Media Intervention in Endemic Disease Awareness and Control: Re-Evaluating the Efficacy of Radio Advocacy in Selected Urban Areas of Ogun State, Nigeria

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Abstract
This study evaluates the effectiveness of radio as a medium of health communication in addressing endemic diseases in parts of Ogun State, Nigeria, focusing on Lassa fever, tuberculosis, and cholera. The work was anchored on health belief Model (HBM). It provided empirical evidence regarding the effectiveness of radio in health communication interventions in view of the common belief in the strength of radio in promoting public health messages. The study reevaluated the role of radio in disseminating public health information. By airing a purposely designed public health radio advocacy message (jingle) over eight weeks, the study assesses the influence of radio messages on audience awareness and knowledge of the stated diseases as well audience attitude towards the media messages. Utilizing a descriptive survey design, the research targets a population of 1,421,500 across five local government areas, with a sample size of 385 respondents. Data were gathered through questionnaires administered in ten communities, focusing on the effectiveness of the radio broadcasts from OGBC Radio 90.5 FM and Super FM 96.3. Findings reveal that the audience's level of awareness and knowledge regarding the diseases is notably low, with respondents exhibiting a negative attitude towards radio messages. Furthermore, the study identifies a lack of significant impact of these media messages in curbing the spread of endemic diseases among urban populations. Analysis indicates that audience awareness and knowledge are crucial determinants of attitudes towards health messages. This research contributes to existing knowledge on media's role in public health advocacy and the necessity for strategic engagement between health authorities and media outlets to enhance public health outcomes. The research underscores the need for improved media strategies in public health advocacy to enhance community engagement and effectiveness in disease prevention efforts.

Keywords: Media Intervention, Endemic, Diseases, Awareness, Control Evaluation

1. Background

Intervention through awareness creation is one the most effective health communication approaches for the prevention, managing and controlling of endemic diseases. Sadly, annual endemic which still pose serious challenge to public health in many African countries. In Africa, endemic diseases outbreaks still cause harm to both human and national development in many nations, as thousands of avoidable deaths still occur annually as a result. In Nigeria, Lassa fever, tuberculosis and cholera are known to be endemic (Coker et al, 2000; Idemyor, 2010; Asogun et al,

2019) with cases of outbreaks being recorded from time to time. Nigeria in 2021 was ranked sixth globally among countries with the highest number of tuberculosis cases and over 200,000 cases were reported [1]. Between January and October 2023, over 1000 confirmed and 7,600 suspected cases of Lassa fever and 185 deaths from the disease were recorded in Nigeria [2]. Between January and August 2023, there were 2860 suspected or confirmed cases of cholera with 4 deaths [3]. Currently, the incidence of cholera, tuberculosis (TB) and Lassa fever seem to be the most prevalent. The poor state and non-affordability of health facilities and public

ignorance of preventive and curative measures appear to have led to many incidences of these endemic diseases. Nigerians in many communities across the country still face problems with accessibility to and affordability of curative health care and the only viable option is preventive measures [4-6].

Lack of adequate health care interventions has caused the nation a great deal in terms of lives being lost regularly and life expectancy plummeting to an abysmally low level. There is sufficient evidence that public health communication has significant effect on health behaviour (Hornik, 2002) [7].Also, it is noteworthy that the mass media have been used in many climes to address public health problems and other issues of public concern, more so since it has been recognised that the "impetus of public health is on promotive and preventive approaches" and that health communication is of great significance and perhaps the most vital in bringing about desired changes in health behaviour [7]. Health communication plays a vital role in the eventual achievement of optimal health behaviours by acting as a source of information and motivation [8]. The tripod for a successful campaign change in health behaviour comprises information, motivation and strategy. To engage in positive health promoting behaviours, one must be informed on the need to scale up and have the desire to carry out the behaviour designed by the media messages. It will also require that one must have the necessary resources needed to practice the behaviour [9]. The mass media can serve as potent tool for achieving the itemised preconditions within their role and function in every society as informants and educators in their bid to enhancing societal development through positive behavior change communication.

