



COVID-19 awareness and sensitization programmes on knowledge, attitude and practice of aged persons

BY

OWA-ONIBIYO Funmilola Tope¹, & IFAH S. Sunday. (Prof)¹

Department of Sociology, Nasarawa State University Keffi, Nigeria

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Abstract

In the wake of the COVID-19 pandemic, the knowledge, attitude, and practice of the aged persons took a dramatic turn as aged persons of over sixty years of age, were seen mostly avoiding healthcare facilities for fear of being branded as Covid-19 patients and taken to isolation centres, particularly those with an underlying health condition which further derailed the healthcare seeking behaviour of aged persons. While sensitization was driven through government channels, the misinformation overloads on the internet often skewed the awareness of individuals. It is against this background that this employed the Health Belief Model to investigate the impact of COVID-19 awareness and sensitization programmes on the knowledge, attitude, and practice of aged persons. The thematic study engaged the knowledge, attitude, and practice of aged persons to assess the impact of awareness and sensitization programmes as it relates to COVID-19. The research was conducted by examining literature concerning COVID-19 awareness and sensitization programmes. The literature was obtained through searches in publicly available materials. Literature from 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. The study revealed the absence of sensitisation from the State that disbelieved COVID-19 and this negatively influenced perceptions of the aged persons. The study also submitted that disbelief and hesitancy fuelled by COVID-19 conspiracy theories are rife among the aged persons in such States, while the prevalence of vaccine expiration confirms skewed practices which stemmed from low COVID-19 sensitization and awareness programmes. The study recommends that government and intergovernmental organisations should facilitate more sensitization and awareness to counter conspiracy theories and myths surrounding the COVID-19 pandemic. Also Civil and Faith-Based organisations should be at the forefront against unwholesome attitudes and health practices on COVID-19 or outbreaks that endangered aged person.

Keywords: Attitude, Health Belief Model, Knowledge, Practice, Vaccine Hesitancy

Introduction

World over, public health management was stretched beyond limit at the outbreak of COVID-19. Desperate efforts to slow down the pandemic saw governments and health policy experts adopting non pharmaceutical initiatives (NPIs) to slow down the transmission curve of the COVID-19. The compliance to both NPIs and emerging vaccines by individuals, communities or nations then rest squarely on the awareness and sensitisation level as projected by the government, mass media, health system, the internet or social media, faith-based and advocacy bodies, family and social network of individuals. Knowledge so gathered could encourage positive attitude if such knowledge enjoys the backings of beliefs and dispositions which then could elicit good health practice and preventive measures, which would be seen in the lifestyles of individuals particularly the aged persons ((Johnson & Quinlan, 2019; Salmon & Atkin, 2003).

The SARS-CoV-2 pandemic (COVID-19) changed the way people, the world over live into a 'new normal' from December 2019-when the virus was first detected in Wuhan, China to present moment, with the adoption of NPIs; lockdown measures, physical distancing, wearing of face mask, hand washing and sanitizer usage (Arthur-Holmes & Agyemang-Duah, 2020; Yakmut et al., 2020). With COVID-19 and its variants (Delta, Omicron), similar to previous outbreaks such as 2009 H1N1 influenza, Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), older people are more vulnerable. Despite the emergence of vaccines, vaccine hesitancy could be seen in advanced countries like China, leading to protests amidst the country's Zero Covid Policy which grossly affect the elderly (De Bolle et al., 2021).

The susceptibility of aged persons could be seen not only from their non-compliance to NPIs policy but from information overload or overabundance of information, tagged as infodemics by World Health Organisation (WHO), (WHO, 2020a, Easton, 2020). As a result, authorities and policy makers battle for informed awareness and sensitization programmes to impact on the knowledge, attitude and health practices of human beings, particularly the aged who are the most vulnerable, of which Nigeria is not exempted. The extent to which infodemic subdue science education is also worrisome, knowing that science education not only contributes to one's knowledge of controlling outbreak of health crisis, but it also affects a person's general attitudes and practices toward infectious disease (Albright & Allen, 2018; Jones-Konneh et al., 2017).

