

Dengue Campaign and the Youth Behavior: A Study of Fear Appeal Impacts

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Abstract

Dengue has become a major health concern for WHO and the governments worldwide. The disease has taken the shape of epidemic in few countries like Pakistan. Every year, during a particular time period, hundreds of people fall prey to the disease resulting alarming death tolls also. Over hundred people reported dead in a month during spring 2012 in Punjab. Renowned doctors and health organizations denounced that there is no ultimate remedy for the disease but a continuous and careful series of preventive measures. This is where media can play integral part in creating awareness among public regarding the disease and its precautions. In Pakistan media played an important role in this context using fear appeals in their campaign. The study at hand is an effort to find out if the media has helped people be aware of the disease and take recommended preventive measures against the disease or not. This study is based on the theoretical foundations retrieved from the Health Belief Model proposed by U.S. social psychologists Hochbaum, Rosenstock and Kegels in 1950s. Scholars referred this model as risk learning model because the goal is to teach new information about health risk and the behaviors that minimize those risks. The researcher has focused on university students from Faisalabad as respondents to find out how they felt about and behaved after being exposed to the media campaign containing fear appeals.

Keywords: Dengue Campaign, Youth Behavior, Dengue awareness, health concern

Introduction

The dengue word is derived from the Swahili phrase “Ka-dinga pepo” which means cramp just like a seizure caused by an evil spirit. The English version of this term was Dandy fever. Dengue fever is an illness in humans. It is spread by the bite of female Aedes mosquito. Dengue mosquito is born in the clean water. The color of legs of dengue mosquito is black and white (Dick, Martin, Montoya, Diego, Zembrano, & Dayan, 2012).

In 1779, first time dengue fever was outbreak in Asia and in 1820 in East Africa. In 1827, the term “Dandy fever” was altered into “Dengue fever”. The first epidemic of dengue fever was described in modern era in Manila in 1953. Before 1970, only nine countries had known about dengue fever and after that, outbreaks of dengue fever became more common. In these days, two fifth of the world’s population is at risk due to dengue and it has spread in more than 100 countries. Approximately, 2.5 billion people are at risk (Dick, Martin, Montoya, Diego, Zembrano, & Dayan, 2012).

World Health Organization (WHO) said that dengue fever has become a major international public health concern and there may be 50 million dengue infections worldwide every year.

The first dengue fever case in Pakistan was reported in 1994 in Karachi. Now, dengue fever has spread rapidly after two decades. Specifically in the province of Punjab, more than 131

people were reported dead in a month and according to the Punjab Health Department, over 12,000 people have been infected since January to December 2012. However, in this season (Spring 2012) five hundred new dengue cases were reported across the Punjab (Rana, 2012).

According to Whitehorn & Farrar, (2010), “there is no effective vaccine available for dengue” so there are some difficulties to control the growth of dengue mosquito. The Punjab Government launched Anti-Dengue Campaign for the prevention of the disease and threat was presented in dengue campaign in the shape of death’s fear for the implementation of recommended actions. Such as, don’t want to get sick, don’t want to be hospitalized, and don’t want to miss my class and don’t want to die, want to live my life fully.

The aim of dengue campaign is that people follow the preventive measures. Such as, cleaning standing water in old tires, clean unnecessary water from house, wear full sleeve clothes, cover tank of storage water, change the water in bird baths and stay inside when mosquitoes are most active.

Researcher wants to find out the impact of fear appeal of dengue campaign on the youth behavior. This research will provide us the information of people’s awareness about dengue knowledge and to what extent people followed the recommended actions due to the fear appeal.

The survey, as a research methodology for the study at hand, will provide a suitable format to evaluate existing programs and identify effective strategies for behavior change.

The main purpose of the study at hand is to find out if the fear appeal of dengue campaign successful for the positive change in the behavior of Faisalabad’s youth?

Operationalization of the key terms

Impact

In this study the term impact is considered as the behavioral change according the given message on dengue precautionary measures.