As an accessible medium of mass communication, radio has featured prominently in media campaign and activities that are targeted at addressing issues that impact people and require behavior change at the individual, societal, national and international levels, especially among rural communities [10]. Issues of public health, environment, economy, risk and disaster preparedness, and climate change and other social and developmental challenges have received communication intervention through radio. This study targets evaluating the instrumentality of radio as aviable medium of mass communication in social and behavior change communication. As a primary medium of public communication for informing, educating and entertaining, radio appears to be a very potent tool for community outreach owing to its broad reach, affordability and ability to pass information effectively to people in many communities [11]. This study seeks to reassess the role of radio as a veritable tool in the information and motivation aspects of public health communication by looking at the use of this medium in interventions for curbing the incidence of endemic diseases, specifically Lassa fever, tuberculosis and cholera specifically among urban populations. The study proceeds from the premise that media channels - which radio represents in this case - are gatekeepers of information and advocacy. Media channels keep the gate through which certain matters are granted access to the public domain while others are denied such access. In this study, we designed a public health radio advocacy message and aired it on radio stations in urban centers for a period of eight weeks

for the purpose of reassessing the role of radio as a medium for public health information and advocacy among urban populations. The study focuses on five local government areas of Ogun state in south-west Nigeria. These local government areas were selected for manageability within the scope of available time and resources.

1.1. Statement of Problem
Endemic diseases prevalence in Nigeria with its staggering population has made the health burden of diseases such as Lassa fever, tuberculosis and cholera an issue of great concern. The need to constantly keep in check viral, bacterial and airborne diseases has more than ever before drawn the media into public health advocacy and behavioural change communication activities. In the post pandemic society, public health issues are more likely to catch the attention of gatekeepers.However, the major challenge is not about public health information passing through media gatekeepers, the contention is that policy makers and the healthcare community often underestimate the role of media in public health and media outlets hardly recognise themselves as significant contributors to public health. In view of this, other considerations override the need for advocacy or of informing or motivating the public without any immediate incentive.There is therefore the need to re-evaluate the role of media in public health information advocacy with specific focus on radio, which is believed to be a versatile medium of mass communication.To achieve this, we formulate five research questions and two hypotheses to evaluate, on one hand, the relationship between the population's awareness and knowledge of the three endemic diseases and attitude towards radio advocacy on the diseases, and on the other hand to assess the impact of radio messages aimed at curbing the endemic diseases among urban populations.

1.2. Study Objective
The main objective of this research is to evaluate the current state of effectiveness of radio in media intervention for awareness creation and advocacy in behavioural change and public health communication in Ogun state, south-west Nigeria. Specifically, the aim is to reassess the efficacy of radio for public health communication intervention for three endemic diseases: cholera, tuberculosis and Lassa fever. The study hopes to provide empirical evidence in support or otherwise for the continued use of radio in public health information and advocacy processes. Essentially, the current study will serve as reference in decision-making processes concerning employment of radio in public health campaigns within the study areas and probably beyond.

1.3. Research Questions and Hypotheses
1.3.1 Research Question One
What is audience's level of awareness (created by radio) about endemic diseases in Ogun State, Nigeria?

1.3.2 Research Question Two
What is audience level of knowledge of endemic diseases in Ogun state Nigeria?

1.3.3 Research Question Three
What is audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever?

1. 3.4 Research Question Four
What is the Impact of media messages in curbing Cholera, Tuberculosis and Lassa Fever in Ogun State?

1.3.5 Research Question Five
What are the Factors that hinder the use of radio messages in tackling cholera, tuberculosis, and Lassa fever?

1.3.6 Hypothesis One
$H0_1$: There is no significant relationship between audience level of awareness of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever

1.3.7 Hypothesis Two
$H0_2$: There is no significant relationship between audience level of knowledge of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever

2. Literature Review
At a time when many nations attempt to steer their development along the United Nations' sustainable development goals (SDG) agenda, media outlets have a significant role to play, given their impact on how their nations' societies transform. It is difficult to dispute the troubles media gatekeepers encounter in carrying out their jobs, especially when it comes to having to decide on what is allowed to filter through the newsroom and become information for the public. The ideals of job autonomy and news decision-making are intertwined in the media. This is because journalists' freedom in the newsroom shapes the decisions they make while creating content for print or broadcast media. Actually, autonomy is a crucial aspect of professional employment [12]. But in the course of their work, media gatekeepers are subject to a variety of constraints, including those set by the government, media laws, editorial guidelines, media owners, politicians, and audience or marketers. In the intricate realm of media framing, the phrase "gatekeeping" is employed to denote the process of selecting news, particularly in relation to choices about granting specific news reports access to a news channel or not [13]. Gatekeepers are compelled by editorial regulations to conduct extensive research before submitting their content for publication, frequently under time and budget constraints.

