Role of media for developing health communication: Specific study of television for dengue fever

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Abstract
Communication is basic necessity of transferring views, beliefs, customs and feelings of one individual to other or one community to other. It is said that without communication a person can’t survive. Communication is the only way of seeking solution of any problem. In this context health communication has become a very important need of the hour. Health is something that is worldwide concept. There are many new diseases evolving those have major effects on human health. So health communication is necessary in order to make people aware about the remedies or precautions about the particular disease. Media is playing a vital role towards this side but still there are many challenges in the way of health communication being faced by media. As a result of that media is not fully able to reach people carrying health information. Information related to health diseases should be the foremost duty of media to inform public about health concerns and to maintain important health issues on the public agenda. Dengue is one of the fatal disease appearing very fast among people of India. It is a febrile illness that affects infants, young children and adults with symptoms appearing 3-14 days after the infective bite. The number of cases reported increased from 2.2 million in 2010 to 3.2 million in 2015 (WHO). Mass media like newspapers, television and online media need to disseminate useful information by education and promotion related to dengue to the public, increases awareness of specific aspects of health issues by showing multiple ways to come out from a particular disease. This paper will try to find out the real role of media (more emphasis on television) to disseminate information of dengue and will highlight the comparative data of rural and urban areas specific to the dengue fever. Moreover the state disparity shall also be discussed in this paper and will provide a good comparative data regarding this fever. In order to reduce treatment inequalities, main questions target on the need of dengue awareness and an exchange of best practices. This paper will also discuss some initiatives taken by government of India to make people aware about dengue and will try to find out the deficiencies in disseminating information related to the dengue communication. Study of Indian media will be discussed in this paper in order to know challenges and required actions for make dengue communication easily accessible by public.

Keywords: Health issues, dengue, mass media, health communication, radio & TV broadcasting, deficiencies in health promotion

Introduction
The health communication is a strategic communication science process that helps us confront imposing public health challenges. The process includes using multiple behavioral and social learning theories and models to advance program planning, and identifying steps to influence audience attitudes and behavior. Effective health communication is essential because it equips the public with the tools and knowledge to respond appropriately to health crises such as flu outbreaks, dengue, HIV/AIDS, malaria etc. The health communication and social marketing practices at CDC draw on the work of scholars and practitioners in a wide range of sciences and disciplines. This has been honed into a strategic communication science process that helps us confront imposing public health challenges. The process includes using multiple behavioral and social learning theories and models to advance program planning, and identifying steps to influence audience attitudes and behavior. Effective health communication is essential because it equips the public with the tools and knowledge to respond appropriately to health crises such as flu outbreaks, HIV/AIDS, malaria etc. Media has always played a vital role in spreading knowledge about health. Media is an only tool which makes public aware regarding events in across the country and cross the country.
Its role is not limited to aware public with the events happening in their surrounding areas but to alarm public with health issues and that must be the major area of media houses. There was a great role of communication by media in polio eradication efforts in improving the lives of children of India (Reneta schiavo, senior Lecturer in Socio-medical Sciences). Health has always been a primary concern of every government as well as NGOs and media is the only tool which can be used to reach public sitting at any corner of the world. Like many diseases dengue has become a major fever which has taken life of many people. Media like television and radio keep alarming people for getting rid of dengue fever but there is very less full-fledged broadcasting programmes by television and radio about the remedies of dengue. Many studies like “Awareness about dengue syndrome and related preventive practices amongst residents of an urban resettlement colony of south Delhi” have been conducted to know the effect of dengue and to know to climate responsible for spreading of dengue but I have not found any study which would have talked about the role of television and radio in spreading knowledge for the ways to come out from dengue fever. This paper will try to find the effect and role of television and radio for overcoming the major disease dengue. This research paper is insight knowledge to understand the challenges or problems coming in the way of radio and television to broadcast content for remedies of dengue fever.

Some challenges media is facing relating to health communication

- Inaccurate, partial and unreal facts related to health published on media channels and social networking sites are a big challenge for media. People used to get mislead by using false information. People upload false information just on the basis of some rumors and this information may get the life of someone into a risk. (DR. Wilby Williamson)
- Lack of interest and lack of health communication strategies of media houses are always been a major challenge. There are very less channels which are getting aware people of the country about the reasons and background of the disease. That is why reporters of different channels are not fully aware about the basic remedies of a particular disease. So proper health communication related skills required for a reporter who is covering health beat.
- There is not any guideline for media to broadcasting fully health related programmes by government of India. That is why media only inform public about a health disease but not about its remedies with an effective manner.
- There is very less participation of experts and public in health related debates. It is a basic reason of broadcasting meager trustworthy news of health diseases. Useful information and correct present benefits and risks of a certain health behavior are not shared by any expert or doctor on media. That is why media could not provide adequate information related to health.
- Media is less interested to reach door to door and ask people about their health related issues. Getting data of people got die with a particular disease should not be sufficient only.

