THE EFFECTS OF ANTI-DENGUE MEDIA CAMPAIGN OF GOVERNMENT OF PUNJAB: A CASE STUDY OF LODHRAN CITY

<u>Wajid Abdul Khan (Phd)</u>
<u>Arshad Ali (Phd)</u>
<u>Adnan Malik (M.Phil)</u>
<u>Haider Shakoor (M.Phil)</u>

Abstract

Media has plying a vital role in the every aspect of life. It is also affected every walk of life in all over the world. The study "The Effects of Anti-dengue Media Campaign of Government of Punjab: A Case Study of Lodhran city" conducted to determine the level of awareness of the provincial government anti-dengue campaign on the citizens of the Lodhran, South Punjab, Pakistan. The study also analyzed to find out the understanding of the residents of Lodhran about the cause, preventions and identification of dengue disease. For this study a questionnaire compressing eleven questions was distributed among 300 respondents in district Lodhran to find out results. The results proved the residents of the Lodhran know the cause, prevention and identification of the dengue fever. The study also reveals that the anti-dengue media campaign of the government of Punjab successes due to the use of Television that is the effective source of information.

The study supports the theoretical framework of "Social learning Theory" that emphasized on the importance of observing and modeling the behaviors attitudes and emotional reactions of others.

Keywords: Anti-dengue, Media Campaign, Punjab, Lodhran city

**** Department of Mass Media, Islamia University Bahawalpur, Post code 63100 Pakistan,

http://www.ijmra.us

^{*} Assistant Professor, Department of Mass Media, <u>Islamia University</u> <u>Bahawalpur</u>, Post code 63100 Pakistan

^{**} Assistant Professor, Centre for Media and Communication Studies, University of Gujrat, Post code 50700 Gujrat, Punjab, Pakistan

^{***} Department of Mass Media, Islamia University Bahawalpur, Post code 63100 Pakistan,

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences

Introduction

This study is a conduct to check the effects of anti-dengue media campaign of the government of Punjab. It is conducted on the people of Lodhran city through survey technique. How the question is what the dengue fever is? What are its causes, effects, preventions, treatments, symptoms and latest situation of dengue fever in Pakistan? The answers of all these questions are given in this chapter.

Dengue

Dengue is the worst epidemics disease which humanity has faced. According to control and prevention (CDC) a mosquito transmits viral disease characterized by fever, headache ,artheralgia, nyalgia, rash, nausea and emetine infections are caused by any of four virus stereo types (DEN-1, DEN-2, DEN-3, DEN-4) infection that has become a major international public health concern. (Med, 2010) The origin of the word "dengue" is not clear but one thinking is that this word derived from Swahili ftnraze ka-dinga pepo which mean the disease is being caused by an evil spirit while the word dinga is a Spanish word which mean fastidious are careful. In West Indies this disease was known as dandy-fever. (Martina, korkaha, 2009)

Dengue is found in tropical region around the world. Due to this disease about two fifth of the world population are now at risk. Dengue hemorrhagic fever is potentially lethal complication. (WHO, 2009). Media is the best tool which can create awareness against dengue fever are have a potential to influence the people behavior to check the behavior of people regarding dengue this research is conducted.

In 1995 Catford explain the role of media in health promotion. He mentioned various points about the health promotion. Few are given below.

- Rising public and political awareness about disease.
- Creating a climate of opinion for action at individual and environmental

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us



<u>ISSN: 2249-5894</u>

level.

- Providing heavy living information and advice.
- Changing attitude by presenting examples role model.
- Introducing skills, encouraging self-confidence.

