

NEWSPAPER FRAMING OF LASSA FEVER AND THE HEALTH BEHAVIOUR OF RESIDENTS OF EBONYI STATE, NIGERIA

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Abstract

This study examined newspaper framing of Lassa fever in Ebonyi State, Nigeria. The study was guided by three research questions and one hypothesis. A combination of survey and content analysis was used for the study. A total of four newspapers- *the Punch*, *Vanguard*, *Guardian* and *This day* newspapers- and 384 respondents took part in the study. The result showed that the newspapers mostly used gain frames in their framing of lassa fever while such stories influenced the health behaviour in the area of avoiding contacts with rodents, keeping food away from rodents as well as keeping their environment clean. Also, the gain frame was found to be more effective in changing health behaviour than the loss frame. Based on the result, the researcher concludes that newspaper framing of lassa fever has been effective in changing the health behaviour of respondents. It is recommended, among others that further studies should be expanded to cover more areas to give room for comparison.

Keywords: Lassa fever, newspaper, framing, health behaviour

Introduction

One of the health challenges confronting Nigeria today is how to contain the scourge of Lassa fever. Lassa fever is a severe viral haemorrhagic illness caused by Lassa virus. The World Health Organization (2015) says that Lassa fever is transmitted to humans from contacts with food or household items contaminated with rodent excreta. Lassa fever is one of the diseases that has resisted medical efforts aimed at eliminating it in Nigeria. Lassa fever was first experienced in Nigeria when two missionary nurses contracted the virus in 1969. The name of the disease is derived from the village of Lassa in Borno State where it first took place (Onyeji, 2018). Lassa fever is endemic to some West African countries. There are estimated to be between 100,000 and 300,000 cases of Lassa fever per year and approximately 5,000 deaths due to the disease. Lassa fever has become a recurring outbreak in Nigeria in recent memory. For example, figures from World Health Organization (2015) showed that in 2012, 623 suspected cases, including 70 deaths were recorded from 19 of the 36 States. Again, in 2016, 41 lives were lost out of 96 reported cases in 10 states of Bauchi, Nasarawa, Niger, Taraba, Kano, Rivers, Edo, Plateau, Gombe and Oyo (*Premium Times* 2016). The World Health Organisation (2017) reports that as of 9 June 2017, a total of 501 suspected cases including 104 deaths were recorded from an outbreak season in December 2016.

The Nigeria Centre for Disease Control (2018) says that from 1st January to 18th March 2018, a total of 1495 suspected cases were recorded. Of these, number, 376 confirmed positive, 9 are probable, 1084 are negative (not a case) and 26 are awaiting laboratory results (pending) Also, the report revealed that since the onset of the 2018 outbreak, there have been 119 deaths: 86 in positive-confirmed cases, 9 in probable cases and 24 in negative cases. According to the report, case fatality rate in confirmed and probable cases is 24.7% while 19 states have recorded at least one confirmed case across 56 Local Government Areas. The States are Edo, Ondo, Bauchi, Nasarawa, Ebonyi, Anambra, Benue, Kogi, Imo, Plateau,

Lagos, Taraba, Delta, Osun, Rivers, FCT, Gombe, Ekiti and Kaduna.

There are basic facts about Lassa fever which everybody should know. The World Health Organization (2015) the key facts about Lassa Fever as follows: Lassa fever is an acute viral haemorrhagic illness of 1-4 weeks duration that occurs in West Africa; the Lassa virus is transmitted to humans through contact with food or household items contaminated with rodent urine or faeces; person-to-person infections and laboratory transmission can also take place, particularly in hospitals lacking proper infection prevention and control measures; Lassa fever is known to be endemic in Benin. (where it was diagnosed for the first time in November 2014), Guinea, Liberia, Sierra Leone and parts of Nigeria, but probably exists in other West African countries as well; the overall case-fatality rate is 1%. Observed case-fatality rate among patients hospitalized with severe cases of Lassa fever is 15%, and early supportive care with rehydration and symptomatic treatment improves survival. One of the ways through which lassa fever can be effectively contained is awareness creation through the media report.