Persons over 60 years of age potentially have a much higher fatality rate, particularly aged persons with pre-existing ailments; those with cardiovascular sickness, people who have had or are at risk of a stroke or heart attack, hypertension, chronic respiratory disorder, asthma, chronic obstructive pulmonary disease, diabetes and cancer, are more predisposed to becoming severely ill with COVID-19 infection (WHO, 2020b). Naturally, aged persons are moderately more pessimistic about the 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 (Zhong et al., 2021) 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 is further compounded by other major constraints; physical constraints, economic constraints, and mobility constraints.

In the wake of the COVID-19 pandemic, knowledge, attitude and practice of the aged persons took dramatic turn as aged ones were 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 cardiovascular conditions. This palpable fear and avoidance of healthcare facilities further derailed the healthcare seeking behaviour of aged persons. Knowing well that movement of persons, goods and services was under restrictions and that law enforcement agents were exploiting the situation by extorting money even from those exempted from movement lockdown (Owa et al., 2020), COVID-19, thus took a toll

on the knowledge, attitude and health practice of aged persons and this could be seen in their level of awareness through, adopted health lifestyle, preventive health practices, attitude to COVID-19 vaccines, and non-pharmaceutical initiatives. All of which are a result of government-driven information and information from the social media.

The practices so likely adopted by aged persons in order to navigate through the deadly COVID-19 could also be seen in their varied preventive practices of; intake of ginger, garlic, chloroquine drugs, drinking or steaming of hot water, avoidance of handshakes, restrain from hugging, spraying of environment with hydro chloroquinine and vaccination exercise all to prevent, reduce, eradicate, or eliminate COVID-19. This, by extension could be seen in the evolving health lifestyle that is carried out by taking into account a number of health factors, including food, rest patterns, avoidance of overcrowded place of worship centre, exercise and clean living environment. All these practices could be seen adopted in varying measures as impacted upon by the level of awareness and sensitization of COVID-19 and the immediate perception which the knowledge triggers (Nnama-Okechukwu et al., 2020).

This study focuses on poor sensitization and awareness, where some countries; Brazil, Tanzania and Kogi State in Nigeria amongst others that out rightly denies the existence of COVID-19, and the constricting sensitisation and awareness programmes and adoption of Non Pharmaceuticals Initiatives (NPIs) (Vitriol and Marsh, 2021; Mtulya, 2021; Matos et al., 2020). All these positions elicited worries (Ladelokun, 2020; Okocha 2021). The refusal of members of the Presidential Taskforce Committee on COVID-19 in Nigeria to sensitise residents of Kogi State is also a source of concern not only to policy makers, health developmental experts, civil society groups but also to the academia.

To the extent of literature reviewed across climes on knowledge, attitude and practice; Li et al., 2021; Lau et al., 2020; Adesegun et al., (2020). There exists dearth of State-specific KAP literature which addresses absence of sensitisation and awareness programmes of health seeking behaviour of aged persons; the works of Mofolorunsho et al. (2020); Alabi and Sani, (2021); Reuben et al., (2020) on COVID-19 did not consider health seeking behaviour of aged persons. It is this gap in literature that this work set out to fill, thereby extends the frontiers of knowledge.

It is based on this background that this study examine the influence of COVID-19 awareness and sensitization programmes on knowledge, attitude and practice of aged persons.

This study provides answers to the following research questions;

- i. Examine how COVID-19 awareness and sensitization programmes affect knowledge of aged persons?

- ii. Investigate COVID-19 awareness and sensitization programmes influence on health attitude of aged persons?
- iii. Interrogate the impact of COVID-19 awareness and sensitization programmes on health practice of aged persons?

Practically, the results that emanate from this work might be of benefit to policy makers, health experts, the civil society and the academia in evolving policies to safeguard aged persons particularly where there is official disbelief and lack of official support while battling health crisis; epidemic or pandemic.

