

Strategic Communication and Management of Malaria Disease in Cross River State, Nigeria

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Abstract

This study was carried out to examine the role of strategic communication in malaria disease management in Cross River State, Nigeria. The overall objective of the study was to determine the effectiveness or not of the communication strategies, employed by the state ministry of health to address the malaria pandemic in the state. Related literatures were extensively reviewed and the communication–persuasion model, by McGuire was adopted to drive the theoretical framework of the study. The study adopted Survey research design and used structured questionnaires as method of data collection. Data were analysed using descriptive statistics. Findings show that the communication strategies employed to tackle malaria in Cross River State were effective and the mass media have been very active in the fight against malaria infections in Cross River State. This shows that mass media especially the broadcast media, played remarkable roles in the sensitisation and mobilisation of the people against malaria. It was concluded that communication is an indispensable aspect of the malaria intervention programme which has equally improve the utilisation of insecticide treated nets, but the strategies in use need improvement and extended to rural parts of the state. Several recommendations were also made including the increased use of conventional media, social media and other community oriented methods to sensitise as well as mobilise the public on the ideal ways of prevention and control of malaria.

Keywords: Communication, Health, Health Communication, Malaria, Intervention, Vector Control.

Introduction

Nigeria as a country has been faced with several health challenges, which have contributed adversely to its poor social, economic and physical developments. One of these disturbing public health issues found suitable for a communication intervention is that of malaria

pandemic, a disease primarily caused by plasmodia species. Plasmodium falciparum is known to be the most devastating specie in Nigeria, as the transmission of the parasite is facilitated through the bite of the female anopheles mosquito (Federal Ministry of Health, 2001; 2010).

Malaria is a major public health challenge in the world, with approximately 207 million cases and 627,000 deaths per year. Records have it that most of the reported cases and subsequent deaths (90%) associated to malaria occur in Africa (Arroz, 2017). This constitutes a major economic burden on the pandemic communities in Africa, including Nigeria. Approximately, about 132 billion Naira is lost to malaria annually in the form of treatment costs, prevention, loss of work time, etc. Consequently, malaria can also lead to reduction of human work capacity and productivity which could adversely affects the socio-economic development of the nation. For example, the high rate of absenteeism among school children in Nigeria is attributed in part to malaria (Gbadegesin, 2001; GFFHR 2000; Federal Ministry of Health, 2001; 2010).

At present, there seems to be no permanent cure for malaria, but however medical experts have recommended the use of long-lasting insecticide-treated nets to ameliorate or reduce malaria morbidity and mortality, especially in children as well as pregnant women (Arroz, 2017). Pitiably, despite the provision of these insecticide-treated nets by government, non-governmental organisations and international agencies, most vulnerable persons in Nigeria have refused to use these nets, thereby posing serious health communication challenge to overcome the associated unwholesome attitudes, behaviours and superstitious beliefs affecting the utility of these vector control intervention.

It is worthy of mention here that, medical intervention alone cannot contain severe public health challenges like malaria. This is as the provision of vector control intervention and case management were proven not to be enough to reduce the burden of malaria, as such, this calls for effective and timely communication with the target population. It is clear by now that communication abilities are necessary to maintain health and also help others maintain theirs as good communication is an important component to quality health care (Martin & Nakayama, 2005).

However, despite the growing importance of health communication in disease prevention, a gap in knowledge is hitherto apparent among vulnerable populations (Würz, Nurm & Ekdahl, 2013). As most communities in Africa often experience some communication challenges like: knowledge of malaria transmission, complacency about malaria, poor acceptance of ITNs, treating and retreating rare, preference for environmental vector control measures, usage least likely among most vulnerable and ineffective advocacy for policy changes (Roll Back Malaria Partnership, 2003).

Unfortunately, despite the importance of human communication in health care, most people often ignore or take it for granted within the health care system – with the delusion that since

they communicate all times, communicating is quite simple, which is why most people end up in poor communication patterns resulting in ineffective communication among their target audience (Kreps & Thornton, 1992).

Communication for malaria is geared towards reaching populations who remain at risk, to facilitate identification of people with asymptomatic infections and their compliance with treatment and to inform communities of the optimal timing of malaria control interventions as well as explain changing diagnostic concerns (Koenker, Keating, Alilio, Acosta, Lynch and Nafo -Traore, 2014).