As a result, media gatekeepers cannot always report as they wish. The quality and content of news is often a product of the editorial policy [14,15]. Prejudices, political sycophancy, editorial policy control in most media outlets, and conflicts of interest all complicate these factors, [16]. The obstacles imposed by editorial policies also make it difficult for journalists to cover particular topics of societal concern for an extended period of time. This perhaps explains why public health information and related issues, when not sponsored as a commercial, may not air for extended periods or given the required media attention. Sufficient scholarly attention to the effects of editorial strategies on content delivery by media houses and societal transformation in Nigeria is lacking. This is especially so regarding health behavior information advocacy.How do media houses decide to provide advocacy information services, whether commercially or as public service information? When media houses provide public health information advocacy services, do such interventions have the desired effects? The enduring lack of clear answers to these and many other questions indicates that there is little empirical data regarding how editorial policies affect the coverage of societally significant topics such as advocacy and promotion of information on endemic diseases.

The technique of gatekeeping reduces the billions of communications that are available all over the globe to the hundreds of messages that are delivered to the public each day. The gatekeeping process entails information selection, addition, repetition, shaping, integration, disregard, and deletion [17]. Gatekeepers decide which facts to include, which to emphasize, and which to omit [18]. These decisions are influenced by pressure from different groups, newsroom culture, sensitivity to advertising, and a host of other factors [19]. Creating news is a far more intricate process than the straightforward exchange of information between an informed consumer and an information provider. Many media gatekeepers may lack sufficient knowledge of public health issues that are often about endemic diseases, but it is their duty to cover any issue of public interest, including those concerning public health, where endemic diseases such as cholera, tuberculosis and Lassa fever often feature. Public health issues may not always be of interest to the media beyond crisis periods, especially when no public or private organization is sponsoring such media advocacy. Radio programming can go for months without any mention of public health matters if there were no sponsors.

The history of commercial news media also tells the tale of an ongoing struggle to further the objectives of two opposing, frequently hostile, groups: advancing corporate profit and the public good. While public and internal laws, professional conventions, and the presence of public service media provide some resistance against unbridled commercial dominance, it is evident that most democratic nations are witnessing a shift towards a more market-oriented approach in the media environment [20,21]. Consequently, there is a greater chance that the information ecosystem will favor private interests over those of the masses. This has a major influence on the choice of content by gatekeepers, who tend to be more incentivized by sponsored than public service programmes, especially in media environments dominated by commercial stations. Commercialism in news media is a pervasive factor that makes gatekeepers abandon topics of endemic diseases to satisfy the interest of their clients. Sjovaag and Ohlsson sum it up in saying that commercialism entails shaping stories to suit advertisers and owners [22]. Newsrooms that are able to function without interference from profit-driven managers or advertisers seeking favourable coverage are better able to withstand the pressures of uncontrolled commercialization and better serve the public's interest.

An emerging body of literature points out that even as they rationalize and reduce the audience to a quantifiable aggregate, media gatekeepers are taking more cognizance of consumers and accommodating to their tastes, following years of dismissing audience desires as unimportant to the news process [23-28]. At the same time, media gatekeepers are realizing that audiences have more and more power to customize their news experiences and publicly record their interests through most seen or most emailed lists, which can influence other users' habits of consuming news [29,30]. Audience interests also influence gatekeepers' choice on coverage of endemic diseases.Anderson addressed this as an "agenda of the audience," an expression of audience-driven interest that seems to challenge conventional wisdom in mass communication, including agenda-setting, gatekeeping, and audience influence over media messages [23,24]. Audience interests as construed by the gatekeeper may determine what is given extensive attention.This may explain why aside during crises, public health issues hardly had salience in mainstream media programming. Boczkowski, Boczkowski, Mitchelstein & Walter and Boczkowski & Peer have found a big difference in the news tastes of journalists and consumers: journalists tend to choose "hard" news, while consumers tend to favor "soft" news [24,32,33]. However, if audiences and media gatekeepers do, in fact, have different tastes in material, whose preference is more influential and recognized as salient at a given time? While it will require a detailed study to examine the metrics of placement of news on endemic diseases and audience consumption rate, knowledge on the influence of such placements, over time, on public perception and behaviour is essential in justifying the need for placement.

2.1. Media Roles in Public Health Message Dissemination

It is essential to note the pivotal role of the mass media in information dissemination. The media are the vehicle through which public health messages are usually conveyed. Health information has greater impact when disseminated through reliable and authentic platforms such as like; radio, television, print media and other channels recognized by the wider public. These channels do not necessarily have to be traditional media. The perception that traditional media are more reliable than social media is gradually changing [34]. Source credibility however still influences content reliability, especially in relation to health information on social media [35]. As emerging public health issues become a global concern, lots of controversies emerge along with the need for more trustworthy channels to provide clarification and source verification. Without doubt, the media serve as a reference point for health source verification. They are saddled with the responsibilities of educating the public on misconstrued and misrepresented health related issues and more.