Literature Review

Conceptual Framework

Sensitization and Awareness

Awareness is the state of being conscious of something. Specifically, it is the ability to directly know and perceive, to feel, or to be cognizant of events. In most cases awareness is self-driven which can stem from individual inquisitiveness (Akpojotor, 2016). Awareness when not properly guided, could be skewed by misinformation as seen during outbreak of the COVID-19 pandemic. Sensitization literally means making people 'sensitive' about an issue, it is the core of awareness raising, as it further provides in-depth knowledge on an existing or trending issues. A sensitization activity or campaign is mostly done through an official channel or an advocacy group, which may target an entire community at once, or sub- groups to engage separately. In certain contexts, it may be good practice to involve authorities and community leaders in developing the key messages and in implementing sensitization activities.

Community health advocates often act on behalf of vulnerable people within a community, making sure patients receive adequate care, information, treatment, and services. The importance of sensitisation and awareness to a community is its effectiveness in providing first-hand, reliable information to communities. Annune *et al.* (2020) examined the sensitization and awareness creation as tools for curbing the effects of COVID-19 pandemic on university library users in Nigeria. The study projected that Current Awareness Services (CAS) is a reliable tool, a device for sensitization and awareness creation of COVID-19 to library users, on COVID-19 symptoms and mode of transmission, preventative measures, and strategies on library users

Interestingly, locations where there is existence of disbelief of Covid-19, there is little or no engagement of any sensitization and Awareness program despite reliance of the aged one on government owned News media and prints (Obansa, 2020; Nnakaike, 2020). This further made the elderly to be at the mercy of hearsays, social media touted drugs, and unverifiable health behaviours in a bid to stay safe. The question is, how well

informed are the elderly ones during the outbreak of COVID-19, as official channel became constricted since the official position denies the existence of COVID-19 (Onakpa & Aruwa, 2021).

Corona Virus and COVID-19

Coronaviruses (CoV) consist of a large family of viruses which cause illnesses such as common cold and severe diseases like Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). They are zoonotic, which means that they can be transmitted from animals to people and vice-versa. Detailed investigations found that SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans. Several known coronaviruses are still circulating in animals which have not yet infected humans (WHO, 2021c). Common signs of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties this can deteriorate to pneumonia, severe acute respiratory syndrome, kidney failure and even death. It is strongly believed that HCoV have a zoonotic origin from bats, mice, or domestic animals (Alluwaimi et al., 2020). Coronaviruses are so named because of the crown-like spikes on their surface.

Coronavirus (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 diarrhea (Adhikari et al., 2020). It is caused by severe acute respiratory syndrome (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 et al., 2020). COVID-19 is transmitted through the inhalation of droplets, aerosols, fomites, contact routes, and faeces (WHO, 2020c). The rapid spread of the disease led to country lockdowns worldwide limiting international movement and, in some cases, restricting trade. Interestingly, even at the emergence of vaccines, different variants of COVID-19 has put the world in a constant state of alert with intermittent review on related health policies with non complying countries.

Knowledge, Attitude and Practice

Knowledge, Attitude and Practice is a health behavior change model, proposed by western scholars in the 1960s (Ross & Smith, 1969), in which the different stages of human behavior are divided into three successive processes: knowledge acquisition, the generation of attitudes and the formation of behavior (which is the evolvement of practices). The practices itself could be interchangeably used as the health seeking behaviour which is driven by the level of awareness of the individual and this level of awareness will also likely predict attitude (Ross & Smith, 1969).

This model presents the progressive relationship among knowledge, attitudes and behavior as follows: knowledge is the foundation of behavior change, and belief and attitudes are the driving force of behavior

change. “Health belief model” was put forward in the 1950s (Rosenstock, 1974), which pointed out that the formation of health belief played a key role for people to accept the persuasion, change the bad behavior, and adopt the healthy behavior.

Infodemic

An infodemic is a situation whereby there is excess or overabundance of information including that which may be wrong or misleading in physical and digital environments during an epidemic or pandemic (World Health Organization, 2020a; Zarocostas, 2020). It causes confusion and risk-taking behaviours which could be harmful to the health, sometimes leading to mistrust in health authorities and undermining the public health response. An infodemic can intensify or lengthen outbreaks when people are unsure about what they need to do to protect their health and the health of people around them. With growing digitization – an expansion of social media and internet use – information can spread more rapidly. This can help to more quickly fill information voids but can also amplify harmful messages (World Health Organisation, 2021a).

