



COVID-19 lockdown and health seeking behaviour of aged persons in Kwara state, Nigeria

By

¹OWA-ONIBIYO Funmilola, T., ²Bilyaminu S. M. Prof., ³ALEGE Titilayo F., ⁴SARKIN-NOMA Yahaya S.
and ⁵BOH Letty

^{1,2&4}Department of Sociology, Nasarawa State University, Keffi

³Medical Consultant, Family Medicine Department, Federal Medical Centre, Akure

⁵Department of Security and Strategic Studies, Nasarawa State University, Keffi

International Journal of Social Science, Management, Peace and Conflict Research, 2023, 01(08), 188–201

Publication history: Received on 8 August 2023; Revised on August 29, 2023; Accepted on 5 September 2023

Abstract

The outbreak of the Coronavirus (COVID-19) shrouded in clinical uncertainties with no available vaccine at the onset left the medical communities with only the option of non-pharmaceutical interventions, such as the activation of lockdown, social distancing and adoption of personal protective equipment, to protect, slowdown transmissibility curves, save and preserve lives worldwide. These restrictive interventions thus further endanger aged individuals whose susceptibility to COVID-19 is clinically rated to be higher. It is against this background that this study, underpinned by cognitive-behavioral theory, investigated the effects of the COVID-19 lockdown on the healthcare-seeking behaviour of aged individuals in Nigeria. This study deconstructed the COVID-19 Lockdown into the avoidance of healthcare facilities and self-medication of social media-touted drugs. The study employed a survey research design with a purposively distributed questionnaire to elicit data from a local government area from each of the three senatorial districts of Kwara State in Nigeria, scientific sampling technique of Krejcie and Morgan (1970) which recommends a sample size of 384 respondents for a population above one million was engaged, while simple regression analysis was done on extracted data. Findings from the study showed that the lockdown policy occasioned by the COVID-19 outbreak has significant effects on self-medication, social media-media touted drugs, and healthcare facilities avoidance in the healthcare-seeking behaviour of the aged individual. The study thus recommends the urgent need for government, policymakers, and health stakeholders to evolve policies to enable aged individual to access healthcare during the pandemic while the ministries of Health should leverage on social media advocacy to water down misinformation overload that aged persons are vulnerable to.

Keywords: Cognitive-Behavioral Theory, Healthcare Seeking Behavior, Non-Pharmaceutical Interventions, Social media-Touted Drugs

Introduction

The SARS-CoV-2 pandemic (COVID-19) has changed the way people world over live into a ‘new normal’ from December 2019—when the virus was first detected in Wuhan China to present moment. In saving and protecting lives, and slowing down the transmission curve of this overwhelming pandemic, most countries of the world adopted non pharmaceutical initiatives (NPI) even now as emergence of vaccine is not yet available at commercial rate nor over the counter sales. The adoption of NPI thus include lockdown measures, social distancing, wearing of face mask, hand washing and sanitizer usage. With COVID-19, similar to previous outbreaks such as 2009 H1N1 influenza, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), all imply that older people are more vulnerable to new and emerging infectious diseases. Such that people over 60 years of age potentially have a much higher fatality

*Corresponding author: OWA-ONIBIYO et al.

Department of Security and Strategic Studies, Nasarawa State University, Keffi, Nigeria.

rate so also aged individual with pre-existing ailments are more predisposed to become severely ill with COVID-19 infection, including those with cardiovascular sickness (people who have had or are at risk of a stroke or heart attack, hypertension), chronic respiratory disorder (asthmatic, chronic obstructive pulmonary disease), diabetes and cancer (World Health Organization, 2020). The lockdown and restrictive NPI measures could further endanger aged individual, possibly impacting on their healthcare seeking behaviour.

Interestingly, while lockdown as seen in social distancing is helpful in terms of infection control and prevention, its social isolation as a result of limited interactions may negatively affect the psychological, cognitive and physical functions of aged individual (Richard & Laura, 2020). Physical confinements and lockdowns may decrease physical activity levels of affected aged individuals (Palmer et al., 2020). Closures of sports facilities, together with restrictive access to free movement, will inevitably reduce opportunities to exercise which is essential for preventing muscle loss and fall-related injuries (Steffl et al., 2017). Reduced social networks, isolation and loneliness could worsen generalized anxiety and major depressive disorders among aged individual (Domènech-Abella et al., 2019).