Objectives of the study

- To find out the ways by which media can reach to large audience related to dengue disease.
- To exchange views and learn from health experts about dengue research and find different marketing techniques to make dengue medicine easily accessible by public.
- To identify the main challenges faced by researchers and media channels in the field of dengue communication.
- To discuss ethical values and the use of new technologies and instruments for communication related to dengue.

Dengue

Dengue is a viral infection by mosquito-borne. It is transmitted by the bite of a mosquito mainly of the species Aedes aegypti and Ae. albopictus. This mosquito also transmits chikungunya, yellow fever and Zika infection. Dengue is a fever which is not transmitted directly from person-to-person. Its symptoms are mild fever, to incapacitating high fever with severe headache, pain behind the eyes, muscle and joint pain and rash (WHO). The global incidence of dengue has grown dramatically in recent decades. About half of the world's population is now at risk because of dengue. There is no proper vaccine or any specific medicine to treat dengue but early detection and access to proper medical care lowers fatality rates below 1% (European Centre for Disease Prevention and Control). Dengue is characterized by fever, abdominal pain, persistent vomiting, bleeding and breathing difficulty and is a potentially lethal complication, affecting mainly children (Health Promotion Research Centre). It is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas. In some Asian and Latin America Countries, dengue is a leading cause of serious illness and death among children. A dengue vaccine has been licensed by several National Regulatory Authorities for use in people 9-45 years of age living in endemic settings(Canadian Institutes of Health Research).

Dengue development

The cases of dengue have grown dramatically around the world in recent decades. The indeed numbers of dengue cases are underreported and many cases are misclassified. One recent estimate indicates 390 million dengue infections per year, of which 96 million (67–136 million) manifest clinically (WHO) Another study of dengue estimates that among 128 countries 3.9 billion people are at risk of infection with dengue viruses(WHO) Before 1970, there were only 9 countries which had experienced severe dengue epidemics and this disease is now endemic in more than 100 countries in the WHO regions of Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific. The counties which are most seriously affected are America, South-East Asia and Western Pacific regions. The threat of dengue fever now exists in almost whole Europe as local transmission and it was reported for the first time in France and Croatia in 2010 and imported cases were detected in 3 other European countries. In 2012, an outbreak of dengue on the Madeira islands of Portugal resulted in over 2 000 cases and imported cases were detected in mainland Portugal and 10 other countries in Europe.
Dengue in India

India is facing a big problem of a dengue fever and it is probably the worst disease India is facing in the last ten years. Dr Sushila Kataria, Division of Internal Medicine, Medanta said that "This year (2016), we found 25 per cent hike in the cases of dengue than the previous year." Dr Sushila believes that for past few years, the incidence has been getting worse each passing year.

Dr Mukesh (Senior Consultant, Internal Medicine, Max Super Speciality Hospital, Patparganj) adds that dengue symptoms show within the first 2 to 4 days of dengue's commencement. Post that, one may experience a rapid drop in temperature and intense sweating occurs. A day with normal temperature and well-being goes by and the following day one might see an abrupt rise in temperature again. That's when red rashes develop on the body. "However, rashes rarely occur on the face. The palms of the hands and soles of the feet may be swollen and bright red." As well as risk communication from authorities proved to be very ineffective. The lack of proper strategies for both prevention and reaction to dengue outbreaks resulted in low levels of public awareness and poor coordination between different institutions. A series of mistakes for which India is now paying the price: so far, more than 38,000 cases have been reported by the Indian Ministry of Health across the country since January, with 109 deaths. Huge numbers, if compared with the over 50,000 of the whole 2012. Only in New Delhi, the disease has affected 2557 persons, three of whom have died, with more than 400 new cases reported in the last few days (Tell me, 2014). The Dengue cases have peaked in the capital and till now, the disease has killed over 25 lives and more than 3,000 have got infected. Hospitals in Delhi are getting swarmed with dengue and chikungunya cases. Last year, nearly 5,982 cases were testified from Delhi hospitals till September 28. According to the doctors, the outbreak of the disease was the most horrific one. Only 98 cases were recorded till this time in 2014 (India Today, Sept 2016).

WHO responses for prevention of dengue

- WHO is giving fully support to countries in the confirmation of outbreaks through its collaborating network of laboratories.
- It is extending support to countries to improve their reporting systems and capture the true burden of the disease.
- It helps in formulating evidence-based strategies and policies.
- WHO provides diagnosis facility, training on clinical management and vector control at the regional level with some of its collaborating centres.
- It provides technical support and guidance to countries for the effective management of dengue outbreaks.
- It is developing new tools, including insecticide products and application technologies.
- WHO is gathering official records of dengue and severe dengue from over 100 Member States.