The recent call by the World Health Assembly in May 2018, for an aggressive new approach to jump-start progress against malaria in Nigeria and other 10 other countries that carry the highest burden of the disease in order to address the lack of political will, strategic information to drive impact, better guidance, policies, strategies and a coordinated national malaria response propelled this research (WHO, 2019). Nyirongo (2013) had previously noted that despite the provision of malaria prevention medication and educating the people on how to use prevention implements such as mosquito nets as well as what they should do for effective treatment, malaria incidence has not reduced to levels envisioned by international projection such as the Millennium Development Goals (MDGs). Premised on this report, this study sought to investigate the role communication interventions have played in the malaria prevalence and eradication in Cross River State.

Theoretical Framework

This study adopted the McGuire (1976) Communication Persuasion Model. The communication–persuasion model has help to guide several public health communications. The model can be characterised as an input-output matrix that can be manipulated and measured to achieve a change. The communication ‘input’ factors contain five separate stages of communication: source, message, channel, receiver and destination. These input variables provide options for health practitioners to select and manipulate. These ‘input’ variables are the main step in achieving the ‘output’ variables.

The model proposes a 13 output variables (or stages) as a sequence of events that, according to McGuire (2001), must take place in an order to enable the message to have an effect and achieve the desired. There are:

1. Tuning in: Exposure to the message (i.e the malaria control or prevention message);
2. Attending: Paying attention to the message;
3. Liking: Liking and being interested in the message;
4. Comprehending: Understanding the message concept (i.e. malaria control or prevention);
5. Generating: Related cognitions (thinking what would need to be done);
6. Acquiring: Gaining skills to act on the message;
7. Agreeing: Agreeing to recommendation from the message (using the treated nets);

8. Storing: Storing the recommendations
9. Retrieval: Being able to retrieve five a day at appropriate times;
10. Decision: Deciding to do (using the treated nets);
11. Acting: Sleeping under the treated nets;
12. Post-action: Continuing to sleep under the treated nets;
13. Converting: Encouraging or advising others to Sleeping under the treated nets.

This model can also help practitioners to identify and consider channels and strategies that can influence the campaign outcomes. Given the emphasis on each stage, each message stage can be examined for impact, appropriateness and effectiveness (Corcoran, 2007).

Objectives of the Study

The overall objective of this study was to assess the efforts of communication in malaria eradication programme in Cross River State. The Specific objectives of the study will be to:

1. Identify the communication strategies used in the Malaria Eradication Programme in Cross River State;
2. Determine the effectiveness or not of the communication strategies used in the Malaria Eradication Programme in Cross River State;
3. Find out if the involvement of the target audience in developing these communication strategies;
4. Ascertaining mass media efforts in the prevention and control of malaria in Cross River State.

Research Questions

The following research questions were formulated to guide this study:

1. What are the communication strategies used in the Malaria Eradication Programme in Cross River State?
2. How effectiveness or not are the communication strategies used in the Malaria Eradication Programme in Cross River State?
3. To what extent are the target audience involved in development of the communication strategies used in the Malaria Eradication Programme in Cross River State?
4. What efforts have the mass media made in the prevention and control of Malaria in Cross River State?

Literature Review

Communication is as old as human history. Many indicators have overtimes proved that effective communication is the main factor enhancing civilization through history (Pathways to Higher Education, 2017). Communication is a dynamic process that takes place around us, all the time. Communication arises out of the need to reduce uncertainty, to act effectively, to

defend or strengthen one's ego through the transmission of information, ideas, emotions and skills.

Health communication is a type of human communication concern with health (Rogers, 1996). It is a form of communication used to influence attitudes, perceptions, awareness, knowledge, and social norms, which militates against behaviour change. The selection of health communication as primary strategy to combat health issues is most appropriate when the goal of a particular communication intervention is to increase health awareness or knowledge and change attitudes as well as behaviours for effective health practices among members of a certain population.

Health communication initiatives use the most effective and efficient strategies for the promotion, protection and maintenance of health through the use of the best available evidence at practice and policy level (Sixsmith, Doyle, D'Eath & Barry, 2014). To achieve the task of effectively changing most unfriendly attitudes and behaviours affecting health, it is important that health communicators focus on the development of appropriate communication strategy which must carefully analyse the situation, audience and strategically develop appropriate methods to bring about desired outcomes (Barnes, Neiger & Thackery, 2003).