Fear appeal

Fear appeal is built upon fear. Its purpose is to move the audience towards a goal. Fear appeal gives the message “if you don’t do this then some particular loss will occur” (Williams). Fear appeal is effective in changing behaviors of people and persuasiveness (Snipes, Bliss, & LaTour, 1996).

The researcher has selected only dengue campaign and wants to know the impact of fear appeal of dengue campaign on the behavior of Faisalabad youth.

Youth

For the study at hand, the researcher has selected boys and girls ranging from 18-24 years in their age from colleges and universities in Faisalabad.

Behavior

The action or reaction of a person in response to stimulation is called behavior. These actions and stimulations have some effects. There is a cause for everything that happens (Roger Sheldon, 2005).

Researcher wants to know the impact of fear appeal of dengue campaign on the behaviors of youth. In this particular study, the behaviors mean the reaction of youth in response to watching fear appeal of dengue campaign.

Rationale of Study

Researcher wants to find out whether the fear appeals of dengue campaign have impact on the behaviors of youth or not? The researcher has focused on the behavioral change of fear appeal of dengue campaign on the youth that how these dengue campaign ads are changing the behaviors and giving awareness.

Rationale of Selecting Dengue Campaign Ads

Today fear appeal is playing very important role in our daily life. It is impossible for us to avoid these appeals. Researcher intends to study that what impact is going on the youth by watching dengue campaign ads. Majority of the people fear from the threat of dengue because they feel themselves at risk due to the campaigns.

Rationale of Selecting Youth

Youth are very important part of any country's population and they are the future of any nation. The researcher has only focused on the youth of 18-24 years old only because they accept change very quickly and they are always in search of new thing that what is going on. They want to keep them up to date with the help of media directly or indirectly and are more conscious about their health.

Rationale of Selecting Area

Till now, no research has been conducted on the impact of fear appeal of dengue campaign on the behaviors of Youth of Faisalabad. As the researcher also belongs to Faisalabad so it was also convenient for him to observe the youth of own area to conduct the study deeply to find out behavioral change.

Objectives of the Study

The purpose of the study is to find out if the fear appeals of dengue campaign ads have any impact on behaviors of youth or not? If yes then how dengue campaign ads are affecting their daily routine and social life?

To examine youth's awareness and response after watching anti-dengue advertising campaign.

To investigate the impact of fear appeals of dengue campaign; positive or negative on the behaviors of people.

If, there is no impact of fear appeal of dengue campaign on the behaviors of youth then advertising agencies should follow the health belief model for acceptance of recommended actions.

Scope of Study

The researcher wants to study the impact of fear appeal of dengue campaign on behaviors of youth because youth is supposed to be the future of any nation and they accept the change and innovations very quickly. Youth are heavy users of media. They watch dengue campaign ads and also contribute in it and these ads get attention of the youngsters. So the researcher wants to find out whether these dengue campaign ads are affecting the behaviors of youth or not?

Limitations of the Study

It is not possible for a researcher to study all the aspects of the research work. The researcher in this study has only studied the changing in behaviors of youth by the dengue campaign ads. The study is limited because of the selection of particular and limited sample of the respondents, the time period, the area and the type of fear appeals i.e. dengue fear appeals.

Hypothesis

Dengue fear appeal campaign changes youth behavior.

Literature Review

The use of fear appeals in health campaign was integral and important for the implementation of recommended actions. Due to fear appeal, people have focused on campaign and remembered it. People discussed the disease and prevention measures. The media health campaign reached the majority of students with a large favorable impact on their behaviors (Hong, Johnson, Boris, Myers, Brewer, & Webber, 2008).

Thomas W. Scott et al., stated that fear appeal was effective part of dengue campaign. People have known that the dengue campaign was the best way to giving knowledge of preventive measures. So, for the implementation of recommended actions, the fear appeal should be at high level and the knowledge of preventive measures should be high (Harrington, Scott, Lerdthusnee, Coleman, & Costero, 2005).

