Utilization of WhatsApp for health-related message broadcast in Ojo Local Government Area of Lagos State, Nigeria

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Abstract
WhatsApp is regarded as Africa’s most popular messaging platform and it is especially the most influential social media platform in countries such as Nigeria, Ghana, Kenya and South Africa. This paper aims at determining the utilization of WhatsApp for health-related messages broadcast in Ojo Local Government Area of Lagos State in Nigeria. This paper adopts the survey design in which a questionnaire was used to collect data from 200 residents of the local government area. Probability sampling technique of cluster sampling and non-probability sampling of convenience sampling were adopted. A response rate of 87% and a usable return of 82% were achieved. Statistical Package for the Social Sciences (SPSS) was used for data analysis. The study revealed that WhatsApp was widely used by the respondents and the use of WhatsApp was significant in helping the respondents of the local government area to obtain health-related messages. This is a pointer to the fact that these people already appreciate the capability of WhatsApp in their day-to-day communication. The study recommends that strong attention be drawn to the identification and utilization of WhatsApp as an important communication channel for health practitioners to relay health-related messages to different people.

Keywords: Health-related message broadcast, WhatsApp, Social media platform, Ojo Local Government Area, Nigeria

Introduction
This paper reports on a study that examined the utilization of WhatsApp for health-related messages broadcast in Ojo Local Government Area (OLGA) of Lagos State in Nigeria. There is growing concern about the dissemination of health-related messages via instant messaging platforms in order to deal with challenges faced by the people in getting adequate health information. Everyday people recognize the popular slogan that health is wealth and the key to proper monitoring of one’s health is tied to getting the right information at the right time. Obtaining the right information at the right time could be attached to appropriate smart phone applications and technologies such as Facebook, Instagram, LinkedIn, MySpace, Twitter, WhatsApp, and so on. Most of them are used for instant messaging and these messages help in no small way to create health-information awareness (Abaza & Marschollek, 2017; Giordano et al., 2017; Boulos, Giustini & Wheeler, 2016). Durmaz et al. (2019) established that mobile phone applications such as WhatsApp and Facebook simplified communication by overcoming the difficulties of face-to-face communication. Kemp (2017) revealed that the number of active social media users in the world is put at three billion with social media users through mobile devices comprising 37% of the world’s population.

Statista (2020) reported that the five most popular social networks worldwide as of January 2020, ranked by number of active users in descending order are Facebook, YouTube, WhatsApp,
Facebook Messenger and Weixin/WeChat. WhatsApp, created in 2009 by two former Yahoo employees (Brian Acton and Jan Koum) has been used in communicating messages by various people of all professions. The last officially-reported WhatsApp statistics as at the fourth quarter of 2017 showed 1.5 billion monthly users over 180 countries (BusinessofApps, 2020). The Economist (2019) revealed that WhatsApp is regarded as Africa’s most popular messaging platform and it is especially the most influential social platform in countries such as Nigeria, Ghana, Kenya and South Africa. This is a pointer to how useful WhatsApp can be for message broadcast in Nigeria especially health-related messages as we strive to attain a healthy Nigerian population.

Amry (2014), Jisha and Jebakumar (2014), Montag et al. (2015) and Mistar and Embi (2016) described WhatsApp as a mobile messaging (instant messaging) and social network application for smartphones which allows users to exchange messages by making communication and distribution of multimedia messaging easier and faster through internet connectivity. Montag et al. (2015) and Mistar and Embi (2016) observed that with the widespread usage of smartphones, many studies have demonstrated that WhatsApp has been widely used by individuals due to its accessibility, ease of use for communication purposes, cost free (in contrast to the original text-messaging function on mobile phones), its function across different smartphone types (Apple, Android, etc.) and its international functionality are also important contributors to this popularity.