Naturally, the elderly are moderately more pessimistic in view about their control over their future health status as this may very well reflect a belief that they are most susceptible to illness and injury as a function of their age (Bausell, 1986). This position has been further aggravated by the clinical status of COVID-19 of which highest susceptibility zeroed on the aged thus heightening the fear of the aged. Same fear of susceptibility injected by the emergence of the deadly COVID-19 pandemic when mirrored on existing major constraints; physical constraints, economic constraints, and mobility constraints, all on aged individual surely points to increased prevalence of chronic illness among the elderly coupled with inability to engage in exercises under the lockdown further worsen the awkward position aged individual found themselves.

The total wellbeing of mankind came under threats during the restrictive lockdown which by extension affects the healthcare seeking behaviours of those with health challenges especially aged person; that generally have poorer health outcomes and weak immune systems. The emerging clinical facts of COVID-19 shows that aged persons and those with existing respiratory challenges are highly susceptible to the virus spread even as all humans are to adhere to the NPI measures; total lockdown, regular washing of hands with soap, wearing of face masks, usage of hand sanitizers and social distancing (UNDP, 2020; Armitage & Nellums, 2020; Arthur-Holmes & Agyemang-Duah, 2020; Yakmut et al., 2020). It was amidst the COVID-19 lockdown that aged individual are seen with; uptick usage of self medication, rising inclination to social media-touted medications, transportation lockdown-induced healthcare seeking behaviour, and fear and avoidance of healthcare facilities.

Healthcare seeking behavior has a significant impact on diseases course and spread of which literature abound on how poor healthcare seeking behaviour is influenced by factors such as cultural beliefs, religion leanings, socio-economic factors such as level of education, availability of medicines, absence or lack of qualified healthcare professionals, perceived quality of health services, and accessibility to healthcare facilities. Interestingly, the outbreak of COVID-19 and its non pharmaceuticals interventions has thrown up certain healthcare seeking behaviours among aged individual that worth investigating. Cross country studies in developed and developing climes abound on health seeking behaviour among aged individuals during the COVID-19 lockdown; reduced healthcare facilities visits due to fear of contracting COVID-19 (Ahmed et al., 2020; Czeisler et al.2020), the media and internet touting medicines against COVID-19 (Kaya, 2020; Zhao, Fan, Basenyat and Hu, 2020), while the works on prevalence of self medication during lockdown Quispe-Cañari et al., 2021; Arthur-Holmes et al., 2020). These works mainly focused on the epidemiology and clinical characteristics of patients of COVID-19 related issues both in developed and developing clime. Interestingly, to the extent of literature review no study has examined the effect of COVID-19 lockdown on the healthcare seeking behaviour of aged individual in Nigeria. It is this dearth of studies that the present work intends to fill by expanding the frontier of knowledge. It is against this background that this study engaged self medication, influence of social media touted medication, transportation inaccessibility and fear of healthcare facilities as measurement for effect of COVID-19 lockdown of healthcare seeking behaviour of aged individual in Nigeria

In order to accomplish the study's objectives, this study tested the following null hypothesis

H₀₁: Self medication has no significant effect on healthcare seeking behaviour of aged individual in Kwara State, Nigeria.

H₀₂: Avoidance of healthcare facilities has no significant effect on healthcare seeking behaviour of aged individual in Kwara State, Nigeria.

The results of this work, underpinned by cognitive-Behavioural theory, will be of benefits to policy makers in evolving policies to safeguard the aged, civil society to assist in toning down the scourges of infodemic, academicians and healthcare developmental experts in the handling of pandemic outbreak, particular how to assist the aged individual who are naturally vulnerable in accessing medical attention under a prevailing pandemic outbreak. The methodological significance of the study could be seen in the adoption or survey research design as against online and snowballing research design as seen used across empirical review.

The residue of this paper is organized as follows: section 2 reviews the literature on conceptual, empirical review and the theoretical framework. Section 3 presents the study's methodology, data analysis and discussion of findings while conclusions and recommendations are stated in the last section.