Natascha de Hoog et al. (2004) stated that strong arguments have been changed the respondent's attitude towards the recommended actions rather than weak arguments. The respondent produced fewer negative thoughts about the training due to strong arguments. The respondent produced more negative thoughts about the recommended actions due to weak arguments. The respondent did not take any interest in the health campaign due to the low level of fear (Hoog, Stroebe, & de Wit, 2005).

Lewis et al., stated that the effectiveness of recommended message depended upon the high fear appeal (Lewis, Watson, Tay, & White, 2007).

In health message, fear appeals have been shown to be effective in behaviors change (Mongeau, 1998).

Lisa Murray Johnson et al. (2000) argued that cultural orientation was an important variable in analyzing the effectiveness of fear appeal. Those individuals who have group needs more than self-needs were more persuaded by fear appeals that threaten the group or family, while those individuals who have self-needs more than group needs were more persuaded by traditional fear appeals that threaten the individual (Sampson, Witte, Morrison, Liu, Hubbell, & Johnson, 2001).

Evans, Rozelle, Lasater, Dembroski, & Allen, (1970) founded that fear appeal messages were more effective in creating anxiety but they were not more successful in changing behavior than positive appeals.

Spence & Moinpour, (1972) founded that fear appeals were designed to produce anxiety in an audience with the expectation. The audience reduced this anxiety by adopting a specified course of thought or action. So, mostly people behaved according to the recommended action.

McCombs and Shaw (1972) said that mass media was the best way for emphasizing on the importance of social issues and the use of fear appeal in mass media campaigns had greater impact on the behaviors. In pandemic situation, use of fear appeal in health campaigns was more effective.

Spence & Moinpour, (1972) suggested that level of fear appeals should be evaluated for psychological effects before launching the advertising. The marketers have been concerned with improving the effectiveness of advertising through the use of fear appeals.

Rosenberg (1956) argued that fear appeals have been used extensively in marketing communications. Some forms of fear appeals were necessary for changing the behaviour of individual and the presentation of information alone was insufficient. Use of fear appeals changed the behaviors of people.

As in all cases of literature review, above-mentioned studies helped researcher determine the relevance and importance of the study. The researcher could easily develop hypothesis and follow the way to find out the answer of the problem under study.

Theoretical Framework

Each research is based on some theoretical framework, which supports and provides the research with conceptual bases. The study at hand is based on health belief model.

Health Belief Model

Health belief model was first developed in 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services (Rosenstock, 1974).

Health belief model argues that fear appeal has impact on the audience's attitudes and behaviors. If, a respondent feels a negative health condition and he or she is at risk for contracting a specific illness. If, He / she feels that this specific illness can be severe and he or she has positive expectation by taking a recommended action. If, identify his/her personal barriers to using recommended action and explore the ways to eliminate these barriers and he or she believes that he/she can successfully take a recommended health action (Becker, Radius, & Rosenstock, 1978).

In describing health belief model, (Pechmann, 2001) referred to it as a "risk-learning model because the goal is to teach new information about health risk and the behaviors that minimize those risk" (p. 189).

The overall premise of the health belief model is that knowledge will bring change. Knowledge is brought to target audience through an educational approach that primarily focuses on message, channels and spokespeople (Andreasen, 2002).

Core Assumptions and Statements

The Health Belief Model is based on the understanding that a person will take a health related action if that person:

Feels that a negative health condition can be avoided,

Has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition, and

Believes that he/she can successfully take a recommended health action.

Relevance to the Present Studies

Health belief model is about the health behaviors and explain why people do not participate in programs that can help them. Health belief model explains that fear appeal has impact on the attitudes and behaviors of people. If, risks and benefits of recommended action tell to the people in right ways.