Dengue in world

Dengue is an infection which is caused by a mosquito. Dengue had proved a major public health concern in world. This disease is found in most tropical and subtropical areas of world. Dengue fever is a hemorrhage disease transmitted by Aedes mosquito called aedesa egypti. Medical scientist says" four dengue viruses (DEN-1 TO DEN-4) are immunologically related, but do most provide cross protective immunity against each other". (Centre for diseases control [CDC], 2007) According to world health organization, during 1999, 2.5 billion people are at risk of dengue virus infection. This virus has spread in 200 countries of the world while before 1970; the dengue was just in nine countries of the world. . The mortality rate from the dengue fever in the world is about 5%, which can be reduced to 1% with proper treatment in the hospital. Dengue viral infection has become the leading public problem. Dengue has become a major viral disease in the world.

Dengue Fever in Pakistan

In Pakistan, first case of dengue fever was reported in Karachi in 1994. Due to Dengue Viral Infections from September to December 2005, at least 3 major hospitals in Karachi had increase in the number of patients with signs consistent. Heavy monsoon rains in Punjab has provided ideal atmosphere for dengue-carrying mosquitoes to thrive in stagnant and clean water. The number of Dengue patients is increasing constantly. Seven patients had died on 15th

IJPS

Volume 4, Issue 6

<u>ISSN: 2249-5894</u>

September 2011, while 5,500 Dengue cases have been confirmed in Punjab only. Out of 29 people who died of Dengue in Punjab, 25 were from Lahore. According to the report of Punjab health department, during 2011, some 21292 people were affected from dengue and 345 were died while in 2012, just 261 were affected and there was no any death was happened.

According to Dr Khalid Randhawa District Health Officer, there are more than 30 private hospitals in the Lahore city. He said the number of private clinics with 20 beds was over 1,000. In less than a month 126 people have died and more than 12,000 have been diagnosed with the virus, which has spread rapidly among both rich and poor in Punjab[®] s capital Lahore. Executive District Officer health, Dengue Control Cell (DCC), Lodhran 28 cases have been deducted in the district in 2011. He said that all the affected were recovered but these all patients were shifted from the other sounding districts.

Responding to the anti-dengue media campaign he appreciated that the provincial government has took positive steps for the eradication of the cause in the area particularly and over the country generally. He explored that due to the effective media campaign neither dengue case has been deducted in the district Lodhran in 2012.

Objectives of the study

- The basic object of the research is to evaluate the role of media for awareness of anti dengue media campaign by government of Punjab.
- To collect the basic data about the dengue fever in the world specifically in Pakistan.
- To see the effects of anti dengue media campaign.
- To prepare communication strategies for government and media practitioners during this kind of issue.
- To dig out the positive or negative effects of media campaign on the issue of

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us dengue.

- Another objective of this research is to know to how the media campaign can initiate effective campaign about dengue fever.
- To examine what kind of media is being used by the people regarding such types of issue.
- To assess the knowledge, attitude and preventive measures regarding dengue fever.

Statement of the problem

The study has been conducted to investigate the effects of anti-dengue media campaign of government of Punjab on the citizens of Lodhran. This research would particularly focused on the role of media, basic information about dengue fever, effects of dengue and communication strategies prepared by government of Punjab regarding dengue fever disease.

Theoretical Frame Work

"A group of related ideas that provides guidance to a research project or business endeavor".(Business dictionary, 2012). In this research the theory which provides guidance is social learning theory. The idea of social learning theory is fully related to the idea of this research. The social learning theory was given by Albert Bundura (Retrieve). Social learning theory pays attention on the learning which takes place within a social circumstance. It assumes that people learn from one another as well as media. According to Bundura there are concepts; observational learning, imitation, and modeling. For the purpose of anti Dengi media campaign effects on people of Lodhran. Researcher selected this theory because people first observe the message that occurs in media if message hit their cognition then they implement this message in their social life. Secondly this is not only limited to media but it also implement all those information which people receive from other persons or any third party.

Methodology

http://www.ijmra.us

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences

Research methodology is a method through which the researcher completes his research. It is a procedure adopted for making research. The researcher chose survey method as a research design to dig out "The effects of anti dengue media campaign of government of Punjab in Lodhran city".