Despite these clear media roles, there still appear to be a paucity of literature on media role when it comes to public health message dissemination. Hence, the current investigation attempts to contribute in closing the gap.Also, during the heat of the COVID-19 pandemic, there was a massive permeation of misinformation even through the mainstream media because of the huge controversies surrounding the pandemic and the conspiracy theories of science's involvement. The narrative of the pandemic contributed massively to the misconception of the disease across various continents of the world. A Singaporean study, for instance, show two main types of misinformation: fabricated and reconfigured misinformation. It shows clear evidences of and differences within the various types, topics, and corrections of misinformation across the early stages of the pandemic. The study threwmore light on the critical role of the mainstream news media as public education tools to correct misinformation on public health crises. Theoretically, these findings contribute to the understanding of media misinformation through gate-keeping, and misinformation correction. From a practical perspective, the findings highlight the capacity and potential roles of the press in supporting government efforts to combat misinformation, which basically is the traditional role of the media in public health information dissemination (WHO, 2020).

It is important to note that the demand for information on public health challenges is believed to have grown exponentially in the last few years especially with the pandemic experience, while the media play a pivotal role in educating the public through strategic intervention programmes. The intentionality of distributing relevant health tips through various communication channels has redefined news consumption. Apparently, it is now essential to provide high quality media contents carter to the teeming masses if we are to avert the spreading of diseases all over the world.

Recent studies, have demonstrated exponential growth in the demand for health information [36-38]. In the developing Countries,the mass mediaremain the primary source ofhealth information for many, and a significant portion of the population acts upon the health information received through these channelswithout seeking experts advise, [39-41]. Importantly, bothlocal and global news platforms are used in connecting health workers with the masses on prevailing health issues as opined by, as good health and effective medical carefundamentalfor a functioning society [42,43]. Public attitude towards prevention and care correlate with available information and knowledge adoption. Hence, the significance of studies investigating effectiveness of media channels such as radio cannot be overemphasized.

2.2. Framing and Presentation of Health Information

Framing in health communication significantly influence how recipient perceive health related information, (Chandran and Menon, 2004; Menon et al 2008; Peters et al 2011). Message framing involves presenting the same information in two ways: emphasizing potential gains or highlighting potential losses. This approach can significantly influence individual's attitudes and behaviours, (Park, 2012). Current health behaviour advocacies seem to be gaining ground and more people are realizing the importance of health information as more public awareness is gained in all fronts.

2.3. Agenda Setting and Salience of Health Issues

Influencing public opinion is the key consequence of any media

operation. While media operations are influenced by existing policies, critical factors that determine media agendas include the nature of the nature of the problems, potential solutions and the prevailing social-political context. Also, health message promotion and its successes are informed by the message design, its implementation and evaluation of interventions that optimize public health actions and choices.

2.4. Theoretical Framework

To establish a theoretical basis for the study, we adopt the Health Belief Model (HBM), which is widely applied in understanding health behaviours and designing of interventions for creation and promotion of health awareness and behaviour change. HBM posits that individuals' health-related behaviours are influenced by their perceptions of factors such as perceived susceptibility - the belief about the likelihood of contracting a disease or health condition; perceived severity - the belief about the seriousness of contracting an illness or leaving it untreated; perceived benefits - the belief in the efficacy of the advised action to reduce the risk or seriousness of the impact; perceived barriers - the belief about the tangible and psychological costs of the advised action; cues to action - factors that trigger the decision-making process to accept a recommended health action; and self-efficacy - the confidence in one's ability to take action. HBM as a model is applicable here as the study is an attempt to explore how radio advocacy influences the audience's perception of their susceptibility to endemic diseases and the severity of these diseases. Also, in evaluating how radio messages communicate the benefits of preventive measures and address potential barriers to adopting these measures, we see the influence of perceived benefits and perceived barriers, which includes the role of radio advocacy in reducing misconceptions and promoting positive health behaviors. Furthermore, specific elements of radio advocacy that act as cues to action prompt individuals to seek information, adopt preventive measures, or seek medical help. Finally, regarding self-efficacy, radio messages have the potential to enhance listeners' confidence in their ability to take preventive actions and control their own health outcomes. Individual Differences Theory: the theory recognizes that individuals have unique characteristics, experiences, and backgrounds that influence their responses to health messages. It emphasizes tailoring communication to address these differences. In the context of a radio-based health campaign, understanding the audience's individual traits (such as demographics, health literacy, and cultural context) is crucial. By considering these differences, one can create targeted messages that resonate with specific listener groups.