Literature Review

Conceptual Review

Self Medication and Social Media Touted Drugs

Interestingly, the fear of being contracted of the deadly virus from vulnerable medic frontliners who are already overstretched and mostly seen thrown into self isolation while some died by the raging pandemic, pushed more aged persons into self medications as against regular visitations to their regular healthcare facilities. Self Medication (SM) is a significant concern globally, affecting both developed and developing countries (Afridi et al., 2015; Noone & Blanchette, 2018). Studies have indicated that SM is a common practice, with a prevalence of 32.5–81.5% worldwide (Kassie et al., 2018). SM whose effect can be positive or negative could be encouraged by internal and external factors of which the most commonly self-prescribed medications are analgesics, antipyretics, antidiarrheals, calcium and vitamin supplements, antibiotics, and many herbal and homeopathic remedies (Afridi, et al., 2015).

Self-medication is the practice of taking medicines, herbs, or home remedies on one's initiative, or on the advice of another person, without consulting healthcare professionals (Bennadi, 2013; Hernandez-Juyol & Job-Quesada, 2002). It is an important element of self-care that involves the taking of medications to heal self-diagnosed problems or the self-administration of medications prescribed by a doctor in the case of chronic diseases, recurring diseases, or symptoms. Self Medications (SM) is of significance concern globally, affecting both developed and developing countries (Afridi et al., 2015; Noone & Blanchette, 2018).

Socialmedia have been cited as a promising mean with which to provide health-related information as it potentially affects audiences' behavioral especially healthcare seeking behaviour on large scale despites its infodemic contents (Xavier, d'Orsi & Wardle, 2013). Social media is the leading medium which is used for communication during the COVID-19 pandemic and its outreach extensively impact decision-makers and its users. There was a global spike in the use of social media during COVID-19 lockdown different from normal time usage with the trending of socialmedia-touted medications. While some climes professional institutions used a variety of sociamedia to continuously make public scientific articles to promptly dispel rumors and strengthen people's awareness and healthcare seeking in all citizens, regardless of age (Thompson, 2020), some developing countries were overrun by the misinfodemic sides which wrongly impacted healthcare seeking behaviour of aged person who had been adjudged to be more susceptible to the ravaging virus particularly during the transportation lockdown.

Fear and Avoidance of Healthcare Facilities

In the wake of the lockdown the healthcare seeking behaviour of aged individual took dramatic turn as aged ones are seen mostly avoiding both private and public healthcare facilities for fear of being branded as Covid-19 patient and taken to isolation centre, particularly those with existing challenges of respiratory or asthmatic conditions. This palpable fear and avoidance of healthcare facilities further derail the healthcare seeking behaviour of aged persons. Knowing well that movement of person goods and services was under lockdown and that law enforcement agents were exploiting by extorting money even from those exempted from movement lockdown (Owa et al., 2020), Thus the lockdown on transportation put pressure on aged person who became more predispose to patronising local herbs as an intermediary efforts for not accessing their regular formal or non formal healthcare facilities.

Coronavirus Disease 2019

Coronavirus disease 2019 (COVID-19) is a global public health problem that originated from Wuhan city of Central China's Hubei Province in December 2019 (Owa et al., 2020). COVID-19 is a viral pneumonia with symptoms such as dry cough, fever, sore throat, dyspnea, body pain and diarrhoea (Adhikari et al., 2020). COVID-19 is caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2). COVID-19 spread rapidly from China to the rest of the world and was declared a global pandemic by the World Health Organization (WHO) on the 11th March 2020 (Mudenda, 2020). COVID-19 is transmitted through the inhalation of droplets, aerosols, fomites, contact routes, and farces (WHO, 2020). The rapid spread of the disease led to country lockdowns worldwide limiting international movement and, in some cases, restricting trade. Interestingly, due to limited clinical facts during virus emergence, the worldover mainly adopted non pharmaceutical Initiatives to save lives, protect lives and flatten the transmission curves of the pandemic. So restrictive were these NPI measures that it further endangers the already fragile health of aged individuals.