The media have an essential role to play in health promotions. Quattrin, Filiputt and Brusaferrero (2015) corroborate that public health programmes may benefit from the use of mass media to promote positive health behaviours. Constructions of frames are one of the strategies through which the media could influence health issues. Framing describes the type of angle promoted by the media. Okoro and Odoemelam (2013, p.86) aver that one manner in which news media shape perceptions of key events is through the act of 'Framing'. In framing, the number of stories is not as important as the angles projected. To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and treatment recommendation for the item described (Entman, 1993). It has been argued that framing of issues is likely to influence public's understanding of it. De Vreese, Boomgaarden and Semetko (2010) aver that News framing can exert a strong influence on public opinion. Understanding Framing is examined based on the issue involved. For example, the framing of political issues will be examined within the lances of political behaviour. So also will health issues-health behaviour.

Health behaviour is a modification in actions aimed at promoting healthy living. Kasl and Cobb (1996) in Adegoke (2010) see health behaviour as any activity undertaken by a person believing himself to be healthy, for preventing disease or preventing it in an asymptomatic stage. Health behaviour is usually examined within the prism of the diseases involved. Such behaviour could range from preventive behaviour, control and treatment. The Center for Disease Control (2014) says the necessary health behaviour for lassa fever include avoiding contact with rodents, putting food away in rodent-proof containers and keeping the home clean. This tripod (avoiding contact with rodent, putting food away from rodents and keeping the environment clean) served as the prism with which this study examined the influence of newspaper framing of Lassa fever on health behaviour of residents of Ebonyi State.

Statement of the Problem

Lassa is one of the major public health challenges confronting public health experts and successive governments in Nigeria. The disease has continued to feature as a serious health threat in Nigeria. The Federal Government of Nigeria through the Federal Ministry of health and other relevant agencies has intensified efforts in creating awareness on how to prevent the disease. The media in Nigeria, especially the newspapers have also framed health problems using different frames with a view to promoting the desired health behaviour. Scholars (e.g., Eisele, Keating, Littrell, Larsen, Macintyre, 2009; Widmar, Nagel, Ho Benziger & Hennig, 2009) have also identified health behaviour as pivotal to the success of health campaign. However, empirical evidence on the influence of newspaper framing on health behaviour (e.g. avoiding contact with rodent, putting food away from rodents and keeping the environment clean) of the public vis-à-vis lassa fever is insignificant, hence the need for this study.

Objectives of the Study

The general objective of this study was to ascertain the influence of newspaper framing of Lassa fever on the health behaviour of residents of Ebonyi State. Specifically, the study examined the following:

1. To determine the newspaper framing of Lassa fever.
2. To ascertain the influence of newspaper framing of Lassa fever on the health behaviour of residents of Ebonyi State.
3. To determine between gain and loss framed messages which are most effective in influencing health behaviour.

Research Questions

This study sought answers to the following research question:

1. How do newspapers frame of lassa fever in Nigeria?
2. What is the influence of newspaper framing on the health behaviour of residents of Ebonyi State?
3. Which between gain and loss framed messages are most effective in influencing health behaviour vis-à-vis lassa fever?

Research Hypotheses

This study tested the following hypotheses:

H₀₁: There is no significant relationship between newspaper framing of lassa fever and the health behaviour of residents of Ebonyi State.

The Mass media and Health Promotion

The mass media of communication are critical to the promotion of health campaigns. The mass media play a fundamental role in educating people about diseases and ailment, outbreaks, prevention, control and treatment. Catalán-Matamoros (2011) posits that huge amounts are expended years for materials and salaries that go into the production and distribution of booklets, pamphlets, exhibits, newspaper articles, and radio and television programmes. Such media are used at all levels of public health for three broad objectives: (1) the learning of correct health information and knowledge, (2) the changing of health attitudes and values and (3) the establishment of new health behaviour. This tripod is relevant to the current study because when newspapers frame stories on Lassa fever, it is expected that such frames will provide adequate information to enable people possess adequate knowledge about the disease and engineer change in health behaviour. Noar, (2006) posits that the mass media campaigns have long been a tool for promoting public health such that they are significantly used to expose high proportions of large populations to messages through routine uses of existing media, such as television, radio, and newspapers.