3. Methodology

The current exploratory study adopted the descriptive survey design. This study focused on media advocacy and the target population's awareness and knowledge of endemic diseases and the relationship of these variables to public health advocacy on radio in selected local government areas in Ogun State Nigeria. The stations that carried the campaigns against endemic diseases are OGBC Radio 90.5 FM Abeokuta and Super FM 96.3 Ijebu-Ode. Five Local Government Areas (LGAs) were selected, looking at the LGAs that are within close proximities to the stations that carried the campaign against endemic diseases in the state to ensure that the surveyed population have access to the radio campaign which ran for two months in both English and Yoruba languages. The LGAs selected are Ikene, Abeokuta North, Obafemi Owode, Odogbolu and Ijebu- Ode LGA. According to the data from city population.com Ikene LGA has the population of 202,600, Abeokuta North 338,100, Obafemi Owode 399, 800, Odogbolu 212, 700 and Ijebu-Ode LGA 267, 300. Therefore, the population of this study is 1,421, 500 (citypopulation.de) The sample size for this study is 385 respondents. The simple random technique was adopted to select two communities from each of the selected LGAs, making a total of ten communities and giving every community member in the population a chance of being part of the sample. Below table shows the distribution:

S/N	LGA	Communities	No of questionnaire administered
1.	Ikene	Ogere	39
		Irolu	39
2.	Abeokuta North LGA	Abule-Aje	39
		Abule-Oke	39
3.	Obafemi-Owode	Mowe	39
		Ibafo	38
4.	Odogbolu	Ijesa	38
		Ayinwa	38
5.	Ijebu-Ode LGA	Erinlu	38
		Esuru	38
		Total	**385**

3.1. Data Analysis and Discussion
3.1.1. Research Question One
What is audience's level of awareness (created by radio) about endemic diseases in Ogun State, Nigeria?

SN	Item Statement	SA	A	U	D	SD	Criteria	$\overline{x}$	SD	Dec
1	I have heard radio messages on Cholera, Tuberculosis and Lassa Fever.	4	16	13	142	177	+3.00	1.65	0.84	D
2	I listen to radio messages on Cholera, Tuberculosis and Lassa Fever on weekly basis.	17	69	56	141	69	+3.00	2.50	1.15	D
3	Radio messages on Cholera, Tuberculosis and Lassa Fever are interesting.	7	23	40	168	114	+3.00	1.98	0.93	D
4	Radio messages on Cholera, Tuberculosis and Lassa Fever are regular.	24	81	58	121	68	+3.00	2.63	1.22	D
5	Radio messages on Cholera, Tuberculosis and Lassa Fever are presented in my local dialect	31	58	48	134	81	+3.00	2.50	1.25	D
6	I understand radio messages on Cholera, Tuberculosis and Lassa Fever	5	19	35	165	128	+3.00	1.88	0.89	D
7	I prefer to listen to messages on Cholera, Tuberculosis and Lassa Fever in my local dialect	24	57	41	124	106	+3.00	2.34	1.25	D
	Cluster Mean						+3.00	**2.26**	**0.71**	**D**
Note: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, $\overline{x}$ = Mean, SD = Standard Deviation, Dec = Decision										

Table 1: Mean and Standard Deviation of respondents on the audience's level of awareness about endemic disease in Ogun State.

The result of the study as presented in Table 1 shows the frequencies, mean and standard deviation on audience's level of awareness about endemic diseases in Ogun State, Nigeriaas created by theradio broadcast. Based on the criterion level of 3.00 mean rating for accepting an item, the respondents disagreed that they have heard radio messages on Cholera, Tuberculosis and Lassa Fever($\overline{x}$=1.65, SD = 0.84), they listen to radio messages on Cholera, Tuberculosis and Lassa Fever on weekly basis($\overline{x}$=2.50, SD = 1.15), Radio messages on Cholera, Tuberculosis and Lassa Fever areusually interesting($\overline{x}$=1.98, SD = 0.93), Radio messages on Cholera, Tuberculosis and Lassa Fever are featuredregular($\overline{x}$ =2.63, SD = 1.22), among others. The cluster mean of 2.26 with a standard deviation of 0.71 clearly show the audience level of awareness (created by radio) about endemic diseases in Ogun State, Nigeria is very low. This implies that the respondents do not get radio messages on endemic diseases such as Cholera, Tuberculosis and Lassa Fever in Ogun State, Nigeria constantly.