Health Communication have also been effectively put to use in several developed and developing countries to address major health outbreaks (like HIV/AIDS, Cholera, Ebola, etc) to control disease spread and bring about effective health risk management as well as disease prevention since its inception in the early 1980s (USAID, 2013; UNICEF, 2012).

However, despite the importance of communication in our contemporary society, Pathways to Higher Education (2017) had observed that communications are very often taken for granted, even when the communication process is fundamental for human survival and essential to the development of the individual, to the formation and continued existence of groups as well as the interrelations among groups.

Malaria is a common and life-threatening disease in many tropical and subtropical areas. There are currently over 100 countries and territories where there are high risks of malaria transmission. Malaria is a disease that is transmitted by the bite of a particular kind of mosquito called female Anopheles mosquitoes, which bite mainly between dusk and dawn. It is an acute febrile illness with incubation period of 7 days or longer (WHO, 2012).

As observed by British Society for Immunology (2017), an estimated 700,000 people were killed by malaria in 2010 globally and approximately half the world's population are at risk of the disease though the disease is preventable. According to UNICEF (2000), when a mosquito bites a person it sucks up blood. If the person has malaria, some of the parasites in the blood will be sucked into the mosquito. The malaria parasites multiply and develop in the mosquito. After 10-14 days they are mature and ready to be passed on to someone else. If the

mosquito now bites a healthy person, the malaria parasites enter the body of the healthy person.

There are four main strains of malaria and the most serious of these is the falciparum other three forms, vivax, ovale and malariae are usually less serious, but still need to be prevented and treated promptly. Once a malaria mosquito has bitten a person, parasites travel to the liver and can lay there dormant, or can start to rapidly multiply. Eventually the parasites multiply so much that the liver cells they have invaded bursts and releases them into the blood stream. Once in the blood stream they attack the red blood cells. By the time the parasites are in the blood stream the person may start to experience the symptoms of malaria, which includes include high fever, chills, headache, feeling unwell, muscle aches and cramps (Travel Clinic Matraville, 2017). This makes malaria a serious public health challenge.

It is common knowledge that for change to occur there is an exchange of information. This can be from change agents, mass media, observations, discussions internal catalyst, etc. Thus ensuring effective information exchange or communication can help ensure changes in attitudes and behaviours towards the prevention and control of malaria (National Malaria Control Programme, 2010). Communication is therefore essential for positive outcomes of all options offered in malaria prevention and control. This communication strategy is usually developed to guide all actors in the prevention, control, and treatment of malaria (Uganda National Malaria Control Program, 2017).

Communication is used to promote beneficial changes in behaviour among members of populations. It is use to used to disseminate useful information that can help reduce the incident of malaria and development favourable behaviour, attitude and practices among target audience. Programme planners often rely on effective health communication through advocacy, social mobilization and behaviour change communication strategies to mobilise the communities, local, regional and national as well as political and religious leaders to play an active role in malaria control and ensuring proper understanding of the core interventions by the population and promoting positive change of behaviours and help create better communication between homes and health facilities, but the lack of it could minimise possible gains in any malaria intervention programme (WHO, 2006; Mugisa & Muzoora, 2012; Bowen, 2013).

Research Methodology

This study adopted the survey research design, because it focuses on people, the vital facts of people and their beliefs, opinion and attitudes. Population of Cross River State is projected at 2019 to 4,021,245. These include male and female in the three senatorial districts of the state. A sample size 300 was arrived at using Yaro Yamane sampling formula (Yamane, 1998). Accidental sampling technique was used to distribute copies of the questionnaires with the help of research assistance, to the respondents. Data were analysed using descriptive statistics.