Approach

The researcher used the opinion survey as a research design while "to examine or look at comprehensively, a gathering of a sample of data or opinion considered being representative of a hole". (Free Dictionary, 2012). "A detailed study of a market or geographical area to gather data on attitudes, impressions, opinion and satisfaction level by polling a section of the population is called a survey." (Business dictionary, 2012). According to Wimmer (1994) "The universe of the research is as to specify the boundaries of the content to be considered, which requires an appropriate operational definition of the relevant population". In this study all population of Lodhran considered as the universe of the study.

Sampling

The population of this research study includes different groups of society like teachers, students, businessmen, household women, labors, employs and jobless. "Sampling is a sub set of the population that is the representative of entire population." (Dominick, 2000). In this research quota sampling is used for gathering data while quota sampling is "a method of gathering data from a group". (Business dictionary, 2011). The sample size is 300 respondents of the Lodhran city male and female, educated and uneducated.

The researcher selected the population through quota sampling method, which is comprises on 156 male and 144 female. The researcher sub-divided into four categories according demographic characteristics including gender, age, education and profession. Age was categories into four groups e.g. 15 to 25, 26 to 35, 36 to 45 and above. Education wise distribution had done according to the ratio of the

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

ISSN: 2249-5894

population in the area. Educated category comprises on up to middle to higher while illiterate till to middle came into uneducated.

Questionnaire

The data collection tool for this research is questionnaire while questionnaire is "a list of a research or survey question, asked to respondents and design to extract specific information." (Business dictionary, 2012). "A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from the respondents." (Wikipedia, 2012)

In this research the simple questionnaire was constructed for survey. First constructed in Urdu and then translated into English for the analysis. Close and open ended questions were formulated and try to specify and short it.

The researcher used SPSS, Microsoft excel and in page for Urdu questionnaire. SPSS is a statistical package which is used for statistical analysis. The researcher used Chi-Square for the hypothesis testing while the Chi-Square is "a statistical test commonly used for testing independence and goodness of fit" (Chegg, 2011)

Data interpretation

No one can deny the effective role of media in the development and promotion of the different sectors as well as every aspect of life all over the world. But also bears failure due to some factors such as production and dissemination of inappropriate message, selection of proper actor, use of unsuitable medium and lack of evaluation of the program.

In the context of other countries of the world, the media also has been used by the government of Punjab, Pakistan for the control and eradication of dengue fever disease in the country. The researcher got interest in digging out the factors of success

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

Volume 4, Issue 6 **ISSN: 2249-5894**

and failure of Punjab provincial government media campaign against dengue disease, particularly in the residents of Lodhran. The researcher has selected the Lodhran city for the research, while the result would be generalized for the other researcher in the field and for the benefit of the government of the Pakistan.

Table 1: Demographic Characteristics of the Respondents

S.No	Demographic characteristics	Description of characteristics	Frequency	%
		Male	156	52
1	Gender	Female	144	48
1	Gender	Total	300	100.0
		Educated	135	45
2	Education	Uneducated	155	55
2	Education	Total	Total 130	
- X.	1 7	15-25	106	35
	Sec. 1. 1.	26-35	141	47
		36-45	45	15
3	Age	Above	8	2
		Total	300	100.0
		Businessmen	29	9.7
		Employees	46	15.3
		Teachers	36	12.0
4	Profession	Students	33	11.0
1		Households	55	18.3
		Skillful/Labor	85	28.3
		Jobless	16	5.3
		Total	300	100.0

A total of 300 respondents of Lodhran city filled the questionnaire, 156 (52%) of them were male and 144 (48 %) were female. As shown in Table 4.1, majority of respondents uneducated 155 (55%), while 135 (45%) educated in the area.

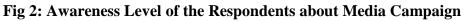
Table 1.1, shows that majority of respondents between 26 to 35 years old (47%), followed by aged 15-25 years old (35%) respectively of the total population of Lodhran city.