The mass media frame health messages promotions in different ways. Jonathan. Robert, Marieke and Hein (2010) say that health-promoting messages can be framed in regarding the gains associated with healthy behaviour or the losses associated with unhealthy behaviour. Jonathan et al. reveal that it has been argued that gain-framed messages promoting physical activity are more effective than loss-framed messages, but empirical findings are inconsistent. On the other hand, Rothman and Salovey (1997), posit that gain-framed messages will be more efficient in promoting prevention behaviours, while loss-framed messages will be more efficient in promoting detection behaviours. Rothman, Wlaschin, Bartels, Latimer, and Salovey (1993) say this is because detection behaviours could lead in the discovery of an illness; they are as riskier than prevention behaviours which are mainly taken to maintain current health status.

The framing of health promotion has gained prominence in literature, although most of such studies are conducted by people different from the field of communication. However, the argument about the effectiveness of such framing has often revolved around framing patterns like loss versus non-gain framing, loss-framing versus non-gain-framing versus gain-framing

and negative vs positive framing. Positive frame describes positive outcomes, while a negative frame describes negative outcomes. Bosone and Martinez (2017) add that the negative outcome could lead to the presence of something negative (i.e. loss) or the absence of something positive (i.e. non-gain). The gain-framed result to the presence of something positive (gain). In this study, the researcher examined the manifestations of these framing patterns and how they influence health behaviour about newspaper framing of Lassa fever in Nigeria.

Review of Empirical Studies

In this segment, the researcher reviewed previous related empirical studies. Lee, Brown and Blood (2000), in a study, allowed participants to receive a pamphlet describing the behaviours to adopt to detect skin cancer. The gain-framed pamphlet stressed the positive consequences of skin self-examination (e.g. "By doing the self-examination... you will be alert to changes in the number, size, shape and colour of pigmented areas"), the loss-framed pamphlet underlined the absence of such positive consequences resulting from not engaging in skin self-exams (e.g. "By not doing the self-examination... you will be less alert to changes in the number, size, shape and colour of pigmented areas"). The result of the study showed that participants' intentions to comply were no different between the loss- and gain-framed messages.

Coleman, Thorson and Lee (2011) examined changes in the way news stories report on health can induce shifts in readers' perceptions of problems of obesity, diabetes, immigrant health, and smoking. The researchers manipulated two variables in a controlled experiment: the quality of sourcing—the number of sources and their expertise—and the framing—changing from an episodic, traditional frame to a thematic frame that incorporated information on context, risk factors, prevention strategies, and social attributions of responsibility. The result showed that a thematic frame made readers more supportive of public policy changes and encouraged them to improve their health behaviours. However, it did not change their attributions of responsibility for health problems from one of blaming individuals to seeing the larger social factors. Adding richer sources to the thematic frame did not increase these effects, nor did readers find the thematic stories to be more interesting, relevant, believable, important, and informative. Also, there were differential results because of story topics that represent uncontrolled effects.

Balbo (2010) did an online experiment, randomly selected 209 women and exposed them to a pamphlet promoting Pap test. The pamphlet was either gain- or loss-framed and emphasized either the prevention or detection function of the Pap. The researchers aimed to replicate the findings regarding the fit between message framing (gain vs loss) and perceived behaviour function (prevention vs detection). They hypothesized that appropriate message framing with perceived behaviour function (i.e. gain-framed messages for prevention behaviours and loss-framed messages for detection behaviours) would result in higher intention to follow the recommended behaviour. The researchers found that the fit resulted in higher intention only when the message was loss-framed.

Onyeizu and Binta (2014) in a study on 'Newspaper coverage of health issues in Nigeria sought to establish the extent to which the media are working to set public agenda for the health sector so that it can mobilise both the government and the governed towards achieving a healthy state. The research methodology used was content analysis and the purposive sampling technique was adopted. The *Guardian* and *The Punch* newspapers were chosen based on AMPS 2010 newspaper readership data. The research covered a 24-month period. A total of 554 health reports were found and analysed on the selected health issues. The researchers reported that the single disease that garnered the most media attention was HIV/AIDS, and the most reported genre was a straight news story. The researchers further found out that the newspapers did not give prominence to health issues. The researcher, however, paid little or no attention to newspaper coverage of Lassa fever.