3.1.2. Research Question Two
What is the level of knowledge of endemic diseases in Ogun state Nigeria?

SN	Item Statement	SA	A	U	D	SD	Criteria	$\overline{x}$	SD	Dec
1	I am aware of radio messages on Cholera, Tuberculosis and Lassa Fever	9	17	29	155	142	+3.00	1.85	0.94	D
2	Radio messages on Cholera, Tuberculosis and Lassa Fever are educative.	3	10	14	187	138	+3.00	1.73	0.74	D
3	Radio messages on Cholera, Tuberculosis and Lassa Fever are enlightening	3	19	19	147	164	+3.00	1.72	0.85	D
4	Radio messages on Cholera, Tuberculosis and Lassa Fever are effective	10	20	47	158	117	+3.00	2.00	0.97	D

5	Radio messages on Cholera, Tuberculosis and Lassa Fever are persuasive	11	32	58	165	86	+3.00	2.19	1.00	D
6	Radio messages on Cholera, Tuberculosis and Lassa Fever are comprehensive enough	9	32	71	148	92	+3.00	2.19	1.01	D
	Cluster Mean						+3.00	1.99	0.56	D

Note: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, $\bar{x}$ = Mean, SD = Standard Deviation, Dec = Decision

Table 2: The Mean and Standard Deviation of Respondents on Audience Level of Knowledge of Endemic Disease in Ogun State.

The result of the study as presented in Table 2 shows the audience level of knowledge of endemic diseases in Ogun state, Nigeria as created by radio broadcast. The results show that the respondents disagreed with the following statements: I am aware of radio messages on Cholera, Tuberculosis and Lassa Fever ($\bar{x}$= 1.85, SD = 0.94), Radio messages on Cholera, Tuberculosis and Lassa Fever are educative ($\bar{x}$=1.73, SD = 0.74), Radio messages on Cholera, Tuberculosis and Lassa Fever are enlightening ($\bar{x}$ =1.72, SD = 0.85), Radio messages on Cholera, Tuberculosis and Lassa Fever are effective ($\bar{x}$ = 2.00, SD = 0.97), Radio messages on Cholera, Tuberculosis and Lassa Fever are persuasive($\bar{x}$= 2.19, SD = 1.00) and Radio messages on Cholera, Tuberculosis and Lassa Fever are comprehensive enough ($\bar{x}$ = 2.19, SD = 1.01). The cluster mean of 1.99 with a standard deviation of 0.56 shows that the audience's level of knowledge about endemic diseases in Ogun State, Nigeria is very low.

3.1.3. Research Question Three
What is audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever?

SN	Item Statement	SA	A	U	D	SD	Criteria	$\bar{x}$	SD	Dec
1	I pay attention to radio messages on Cholera, Tuberculosis and Lassa Fever.	9	25	44	167	107	+3.00	2.04	0.97	D
2	I believe the messages I hear on radio on Cholera, Tuberculosis and Lassa Fever.	5	27	43	178	99	+3.00	2.03	0.91	D
3	I personally take actions as advised on radio messages on Cholera Tuberculosis and Lassa Fever.	9	27	63	157	96	+3.00	2.13	0.98	D
4	I respond to radio messages on Cholera, Tuberculosis and Lassa Fever.	16	56	71	129	80	+3.00	2.42	1.13	D
5	I take preventive measures recommended on radio messages on Cholera, Tuberculosis and Lassa Fever.	12	26	36	154	124	+3.00	2.00	1.02	D
6	I encourage my friends and family to take actions recommended on radio messages on Cholera, Tuberculosis and Lassa Fever.	8	21	53	151	119	+3.00	2.00	0.96	D
7	I enjoy listening to radio messages on Cholera, Tuberculosis and Lassa Fever.	15	25	62	148	102	+3.00	2.15	1.05	D
	Cluster Mean						+3.00	2.16	0.66	D

Note: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, $\bar{x}$ = Mean, SD = Standard Deviation, Dec = Decision

Table 3: Mean and Standard Deviation of Respondents on Audience Attitude Towards Radio Messages on Cholera, Tuberculosis and Lassa Fever.