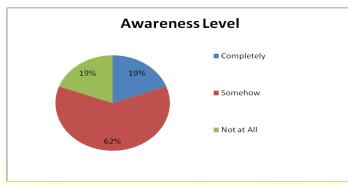
A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us



Volume 4, Issue 6







The Figure 4.2 shows the awareness level of the respondents about the dengue abolition media campaign. 58 (19 %) of the respondents completely Know, 184 (62 %) know somehow and 58 (19 %) about the Punjab government media.

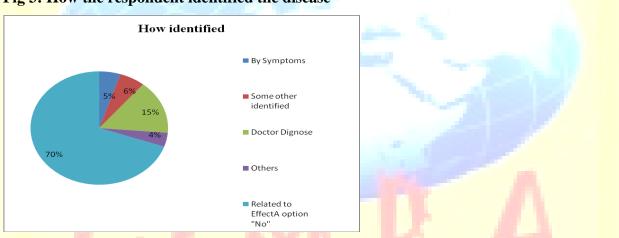


Fig 3: How the respondent identified the disease

The researcher asked about the identification about the disease that how the respondent and their relatives know the dengue fever. The figure 4.7 exemplify that 15 (5%) that identified by the symptoms, 18 (6%) replied that some other identified, 46 (15%) answered doctor diagnosed and 12 (4%) responded that it identified by other sources.

Due to the supplementary question most of the respondents209 (70%) exempted the question answer.

Fig 4: Opinion of respondents about the information given by the Punjab government antidengue media campaign

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us



The researcher inquired about the information given by the Punjab government anti-dengue media campaign. Majority of them 222 (74%) replied that the information disseminated by the provincial government of Punjab sufficient information about the dengue disease, 30 (10%) answered it was most sufficient, while 48 (16%) didn't not think that the government of Punjab information about the dengue fever has not given sufficient information to the public in the province.

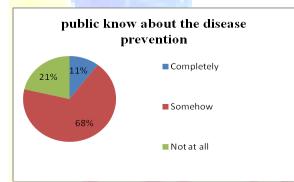


Fig 5: public know about the prevention measures of the disease

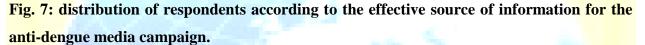
Responding to a query the residents of Lodhran said that 31 (11%) completely knew, 205 (68%) knew somehow and 64 (21%) didn't know about the prevention measures of the dengue viral disease in the area. The result shows that the most of the residents of Lodhran city somehow know about the prevention of the fever.

Fig 6: opinion about the successfulness of Punjab Government

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us



To a query about the successfulness of the provincial media anti-dengue campaign the respondents out of 300, 45 (15%) think successful, 191 (64%) agree somehow and 64 (21%) replied that the anti-dengue provincial media campaign didn't agreed to the successfulness. The figure 4.11 show that most of the respondents agree that the media campaign by government of Punjab was somehow successful in the Lodhran city, south Punjab, Pakistan.



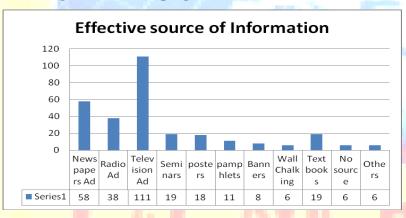


Figure 4.12 illustrates the view of the respondents about the most effective source of information for the anti-dengue media campaign in the country. 58 (19%) replied Newspaper advertisement, 38 (13%) think radio advertisement, 111 (37%) agreed Television advertisement, 19 (6%) specified seminars, 18(6%) think posters, pamphlets, banners, wall chalking and text books ranked 4%,3%, 2% and 6%. While 6 (2%) selected other sour of information in which they mentioned doctors, teachers and opinion leaders of the society could effective the anti-dengue media campaign in the province

Hypothesis Testing-Results

The results and findings of the hypothesis are summarized in the following sequence.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

<u>ISSN: 2249-5894</u>

 Table 8: Chi-square Test for Association: Public awareness and effective source of information for anti-dengue media campaign.

