Awareness and Acceptance of COVID-19 Vaccine Uptake among Adultsin Lagos State, Nigeria

Fasoranti Afolabi Joseph iD

a Department of Human Kinetics and Health Education, University of Lagos, Nigeria.

A R T I C L E I N F O

ORIGINAL ARTICLE

A B S T R A C T

Background: COVID-19 has increased drastically all over the world and one of the major ways to reduce its prevalence is through COVID-19 vaccine. However, some individuals hesitate in accepting the uptake of the COVID-19 vaccine which is a major cause of concern to the global health.

Methods: this cross-sectional study was conducted on450 respondents were selected through networking system in Lagos state. The COVID-19 Hesitancy Questionnaire with reliability value of 0.67 was used as instrument for data collection. Data gathering was online through Google docs which was circulated via e-mail and Whats App platform to the participants. Data Analyzing was done via SPSS 20

Results: The study revealed that 92% were aware of the accessibility of vaccine for COVID-19. Totally, 81.11% had not received the vaccine and the reasons given include misconceptions on the effects of the COVID-19.

Conclusions: COVID-19 vaccine uptake is generally poor among the uneducated than the educated. Therefore, there is need for massive education on the importance of COVID-19 among the populace especially among the less educated.

Keywords:COVID-19, COVID-19 Vaccine, Global Health, Vaccine Hesitancy

Introduction

The Corona virus popularly known as COVID-19 (SARS-CoV-2) is a public health concerns that has destabilized every aspect of every nation ranging from health, economy and social perspectives. World Health Organization (2021) reported that as of second week in August, 2021, the global cumulative rate of COVID-19 confirmed cases is 206,714,291 million with cumulative deaths accounting for 4,353,434 million. In the same period, Nigeria had 174,315 reported cases of COVID-19 with 2,149 deaths (Nigeria Centre for Disease Control, 2021).

To halt or slow the spread of the COVID-19 pandemic, countries around the world have designed and implemented different preventive measures, such as hand washing, social distancing, isolation and quarantine, lockdowns, wearing of face masks in public places and the use of hand sanitizers. These preventive control measures have only helped in flattening the disease curve while the pandemic keep increasing and mutating with different variants of Corona virus (Alqudeimat, *et al.,* 2021). Hence, the introduction of COVID-19 vaccine which can provide long-term preventive measures against the disease, improving health outcomes and life expectancy rate of nations.

Currently, there are thirteen different Corona virus vaccines approved to prevent the spread of COVID-19. The vaccines currently approved in Nigeria are Moderna Vaccine, Johnson and Johnson Vaccine, Oxford AstraZeneca and Pfizer COVID-19 vaccines. Even with the almost 10 million of the vaccines available in Nigeria, only 3,967,013 vaccine doses have been administered in Nigeria as at first week in August, 2021(Harapan, 2020; WHO, 2021). This apathy in the uptake of the vaccine by Nigerians is of serious concern to the public health despite daily increase in the pandemic.

Despite the availability of COVID-19 vaccines, there is still drastic hesitancy in the number of people that have taken the vaccine. Some of the reasons for such non-compliance range from conspiracy theories and religious belief regarding the safety of the vaccine. Most of the people in the developing countries have the perception that COVID-19 is not real due to the low mortality rate when compared with what is obtainable in the develop countries (Olaotan, 2020). Also, multiple groups influence uptake of vaccination, including political decision-makers, immunization programme managers, community and religious leaders, health workers, civil society organizations, media outlets and digital platforms (Brewer, 2017). These actors can facilitate or discourage vaccination and concern in vaccination acceptance is greatly influence by religiosity. Lucia et al., (2020) found that religious teachings prioritize prayers over medicine, thus resulting in vaccination hesitancy among devotees. This is coupled with the lack of appropriate knowledge of the available vaccines, thus making believers to accept alternative approaches. Some of the conspiracies surrounding the vaccination include infertility problem, implantation of microchips to control humans, and that people who accepted the uptake of the vaccine will die soonest (Howard, 2021). Thus, availability of the vaccine does not guarantee that individuals will accept to take the vaccine. Vaccine hesitancy has also steadily increased in more than 90% of countries. Several determinants modify vaccination decisions and determine whether a person will refuse, delay, or accept some or all vaccines. Individual decision-making regarding vaccination is complex and involves emotional, cultural, social, spiritual, and political factors as much as cognitive factors (Tavolacci, Dechelotte & Ladner, 2021). The acceptability of the COVID-19 vaccine in the general population is related to the fear of the virus. This study therefore seeks to examine COVID-19 Vaccine uptake and acceptance among residents in Lagos state, Nigeria.

