



**Perceived Effectiveness of Radio Jingle in Combating the Spread of Corona Virus among Rural Dwellers in Ifo and Odeda Local Government Areas of Ogun State, Nigeria**

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**Abstract**

*The study investigated the perceived effectiveness of radio jingles in combating the spread of Corona Virus among rural dwellers in Ogun State. It ascertained respondents' awareness, knowledge, benefits derived and perceived effectiveness of the radio jingle in combating the spread of Covid-19. Using a multistage sampling procedure, 150 rural dwellers were randomly sampled and interviewed. Data were analyzed using percentages, means and correlation analysis at  $p=0.05$ . Results indicated that respondents were mostly aware of caution messages ( $\bar{x} = 0.93\pm0.25$ ), adherence to all non-pharmaceuticals preventive measures ( $\bar{x} = 0.92\pm0.26$ ) and warnings on adherence to preventive measures ( $\bar{x} = 0.91\pm0.28$ ). Knowledge was mostly high around issues of wearing of face mask ( $\bar{x} = 0.90\pm0.30$ ), social distancing ( $\bar{x} = 0.84\pm0.37$ ) and health workers' vulnerability ( $0.84\pm0.48$ ). Benefits derived included debunking myths about the virus ( $\bar{x} = 1.86\pm0.87$ ) and improved personal hygiene ( $\bar{x} = 1.65\pm0.70$ ). The jingle was perceived as highly effective in sensitizing others about the pandemic ( $\bar{x} = 2.92\pm1.70$ ) and vaccine information ( $\bar{x} = 2.79\pm1.10$ ). There was a significant relationship between awareness level and the perceived effectiveness of radio jingle ( $r = 0.318$ ). Radio jingle was perceived effective by the rural dwellers, therefore should be intensified by the Nigeria Centre for Disease Control in combating corona virus and other issues of public health importance.*



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**Keywords:** Radio jingle Corona Virus, rural dwellers, Corona virus prevention

## Introduction

Radio continues to maintain a focal position in developing countries as an electronic mediated tool for development issues including health and agricultural communication. The contribution of community, national and international radio as an Information Communication Technology (ICT) tool to health programmes in the developing world cannot be overemphasized (Olajide et al. 2020) and it is a strategic tool for human development and poverty reduction (UNFPA, 2021). According to Nwafor, et al. (2020), radio as an ICT tool is committed to all sections of the society which makes it a significant tool of mass media in handling situations of any emergency. The established nature of the radio medium and its key role in the course of decades of health communication means that radio enjoys an analytical credibility. There seems to have been a re-discovery of radio in the context of new ICTs, making it a two-way medium that can help in bridging the digital divide by providing a powerful tool for information dissemination and access, especially for hard-to-reach rural audiences (Funom & Soyemi, 2020; Akinwale, 2020). More so, public health communication interventions via radio campaigns are particularly cost-effective considering its wider reach and impact.

Radio jingles are considered suitable and ideal in sensitizing the rural dwellers about the causes, the symptoms and the best health practices needed to overcome health challenges because of its strategic position which often broadcast jingles (Olajide, 2021). Therefore, radio jingles are utilized in health risk communication to improve knowledge of people who may be at risk of a particular health hazard and persuading them to adopt favourable attitude and behaviours that underline prevention and effective management of infectious diseases.

The novel corona virus disease (Covid-19) caused by the severe acute respiratory syndrome Coronavirus 2 (SARS-Cov-2) was first found in Wuhan, China in 2019. The outbreak of Covid-19 was reported to the World Health Organization (WHO) on the 31<sup>st</sup> December, 2019 and WHO subsequently declared it a global health emergency of international concern on the 30<sup>th</sup> January, 2020 (Gallegos, 2020). Furthermore, WHO declared it a pandemic on 11<sup>th</sup> March, 2020 due to its vast and swift spread across continents of the world (World Health Organization, 2020). According to Shabban (2020), as of the 13<sup>th</sup> May, 2020 every country in Africa has recorded a case of Covid-19 with alarming spread rates. It then becomes imperative that the rural population given its strategic importance in food production be guided at all cost against this terrible social menace that is fast spreading fear and death in the world.