According to Baruah (2012), the usage of the social media has some inherent advantages which include among others: (a) it is an excellent platform for the sharing of ideas (b) it functions as a communication tool and thereby bridging communication gap (c) it serves as a source of information (d) it is an important marketing tool and (e) it is an important customer interaction and crisis communication tool. Baruah opined that all these advantages are embedded in the fact that social media are a cost-effective and a time-effective management media for the academia, health practitioners and business professionals for vital-information propagation.

However, disadvantages lie in privacy problems, breakdown in relationships due to fake news, reduction in worker’s productivity and its nature of being slightly impersonal (not face-to-face). However, Earnest-Ehibudu and Sira (2017) and Olutola, Olatoye and Olatoye (2016) stressed that WhatsApp is very common with teenagers and young adults owing to features like group chatting, voice messages and location sharing. In spite of this, Price (2019) pointed forward that digital transformation in our society has been slow in terms of its adoption for healthcare because of undue complexity, risk and regulation and the economics of supply and demand.

This paper discusses the capability of the subject of the utilization of WhatsApp for health-related messages broadcast in Ojo Local Government Area (OLGA) of Lagos State under the following sections namely: literature review, purpose of the study, research methodology, results and discussion and finally, conclusion and recommendations.

**Literature review**

According to Nawaflech (2018), the internet has made the world to become more interconnected with recurring political, social and economic exchanges. These exchanges among users generate a substantial volume of data with the users posting their daily life experiences and also engaging in buying and selling of items via the internet. Obviously, the reflection of what the internet brings to our constantly changing environment has brought about the discovery of many social
networking applications including WhatsApp. Today, WhatsApp is causing the seamless exchange of messages such as health-related messages among different users at different planes (Boulos et al., 2016). Essentially, these health-related messages are sent through WhatsApp to create and improve awareness of vital health information in order to help users of such information in making healthy choices and perhaps have a society that is ever conscious of healthy living (Boulos et al., 2016; Petruzzi & De Benedittis, 2016; Ramirez, 2015; Willemse, 2015).

Chou, Hunt, Beckjord, Moser and Hesse (2009) studied to identify the socio-demographic and health-related factors associated with the then current adult social media users in the United States. Multivariate analysis found out that younger age was the only significant predictor of blogging and social networking site participation; a statistically significant linear relationship was observed, with younger categories reporting more frequent use. In particular, the multivariate analyses showed that having access to a regular health care provider did not predict social media use, suggesting that its significance in the bivariate analyses was primarily due to the effect of age. Specifically, younger individuals are less likely to have a regular health care provider. The results showed that the forms of social media studied had distinctly different use patterns and user characteristics, hence different health communication implications. Among the three forms of social media considered in this study, social networking sites by far attract the most users, making them an obvious target for maximizing the reach and impact of health communication and e-Health interventions. A key finding of this study offered new and important implications for health communication in this digital age. It was found out that among internet users, social media were found to penetrate the population regardless of education, race/ethnicity, or health care access. The results of this study suggested that in the future, social media promise to be a way to reach the target population regardless of socioeconomic and health-related characteristics. This finding suggested that the new technologies, represented by social media, may be changing the communication pattern throughout the United States.

