’s almost all participants are having habit of using mosquito net. Mostly participants cover water container in there home.</td>
<td>Knowledge level among rural community about dengue fever are less. Early identification of cases can decrease morbidity. Health behaviour modification and knowledge regarding typical symptoms of dengue fever can be improve by ignition of health care members of community.</td>
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Discussion
This present study result shows that knowledge regarding prevention of dengue fever was not adequate so there is need for health education regarding dengue fever and its preventive measures among Indian population. Continuous monitoring is also required.
A study perform in Pondicherry India result shows that 85.5% participants were aware that dengue is transferred through mosquito bite. According to 8.2% participants that this disease is transmitted through contaminated water and food. Preventive measures for dengue fever 48% of waste disposed by Municipal Corporation and 38% of population dumping it on vacant site. Nearly 42% population store water small container for storing water (S Jeelani et al. 2014).
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Major outbreak was recorded in Chennai city Tamil Nadu. Awareness regarding dengue fever and preventive measures used by participants was poor (Kumar Ashok et al. 2010) [2]. The study result shows that he knowledge of dengue disease symptoms was very poor, especially the dengue specific symptoms of fever with retro-orbital pain, rashes, which were mentioned by only 13.75% of the study participants. 79.8 % respondents knew about breeding places of mosquitoes. The study done in Pune shows that there was difference between knowledge level of urban population and rural population participant. Urban area participant had high level of knowledge than the rural population and Preventive measure used by rural and urban participants were same (Singru Samir et al., 2011).

Conclusion
This study result shows that knowledge about dengue fever and its preventive are poor. Some study result shows that knowledge level about dengue fever is adequate but there is preventive practices are still in lack. There is gap between knowledge and practice. So results of this study shows that awareness and preventive measures use in morning time for prevention of dengue fever was very poor in Indian rural community.

Dengue awareness among different levels of educated groups, it became clear that the degree of knowledge on dengue increased based on level of formal education. Knowledge regarding dengue fever mosquito vector biting during morning time was less among participants. (Kumar Ashok et al. 2010) [2].

References