The pandemic nature of Covid-19 and its fast spread has caused great fear and apprehension among Nigerians as regards what the disease is all about, how it spreads, how it can be prevented and treated to mention only but a few. This apprehension has caused the Nigerian populace to seek more information about Covid-19 via various strategies to stay safe and prevent contracting the disease.



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Unfortunately, the threat of the diseases continues to grow, and rural areas are not exempted. Although there have been a number of actions implemented to address the pandemic and its impact, the increasing number of Covid-19 cases and emergence of other variants (Delta and Omicron) poses a major threat particularly with the various limitations and challenges that plague health services in rural areas.

According to the World Bank (2020), about six out of every 10 persons in sub-Saharan Africa lives in a rural area representing 656, 284, 579 persons. This population comprises various age groups which include the high-risk group of Covid-19 such as the elderly. The challenges facing health services in rural areas have been mainly characterized by poor healthcare access and coverage, and health workforce shortages. Rural communities in Africa, in general, and Nigeria, in particular, are typically conservative and uphold culture to a greater extent. Rural settlements in this region are also found in the form of clusters which means daily physical contact between individuals is inevitable. Community and family clustering have been shown to affect Covid-19 responses in Africa. Amidst the rage of the pandemic, individuals in rural areas may seek to hold on to the cultural and norm practices as it would be challenging to have socio-cultural adjustments, posing an additional threat to stay-home orders, physical distancing and other precautionary measures rolled out by most central governments and health authorities. Poor information access, as well as infodemic and poor health literacy in rural areas have been a challenge (Olajide & Ladigbolu, 2020). Rural areas generally have limited access to the media. Just fewer persons have devices and gadgets that provide media content. It is no news that the media today is flooded by issues relating to Covid-19 including mode of transmission, prevention, and control measures. Rural dwellers have limited access to these contents. This can make them ill-informed about the pandemic resulting in reliance on anecdotal evidence about the pandemic which may be incorrect making rural dwellers more prone to out rightly false or falsified information regarding the pandemic, which may further hamper its containment.

The Nigeria Centre for Disease Control (NCDC), the agency saddled with the responsibility of combating pandemic like the Novel Coronavirus in Nigeria, has played a great role in combating the spread of Covid-19 by making Covid-19 information available via various sources and media which include the NCDC Webpage, television and radio jingles, newspaper columns, social media platforms and other online sources. Though the jingles, with greater usage, is envisaged to prove highly effective in creating awareness among the rural population (NCDC, 2020), the availability of Covid-19 information may not automatically translate to accessibility and use in meeting information needs especially in rural areas. Though, research has paid considerable attention to the technical, epidemiological and public health aspects of Covid-19 pandemic in Africa, the social, economic and political dimensions have suffered considerable neglect. (Onyishi et al.,2021). It is against this background that the study was undertaken to provide insights as to how effective these jingles were, particularly to the rural population of the dangers and ravages of the corona pandemic. Specifically, the study was guided by the following objectives:



1. ascertain the awareness level of the message content of the radio jingles among the rural dwellers;
2. evaluate the knowledge derived from listening to the message content of the radio jingles as regards the virus;
3. identify the benefits derived from listening to the jingles; and
4. determine the perceived effectiveness of the message content of the radio jingles among the rural dwellers.

It is hypothesized that there is no significant correlation between awareness of message content of the jingle and perceived effectiveness.