Empirical Review

Self Medications and Healthcare Seeking Behaviours of Aged Individual

Owa-Onibiyo and Ifah (2023) engaged Health Belief Model to thematically examine COVID-19 awareness and sensitization programmes on knowledge, attitude and practice of aged persons in Kogi State, Nigeria. The study was a qualitative research design conducted by examining literature concerning COVID-19 awareness and sensitization programmes. The literature was obtained through searches in publicly available materials. non-serial publications, official reports, and conferences, particularly, if they have been cited by other references in terms of COVID-19 knowledge, attitude, and practice. Findings on

health Attitude of aged person showed prevalence of self-medications and engagements in social media touted drugs to stop Covid-19. Study was done with focus on COVID-19 sensitisation and awareness influence on aged persons while this study is on the lockdown using self-medications and health avoidance to construct the lockdown effect on aged person

Quispe-Cañari et al. (2021) adopted cross sectional analytical survey to examine the frequency of self-medicated drugs used for respiratory symptoms, as COVID-19 among aged individual in Peru. The study deployed an online questionnaire via WhatsApp, Messenger, and Facebook with multivariable logistic regression used to ascertain factors that influence an individual's desire to self-medicate. Findings from the study revealed that aged people have an upper frequency of antiretroviral self-medication and that the majority of respondents self-medicated with acetaminophen for respiratory symptoms due to cold or flu. It was observed that all the surveyed drugs (acetaminophen, ibuprofen, azithromycin, penicillin, antiretrovirals and hydroxychloroquine) were consumed for various symptoms including: fever, fatigue, cough, sneezing, muscle pain, nasal congestion, sore throat, headache and breathing difficulty. Study submitted that continuous sensitization to enthrone awareness about the risks of self-medication should be deployed such that continuous sensitization will enthrone awareness about the risks of self-medication. In a similar study Arthur-Holmes et al (2020) evaluated healthcare seeking concerns of adult individual during the COVID-19 pandemic in low-and middle-income countries (LMIC) with focus on possible leverage for health policy and social work. The study engaged a thematic approach from related publications. Findings from the study revealed that the outbreak of COVID-19 instilled fear into older people who were overwhelmed with reports and evidence that aged individuals are prone to higher fatality rates from the virus which then affected the healthcare seeking behaviour of aged individual who resorted to self medication through such as the use of traditional therapies and over-the-counter medicines for self-treatment or to boost their immune system. Study emphasised that policies are needed to deal with the pandemic and its impact on aged individual for both short and long term during pandemic.

Kaya (2020) engaged an online questionnaire to investigate changes in the effects of social media use in Cyprus due to COVID-19 pandemic and usage in normal time. Study adopted 5 point Likert scale on 681 respondents, where reliability and validity were calculated by the Cronbach's alpha value, which was 0.751. Findings of the study showed that the most used social media during the pandemic lockdown in order of patronage was facebook, whatsapp, instagram and twitter, and so used for collective survival away from showoff as done in normal times which greatly assisted in reducing anxiety as users were able to have more useful information about COVID-19 and their psychological well-being, so also study submitted that users are aware of fake news, and they follow official sources.

Zhao et al. (2020) explored how people in China engaged the internet for seeking health information during the COVID-19 pandemic knowing well that timely access to quality health care information during outbreaks of infectious diseases can be effective to curtail the spread of disease and feelings of anxiety. The study employed entity identification and textual analysis on 10,908 posts on Weibo; a social media, study identified 1496 patients using “#COVID-19 Patient Seeking Help” and explored their online health information-seeking behavior. Findings of the study established that the internet was used by the Chinese public as an important source of seeking healthcare information. Study affirmed that the lockdown policy cut off healthcare seeking patients’ from social support network, preventing them from seeking help from family members, especially for those with older adult members during the pandemic. A high proportion of female users were seeking health information and help for their parents or for older adults at home. Study submitted that the most searched information included accessing medical treatment and managing self-quarantine

Avoidance of Healthcare Facilities and Healthcare Seeking Behaviours of Aged Individual

Ahmed et al. (2020) engaged in a cross country study of Bangladesh, Kenya, Nigeria and Pakistan to examine the effect societal response to COVID-19 on access to healthcare facilities on both, pre-COVID and COVID-19 lockdown for non-COVID-19 health issues in slum communities between March 2018 and May 2020. Study employed both online and thematic study of selected slums covering 860 community leaders, health workers, local authority representatives and residents. Findings of the study revealed that with COVID-19 lockdown, encourages a reduction in access to healthcare services was reported in all sites, so also was the fear of being diagnosed or stigmatised with COVID-19 seeing that health workers are also vulnerable and dying from same hence all these discouraged healthcare seeking behaviours. Study submitted that provision of healthcare by phone, with pharmacists and drug vendors extending credit will go far in arresting the limiting factors to healthcare seeking behaviours.