Variables	Chi-square	D.F	p-value	Conclusion
Pearson chi-	32.177	20	.042	Significance
square				
Total	300	-	-	-
Respondents				

 Table 9: Cross tabulation of public Awareness and effective source of information.

The Table 8 and 9 shows the Chi-square value that null hypothesis is rejected at 5% level

													Tota
		Information								1			
									wall	text	no		
		NP	radio	TV	semi	post	pum	bann	chacki	book	sour	Othe	NP
		add	add	add	nars	er	flets	ers	ng	S	ce	rs	add
Awar	Cmp												
eness	letel	12	9	20	6	2	2	1	1	5	0	0	58
	у												
	Som eho w	35	21	72	13	11	8	6	2	12	2	2	184
	not at all	11	8	19	0	5	1	1	3	2	4	4	58
Total		58	38	111	19	18	11	8	6	19	6	6	300

of significance. The alternative hypothesis of significance association between the information and pubic awareness is verified and confirmed.

On the other hand, among the respondents viewed the awareness by TV mostly and Newspapers advertisements respectively. It is concluded that there is significance association between information disseminated by Punjab government and public awareness.

It is also confirmed that in the developing countries such as Pakistan, television is more effective source of information then the other mediums, because of low literacy rate in the country.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

 Table 10: Chi-square Test for Association: Public awareness and effective source of information for anti-dengue media campaign.

Variables	Chi-square	D.F	p-value	Conclusion
Pearson ch	ii- 30.243	3	.000	Significance
square				
Total	300	-	-	-
Respondents				

Table 11: Cross tabulation of public Awareness and effective source of information.

		Reason	Total			
		bacteria	by virus	other reason	don't know	bacteria
Eductaion	Educated	34	78	14	9	135
	Un Educated	39	56	21	49	165
Total		73	134	35	58	300

Table 4.5 shows that the majority of the respondents' 134 (44 percent) replied that it is a viral disease in which 78 (26 percent) educated and 56 (19 percent) uneducated that they know about the reason of the disease.

The Table 10 and 11 illustrates the Chi-square value that null hypothesis is rejected at 5% level of significance. The alternative hypothesis of significance association between the education level and reason of the disease is verified and confirmed.

The result demonstrates that the anti-dengue media campaign of government of Punjab has presented the reason of the dengue fever due to that the residents of Lodhran city knew the disease.

Discussion and Conclusion

The objective of the research was denied by the result of the study because 62 percent of the respondents' didn't agree with the success of the Punjab anti-media campaign.

The result of the study strongly supported the second objective of the study that it is a viral spreading disease. The result of the study verified that the respondents also knew the causes and reason of the dengue fever.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

The result of the study also supported the objective of the study that major portion of the respondents declared that the anti-dengue media campaign by provincial government is successful in the Punjab.

The proved of the study also verified that the 37 percent among the respondent recommended that television is the effective source for the elimination of this type of issue in the country. The study also confirmed that anti-dengue media campaign by the government of Punjab, Pakistan has given sufficient information to them about the dengue disease.

The result of the study validated the perception of the study that 56 percent of the respondents had suggested to the government that to organized teams for the awareness about dengue disease such as polio campaign, face to face communication such as seminars, use the Imam Masjids , Numberdaars, Nazims and councilors to aware the community through local languages, train the school, colleges and university teachers to communicate the cause and prevention to students. The women among the respondents suggested to the government to train and organized female anti-dengue campaign to aware the households of the communities in the country, because according to our culture and tradition the households are not allow to attend any seminar or workshop for the awareness outdoor.