The study at hand is also an attempt to find out about the impact of fear appeal of dengue campaign on the behaviors of youth of Faisalabad. This study is to find out how fear appeal of dengue campaign is changing the behaviors of youth.

Research Methodology

For conducting the research the researcher has selected quantitative research method. The tool of survey method is adopted to know about the impact of fear appeal of dengue campaign on the behavioral change of youth of Faisalabad.

Survey Method

This research is based on survey by using the tool of questionnaire. Questions are closed ended. According to Wimmer & Dominick, (2003) audience and consumer surveys are common place in all areas of life. There are two major types of survey research. A descriptive survey attempts describe or document current condition or attitudes, that to explain what exists at the moment. An analytical survey attempts to describe and explain why situation exists.

Universe

The universe for research is the university and college students of Faisalabad from Government College University and Government College for Women Gulistan Colony, Faisalabad.

Sample

Stratified sampling is used for this study, in two strata male and female and from college and universities. Sarantakos, (1998) says this is special form of simple or systematic random sampling, in which the population is divided into a number of strata and a sample is drawn from each stratum.

The researcher has selected stratified sampling because the topic of researcher is on the impact of fear appeal of dengue campaign on the behavioral change which is totally social topic and researcher wants to find out whether fear appeal of dengue campaign has impact on the male or female students.

Participants

Forty participants will be selected from GC University and Government College for Women Gulistan Colony.

Sample Size

The researcher has selected only forty respondents as Sarantakos, (1998) says that many statistical measures are designed for sample size smaller than thirty. (p. 157)

O'Leary, (2004) says if your goal is to just basic statistical analysis (sometimes used to support more qualitative data analysis), you will generally need a minimum of about thirty respondents. (p. 105)

Forty respondents are chosen from age group 15-25 years old randomly from male and female because they are supposed to be more intelligent and more conscious about their health.

Data Analysis and Discussion

In this chapter the researcher has given the finding and results of the study through the survey conducted with the closed ended questionnaire in the form of tables and graphs. The researcher has treated data with the software SPSS to know the result through frequencies and cross tabulation. The researcher has analyzed data with the help of variables i.e. youth and gender to find out that how youth behaved after watching fear appeal of dengue campaign?

Table 5.1 Youth Watching dengue Campaign

Youth Watching Dengue Campaign		
	Frequency	Percent
Yes	45	45.0
Sometimes	55	55.0
Total	100	100.0

Table 01 show that most of the respondents have watched dengue campaign through different channels.

Table 5.2 Gender wise dengue campaign Viewership

Gender wise dengue campaign Viewership				
	Yes	Sometimes	No	Total
Male	27	23	0	50
Female	18	32	0	50
Total	45	55	0	100

Table 02 show that male respondents watched dengue campaign more that the female respondents

Table 5.3 Youth responses regarding awareness created by Dengue Campaign

Dengue Campaign gives awareness		
	Frequency	Percent
Yes	95	95.0
Sometimes	5	5.0
Total	100	100.0

Table 3 shows that majority of the respondents thought that dengue campaign gave awareness to youth about dengue disease/mosquito.

Table 5.4 Gender wise responses regarding Dengue Campaign awareness

Gender wise responses regarding Dengue Campaign awareness				
	Yes	Sometimes	No	Total
Male	47	3	0	50
Female	48	2	0	50
Total	95	5	0	100

Table 4 shows that majority of the respondents categorized on the basis of gender believed that the dengue campaign provided ample awareness regarding dengue mosquito and fever.

Table 5.5 Watching dengue campaign creates fear among youth

Watching dengue campaign creates fear among youth		
	Frequency	Percent
Yes	58	58.0
Sometimes	22	22.0
No	20	20.0
Total	100	100.0

Table 5 shows that majority of the youth felt fear after watching dengue campaign. 58 out of 100 respondents said that dengue campaign created fear in them.