Data Presentation

Table 1. Distributions of Respondents by Gender

Gender	Number of Respondents	Percentage
Male	22	55.5%
Female	178	44.5%
TOTAL	200	100

Source: Field Survey 2019

Table 2. Distributions of Respondents by Age

Age	Number of Respondents	Percentage
15-30	55	27.5%
31-35	66	33%
36-40	31	15.5%
41 – 45	26	13%
46 and above	22	11%
TOTAL	200	100

Source: Field Survey 2019

Table 3. Distributions of Respondents by Educational Qualification

Qualification	Number of Respondents	Percentage
O' Level	62	31%
OND/HND	82	41%
B. Sc/M. Sc above	56	28%
TOTAL	200	100

Source: Field Survey 2019

Table 4. Distributions of Respondents by Marital Status

Marital Status	Number of Respondents	Percentage
Married	95	47.5.5%
Single	92	46%
Divorce	13	6.5%
TOTAL	200	100

Source: Field Survey 2019

Table 5. Distribution of Respondents by Occupation

Responses/ Options	Number of Respondents	Percentage
Students	50	25%
Civil Servants	74	37%
Traders	56	28%
Farmers	20	10%
TOTAL	200	100

Source: Field Survey 2019

Table 6. Distribution of Respondents showing whether they know about malaria disease

Responses/Options	Number of Respondents	Percentage
Yes	200	100%
No	0	0%
Undecided	0	0%
TOTAL	200	100

Source: Field Survey 2019

Table 7. Distribution of Respondents showing the major communication channel used to educate them on how to prevent and control malaria

Responses/Options	Number of Respondents	Percentage
Mass Media	89	44.5%
Health workers/Hospital	71	35.5%
Community channel	40	20%
Seminar/Conference	0	0%
Others	0	0
TOTAL	200	100

Source: Field Survey 2019

Table 8. Distribution of Respondents showing whether the communication strategies used by the Ministry of Health were effective in educating people on Malaria prevention and control in Cross River State

Responses/Options	Number of Respondents	Percentage
To a Very High Extent	128	64%
High Extent	62	31%
Low Extent	10	5%
Very Low Extent	0	0%
TOTAL	200	100

Source: Field Survey 2019

Table 9. Distribution of Respondents showing how often they get information on Malaria Prevention and Control from the Mass Media

Responses/Options	Number of Respondents	Percentage
Very Often	100	50%
Often	56	28%
Not Often	35	17%
Undecided	9	4.5%
TOTAL	200	100

Source: Field Survey 2019

Table 10. Distribution of Respondents showing whether they or their community leaders were involved in the development of the communication strategies used in Malaria Prevention and Control

Responses/Options	Number of Respondents	Percentage
Yes	45	22.5%
No	155	77.5%
Undecided	0	0%
TOTAL	200	100

Source: Field Survey 2019

Table 11. Distribution of Respondents showing how often they get information on Malaria Prevention and Control from the Mass Media

Responses/Options	Number of Respondents	Percentage
Very Often	100	50%
Often	56	28%
Not Often	35	17%
Undecided	9	4.5%
TOTAL	200	100

Source: Field Survey 2019

Table 12. Distribution of Respondents showing their opinion on the extent they think the Mass Media have done enough in the prevention and control of Malaria in Calabar Metropolis

Responses/Options	Number of Respondents	Percentage
To a Very High Extent	167	83.5%
High Extent	22	11%
Low Extent	11	5.5%
Very Low Extent	0	0%
TOTAL	200	100

Source: Field Survey 2019

Results/ Discussion

Findings from the study reveal that, malaria eradication programme relied on the mass media, door to door strategy by health workers, sensitization of patients in the hospitals, community channels like town criers, seminar/conferences, etc to sensitise and educate the public on proper ways of preventing and controlling malaria. Data from Table 7 shows that 89 respondents, representing 44.5% were of the opinion that the mass media is the major communication channel used to educate them on how to prevent and control malaria, 71 respondents, representing 35.5% health workers/hospital, 40 respondents, representing 20% went for community channels, whereas none went for Seminar/Conference and others.

As noted by the Centres for Disease Control and Prevention (2019), health communication strategies are used to inform and influence individual and community decisions that enhance health. It is a core strategy used to achieve adequate public health improvement. This findings

also align with the position of RSM partnership to end Malaria (2018) that programme planners rely on effective health communication through advocacy, social mobilization and behaviour change communication strategies to mobilise the communities, local, regional and national as well as political and religious leaders to play an active role in malaria control and ensuring proper understanding of the core interventions by the population and promoting positive change of behaviours. According to the Nigeria Federal Ministry of Health National Malaria Elimination Programme (2014), the individual, family and community are priority target audiences for malaria communication to be established and maintained the norm and culture of malaria prevention. At the socio-political domain, advocacy efforts are targeted primarily at the policy makers and leaders who are directly in control of funds and other resources needed for malaria programme.