Czeisler et al. (2020) in a United State domiciled study examined the trend of avoidance of healthcare facility due to COVID-19 related concerns. The study employed a web-based survey during June 24–30, 2020, to a nationwide representative sample of U.S. adults above 18years of age. Findings from the study revealed that practically one third of adult respondents reported having avoided routine medical care, which might reflect adherence to community mitigation efforts such as stay-at-home orders, so also was increased prevalence of reported urgent or emergency care avoidance among Black adults and Hispanic adults compared with White adults are especially concerning given increased COVID-19-associated mortality among Black adults and Hispanic adults. Study emphasised that knowledge of factors associated with

medical care avoidance can inform targeted care delivery approaches and communication efforts which encourages persons to safely seek timely routine, urgent, and emergency care.

Theoretical Framework

Cognitive-Behavioral Theory

Cognitive-behavioral theory as pioneered by Dr. Aaron T. Beck in the 1960s is rooted in the fundamental principle that an individual's cognitions play a significant and primary role in the development and maintenance of emotional and behavioral responses to life situations. This theory values the role that cognitions play in the development and maintenance of psychological problems in which cognitions lead to behavioral change. The cognitive-behavioral theory (CBT) has been proposed to articulate the cognitive process between life events and how individuals respond to environmental cues. It is equally important to realize that there is a relationship between health information acquisition and preventive behaviors (González-Prendes & Resko, 2012). There are two key components of CBT. These are core beliefs and automatic thoughts. Core beliefs are the most central beliefs that people have about themselves, others, and the world around them.

Cognitive Behaviour Therapy has three main goals; relieve symptoms and resolve problems, help the patient to acquire skills and coping strategies and help the client to modify underlying cognitive structures in order to prevent relapse. Interestingly all these goals were extensively tested during the COVID-19 pandemic lockdown in Nigeria. Specifically, the CBT suggests that illness-related information consumption could cause worry or anxiety about one's health (Salkovskis & Warwick, 1986). Norr, Capron and Schmidt, 2014 opine that individuals who have browsed medical Web sites and received information about certain disease symptoms reported higher levels of health anxiety. When receiving health-related information, one might be embroiled in a state of worry over getting sick. This is particularly true in this digital age given the sheer volume of health information available online and the unprecedented surge in digital activities during the lockdown.

Relying on empirical reviews, two types of associations can be hypothesized with regard to COVID-19-related information consumption. First, COVID-19-related information acquisition through digital media would directly influence preventive behaviors. Second, seeking COVID-19 information on digital media can produce health-related thoughts and concerns given the dangerous infections, operationalised here as worry. Subsequently, to reduce worry and maintain a good health status, worry would be associated with more preventive behaviors. In addition, the relationships between COVID-19-related information acquisition and preventive behaviors might vary across different digital media channels.

Research Methodology

This study engaged survey research design using purposive sampling technique. . The study focused on Kwara State Nigeria with a population of 3,192,900 and being a finite population the study employed scientific sampling technique determination of Krejcie and Morgan (1970). Questionnaire of five point Likert scale was administered on a sampled size of 384 respondents. Study selected three (3) local government areas each from the three senatorial districts. These LGA were randomly selected; Ilorin South LGA in Kwara Central senatorial district, Irepodun LGA from Kwara South senatorial and Kaiama LGA from Kwara North senatorial. A five points Likert-Scale as suitable for regression analysis on impact was adopted using Strongly Agreed (SA), Agreed (A), Not Agreed Not Disagreed (N) Disagreed (DA) and Strongly Disagreed (SD) was used in collecting the data. OLS was engaged in order to establish impact and significance level of COVID-19 lockdown on health seeking behaviour aged persons in Kwara State.

$$CVLD = f(CVSMP + CVAHF)$$

Linearizing equation (1) above produces simple regression model as thus:

$$VCHS = \beta_0 + \beta_1 CVSMP + \beta_2 CVAHF + \varepsilon \dots \dots \dots (2)$$

Where;

CVLD = COVID-19 Lock Down in Kwara State

B_0 = is the constant or coefficient of intercept.

CVSMP = COVID-19 Self Medication Practice

CVAHF = COVID-19 Avoidance of Health Facilities

$\beta_1 \dots \beta_2$ = the corresponding coefficients for the respective independent variables.