Montag et al. (2015) carried out a research in Germany on people active on WhatsApp. WhatsApp alone accounted for about 19.83% while Facebook accounted for 9.38% of typical daily smartphone use. Gender strongly influenced WhatsApp usage. Females used WhatsApp for significantly longer periods of time than males and younger age was associated with longer duration of WhatsApp use. They revealed that females use WhatsApp about 13 minutes longer than males on a daily basis. In general, the data in this study are in line with the literature dealing with the use of social networks such as McAndrew and Jeong (2012) which suggested that females also use Facebook more and that younger people tend to be especially active on Facebook. Montag et al. (2015) revealed that it is worth noting that WhatsApp may not be directly comparable to social network services such as Facebook, as WhatsApp is primarily a communication service. Nevertheless, humans can communicate via both Facebook and WhatsApp, thus some similarities can be observed. In their findings, personality trait extraversion was positively associated with daily WhatsApp use. Conscientiousness showed an inverse correlation with the length of daily WhatsApp use and finally, conscientiousness was inversely correlated with WhatsApp use. The finding fits with the study of Montag et al. (2011) that showed that conscientious humans handle their digital consumption better and are less prone to internet addiction.
Durmaz et al. (2019) aimed to evaluate the effect of support messages through WhatsApp application added to the usual care of a university hospital cessation unit in Turkey, as compared to usual care alone, on abstinence rates at first month. A randomized controlled intervention study was conducted with 132 patients applying to Ege University Hospital's Department of Public Health Smoking Cessation Clinic. Intervention content was prepared and 60 WhatsApp messages about having a plan of action and preventing relapse were developed through expert panels. It was concluded that the online support provided through WhatsApp embedded in the routine cessation service delivery increased abstinence rates substantially.

Alanzi, Bah, Alzahrani, Alshammari and Almunsef (2018) primarily aimed at evaluating the effect of using mobile technology (WhatsApp) for health care to improve the level of knowledge of diabetic patients and to control the level of glycated haemoglobin along with enhancing their self-efficacy level. The study demonstrated that mobile technology, specifically WhatsApp, can be an acceptable approach to improve the knowledge of disease management in patients with Type 2 diabetes in Dammam region considering the progressively widespread use of internet and mobile applications in Saudi Arabia. WhatsApp was found to have positive influence on improving knowledge on diabetes.

Muniasamy et al. (2018) aimed to determine the effectiveness of WhatsApp as a social marketing tool to increase uptake for a free mammography service for underprivileged women. They revealed that social media and messaging services are increasingly targeted by health providers as an avenue to spread health messages, increase awareness and also for social marketing considering their wide penetration in Malaysia with more than half the population relying on WhatsApp for news. The findings showed that the number of calls and inquiries to designated numbers increased by more than 200% as a result of WhatsApp messages and WhatsApp was highly effective at increasing community penetration and marketing a free mammography service for underprivileged women in Kuala Lumpur. Messages with an appeal from a personage and with a specific date of “expiry” were more effective at getting the targeted group to avail themselves of the service. WhatsApp was found to have positive influence on increasing access to mammography screening.

Iftikhar and Abaalkhail (2017) carried out a research on the most frequently used social media platforms in Saudi Arabia namely Facebook, WhatsApp and Twitter. The majority of respondents (89.8%, 397/442) used WhatsApp. Respondents received health-related messages more frequently on WhatsApp than Twitter or Facebook. Despite the number of respondents who reported receiving medical information through social media, less than one-fifth admitted that information shared across these platforms always influenced their health decisions. In most cases, respondents received health-related messages via WhatsApp. A significant proportion of WhatsApp users reported that health-related information disseminated on this platform influenced decisions regarding their family’s health care.

Alonge, Ndai and Kiai (2017) aimed at assessing the nature of HIV/AIDS information shared on social media sites by undergraduate students in southwestern Nigeria. The result showed that students across the three selected universities indicated Facebook to be the most favourite social media platform followed by Instagram and WhatsApp. By and large, many studies have been carried out aimed at accessing the usage of social media by university students (Adebayo, 2015;
Dlamini, Ncube & Muchemwa, 2015; Idubor, 2015; Owusu-Acheaw & Larson, 2015; Musa, Azmi & Ismail, 2015) and several others also examined the utilization of individual social sites for various reasons except health communication (Barczyk & Duncan, 2013; Barhoumi, 2015; Yeboah & Ewur, 2015). A critical look at all the mentioned studies shows that gap exists to accommodate more studies especially a study in the Nigerian context that focuses on the broadcast of health-related messages using the social media. In addition, Montag et al. (2015) stated that although WhatsApp is one of the most commonly used communication applications on smartphones but scientific studies on WhatsApp usage for message dissemination remain scarce. The present study, therefore, investigates the utilization of WhatsApp for health-related messages broadcast in OLGA of Lagos State in Nigeria, putting into focus diverse people apart from students that earlier studies had considered at higher institution domain. This study will also provide a basis for a scientific debate towards making available and improving the accessibility of different people to vital health information via social media platforms especially WhatsApp. This will promote healthy living among the populace when they are equipped with adequate information considering the high level of smartphone usage in Nigeria.