Data from table 8 shows that 128 respondents, representing 64% were of the opinion that the Communication Strategies used by the Ministry of Health were to a very high extent effective in educating people on Malaria prevention and control, 62 respondents, representing 31% went for high extent, while 10 respondents, representing 5% said low extent whereas none went for a very low extent. This finding reveals that the communication strategies so far employed by the ministry of health to sensitise the people on malaria prevention and intervention is very effective and have served the purpose.

Health communication initiatives uses the most effective and efficient strategies for the promotion, protection and maintenance of health through the use of the best available evidence at practice and policy level used for strengthening evidence-informed action (Sixsmith, Doyle, D'Eath & Barry, 2014). These findings align with the earlier position of Roll Back Malaria Partnership (2003) that the applicable communication strategy for malaria intervention depends on the environment and target audience. In the social political environment, advocacy is often being used for policy change, coalition building and communicating policy change. While for Interpersonal communication skills, job aids, client materials, branding and media promotion are mostly used to achieve effective service delivery system. At the Community/ Individual level, Mass media, community mobilization, interpersonal communication strategies are used to change affect attitudinal and behaviour challenges militating against the success of the programme.

Data from Table 10 shows that 155 respondents, representing 77.5% were of the opinion that they or their community leaders were not involved in the development of the communication strategies used in Malaria Prevention and Control, while only 45 respondents, representing 22.5%, said they were involve and none went for undecided. Data from this study revealed that the community members/leaders were often not involved in the development of appropriate communication strategies for the programme in Calabar metropolis.

Data from table 9 shows that about 100 respondents, representing 50% were of the opinion that they very often get information from the mass media on Malaria Prevention and Control

in Calabar Metropolis, 56 respondents, representing 28% went for Often, 35 respondents, representing 17% went for not often, while 9 respondents, representing 4.5% were undecided. This aligns with the position of Yaya, Uthman, Amouzou, and Bishwajit (2018) that exposure to mass media plays a pivotal role in health communication and adoption of a healthy lifestyle generally. In malaria intervention programmes, the important of the mass media in the gathering and dissemination of useful information that leads to the effective utilisation of ITNs cannot be ignored. These media messages in malaria communication according to Nigeria Federal Ministry of Health National Malaria Elimination Programme (2014) are developed based on the consideration of the interplay of factors and influences around priority target audiences by each of the domains of malaria communication.

Also from the data presented in Table 12 shows that 167 respondents, representing 83.5% were of the opinion that to a very high extent they think the Mass Media have done enough in the prevention and control of Malaria in Calabar Metropolis, 22 respondents, representing 11% went for high extent, while 11 respondents, representing 5.5% said low extent whereas none went for a very low extent. Findings from the study shows that the mass media have done considerably well in educating the public on ideals ways to prevent and control malaria in Calabar Metropolis

Conclusion

Based on the findings of this study, it is concluded that strategic communication is an integral and indispensable part of the malaria disease management. Several communication strategies like the modern mass media, door to door strategy by health workers, community methods, etc were relied upon by the Ministry of Health to educate the public on the ideal ways of preventing and controlling Malaria in Cross River State. It is seen clearly from the findings of this study that the communication strategies so far employed in the malaria intervention programme in the major towns this research was carried out. The mass media have help to accurately gather and disseminate information leading to the increased access and utilisation of the ITNs in the state. However, same may not be the case in the rural areas where there mostly no or limited access to the mass media. More community based communication methods are needed to communicate the malaria intervention programme to the rural communities.

Recommendations

1. The government should intensify the use of indigenous communication methods alongside the mass media in reaching the rural dwellers to educate them on malaria prevention and control.
2. There should be increased used of the broadcast media especially the television to educate and demonstrate to the people, the proper way of using the ITNs and other malaria prevention and control methods.

3. Community members should be involved in developing indigenous communication strategies that will work for the rural people. This will further enhance rural participation and acceptance of the ITNs provided for them.
4. Seminars/conferences especially in tertiary institution should be encouraged to improve the existing knowledge on malaria parasites.

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