Table 5.6 Gender wise responses regarding fear created by dengue campaign

Gender wise responses regarding fear created by dengue campaign				
	Yes	Sometimes	No	Total
Male	23	13	14	50
Female	35	9	6	50
Total	58	22	20	100

Table 6 shows that the dengue campaign inculcated more fear among female respondents as compared to the male respondents.

Table 5.7 Hopeless feeling among youth after watching Dengue Campaign

Hopeless feeling among youth after watching Dengue Campaign		
	Frequency	Percent
Yes	25	25.0
Sometimes	18	18.0
No	57	57.0
Total	100	100.0

Table 7 shows that majority of the youth did not feel hopeless after watching dengue campaign.

Table 5.8 Gender wise responses regarding hopeless feeling

Gender wise responses regarding hopeless feeling				
	Yes	Sometimes	No	Total
Male	13	14	23	50
Female	12	4	34	50
Total	25	18	57	100

Table 8 shows that majority of the respondents did not feel hopeless after watching the campaign. Comparatively, male respondents felt more hopeless than the female ones.

Table 5.9 Anxiety among youth due to the dengue campaign

Anxiety among youth due to the dengue campaign		
	Frequency	Percent
Yes	35	35.0
Sometimes	43	43.0
No	22	22.0
Total	100	100.0

Table 9 shows that majority of the respondents i.e. 43 out of 100 felt anxiety due to the dengue campaign sometimes while 35% said they felt anxiety and 22% felt no anxiety at all.

Table 5.10 Gender wise responses regarding anxiety

Gender wise responses regarding anxiety				
	Yes	Sometimes	No	Total
Male	15	18	17	50
Female	20	25	5	50
Total	35	43	22	100

Table 10 shows that, gender wise, more female respondents felt anxiety due to the campaign as compared to the male respondents.

Table 5.11 Vulnerable feeling among youth after watching dengue campaign

Vulnerable feeling among youth after watching dengue campaign		
	Frequency	Percent
Yes	50	50.0
Sometimes	28	28.0
No	22	22.0
Total	100	100.0

Table 11 shows that youth felt more vulnerable to the dengue after watching the campaign. 50% of the respondents said they felt more vulnerable to the disease after watching the campaign.

Table 5.12 Gender wise responses regarding vulnerable feeling

Gender wise responses regarding vulnerable feeling				
	Yes	Sometimes	No	Total
Male	16	17	17	50
Female	34	11	5	50
Total	50	28	22	100

Table 12 shows that female respondents felt more vulnerable to the disease after watching the dengue campaign as compared to the male respondents.

Table5.13 Youth following the preventive measures after watching the campaign

Youth following the preventive measures after watching the campaign		
	Frequency	Percent
Yes	75	75.0
Sometimes	8	8.0
No	17	17.0
Total	100	100.0

Table 13 shows that majority of the respondents said that they followed the preventive measures suggested in the campaign.

Table 5.14 Gender wise responses regarding following the preventive measures

Gender wise responses regarding following the preventive measures				
	Yes	Sometimes	No	Total
Male	28	8	14	50
female	47	0	3	50
Total	75	8	17	100

Table 14 shows that female respondents followed the preventive measures more than the male respondents after watching the campaign.

Discussion and Conclusion

Considering all above results and the data interpretations, the study can be concluded that the dengue campaign created awareness, fear and anxiety among the male and female students of colleges and universities in Faislabad.

At the outset of this study the researcher developed a hypothesis that the dengue campaign changed the youth behavior. The hypothesis, after careful survey and interpretation of the data, found to be true.

The results show that the change in youth behavior can visibly and empirically be noted before and after watching the campaign regarding dengue fever and mosquito. The respondents

clearly mentioned that they found information, felt fear and anxiety, and followed the preventive measures after watching the dengue campaign in media.