Leask, Claire, Hooker and King, (2010) did a study on media coverage of health issues

and how to work more effectively with journalists. The study involved semi-structured interviews with 16 journalists from major Australian print, radio and television media organisations reporting on avian influenza and pandemic planning. Journalists, including reporters, editors and producers, were interviewed between October 2006 and August 2007. Thematic analysis was used to draw out major lessons for health communicators. Results indicated that journalists routinely attempted to balance different, sometimes competing, aims amidst significant operational constraints. They perceived the most trusted sources on health issues to be respected and independent doctors. Specialist health and medical reporters had a sounder technical knowledge, channels to appropriate sources, power within their organisations, and ability to advocate for better quality coverage.

Theoretical Framework

The researcher used the framing theory and health belief model for the study. The framing theory was postulated in 1974 by Goffman. It holds that the volume accorded a particular issue is not as critical as the frame the media adopt (Druckman, 2001). According to the theory, people make sense of their experiences using interpretational packages called frames. To frame means to slant a story towards a particular direction. Bryant and Miron, (2004) aver that in recent years, framing theory has taken over from agenda setting and cultivation theory as the most commonly applied research approach in the field of communications science. This theory is essential to the current study because it provides perspectives on how newspapers can project some angles about Lassa fever.

The Health Belief Model (HBM) is an intrapersonal (within the individual, knowledge and beliefs) model used in health promotion to design intervention and prevention programmes. The frustration as to why the public was not responding to the Federal Government of the United States of America's offerings of free health prevention programmes in the 1950s sparked the research of three psychologists, Irwin Rosenstock, Godfrey Hochbaum and Stephen Kegels (Burke 2013) The HBM is made of four variables shown below:

Perceived Susceptibility. The belief that one is at risk of illness is subjective. On one side is an individual who is in full denial of any risk while on the other side an individual who feels danger is certain. In-between are those who admit the statistical possibility of contracting an illness but do not fully believe they will.

Perceived Seriousness. The perception of the consequences of a negative health condition is also subjective. Beliefs of an illness causing pain, debilitation, social stigma or death are examples of perceived seriousness. The seriousness of malaria such as death could spur people to action.

Perceived Benefits of Taking Action. Deciding on a course of action is shaped by the options accessible to the individual and the belief in their effectiveness. The action is thus dependent on having at least one course of action to prevent an illness from occurring while believing it will produce acceptable results

Barriers to Taking Action. Despite a belief being established that a particular course of action may reduce a health threat, indecision may still take place. If readiness is low and negative aspects of the course of action are viewed as high, barriers are constructed preventing action.

Cues to Action. A stimulus that can “trigger” (Rosenstock, 1966, cited in Maguire 2010) appropriate health behaviour. This may be internal such as physical discomfort, or external such as a message communicating the seriousness of a disease. The external is most relevant to communications as it often relies on media and interpersonal interaction. This is where media messages on malaria become relevant. Individuals who perceived the seriousness of malaria

can get cues from the media to adopt certain health behaviours as preventives measures. The researcher found the Health belief model appropriate for the study because it provides the framework for understanding how media framing can affect the health behaviour of receivers.

Methodology

The researcher adopted a mixed method of content analysis and survey research design to achieve its aim. The content analysis was to examine newspaper stories on Lassa fever while the survey was to ascertain its influence on the health behaviour of the respondents. The study had two set of the population. First, the content analysis population was made up of all the national newspapers in Nigeria. The International Media Newspapers (2016) says there are a total of 28 national dailies in Nigeria. The population for the survey was made up of all the residents of Ebonyi State. The total number of residents of Ebonyi State, according to the National Bureau of Statistics (2014) is 2,880,383.