ε = stochastic error term

Test for Hypotheses One

Table 1: Model Summary^a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.984 ^a	.969	.969	.10424	.969	2367.786	5	378	.000	.187

Source: SPSS Output, 2023.

a. Predictors: (Constant), CVLD

b. Dependent Variable: CVSMP

The Coefficient of Determination (R^2) of 0.969 indicates that about 96% of Covid-19 lockDown (CVLD) is likely explained by Covid-19 Self Medication Practice (CVSMP) of aged persons in Kwara State. The remaining 4% are attributed to other independent variables that are not captured in the regression model.

Simple Regression Result**Table 2** **Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.583	.040		14.736	.000		
VCHS	-.733	.041	-.906	-17.770	.000	.031	10.768

a. Predictor Variable: CVLD

Source: SPSS Output, 2023.

The simple regression results indicate that vaccine hesitancy (independent variable) was significant at 0.000 level. The implication of this result is that COVID-19 Lock Down can significantly influence Self Medication Practices (CVSMP).

Analysis of Variance**Table 3:** **ANOVA^a**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	128.634	3	25.727	2367.786	.000 ^b
Residual	4.107	378	.011		
Total	132.741	383			

Source: SPSS Output, 2023.

a. Dependent Variable: CVSMP

b. Predictors: (Constant), CVLD

The F-Statistic of 2367.786 and its corresponding P-value of 0.000 indicates that the model is fit and the independent variables are properly selected, combined and used.

Test for Hypotheses Two**Table 4:** **Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.864 ^a	.839	.788	.9845	.839	1978.143	5	267	.003	.161

Source: SPSS Output, 2023.

a. Predictors: (Constant), CVLD

b. Dependent Variable: CVAHF

The Coefficient of Determination (R^2) of 0.788 shows that about 79% of Covid-19 Lock Down is likely explained by Covid-19 Avoidance of Healthcare Facilities practice of aged persons in Kwara State. The remaining 21% are attributed to other independent variables that are not captured in the regression model.

Simple Regression Result**Table 5** **Coefficients^b**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.658	.043		14.736	.000		
CVAHF	.184	.037	.252	4.950	.000	.032	9.557

a. Predictor Variable: CVLD

Source: SPSS Output, 2023.

The simple regression result indicates that vaccine practice (independent variable) was significant at 0.000 level. The implication of this result is that COVID-19 Lock Down can significantly influence avoidance of health facilities practice of aged persons.

Table 6: **ANOVA^b**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	118.543	6	25.512	2134.652	.000 ^b
Residual	3.098	367	.011		
Total	111.631	373			

Source: SPSS Output, 2022.

a. Dependent Variable: CVAHF

b. Predictors: (Constant), CVLD

The F-Statistic of 2134.652 and its corresponding P-value of 0.000 indicates that the model is fit and the independent variables are properly selected, combined and used.

Discussion of Findings

The findings from hypothesis one is that Kwara State Covid-19 LockDown have a negative effect on Self Medication practice of aged persons in Kwara State, Nigeria. It indicates that the lock down practice further aggravates the isolation mode of the aged persons who further resulted to self medication in a bid to avoid been labelled a patient of COVID-19. This finding is inconsistent with the findings in previous works of Owa-Onibiyo and Ifah (2023); Quispe-Cañari et al. (2021); Kaya (2020); Arthur-Holmes et al (2020); Zhao et al. (2020). By this result we therefore reject the null hypothesis and accept the alternate hypothesis that Self medication has significant effect on healthcare seeking behaviour of aged individual in Kwara State, Nigeria

The result from hypothesis two is that COVID-19 LockDown has a negative effect on avoidance of health facilities patronage by aged persons in Kwara State, Nigeria. The rational for this finding could be seen from the stigmatisation of the aged person already, hence the reluctance to patronise the health facilities,

moreso most of the health facilities are extensively overstretched amidst poor advocacy devoid of jingles. The finding is in tandem with the findings in the previous works of Ahmed et al. (2020);Czeisler et al. (2020)

Conclusions and Recommendations

The study concluded that there exist the need to protect the aged who are more endangered under the dragnet of lockdown as it counters all narratives to aged individual wellbeing. That more information regarding patient recoveries should be circulated, and online webinars can be organized to decrease the potential of panic and anxiety, which will help to fight against health crisis periods and pandemic.