**Purpose of the study**

The aim of the study was to determine the utilization of WhatsApp for health-related message broadcast in Ojo Local Government Area (OLGA) of Lagos State in Nigeria. The study sought to answer the following research questions:

1. What proportion of OLGA residents are on WhatsApp and do they receive health-related messages via WhatsApp?

2. What type of health-related messages do OLGA residents receive via WhatsApp?

3. How helpful do OLGA residents find health-related messages received via WhatsApp?

4. What is the assessment of OLGA residents on the adoption of WhatsApp as a broadcasting platform by health practitioners in disseminating health-related messages?

**Methods**

In this study, data were gathered from a survey conducted on 200 respondents who were residents of OLGA of Lagos State in Nigeria. Lagos State has 20 local government areas but OLGA of Lagos State was chosen because of the proximity of the local government area to the researcher. The local government area comprises of people of different age groups, professions and education. Probability sampling technique of cluster sampling and non-probability sampling of convenience sampling were adopted. Six streets were picked from the area around Lagos State University in Ojo on the basis of cluster sampling. The residents of these six streets were chosen with copies of questionnaire administered to them based on their readiness for the study (convenience sampling). The questionnaire was designed to be answered within eight to ten minutes.

The study was both quantitative and qualitative. A pilot study was earlier conducted on 30 residents of OLGA in Lagos State in order to ascertain the reliability of the instrument in this study. Out of the 200 copies of the questionnaire that was distributed, 164 copies were returned in which the respondents attended to the questions appropriately. However, ten copies of the questionnaire were not correctly filled by the respondents and were discarded. Therefore, a response rate of 87% and a usable return of 82% were
achieved. The survey respondents were reliably informed that all the information they provided throughout the survey would be confidential and solely analysed for this research. As a result of this information, they cooperated in filling the survey questionnaire under consent. Statistical Package for the Social Sciences (SPSS) was used for data analysis.

In this study, for the helpfulness variable (ordinal data type and Likert scale in nature), frequencies/percentages will be used for its analysis. For the purpose of credibility, Blaikie (2003) maintained that ordinal data may be described using frequencies/percentages of response in each category. In addition, Sullivan (2013) discussed that descriptive statistics, such as means and standard deviations, have unclear meanings when applied to Likert scale responses. Sullivan further added that other non-normal distributions of response data can similarly result in a mean score that is not a helpful measure of the data’s central tendency. Therefore, in support of Blaikie (2003), she opined that experts can use frequencies (percentages of responses in each category) for analysis of ordinal data.

Results and discussion
The descriptive analysis of personal information
The personal characteristics area is primarily centred on finding out personal information relating to the respondents. These include: gender, age, profession and education. Table 1 displays personal information. The descriptive analysis of personal information is formed from the data in Table 1 and will be outlined in the following statements.
Gender: Table 1 shows that of the respondents, 74.4% were male and 25.6% were female. As a result of these statistics being authentic and corresponding with the actual figures, they highlight that there is a considerably higher percentage of male respondents participating in the study compared to female respondents. As explained above in the methodology section this was due to the non-probability sampling (convenience sampling) adopted. This strategy ensured that respondents participated in the study willingly without being coerced.