Facts and findings related dengue fever

According to the World Health Organization (WHO), there are about 390 million cases of dengue fever worldwide, and of the total number of cases, 96 million require medical treatment. India also saw more than double cases of dengue from 2014 to 2016 and the worst hit city was Delhi with covering 1800 cases of the fever.

Dengue is endemic in 112 countries in the world at present. Approximately 2.5 to 3 billion people to be at risk of acquiring dengue viral infection specially living mainly in urban areas of tropical and subtropical regions. Estimates said that every year 100 million cases of dengue fever and almost half a million cases of dengue haemorrhagic fever (DHF) occur in the world with a case fatality of 0.5–3.5% in Asian countries and among those with DHF, 90% are children more than 15 years of age. In compare to this in the year1998 pandemic, 1.2 million cases of DHF occurred in 56 countries with 3 to 4% fatality. (WHO)

In this paper cross-sectional study was undertaken in the urban area named “Golden Avenue” and in rural area named “Village Ajnala” at Amritsar, Punjab, North West state of India from July–August 2016. All the households were between the age of 15 and 60 years at the time of the visit and all were residing in the area for at least six months included in the study. There were many houses which were locked and after two consecutive visits or refused to participate in the study, were excluded from this study.

Pre-tested semi-structured questions were prepared in English and were translated to Punjabi, the most widely spoken language of the community. The questions were total of 20 in numbers and were divided in four sections: (i) Demographic profile (ii) Practices related to dengue/mosquito control (iii) Knowledge regarding dengue (iv) Sources of information regarding dengue and (v) Nature of Programmes Broadcast by Television. To collect the data House-to-house visits were conducted and total 200 household were taken in which 100 were urban households and 100 were rural households. After collecting the data, percentage of data has taken and found that how media (Television) is lacking to reach public related to dengue fever. People were selected on the basis of random sampling

Table 1: No of persons involved in study in urban area out of 100 and No of persons involved in study in rural area out of 100

<table>
<thead>
<tr>
<th>Nature of the participant</th>
<th>No of persons involved in study in urban area out of 100</th>
<th>No of persons involved in study in rural area out of 100</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (15-60)</td>
<td>90</td>
<td>80</td>
<td>90%-80%</td>
</tr>
<tr>
<td>Male</td>
<td>50</td>
<td>60</td>
<td>56%-75%</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>20</td>
<td>44%-25%</td>
</tr>
<tr>
<td>Knowledge about dengue</td>
<td>70</td>
<td>50</td>
<td>78%-66%</td>
</tr>
<tr>
<td>Aware about dengue symptoms</td>
<td>40</td>
<td>30</td>
<td>44%-38%</td>
</tr>
<tr>
<td>Dengue effected</td>
<td>60</td>
<td>50</td>
<td>67%-63%</td>
</tr>
<tr>
<td>Not effected with dengue</td>
<td>30</td>
<td>30</td>
<td>33%-38%</td>
</tr>
</tbody>
</table>
Majority of the respondents 90% from urban area and 80% from rural area were in the age group of 15–34 years. Mostly males 56% from urban and 75% from rural area were presented at the time of the study. According to their literacy status, about 78% respondents were educated about dengue fever in urban areas and 66% were educated in rural area. Only 44% in urban and 38% in rural area were known about dengue symptoms. Study found almost 67% people in urban area and 63% from rural area that was affected from dengue. The most common cause of dengue was cited as ‘mosquito bite’ (75% in urban and 70% in rural). Others who mentioned cause of dengue dirty drinking water were 25% in urban area and 30% from rural area. Only 8% respondent from urban area and 14% from rural area did not respond and 2% respondent from urban area and 6% in rural area were either out of the city and village or their houses found locked. 68% respondents said that dengue can spread and out of them only 55% knew that it spreads through mosquito bite.

Table 2: Preventive practices for dengue fever

<table>
<thead>
<tr>
<th>Preventive practices for dengue fever</th>
<th>Urban</th>
<th>Rural</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention of Water stagnation</td>
<td>20</td>
<td>40</td>
<td>44%-25%</td>
</tr>
<tr>
<td>Insecticide spraying</td>
<td>25</td>
<td>20</td>
<td>22%-31%</td>
</tr>
<tr>
<td>Mosquito repellents</td>
<td>35</td>
<td>30</td>
<td>34%-44%</td>
</tr>
</tbody>
</table>

Among the 90 respondents from urban and 80 respondents from rural 44% in urban said that they are doing work for prevention of water stagnation to overcome the dengue impact. 31% from rural area said that insecticide spraying is the best way to get rid from this fever and 44% in urban area said that mosquito repellents are the only way to remove dengue fever from the region.

Mosquito net was used by only 5.5% respondents. About 8% people did not practice any preventive measure. Among those using mosquito repellents and spraying majority 77% used it during night time. Among the total half of the respondents 54% practiced preventive measures daily and the rest used sometimes.