Study therefore recommends the following in line with the hypothesis tested

- i. That medical developmental experts and policy makers particularly Federal Ministry of health, Health Advocacy, Ministry of Health, Faith Based Organisation, Civil Society and particularly the Nigerian Communication Commission should evolve policies to tone down aged individual self medication health seeking behaviour during instances of pandemic by leveraging usage of social media during health crisis to project strong and assuring narratives to counter the misinfodemic problem.
- ii. That government, academia and health experts should be concerned on how to open access to healthcare during pandemic without necessarily being physically present within a given health care facilities by leveraging on information technology, telemedicine and robotics communication.

Compliance with ethical standards

Acknowledgments

Acknowledgment goes to Prof Ifah S. S., Prof J. O. Ukawuilulu, Prof F. O. Onu, Dr. A. W. Ogidi, and Dr Idris for their relevant inputs to this academic study

References

- Adhikari, S.P., Meng, S., Wu, Y. J., Mao, Y.P., Ye, R.X., Wang, Q.Z.,....& Raat, H.(2020). Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: A scoping review. *Infect. Dis. Poverty* 9(29).
- Afridi, M. I., Rasool, G., & Tabassum R, (2015). Prevalence and pattern of self-medication in Karachi: a community survey. *Pakistan Journal of Medical Science*, 31(5), 124–128.
- Ahmed, S. A. K. S., Ajisola, M., Azeem, K., Bakibinga, P., Chen, Y., Choudhury, N. N., Fayehun, O., ...Yusuf, R. (2020). Impact of the societal response to COVID-19 on access to healthcare for non-COVID-19 health issues in slum communities of Bangladesh, Kenya, Nigeria and Pakistan: results

- of preCOVID and COVID-19 lockdown stakeholder engagements. *BMJ Global Health*. doi:10.1136/bmjgh-2020-003042
- Armitage, R., & Nellums, L. B. (2020). COVID-19 and the consequences of isolating the elderly. *The Lancet Public Health*, 5(5), e256. [https://doi.org/10.1016/S2468-2667\(20\)30061-X](https://doi.org/10.1016/S2468-2667(20)30061-X)
- Arthur-Holmes, F., & Agyemang-Duah, W. (2020). Reaching older adults during the COVID-19 pandemic through social networks and Social Security Schemes in Ghana: Lessons for considerations. *Journal of Gerontological Social Work*, 1–3.
- Bausell, R. B. (1986). Health-seeking behavior among the elderly. *The Gerontologist*, 26(5), 556–559.
- Czeisler, M. É., Marynak, K., Clarke, K. E., Salah, Z., Shakya, I., Thierry, J. M., Ali, N., ...Howard, M. E. (2020). Delay or avoidance of medical care because of COVID-19-related concerns — United States, *Morbidity and Mortality Weekly Report*, 69(1), 1250–1257.
- Gonzalez-Prendes, A., & Resko, S. (2012). Cognitive-behavioral theory. DOI: 10.4135/9781452230597.n2
- Hernandez-Juyol, M., & Job-Quesada, J. R. (2002). Dentistry and self-medication: A current challenge. *Medicine Oral*, 7(1), 344–350.
- Kassie, A. D., Biftu, B. B., & Mekonnen, H. S. (2018). Self-medication practice and associated factors among adult household members in Meketdistrict, Northeast Ethiopia, 2017. *BMC Pharmacol Toxicol*. 19(1). 7–15.
- Kaya, T. (2020). The changes in the effects of social media use of Cypriots due to COVID-19 pandemic. *Technology in Society*, 63(1), 14–20.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(1), 607–610.
- Liu, P. L. (2020). COVID-19 Information Seeking on Digital Media and Preventive Behaviors:The Mediation Role of Worry. *Cyberpsychology, Behavior, and Social Networking* 23(10), 677–681.
- Ministry of Health, Zambia. (2020). *Ministry of Health warns against self-medicating, as COVID-19 deaths hit 200*. News Diggers! Available at: <https://diggers.news/local/2020/08/07/moh-warns-against-self-medicating-as-covid-19-deaths-hit-200/>
- Mudenda, S., Witika, B. A., Sadiq, M. J., Banda, M., Mfune, R. L., Daka, V., Kalui, D...& Mufwambi, W. (2020). Self-medication and its Consequences during & after the Coronavirus Disease 2019 (COVID-19) Pandemic:A Global Health Problem. *European Journal of Environment and Public Health*, 5(1), 1–5.
- Noone, J., & Blanchette, C. M. (2018). The value of self-medication: summary of existing evidence. *J Med Econ.*, 21(2), 201–211.
- Norr, A. M., Capron, D. W., & Schmidt, N. B. (2014). Medical information seeking: impact on risk for anxiety psychopathology. *Journal of Behaviour Therapy Expert Psychiatry*, 45(3), 402–407.
- Owa, F.T., Yakmut, A. S., Abubakar, I.A., Onibiyo, E.R., & Olasupo, A. S. (2020). Impact of Covid-19 on community relationship and technical preparedness of law enforcement agencies inNigeria. *KOGJOURN*, 5(2), 128–141.
- Owa-Onibiyo, F. T., & Ifah S. S. (2023). COVID-19 awareness and sensitization programmes on knowledge, attitude and practice of aged persons. *Journal of Social Science, Management, Peace and Conflict Research*, 01(03), 028–041
- Palmer, K., Monaco, A., Kivipelto, M., Onder, G., Maggi, S., Michel, J. P., ... & Donde, S. (2020). The potential long-term impact of the COVID-19 pandemic on patients with non-communicable diseases in Europe: consequences for healthy ageing. *Aging Clinical and Experimental Research*, 1.
- Quispe-Cañari, J. F., Fidel-Rosales, E., Manrique, D., Mascaró-Zan, J., Huamán-Castillón, K. M., Chamorro-Espinoza, S. E., Garayar-Pecero, H... Mejia, C. R. (2021). Self-medication practices during the COVID-19 pandemic among the adult population in Peru: A cross-sectional survey. *Saudi Pharmaceutical Journal*, 29(1), 1–11.
- Richard, A., & Laura, N. (2020). COVID-19 and the consequences of isolating the elderly. *The Lancet Public Health*, 5(5), e256.