The result of the study as presented in Table 3 shows the audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever. Based on the result, the respondents disagreed that: they pay attention to radio messages on Cholera, Tuberculosis and Lassa Fever($\bar{x}$ = 2.04, SD = 0.97), they believe the messages they hear on radio on Cholera, Tuberculosis and Lassa Fever($\bar{x}$ = 2.03, SD = 0.91), they personally take actions as advised on radio messages on Cholera Tuberculosis and Lassa Fever($\bar{x}$ = 2.13, SD

= 0.98), they respond to radio messages on Cholera, Tuberculosis and Lassa Fever($\bar{x}$ = 2.42, SD = 1.13) among others. The cluster mean of 2.16 with a standard deviation of 0.66 shows that the respondents have negative attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever in Ogun State, Nigeria.

3.1.4. Research Question Four
What is the Impact of media messages in curbing Cholera, Tuberculosis and Lassa Fever in Ogun State?

SN	Item Statement	SA	A	U	D	SD	Criteria	$\bar{x}$	SD	Dec
1	Radio messages on Cholera, Tuberculosis and Lassa Fever have made me to be careful with contact with people and what I eat and drink	10	12	24	145	161	+3.00	1.76	0.92	D
2	Radio messages on cholera, tuberculosis, and Lassa fever have prompted me to keep my surroundings clean.	4	10	33	151	154	+3.00	1.74	0.82	D
3	Radio messages on cholera, tuberculosis, and Lassa fever have helped me to understand their signs and symptoms.	5	17	35	168	127	+3.00	1.87	0.87	D
4	Radio messages on cholera, tuberculosis, and Lassa fever have helped me to safeguard from been infected.	7	16	33	149	147	+3.00	1.82	0.91	D
5	Radio messages on cholera, tuberculosis, and Lassa fever have enabled me to know how to assist infected persons.	17	31	48	163	93	+3.00	2.19	1.07	D
6	Radio messages on cholera, tuberculosis and Lassa fever have taught me to seek medical attention immediately if I notice symptoms.	9	18	36	133	156	+3.00	1.83	0.97	D
	Cluster Mean						+3.00	1.92	0.66	D

Note: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, $\bar{x}$ = Mean, SD = Standard Deviation, Dec = Decision

Table 4: Mean and Standard Deviation of respondents on Impact of Media Messages in curbing Cholera, Tuberculosis and Lassa Fever in Ogun State.

The result of the study as presented in Table 4 shows the impact of media messages in curbing Cholera, Tuberculosis and Lassa Fever in Ogun State. Based on the result of the study, the respondents disagreed that Radio messages on Cholera, Tuberculosis and Lassa Fever have made themmore careful regarding social distancingand what they eat and drink ($\bar{x}$=1.76, SD = 0.92); have prompted them to keep their surroundings clean ($\bar{x}$=1.74, SD = 0.82); understand their signs and symptoms($\bar{x}$=1.87, SD = 0.87); safeguard against infection ($\bar{x}$=1.82, SD = 0.91); know how to assist infected persons ($\bar{x}$=2.19, SD = 1.07) and seek medical attention immediately if they notice symptoms ($\bar{x}$=1.83, SD = 0.97).The cluster mean of 1.92 with a standard deviation of 0.66 implies that media messages have no impact in curbing Cholera, Tuberculosis and Lassa Fever among the studied population in Ogun State, Nigeria.

3.1.5. Research Question Five
What are the Factors that hinder the use of radio messages in tackling cholera, tuberculosis, and Lassa fever?

SN	Item Statement	SA	A	U	D	SD	Criteria	$\bar{x}$	SD	Dec
1	Poor power supply is one of the factors that hinder radio messages on cholera, tuberculosis, and Lassa fever.	19	36	36	77	184	+3.00	1.94	1.23	D
2	Unstable radio signal reception makes it difficult for me to receive clear radio messages on cholera, tuberculosis, and Lassa fever.	18	39	54	144	97	+3.00	2.25	1.12	D

3	Economic factors hinder me from listening to radio messages on cholera, tuberculosis, and Lassa fever.	30	84	59	110	69	**+3.00**	2.70	1.26	D
4	I don't see any benefit in listen to radio messages on cholera, tuberculosis, and Lassa fever.	73	139	51	45	44	**+3.00**	3.43	1.29	A
5	I do not have time to listen to radio messages on cholera, tuberculosis, and Lassa fever.	47	125	60	54	66	**+3.00**	3.09	1.33	A
6	My culture encourages radio messages on cholera, tuberculosis, and Lassa fever.	23	36	46	105	142	**+3.00**	2.12	1.23	D
	Cluster Mean						**+3.00**	**2.62**	**0.69**	**D**

Note: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, $\bar{x}$ = Mean, SD = Standard Deviation, Dec = Decision

Table 5: Mean and Standard Deviation of Respondents on the Factors that Hinder the use of Radio Messages in Tackling Cholera, Tuberculosis, and Lassa fever in Ogun State.