The sample size of this study was made up of four newspapers. They are The Vanguard, The Punch, The Guardian and This Day newspapers. These newspapers were selected because the 2016 newspapers web ranking ranked these newspapers as the top four in Nigeria. The sample size for the survey was made up 385 respondents. The study covered two years and three months from January 1st, 2016 – March 20, 2018. The duration was selected because it marked the time of outbreak of Lassa fever in Nigeria. The researcher used constructed week to sample the newspaper issues. This was based on the result of Stempel (1952) who first reported that twelve issues from two constructed weeks could effectively predict a year.

Consequently, the study made use of four newspapers for a period of three years (Note that 12 editions were also selected between January 1-March 20, 2018 to predict 2018) and a total of 12 editions of each of the newspapers was selected for the three years, thus leading to 36 issues for the four newspapers per year and 144 issues for the four years for all the newspapers. The table below shows the constructed week sample. The researcher divided the four months of the year into four quarters and one month was selected for each of the quarters.

Table I: Constructed week for the selected newspaper editions.

	2016	2017	2018
January	11 th 17 th 20 th	3 rd 12 th 27 th	3 rd 9 th 12 th 17 th 22 nd 30 th
May	7 th 11 th 27 th	16 th 20 th 29 th	Feb, 4 th 7 th 20 th March 18 th 22 nd 37 th
August	3 rd 18 th 27 th	17 th 22 nd 29 th	10 th 19 th 28 th
July	14 th 18 th 25 th	1 st 10 th 30 th	11 th 22 nd 30 th
December	17 th 22 nd 31 st	12 th 19 th 21 st	1 st 10 th 28 th

Note: For 2018, February and March were included.

The unit of analysis for this study was news stories from the four newspapers selected. The content categories were as follows:

Frames

The following frames were used in the study:

Loss Frame: Frames which showed that certain behaviour (e.g., dirty environment, consuming food items that are exposed to rodents) could lead to a negative outcome like contracting of lassa fever

Gain frame: Frames which showed certain health behaviour (e.g., neat environment avoiding contact with rodent) could lead to something positive like non-contracting of lassa fever

These frames were used to provide insights into the kind of frames that newspapers promoted in their coverage of lassa fever.

The sampling technique for the survey population was purposive sampling. The criterion for inclusion in the sample was that the respondents must be exposed to newspaper stories on

lassa fever. Therefore, respondents from Abakiliki, who are exposed from newspaper stories on lassa fever were selected for the study.

The code sheet and questionnaire instruments were used for the study. In the analysis of data for the study, the researcher used simple percentage to answer the research questions while correlation analysis was used to test the hypothesis raised.

Result

The result of this study showed that out of the 144 issues that were sampled, 84 issues had stories on Lassa fever. The remaining 60 issues had no stories on Lassa fever whatsoever. These 84 editions were examined, and this yielded 167 stories. Concerning the questionnaire, only 344 (representing 90%) out of the 384 copies administered were retrieved. These stories were

Table I: Newspaper framing of lassa fever

			Frames		Total
			Loss frame	Gain frame	
Newspaper <i>Punch</i>	Count		22	16	38
	% of Total		13.2%	9.6%	22.8%
<i>Thisday</i>	Count		25	9	34
	% of Total		15.0%	5.4%	20.4%
<i>Vanguard</i>	Count		8	33	41
	% of Total		4.8%	19.8%	24.6%
<i>Guardian</i>	Count		26	28	54
	% of Total		15.6%	16.8%	32.3%
Total	Count		81	86	167
	% of Total		48.5%	51.5%	100.0%

The table above sought to determine newspaper framing of Lassa fever in Nigeria. The result showed that gain frame was most used in the framing of stories on Lassa fever. Comparatively, the Vanguard newspaper had the highest number of gain-framed stories while Guardian and Thisday had the highest number of loss-framed stories. To ascertain the relationship between newspaper framing and the health behaviour of the respondents, the following table was computed:

Table1: Health behaviour influenced by exposure to newspaper stories on lassa fever

Items	Mean	SD	Decision
Avoiding contacts with rodent	2.9	0.98	Accepted
Keeping food away from rodents	3.0	0.89	Accepted
keeping the environment clean	2.8	0.78	Accepted