- Steffl, M., Bohannon, R. W., Sontakova, L., Tufano, J. J., Shiells, K., & Holmerova, I. (2017). Relationship between sarcopenia and physical activity in older people: a systematic review and meta-analysis. *Clinical interventions in aging*, 12, 835.
- Thompson, R. N. (2020). Novel Coronavirus Outbreak in Wuhan, China, 2020: Intense Surveillance Is Vital for Preventing Sustained Transmission in New Locations. *J Clin Med*, 9(2), undefined. doi:10.3390/jcm9020498
- United Nations Development Program (UNDP) (2020). COVID-19: New UNDP data dashboards reveal huge disparities among countries in ability to cope and recover. UNDP. https://www.undp.org/content/undp/en/home/news-centre/news/2020/COVID19_UNDP_data_dashboards_reveal_disparities_among_countries_to_cope_and_recover.htm
- Warwick, H. M. C., & Salkovskis, P. M. (1986). Hypochondriasis. *British Medical Journal*, 290, 1028-1058.
- Wong, L., Hawkins, J., Langness, S., Murrell, K. L., Iris, P. and Sammann, A. (2020). Where are all the patients? Addressing covid-19 fear to encourage sick patients to seek emergency care. *NEJM Catal Innov Care Deliv*. <https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0193>
- World Health Organisation. (2021). WHO Coronavirus Disease (COVID-19) Dashboard. Available at https://covid19.who.int/?gclid=CjwKCAiAsaOBBhA4EiwAo0_AnGS8xX8GSG6JvldtZEsv
- World Health Organization. (March 23, 2020). Information Note COVID-19 and NonCommunicable Diseases. Available at <https://www.who.int/publications/m/item/covid-19-and-ncds>
- Xavier A. J., d’Orsi E., Wardle J, et al. (2013). Internet use and cancer-preventive behaviors in older adults: findings from a longitudinal cohort study. *Cancer Epidemiology Biomarkers & Prevention*, 22, 2066–2074.
- Yakmut, A. S., Owa, F. T., Jeremiah, O. S., Mfon, U., Hamzat, M. K., Abubakar, I.A., Yusuf, S., & Onibiyo, E. R. (2020). Effect of public policy design on Covid-19 management In Nigeria. *Journal of Xidian University*, 14(12), 228-247,
- Zhao, X., Fan, J., Basnyat, I., & Hu, B. (2020). Online health information seeking using “#COVID-19 patient seeking help” on weibo in Wuhan, China: Descriptive study. *Journal Of Medical Internet Research*, 22(10), 1-13.