The result of the study as presented in Table 5 shows different factors that hinder the use of radio messages in tackling cholera, tuberculosis, and Lassa fever in Ogun State, Nigeria. The result show that the respondents disagreed that the following factors hinder the use of radio as an effective means of providing information on the listed endemic diseases: Poor power supply ($\bar{x}$ =1.94, SD = 1.23), unstable radio signal reception ($\bar{x}$ = 2.25, SD = 1.12), economic factors ($\bar{x}$ = 2.70, SD = 1.26) and culture ($\bar{x}$ = 2.12, SD = 1.23). This decision is taken because the mean values are below 3.0 criterion level for accepting an item. However, the respondents agreed that they do not see any benefit in listening to radio messages on cholera, tuberculosis, and Lassa fever ($\bar{x}$ = 3.43, SD = 1.29) and do not have time to listen to radio messages on cholera, tuberculosis, and Lassa fever ($\bar{x}$ = 3.09, SD = 1.33).

The cluster mean of 2.62 with a standard deviation of 0.69 implies that the items listed on Table 5 are not factors that hinder the use of radio messages in tackling cholera, tuberculosis, and Lassa fever in Ogun State, Nigeria.

3.2 Test of Hypotheses
The following hypotheses are formulated and tested at 0.05 level of significance.

3.3 Hypothesis One
H0$_1$: There is no significant relationship between audience level of awareness of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever

Model		Sum of Squares	Df	Mean Square	F	Sig.	Dec.
1	Regression	40.735	1	40.735	125.837	0.00	S
	Residual	113.298	350	.324			
	Total	154.033	351				

Note: S = Significant.

Table 6: Regression Analysis of the Relationship Between Audience Level of Awareness of Endemic Diseases and Audience Attitude Towards Radio Messages on Cholera, Tuberculosis and Lassa Fever.

The result in Table 6 shows the regression ANOVA of the relationship between audience level of awareness of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever. Result shows that an f-ratio of (f = 125.837, p = 0.00) was obtained. Since the p-value is less than 0.05, this implies that the result is significant and the null hypothesis which stated that there is no significant relationship between audience level of awareness of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever is rejected. Inference drawn is that the relationship between audience level of awareness of endemic diseases and

audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever is statistically significant. This implies that audience level of awareness of endemic diseases is a significant factor in determining audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever.

3.4 Hypothesis Two
H0$_2$: There is no significant relationship between audience level of knowledge of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever.

Model		Sum of Squares	Df	Mean Square	F	Sig.	Dec.
1	Regression	59.113	1	59.113	217.968	0.00	S
	Residual	94.920	350	.271			
	Total	154.033	351				
Note: S = Significant.							

Table 7: Regression Analysis of the Relationship Between Audience Level of knowledge of Endemic Diseases and Audience Attitude Towards Radio Messages on Cholera, Tuberculosis and Lassa Fever.

The result in Table 7 shows the regression ANOVA of the relationship between audience level of knowledge of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever. Result shows that an f-ratio of (f = 217.968, p = 0.00) was obtained. Since the p-value is less than 0.05, this implies that the result is significant and the null hypothesis which stated that there is no significant relationship between audience level of knowledge of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever is rejected. Inference drawn is that the relationship between audience level of knowledge of endemic diseases and audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever is statistically significant. This implies that audience level of knowledge of endemic diseases is a significant factor in determining the audience attitude towards radio messages on Cholera, Tuberculosis and Lassa Fever.

4. Conclusion

The findings from the study highlight the significant impact that audience awareness and knowledge of endemic diseases have on their attitudes towards radio messages on Cholera, Tuberculosis, and Lassa Fever. As audience awareness of endemic diseases increases, their attitudes towards radio messages about these diseases improve significantly. Similarly, the study reveals a significant relationship between the audience's level of knowledge of endemic diseases and their attitudes towards radio messages. Higher levels of knowledge among the audience about endemic diseases lead to more positive attitudes towards the information disseminated through radio messages. In conclusion, the study demonstrates that both awareness and knowledge are critical factors in enhancing the effectiveness of radio as a medium for disseminating information on disease prevention. It means that knowledge and awareness need to be improved through other means among the studied population for radio to be effectively used for disseminating information about endemic diseases among them. Findings underscore the importance of public health campaigns that aim to raise awareness and educate the public about endemic diseases in urban and semi urban areas through means other than radio broadcasts, ultimately fostering more informed and health-conscious urban communities [42-46].

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