Methods

The study adopted the descriptive research method. 450adults were enrolled through network sampling technique where the questionnaire was

disseminated via social media platforms such as WhatsApp, Facebook and through e-mail. The enrollment of participants commenced on March 20, 2021 and closed on August 31, 2021. Adults that showed willingness to participate in the study were included while adults that cannot read and write in English were excluded. A validated COVID-19 Hesitancy Questionnaire with reliability of Cronbach alpha 0.67 was used as instrument for data collection. The Questionnaire is made up of 6-item of yes and no response. The Qualitative Content Validity of this Questionnaire was reviewed and commented by a panel of experts in the field of health education. The Content Validity Ratio for all the item was 0.76. The questionnaire was made up of two parts. Part A elicited information based on the demographic variables of the respondents while part B elicited information based on acceptance and reasons for non-uptake of the vaccine among respondents. The questionnaire was pretested among 20 respondents to check suitability of language and slight changes were made. The items were written in English language and only those that can read and write in English language were included in the study. The questionnaire was designed into a Google form to obtain information from the respondents about their awareness of COVID-19 vaccine and reason for hesitancy among respondents that are yet to take the vaccine. During data collection, a shared connection was created and disseminated publicly on various

social media platforms. Ethical approval was obtained by Research and Ethics Department. Completion of the copies of questionnaire by the participants was done online after indicating their consents to participate in the study. The SPSS version 20was used to analyze the collected data. The frequency counts and percentages were used to analyze the demographic characteristics of respondents while chi-square was used to test the level of significance at 0.05 alpha level.

Results

The majority of the respondents were male 278 (61.78%). The age group 18-25 years had the highest number of participants with 296 (65.78%) while in the marital status, most of the respondents were single which accounted for 66.89% of the total respondents

that the majority of the respondents (441, 98%) are aware of COVID-19 vaccine, 365 (81.11%) which constituted the majority are yet to receive the vaccine while 73.33% of the respondents indicated their unwillingness to accept to uptake the vaccine even if it is made available (table 1).

the majority of the respondents that are yet to take the vaccine 216(65.45%) reported that long hours experienced at the venue was one of the reasons for the non-uptake of the vaccine. 303 (91.82%) stated that they are afraid the vaccine might cause harm in their body while 171 of the respondents had the perceptions that COVID-19 is not real (table 2).

Table 1. Acceptance and Awareness of COVID-19 Vaccine

Variables	Frequency	Percentage (%)
Are you aware of COVID-19 vaccine		
Yes	441	98.00
No	9	2.00
Have you received the vaccine		
Yes	85	18.89
No	365	81.11
Will you accept to take the vaccine if it is available		
Yes	120	26.67
No	330	73.33
Total	**450**	**100**

Table 2. Reasons for non-uptake of the COVID-19 Vaccine

Variables	Frequency	Percentage (%)
The hours spent in administering the vaccine is too long		
Yes	216	65.45
No	114	34.55
I am afraid that the vaccine might cause harm to me		
Yes	303	91.82
No	27	8.18
I have the perception that COVID-19 is not real		
Yes	171	51.82
No	159	48.18
Total	**330**	**100**

Table 3. Regression Model on Predictors for COVID-19 Vaccine Acceptance

Covariate	Adjusted OR (95% CI)	p-Value
Gender		
Male	0.29 (0.08–0.81)	0.041
Female	0.24 (0.07–0.62)	0.007
Educational Background		
Educated	1.21 (0.82–1.78)	0.146
Uneducated	0.80 (0.36–1.68)	0.006

The level of acceptance of COVID-19 is higher in the male than the female. The level of acceptability of the COVID-19 vaccine is higher in the educated than the uneducated respondents (table 4).

Discussion

Vaccination is invariably one of the most important public health interventions, but its acceptance varies with time, social class, religion, ethnicity and contextual human behaviour (Dubé, et al., 2013). In the current context, COVID-19 vaccine hesitancy may pose greatest limiting factor in the effort to curtail and control the pandemic and its effects on the populace's health. This study revealed that majority of the respondents is aware of the COVID-19 vaccine which is in line with the study carried out by Mohammed and Hassan (2021) in Kano, Nigeria. They reported that 96% of their respondents were aware of the COVID-19 vaccine and the reasons given for such level of awareness is the advocacy and awareness created by Nigeria Centre for Disease Control

through social media and news channel. This study also revealed that although majority of the respondents are aware of the vaccine, only 18.89 percent of the respondents had the uptake of the vaccine which is considered too poor despite the efforts of the government to make it free, available and accessible to the masses. Males were also more likely to accept a vaccine as in other studies (Dodd, 2014). In contrary to a Polish study where an affirmative response was more from females. (Malesza, 2020). Although, epidemiological information about the disease shows males are more infected than females, heath education should target females Individual decision making concerning COVID-19 vaccination is complex and it involves emotional, religious, and cultural factors (Tobin et al, 2021). Reasons given for the poor uptake of the vaccine are fear, long waiting hours and perceptions that the virus is not real. The study also showed that majority of the people that got vaccinated were educated people.

Conclusion

The state of COVID-19 vaccine uptake acceptance among residents in Lagos state, Nigeria is of great importance towards combating the deadly Corona virus. The study revealed that greater percentage of the residents are aware of the vaccine but only few have taken the vaccine which is not encouraging in the fight against the pandemic. This is the right time to design and disseminate evidence-based health education interventions such as advocacy on correcting the myths and misconceptions surrounding the vaccine among the residents. As suggested by World Health Organization, the quickest way to make people accept the vaccine are to harness social influences such as religious leaders, school owners, business owners in educating the masses on the need to accept and uptake the vaccine. The study therefore recommends that mobilization for COVID-19 vaccination, positive messages regarding the efficacy and side effects of the vaccine to reduce fear, reducing long hours while waiting for the vaccination should be intensified.

Conflict of interest

There are no conflicts of interest

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Authors Contribution

The work was conceptualized by the Author. Research Questionnaire was designed by the Author and also analysis of data was carried out by the Author.

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