The age of the respondents: The age range with the highest percentage of respondents was 16–25 years old with an exact percentage of 50.0, followed by 26–35 years old (37.2%), 36-45 years old (10.4%) and, lastly, 46–55 years old (2.4%).The data collection method used allowed the researcher to identify that there was a very small percentage of respondents who were over the age of 36 with age range levels of 16-25 and 26-35 constituting approximately 88% of the surveyed respondents. Consequently, it can be stated that the majority of the sampled OLGA respondents in Lagos State are from the younger age categories especially age range 16 to 25 years that also constituted half of the respondents.

The profession of the respondents: Firstly, Table 1 displays that the highest percentage of the respondents (92.1%) was students. Secondly, 3.0% were teachers/lecturers and, thirdly, traders and other respondents had 2.4%. This also points to the fact that the sampled respondents in this survey were from the younger age and they were mostly students.

The education of the respondents: The data which are displayed on Table 1 highlight that 37.2% (which was the highest) possessed Senior School Certificate, secondly, 35.4% had achieved a Bachelor degree (very close to the respondents having Senior School Certificate). Thirdly, 17.1% of the respondents indicated the category of others and, finally, 10.4% (the smallest) had achieved master’s degree. The data which were gathered highlighted that the sample had a wide range of different levels of qualifications and emphasized that the sample was
authentically chosen and, therefore, the results produced were dependable.

Table 1: Demographic data of the respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Males</td>
<td>122</td>
<td>74.4</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>42</td>
<td>25.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
<tr>
<td>Age</td>
<td>From 16-25</td>
<td>82</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>From 26-35</td>
<td>61</td>
<td>37.2</td>
</tr>
<tr>
<td></td>
<td>From 36-45</td>
<td>17</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>From 46-55</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
<tr>
<td>Profession</td>
<td>Trader</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Teacher/Lecturer</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>151</td>
<td>92.1</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
<tr>
<td>Education</td>
<td>Senior School Certificate Examination</td>
<td>61</td>
<td>37.2</td>
</tr>
<tr>
<td></td>
<td>BA/BSc</td>
<td>58</td>
<td>35.4</td>
</tr>
<tr>
<td></td>
<td>MA/MSc</td>
<td>17</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>28</td>
<td>17.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The proportion of OLGA residents on WhatsApp and their receipt of health-related messages via WhatsApp

In this study, the respondents were asked if they were on WhatsApp and if they did receive health-related messages via WhatsApp. One hundred and sixty (97.6%) of the respondents indicated yes while 4 (2.4%) indicated no. This finding supports the survey carried out by Iftikhar and Abaalkhail (2017) that the majority of respondents (89.8%, 397/442) used WhatsApp. Further questioning after knowing the respondents on WhatsApp required that respondents who actually received health-related messages through WhatsApp should be determined. One hundred and nineteen (72.6%) of the respondents revealed that they received health-related messages via WhatsApp while 45 (27.4%) indicated that they did not receive health-related messages via WhatsApp. This finding concurs with: Chou et al. (2009) who showed that social media penetrated the population regardless of education due to increased internet users in response to digital age offering new and important implications for health communication and Alanzi et al. (2018), Muniasamy et al. (2018) and Durmaz et al. (2019) who demonstrated that the WhatsApp platform utilization can be an acceptable approach to improve the knowledge in health care delivery due to widespread use of internet and mobile applications with health messages being sent to people within the shortest time possible.

From the above mentioned data, it is preliminarily observed that a higher proportion of the respondents were on WhatsApp compared to the proportion of the respondents that actually received health-related messages via WhatsApp. This highlights that more respondents can still be reached by sending health-related messages to them via WhatsApp. As a result of the preliminary observation, further investigation was carried out using Chi-square test for independence to determine the association between the number of respondents that received
health-related messages via WhatsApp with personal information variables (gender, age, profession and education).

Chi-square test for independence showed that the p-values of personal information variables were smaller than the alpha value of .05 (with p-values for Gender, Age, Profession and Education being .005, .006, .001 and .045 respectively). So we can conclude that our results were significant. Therefore, there was association between the number of respondents who received health-related messages via WhatsApp and personal information variables.