## Methodology

This study was carried out in Ifo and Odeda Local Government Areas of Ogun State, Nigeria. Whereas, Ifo is located on Latitude: 6° 48' 53.68" N and Longitude: 3° 11' 42.65" E., Odeda is on Latitude: 7.2965 and Longitude: 3.5203. with population of 539,170 and 109,522, respectively (NPC, 2006). The population for the study constituted all rural dwellers. A two-stage random sampling technique was used to select respondents for this study. In the first stage, a random selection of 30% of the wards in the two LGAs was carried out and resulted in 3 wards each from the two LGAs to give a total of 6 wards. In the second stage, houses at the ward level were numbered and using systematic random sampling, 5% of the listed houses were sampled and one respondent each (mainly, the household head) were interviewed from the sampled houses. In all, 150 respondents were interviewed. The dependent variable of this study (perceived effectiveness of Covid- 19 radio jingles) was measured using a 10-item from scale drawn from the message content of jingles disseminated by the Nigeria Centre for Disease Control (NCDC) ranging from wearing of face mask, hand washing and use of hand sanitizers, avoiding large gatherings, social distancing, personal hygiene, self isolation, coughing into a flex elbow, non-essential travels and vaccination. Response options were on four- point scale of highly effective, effective, moderately effective, and not effective with scores of 3,2,1,0 assigned, respectively. Grand mean (2.29) was used to rank the message items on the scale in order of the effectiveness of the radio jingles in addressing these issues. Data were analyzed using percentages, means and correlation analysis at  $p=0.05$ .

## Results and Discussion

### Awareness of Message Content of the Covid-19 Radio Jingles among Rural Dwellers

Table 1 reveals that the respondents expressed high awareness of issues surrounding caution messages ( $0.93\pm 0.25$ ), adherence to all non-pharmaceuticals preventive measures ( $0.92\pm 0.26$ ) and warnings on adherence to preventive measures ( $0.91\pm 0.28$ ). When one considers that at the onset of the outbreak of the virus with no vaccines in sight and mounting fears arising from sudden death of high profiled individuals, the general population gravitated towards ways that could temporarily steer them towards safety. Therefore, the use of face mask and to some extent social



distancing was rampant. Scam alertness ( $0.87\pm 0.33$ ), sensitization of children about Covid-19 ( $0.86\pm 0.35$ ) and limit to all non-essential and international travel ( $0.84\pm 0.33$ ), ranked least in 8<sup>th</sup>, 9<sup>th</sup> and 10 positions, respectively. These issues might be considered not too germane to rural areas as possibility of scam and non-essential international travels is remote, hence little attention was paid by rural dwellers to such issues addressed by NDDC in the radio jingle. Against the grand mean of 0.89, the awareness created by the radio jingles was also high for issues such as mandatory Covid-19 post arriving testing and isolation ( $0.90\pm 0.30$ ) and extra caution by health workers ( $0.89\pm 0.27$ ). In all, it can be averred that the radio jingle created loads of awareness around issues of prevention among the rural populace. The statuses of most of these results corroborate the position of Modriwa (2019) and Olajide (2021). The duo alluded to the potency of radio, especially radio jingles and drama as key drivers and promoters of development messages.

**Table 1: Awareness of the message content of the radio jingle**

Items	Mean	SD
Caution messages	0.93	0.25
Adherences to all non-pharmaceuticals preventive measures	0.92	0.26
Warning on adherences to preventive measures	0.91	0.28
Mandatory Covid-19 post arriving testing and isolation	0.90	0.30
Extra caution by health workers	0.89	0.27
Care and isolation centre	0.88	0.33
Collective responsibility on the part of all Nigerians	0.88	0.32
Scam alertness	0.87	0.33
Sensitization of children about Covid-19	0.86	0.35
Limit to all non-essential and international travel	0.84	0.33
<b>Grand mean</b>	<b>0.89</b>	

Source: Field Survey; 2021

### **Knowledge Derived from Listening to the Content of the Covid-19 Radio Jingles**

Against a grand mean of 0.56 (Table 2), it is evident that the radio jingles on Covid-19 had high impact on the knowledge of the rural areas in as many as 12 out of 20 issues addressed. From the Table, the respondents demonstrated high knowledge about wearing of face mask ( $0.90\pm 0.30$ ), social distancing ( $0.84\pm 0.37$ ), vulnerability of health workers to contracting Covid-19 ( $0.84\pm 0.48$ ), importance of testing for the virus