The table above sought to determine the influence of newspaper framing of Lassa fever on the health behaviour of respondents who are exposed to such stories. The above items were used because they have also been promoted by the Center for Disease Control and the World Health Organization as ways of preventing Lassa fever. To ascertain which of the frames that influenced the health behaviour of the respondents most, the following table computed:

Table iii: Newspaper frames and respondents' health Behaviour

Frames			Health Behaviour			Total
			Avoiding rodents	Keeping food away from rodents	Clean environment	
Framing	Loss frame	Count	42	75	28	145
		% of Total	12.2%	21.8%	8.1%	42.2%
	Gain frame	Count	120	69	10	199
		% of Total	34.9%	20.1%	2.9%	57.8%
Total	Count		162	144	38	344
	% of Total		47.1%	41.9%	11.0%	100.0%

The table above sought to determine the relationship between newspapers frames and specific health behaviour of respondents. The result showed that gain frames were more successful at influencing the respondents to avoid contacts with rodents keeping their food items away from rodents. The loss frames were more successful at making people keep their environment clean. To test the hypothesis raised, the below table was computed:

Table IV: Text of Hypothesis

		Framing	Health
Framing	Pearson Correlation	1	-.335**
	Sig. (2-tailed)		.001
	N	344	344
Health	Pearson Correlation	-.335**	1
	Sig. (2-tailed)	.000	
	N	344	344

**. Correlation is significant at the 0.01 level (2-tailed).

The result from the table above sought to determine the relationship between newspaper frames of Lassa fever and the health behaviour of respondents. The result yielded a correlation coefficient of -.335 with p-value of 0.001. This result showed a negative correlation between newspaper frames and the health behaviour of respondent. This implies that as the newspapers change their frames, so will the health behaviour of the respondents.

Discussion of Findings

The researcher discussed the findings of this study based on the research questions as shown below:

Research Question one: How do newspapers frame of lassa fever in Nigeria? The result of this study showed that most of the newspaper stories on Lassa fever promoted the gain frame. This result has implications on the framing theory and the health belief model. First, concerning the framing theory, the result provides practical evidence in understanding the power of the media in projecting certain aspects of an issue in their coverage (Entman, 1999). There may be other aspects to be projected, but the newspapers studied decided to settle for the gain frame. Concerning the Health Belief Model, the result confirmed the presence of the perceived benefits of taking action as projected by the health belief model (Maguire, 2010).

Research Question two: What is the influence of newspaper framing on the health behaviour of residents of Ebonyi State? The result of this study also revealed a significant relationship between newspaper frames and health behaviour like avoiding contact with rodents, keeping food out of the reach of rodents as well as environmental cleanliness. This result is consistent with that of Coleman, Thorson and Lee (2011) who found that media reports influence health behaviour.

Research Question three: Also, the study found that that gain frame was most effective in health behaviour modification. Which between gain and loss framed messages are most effective in influencing health behaviour vis-à-vis lassa fever. This result is inconsistent with those of Lee, Brown and Blood (2000) and Balbo (2010). Based on the result of this study, the researcher argues that newspaper frames are effective tools for health behaviour modification.

Conclusion/Recommendation

This study examined newspaper framing of Lassa fever and its influence on the health behaviour of residents of Ebonyi State. Based on the result of this study, the researcher concludes that the newspapers studied-the *Punch*, *Guardian*, *Thisday* and *Vanguard*.- used gain frames in their coverage of lassa fever. The researcher also concludes that such frames influence the health behaviour of the respondents in the area of avoiding contacts with rodents, keeping food out of the reach of rodents and keeping the environment clean. The basic contribution of this study is that it has provided empirical data for understanding newspaper framing of Lassa fever and how such framing affects the health behaviour of respondents. This understanding could be useful for the promotion of health education in Nigeria. This study makes the following recommendations: Newspapers should place greater attention to gain framing as it is most effective in behaviour change communication; there is a need for further study to be replicated in other parts of the country for better comparison. Finally, other researchers should explore other factors that influence the health behaviour of respondents.

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