**Type of health-related messages received via WhatsApp**

The type of health-related messages that the respondents received was as follows in descending order: general health care (19.5%), STDs (15.9%), cancer (14.6%), Diabetics (12.8%) and outbreak of infection (12.2%). Others were general news on health and medical products (7.9%), health advisory information (7.3%), HIV/AIDS (4.9%) and both hepatitis and cholera had 2.4% (see Figure 1). This shows that different types of health-related messages were sent across contacts by different people for the purpose of health education and getting informed via WhatsApp. This is an indication of the fact that many respondents would want to receive authentic messages from health practitioners and authorities on different health areas in order to validate the messages they received from their contacts.

![Figure 1: Messages on health-related issues](image)

**Helpfulness of health-related messages received via WhatsApp**

The respondents were asked to rank how helpful the health-related messages they received via WhatsApp based on ordinal scaling system. Table 2 shows that 45 (27.4%) of the respondents considered the messages very helpful, 48 (29.3%) indicated helpful, 59 (36.0%) indicated sometimes helpful and 12 (7.3%) indicated not helpful.

In this study, considering the fact that helpfulness as a variable was ordinal in nature, frequency count, percentage and cumulative percentage were used for its analysis and interpretation. Table 2 shows that the cumulative frequency count for the first three levels of helpfulness, i.e. very
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helpful, helpful and sometimes helpful (which are varying degrees of helpfulness of health-related messages received through WhatsApp) sum up to 152. This meant that 152 out of 164 respondents (cumulative percentage = 92.7) indicated different levels of helpfulness of the health-related messages received through WhatsApp. Just 7.3% revealed that the health-related messages they got via WhatsApp were not helpful. These data showed that respondents will consider WhatsApp as a suitable platform for health practitioners to send health-related information to diverse people with the majority (92.7%) indicating that messages did help although with varying degrees of helpfulness and despite coming from many non-medical personnel.

The finding of this study is supported and also contradicted by Ifitkhar and Abaalkhail (2017). The support lies in fact that a sizable proportion of WhatsApp users reported that health-related information disseminated via WhatsApp influenced decisions regarding their family’s health care while the contradiction comes from less than one-fifth of social media users (including WhatsApp users) admitting that information shared across these platforms does not always influence their health decisions.

Table 2: Frequency count, percentage and cumulative frequency of the variable helpfulness

<table>
<thead>
<tr>
<th>Level</th>
<th>Frequency count</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Helpful</td>
<td>45</td>
<td>27.4</td>
<td>27.4</td>
</tr>
<tr>
<td>Helpful</td>
<td>48</td>
<td>29.3</td>
<td>56.7</td>
</tr>
<tr>
<td>Sometimes Helpful</td>
<td>59</td>
<td>36.0</td>
<td>92.7</td>
</tr>
<tr>
<td>Not Helpful</td>
<td>12</td>
<td>7.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>164</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Respondents’ assessment of the adoption of WhatsApp as a broadcasting platform by health practitioners in disseminating health-related messages

In attending to this research question, we will focus on three questions: i) What is the view of the residents of OLGA in Lagos State on adoption of WhatsApp by health practitioners? ii) Do OLGA residents prefer to receive health-related messages through WhatsApp compared to other social media platforms? iii) How is WhatsApp evaluated by the residents of OLGA in disseminating information on health-related matters?

A greater percentage of the respondents indicated an affirmative yes (67.7%) that it is right for health practitioners to post messages on health-related issues through WhatsApp, 17.1% indicated no while 15.2% cannot say if it is right or not (see Figure 2). In terms of the respondents’ preference to receiving health-related messages through WhatsApp compared to other social media platforms, 70.7% of the respondents indicated yes while 29.3% indicated no.