(0.82±0.71) and maintaining clean environment and proper hygiene to protect the children from Covid-19 infection (0.79±0.43) in that order. Hand washing (0.90±0.30), not being indifferent to safety protocol (0.90±0.30), warning against scam concerning Covid-19 palliatives (0.90±0.30) and risks of exposure to Covid-19 due to frequent traveling (0.90±0.30) were other prominent Covid-19 issues that the respondents were highly impacted by the radio jingles. This is very much in line with the trend of results reported in the awareness results as issues concerning safety are of paramount importance to the people. They seem to have been sensitized to these issues and by same token acquired some knowledge around issues in the front burners when it comes to Covid-19 containment. It will also appear that from the radio jingles, rural dwellers have learned about the use of nose mask, social distancing, clean environment and knowledge on what can expose one to the virus. Conclusively, it is safe to aver that as the respondents keep listening to the jingles, more information about the virus will be obtained and they become more aware and learn about issues relating to the virus. This position aligns with Aldosari et al., (2019) as well that of Christensen et al., (2019) who are of the opinion that given right exposure to ICT tools such as radio and its contents, rural dwellers, especially farmers who crave for better wellbeing are bound to be positively impacted.

**Table 2: Knowledge derived from listening to the content of Covid-19 radio jingles**

Items	Mean	SD
Wearing a face mask wrongly is as good as not wearing a mask at all	0.90	0.30
Staying safe require maintaining social distancing	0.84	0.37
Doctors and nurses are more vulnerable during covid-19 infection	0.84	0.48
Everyone must undergo Covid-19 test	0.82	0.71
A clean environment and proper hygiene protect the children from covid-19 infection	0.79	0.43
Hand washing is necessary to avoid Covid-19 infection	0.76	0.49
Indifferences to Covid-19 preventive protocol exposes our loved ones to dangers	0.74	0.49
NCDC warned against Covid-19 palliatives	0.72	0.31
Traveling exposes one to Covid-19 infection	0.68	0.40
Wearing face mask is not compulsory to prevent Covid-19	0.59	0.42
Using hand sanitizer is effective in curing Covid-19 infection	0.59	0.39
Children are allowed to take covid-19 vaccination	0.58	0.49
Traveling does not expose one to Covid-19 infection	0.51	0.47
Attending large gathering during Covid-19 is permitted	0.50	0.50
Covid-19 vaccination is dangerous to one's health	0.45	0.70
Self-medication is good for Covid-19	0.43	0.50
Health workers cannot contact covid-19 infection	0.39	0.50
Traveling is impossible during Covid-19 pandemic	0.39	0.50
Hand washing is a pharmaceutical remedy for covid-19 infection	0.35	0.44
Everyone infected with Covid-19 must go to isolation center	0.25	0.50



Grand Mean	0.56
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Source: Field Survey; 2021

### Benefits Derived from Listening to Radio Jingles

Results in Table 3 on the benefits derived from listening to Covid-19 radio jingles suggest that all the benefits listed were rated as highly beneficial. Against the grand mean of 1.34, the Covid-19 radio jingle helped debunk some myths about the virus and its spread ( $1.86 \pm 0.87$ ), improved personal hygiene ( $1.65 \pm 0.70$ ), better informed about prevention of the virus ( $1.57 \pm 0.65$ ) and empowered the listeners to educate the young ones on its prevention ( $1.52 \pm 0.70$ ) among other benefits. This, therefore, suggests that largest percentage of the rural dwellers have, to a large extent, derived several benefits from listening to the radio jingles. According to Damba *et al.*, (2020) and Funom and Soyemi (2020) significant benefits abound about effect of technology dissemination on uptake and utilization of same by beneficiaries, especially if such aligns with their aspirations, enterprise needs and peculiar circumstances.