The results also verified that through which medium they acquire the information, 29 percent of the respondents relied television and 24 percent selected newspapers. The result of the study also confirmed that they knew about the prevention of the dengue fever which they got through the television. The data interpreted by Chi-square formed statistically significant association between the public awareness and anti-dengue media campaign. It is concluded that television and newspapers are more effective tools for the creation of public awareness. Finding exposed that majority of audience 111 (37 percent) claimed that television is the

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

JPSS

Volume 4, Issue 6

effective source of information in the public awareness in such type of epidemic disease in the Lodhran particularly and in the country generally.

ISSN: 2249-5894

The results of the chi-square evaluated significant association between the education level and reason of dengue disease. Table 4.5 shows that the majority of the respondents["] 134 (44 percent) replied that it is a viral disease in which 78 (26 percent) educated and 56 (19 percent) uneducated that they know about the reason of the disease.

The Table C and D illustrates the Chi-square value that null hypothesis is rejected at 5% level of significance. The alternative hypothesis of significance association between the education level and reason of the disease is verified and confirmed.

The result demonstrates that the anti-dengue media campaign of government of Punjab has presented the reason of the dengue fever due to that the residents of Lodhran city knew the disease.

Bibliography

- 01. Assessment of dengue hemorrhagic fever in Myanmar. Cho-Min-Naing. Srilanka: South Asian J Trop Med Public Health. 2000
- 02. Contemporary communication research methods. Mary John Smith. California: Wadsworth publishing company Belmont.1988
- 03. Control of Japanese encephalitis in India: a reality. Kabilan, L. India: Indian J Pediatr. 2004
- 04. Dengue hemorrhagic fever: Diagnosis, Treatment, Prevention and control. Geneva: World Health Organization. 1997
- 05. Dengue in the Americas and Southeast Asia: Do they differ? Halstead, S.B. PAHO Journal. 2006
- 06. Disease control priorities for developing countries. Shepard, DS. New York: Oxford University Press. 2007

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us

June 2014

- 07. Electronic media. Marshal McLuhan. Islamabad: National book foundation. 2000 o Entomological investigations of DF/DHF outbreak in rural areas of Hissar
- 08. District Haryana. Sharma, SK. India: Dengue Bull. 1998
- 09. Environmental and entomological risk factor analysis on a rural dengue outbreak in Lundu District in Sarawak. Lian, CW & Chai WY. Malaysia: Trop Biomed. 2006
- 10. Examining the effect of publishing of bill sizes to reduce information asymmetry on healthcare costs. Wong, CY & Wong, TY. Singapore: Med J. 2007
- 11. Incorporated the prevention of disease transmitted by Aedes aegypti in the Americas: A cost-benefit study. Arthur, D. Washington, DC: Pan American Health Organization. 1992
- 12. Media research. SM Shahid. Lahore: publisher["] s emporium. 2002
- 13. Principals of journalism. Sayed Abdul Siraj. AIOU Islamabad. 2001
- 14. Public relations strategies and tactics. Dennis L Wilcox. USA :Harper and Row publisher New York. (2000)
- 15. Research methods in mass communication. Hashmat ali zafar. Islamabad :Allama Iqbal open university.2002
- 16. Scholastic journalis. Earl English &Clarence Hach. USA : Iowa state university press .2008
- 17. Scientific working group on dengue. Geneva: World Health Organization. 2007o Television journalism. Adnan Adil. Karachi: dinar grafix. 2008
- The cost of dengue hemorrhagic fever in Thailand. Okanurak, K & Sommani, S. Sri Lanka: Southeast Asian J Trop Med Public Health. 2003
- 19. The dynamics of mass communication. Joseph r Dominick. University of Georgia press Athens. 2001
- 20. The killing winds: the menace of biological warfare. McDermott, J. California: Arbor House. 1987
- Threat of Bio terrorism and the Spread of Infectious Diseases. Joseph, R & Biden, J. USA: DIANE Publishing. 2003.
- 22. http://www.southalabama.edu/oll/mobile/theory_workbook/social_learning_theory. htm

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Physical and Social Sciences http://www.ijmra.us