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References

- Andreasen, A. (2002). Marketing Social Marketing in the Social Change Marketplace. *Journal of Public Policy and Marketing* , 21 (1), 3-13.
- Becker, M. H., Radius, S. M., & Rosenstock, I. M. (1978). Compliance with a medical regimen for asthma: a test of health belief model. *Public Health Reports* , 93, 268-277.
- Evans, R. I., Rozelle, R., Lasater, T., Dembroski, T., & Allen, B. (1970). Fear Arousal, Persuasion, and Actual Versus Implied Behavioral Change; New Perspective Utilizing a Real-Life Dental Hygiene Program. *Journal of Personalist and Social Psychology* , 16, 220-227.
- Dick, O. B., Martin, J. L., Montoya, R. L., Diego, J. d., Zembrano, B., & Dayan, G. H. (2012). The History of Dengue Outbreaks in the Americas. *The American Journal of Tropical Medicine and Hygiene* , 87 (4), 584-593.
- Harrington, L., Scott, T. W., Lerdthusnee, K., Coleman, R., & Costero, A. (2005). Dispersal of the dengue vector *Aedes aegypti* within and between rural communities. *The American Journal of Tropical Medicine and Hygiene* , 72 (2), 209-220.
- Hong, T., Johnson, C. C., Boris, N., Myers, L., Brewer, D., & Webber, L. (2008). Process evaluation of an in-school anti-tobacco media campaign in Louisiana. *Public Health Reports* , 123 (6), 781-789.
- Hoog, N. d., Stroebe, W., & de Wit, J. (2005, January). The Impact of Fear Appeals on Processing and Acceptance of Action Recommendations. *Personality and Social Psychology Bulletin* , 31 (1), pp. 24-33.
- Lewis, I., Watson, B., Tay, R., & White, K. (2007). The Role of Fear Appeals in Improving Driver Safety: A Review of the Effectiveness of Fear-arousing (threat) Appeals in Road Safety Advertising. *International Journal of Behavioral and Consultation Therapy* , 3 (2), 203-222.
- Mongeau, P. (1998). Another Look at Fear-arousing Messages. In M. Allen, R. Preiss, M. Allen, & R. Preiss (Eds.), *Persuasion: Advances Through Meta-Analysis*. (pp. 53-68). Hampton Press.
- O'Leary, Z. (2004). *The Essential Guide to Doing Research* (Illustrated, Reprint ed.). Sage Publications.
- Pechmann, C. (2001). A Comparison of Health Communication Models: Risk Learning Versus Stereotype Priming. *Media Psychology* , 3 (2), 189-210.
- Sampson, J., Witte, K., Morrison, K., Liu, W.-Y., Hubbell, A., & Johnson, L. M. (2001). Addressing Cultural Orientations in Fear Appeals: Promoting AIDS-Protective Behaviors among Mexican Immigrant and African American Adolescents and American and Taiwanese College Students. *Journal of Health Communication* , 6 (4), 335-358.
- Sarantakos, S. (1998). *Social Research* (2nd ed.). Macmillan.

- Snipes, R. L., Bliss, S. J., & LaTour, M. S. (1996). Don't Be Afraid to Use Fear Appeals: An Experimental Study. *Journal of Advertising Research* , 36 (2), 59-68.
- Spence, H., & Moinpour, R. (1972). Fear Appeals in Marketing: A Social Perspective. *Journal of Marketing* , 36, 39-43.
- Rana, S. (2012, July 13). Cases of Dengue on increase in Punjab. *Dawn* . Lahore.
- Rosenstock, I. (1974). Historical Origins of the Health Belief Model. *Health Education and Behavior* , 2 (4), 328-335.
- Williams, K. (n.d.). *Fear Appeal Theory*. Retrieved from <http://www.aabri.com/>: <http://www.aabri.com/manuscripts/11907.pdf>
- Wimmer, R., & Dominick, J. (2003). *Mass Media Research: An Introduction* (9th ed.). Boston, MA, USA: Cengage Learning.
- Whitehorn, J., & Farrar, J. (2010). Dengue. *British Medical Bulletin* , 95`1.