**Table 3: Benefits derived from listening to Covid- 19 radio jingle**

Items	Mean	SD
Helped to debunk some myths about the diseases and its spread	1.86	0.87
Improved personal hygiene in response to the prevention of the diseases	1.65	0.70
Better informed about how to prevent the virus	1.57	0.65
Empowerment to sensitize and help younger ones on the prevention of the diseases	1.52	0.70
Prevention from contacting the virus	1.44	0.65
<b>Grand Mean</b>	<b>1.34</b>	

Source: Field Survey; 2021

### Perceived Effectiveness of Covid-19 Radio Jingles among Rural Dwellers

Result on perceived effectiveness of the Covid-19 radio jingle in Table 4 reveals that six out of 10 issues that the Covid-19 messages were weaved around were perceived to be highly effective judging by the grand mean value of 2.29. The messages on sensitizing others about the pandemic ( $2.92 \pm 1.70$ ), vaccine information ( $2.79 \pm 1.10$ ), non-essential travels ( $2.71 \pm 1.19$ ), coughing into flex elbow ( $2.62 \pm 1.39$ ), self isolation ( $2.42 \pm 1.60$ ) and wearing of face mask ( $2.22 \pm 1.58$ ) were perceived to be highly



effective. Given the plethora of issues found to be well packaged, disseminated via the radio jingle, hence perceived to be effective, it leaves no doubt that when deliberate efforts at non-medical responses like radio jingles and other ancillary efforts are made to respond to emergencies as presented by the sudden occurrence of the Covid-19, greater part of the population are strategically positioned to stay safe. This is in consonance with previous positions of Damba et al., (2020) and Funom et al., (2020) that non-health interventions are swift in curbing spread of pandemic if deployed effectively.

**Table 4: Perceived effectiveness of message from Covid-19 radio jingle**

Items	Mean	SD
Sensitizing others about the pandemic	2.92	1.70
Information about vaccination	2.79	1.10
Non-essential travels	2.71	1.19
Coughing into a flex elbow	2.62	1.39
Self-isolation	2.42	1.60
Wearing of face mask	2.22	1.58
Personal hygiene	2.18	1.05
Social distancing	2.03	0.99
Hand washing and the use of hand sanitizer	1.99	1.09
Avoidance of large gathering	1.93	1.10
<b>Grand mean</b>	<b>2.29</b>	

Source: Field Survey; 2021

### **Awareness of Message Content of the Jingle and Perceived Effectiveness**

Table 5 shows that there was a significant correlation between respondents' awareness of the message content of the radio jingles and its perceived effectiveness. ( $r = 0.318$ ). This implies that the awareness created by the radio jingle had impact on the eventual feeling, perceptions and instinct the respondents have about the radio jingle. This is consistent with results of previous findings about the similar phenomenon as found in Olajide et al. (2021) that established radio jingles have consequential effects on farmers' awareness of agricultural, technical and scientific information.

**Table 5: Correlations between awareness of the message content of the radio jingle and perceived effectiveness**





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Variables	R	Df
Awareness and Perceived effectiveness	.318**	150

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\*\*P≤ 0.05 (2-tailed).

## Conclusion and Recommendations

Knowledge derived from the jingle was high around issues of wearing of face mask, social distancing and health workers' vulnerability. The jingle was perceived highly effective in sensitizing others about the pandemic and vaccine information. Respondents' awareness level and the perceived effectiveness of radio jingle were positively correlated. Radio jingles should be intensified by the Nigeria Centre for Disease Control (NDDC) in collaboration with public and private stations in combating corona virus and other issues of public health importance in the rural areas.

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The authors express no conflict of interest in the content of this article.

### Author Contribution

ORB (50%) Conceptualization, Formal analysis, Investigation, Methodology, Project administration, Validation, Visualization, Writing of original draft, Draft review & editing. 50% Contribution

AOR (30%) Conceptualization, Methodology, Project administration, Validation, Visualization, Draft review & editing. 30% Contribution

AMAO (20%) Methodology, Validation, Draft review & editing. 20% Contribution

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