Table 3 shows four different measures generated from the data collected that indicated WhatsApp to be a good platform to use in disseminating information on health-related matters. The four WhatsApp benchmark factors were: 57.3% of the respondents normally acts on health-related messages, 75.6% will forward health-related messages to their contacts, 60.4% will probe further to be sure of the message source (indicating its importance and thus worth verifying) and 72.6% indicated that health-related messages sent via WhatsApp influenced their lifestyle. The high percentage values indicated for these four indicators showed the importance of WhatsApp to the
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respondents. Consequently, it shows that WhatsApp is a good social media platform for receiving health-related messages by the respondents of OLGA in Lagos State.

![Figure 2: View of the residents of OLGA on adoption of WhatsApp by health practitioners](image)

<table>
<thead>
<tr>
<th>WhatsApp benchmark factor</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normally act on messages</td>
<td>94</td>
<td>57.3</td>
</tr>
<tr>
<td>Forwarding health-related messages to contacts</td>
<td>124</td>
<td>75.6</td>
</tr>
<tr>
<td>Probe further to be sure of message source</td>
<td>99</td>
<td>60.4</td>
</tr>
<tr>
<td>Messages influence life style</td>
<td>119</td>
<td>72.6</td>
</tr>
</tbody>
</table>

Note: n=164

The findings of our study lend support to previous studies such as Iftikhar and Abaalkhail (2017), Alanzi et al. (2018), Muniasamy et al. (2018) and Durmaz et al. (2019). Although, they are healthcare sector studies but they involved diverse people just like our study with the sample demonstrating similar characteristics that enabled medical experts to interact and send health-related messages via WhatsApp. The characteristics include intense WhatsApp usage by our respondents, diverse people with varying health challenges requiring medical expert attention from time to time, health practitioners offering timely medical responses (messages) and respondents’ disposition when they received WhatsApp health-related messages from their many contacts that were non-medical experts (see Table 3). These stated characteristics will make the respondents to recognize the benefit of health-related messages broadcast by appropriate medical authorities when they receive them. Particularly, as it concerns authenticating health-related messages they get from unreliable sources. For instance, the World Health Organization used WHO Health Alert to bring COVID-19 facts to billions of people via WhatsApp (WHO, 2020).

**Conclusion**

The study determined the utilization of WhatsApp for the broadcast of health-related messages among different classes of people residing in Ojo Local Government Area in Lagos State of Nigeria. The study articulated that the respondents ranging from traders, teachers, lecturers and students of different sexes, ages and education used WhatsApp platform. The majority of the respondents: had the application on their mobile phones, received health-related messages via WhatsApp, prioritized the helpfulness of health-related messages received via WhatsApp and would appreciate if health practitioners adopt WhatsApp in sending health-related information. The implication of their using WhatsApp is that health...
practitioners will find it a useful medium in reaching the general public with timely and much needed health information. Consequently, this will help in creating healthy living awareness and improving the health life of different people.

The present study is, to the best of our knowledge, one of the first to investigate WhatsApp behaviour exhibited by people residing in a particular local government of a state in Nigeria. As revealed in this paper that WhatsApp is regarded as Africa’s most popular messaging platform and it is especially the most influential social platform in Nigeria, it is of great importance to better understand this communication channel as it relates to the broadcast of health-related messages to diverse people especially by health practitioners. The present study represents a starting point in this endeavour.

We recommend that strong attention be drawn to the identification of WhatsApp as an important communication channel for health practitioners to relay health-related messages to different people in developing countries like Nigeria. This will enable health practitioners and people of different classes to properly explore the broadcast advantages inherent in excellent WhatsApp utilization in disseminating health information. This recommendation should be applied selectively depending on the requirements and challenges being addressed. Future works could focus on the perception of health practitioners on the usage of social media platforms for disseminating health-related messages to their patients and also gender-sensitive issues attached to health-messages dissemination via social media platforms in Lagos State and Nigeria at large.

References
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