Table 3: Source of Information

<table>
<thead>
<tr>
<th>Source of Information</th>
<th>Urban</th>
<th>Rural</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>15</td>
<td>40</td>
<td>17%-50%</td>
</tr>
<tr>
<td>Television</td>
<td>35</td>
<td>20</td>
<td>39%-25%</td>
</tr>
<tr>
<td>Newspapers</td>
<td>40</td>
<td>20</td>
<td>44%-25%</td>
</tr>
</tbody>
</table>

In this study sources of information about dengue were taken television, radio and newspapers. 17% from urban area and 50% from rural area got information about dengue on radio while more respondent in urban area(39%) acquired knowledge from television. Only 25% respondents from rural area got aware about dengue fever by newspaper.

These people have also mentioned that although television, radio and newspapers are the good sources of health information but except newspapers and radio, television broadcasts dengue prevention related programmes very less. People said there are hardly any programme broadcasted by television which was fully consisting with experts of dengue and common public. Television has a great role in expanding knowledge about everything. It should set sometime for telecasting programmes on health issues with proper guidelines. Almost 75% respondents said that they got fully knowledge about dengue symptoms and remedies by newspaper’s articles.

Table 4: Nature of Programmes Broadcast by Television

<table>
<thead>
<tr>
<th>Nature of Programmes Broadcast by Television</th>
<th>Urban</th>
<th>Rural</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment</td>
<td>20</td>
<td>20</td>
<td>22%-25%</td>
</tr>
<tr>
<td>Sport</td>
<td>20</td>
<td>5</td>
<td>22%-6%</td>
</tr>
<tr>
<td>Politics</td>
<td>40</td>
<td>45</td>
<td>44%-56%</td>
</tr>
<tr>
<td>Health</td>
<td>10</td>
<td>10</td>
<td>11%-13%</td>
</tr>
</tbody>
</table>

In the study, what kind of Programmes are broadcasting by Television- 22% persons from urban area and 25% persons from rural area said that television only broadcasts Entertainment Programmes while 22% from Urban and 6% from rural said that television only broadcasts Sport programmes. In spite of these 44% persons from urban and 56% persons from rural mentioned that television mostly broadcasts political news and minimum people (11% from urban and 13% from rural) said that television broadcasts health related programmes.

This shows that television should give more space to programmes which covers health related shows. Television should call doctors and experts of specific diseases at different times to have debates on it so that people could have deep knowledge about diseases. Dengue has become a fatal disease in these days so television should cover more and more dengue related programmes with ample of information. Prime time in television should give some space to health shows as we see maximum at prime time television broadcasts programmes of entertainment and Politics. Television is a big source of information. It has become a major part of life. People believe on it and all behavior of people is effected by television only so television should work on this side with effective way.

How to reach public with more effective way

After having discussion with health experts and people they mentioned following points to overcome this disease.

- Governments should disseminate its scientific work and provide health information to meet the specific needs of different audiences. Building knowledge on how to effectively approach specific audiences with health information.

- There is a great role of the mass media in health, health promotion and in improving health information. In order to reduce health inequalities, main questions should target on need of health promotion and an exchange of best practices.

- Mass media should make plans for effectively approaching specific audiences with health information.
A specific time slot should be set by media houses for health communication only.

- Some experts said suggested that there is a need of preventing mosquitoes from accessing egg-laying habitats by environmental management and modification.
- There is a need of Covering, emptying and cleaning of domestic water storage containers on a weekly basis.
- People should use personal household protection such as window screens, long-sleeved clothes, insecticide treated materials, coils and vaporizers.
- Media should improving community participation and mobilization for sustained vector control.
- Local municipalities should apply insecticides as space spraying during outbreaks as one of the emergency vector-control measures.
- Active monitoring and surveillance of vectors should be carried out to determine effectiveness of control interventions.

Conclusion
In the nutshell, although the awareness regarding dengue and mosquito control measures was quite high, more emphases should be laid on putting this knowledge into practice. This can be achieved by more aggressive health education campaigns in the community through the media houses and also making compulsory participation of effected people and experts. Television should do more work towards this side. In addition, special programmes related to dengue fever should broadcast by media. So that appropriate specific action can be taken for the control of this disease. Moreover governments and media guilds should make plans and regulations for broadcasting houses to broadcast maximum health related issues on television and radio because they are the strong medium to reach maximum number of people.

Future prospective of this study
(a) The above observations may be true only for the study population of specific area because of convenient sample is taken in this study and it cannot be generalized to other populations belonging to different socio-economic or cultural backgrounds.
(b) This study can be broad to National level.
(c) Online media can be involved for future study.
(d) Effective communication by seminars or workshops related to this problem can be involved.
(e) Youngsters can involve in this study in order to know the use of online media to search this particular disease.

References