Empirical Review

COVID-19 Awareness and Sensitization Programmes and Knowledge of Aged Persons

Turkish Red Crescent Society (2020) employed triangulation method to analyse communities’ knowledge, attitudes and practices. Study engaged Turkish Red Crescent Society's social media platforms, online consultations/focus group discussions and phone interviews with refugees and local people of 3,840 individuals from 20 July to 12 August 2020. Findings of the study showed that Communities’ most trusted sources of information are Government officials (46.9%), Televisions (44.3%), while others include family and friends, Facebook, community leaders, Muhtars, websites, Ministry of Health, TRCS, World Health Organisation (WHO) and NGOs. Study though done in different climate considered general population to establish government sources as the most trusted hence the need for this study to ascertain if such hold water elsewhere particular on aged persons.

Erfani *et al* (2020) examined Knowledge, Attitude and Practice toward the Novel Coronavirus (COVID-19) outbreak in Iran. The study was a population based survey on 859 respondents from ages 15 and above. Findings from the study revealed that knowledge score regarding COVID-19 characteristics was 90% with 60.8% of the general population having moderate knowledge towards the disease. The result showed a significant correlation between respondents and higher education with knowledge, attitude, and practice. The study viewed knowledge attitude and practice from gender and educational attainment of respondents but did not consider the aged of which this study considers along with other constructs of attitude toward COVID-19.

Reuben *et al* (2020) engaged a regional epidemiological survey to examine knowledge, attitudes and practices towards COVID-19 in North-Central, States, Nigeria. Study employed Pearson's correlation and regression tests on snowballing data elicited from online survey, analyzed using descriptive statistics, analysis of variance (ANOVA). From 589 respondents whose age ranges between ages 18–39years, males, had a college degree or above and reside in urban areas respectively. This study recorded good knowledge and attitudes among participants, however, community-based health campaigns are necessary to hold optimistic attitudes and practice appropriate intervention measures devoid of misconceptions.

Arthur-Holmes *et al* (2020) evaluated healthcare seeking concerns of aged persons 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 persons are prone to higher fatality rates from the virus which then affected their healthcare seeking behavior forcing them to resort to self-medication, 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 pandemic information traffic and its impact on aged persons for both short and long term.

COVID-19 Awareness and Sensitization Programmes and Attitude of Aged Persons

El-Elimat *et al* (2021) employed logistic regression analysis to analyse attitudes towards vaccines among public in Jordan. The study employed an online, cross-sectional, and self-administered questionnaire to survey 3,100 respondents. Results from study's analysis revealed that participants who believed that vaccines are generally safe ($p < .001$) and those who were willing to pay for vaccines ($p < .001$). Moreover, participants who believed that there was a conspiracy behind COVID-19 (95CI%, $p < .001$) and those who do not trust any source of information on COVID-19 vaccines (95CI%, $p < .001$), were less likely to have acceptance towards them. Study submitted that the most trusted sources of information on COVID-19 vaccines were healthcare providers.

Al-Hanawi *et al* (2020) analysed knowledge, attitude and practice toward COVID-19 among Iranian public. Results from the finding revealed that most of the participants took precautions to avoid contamination by COVID-19. These could be primarily attributed to the vast broadcasting by the government and the good knowledge considering the high infectivity and easy transmission of COVID-19 virus through droplets. Study submitted that increasing knowledge via public health policy-makers, and the cooperation of the Iranian authorities and the general population, optimistic control and elimination of the disease can be anticipated. Study was an Iranian study which did not captured the KaP for the aged of which this study does.

Mofolorunsho *et al* (2021) in a state specific studies, engaged survey research design to examine knowledge and perceptions of COVID-19 pandemic by Kogi State residents' stemming from altercations between state authority and the Nigeria Centre for Disease Control. The study engaged an online cross-sectional survey with structured questionnaire on 401 residents of the state using descriptive statistics for analysis on extracted data. Results from study showed that respondents are well aware of COVID-19 and the required protective measure while a low risk perception was also noticed. The study though done in Kogi was on the general population with no specific considerations for the aged who were the most vulnerable which this study considers.

COVID-19 Awareness and Sensitization Programmes and Practice of Aged Persons

Quispe-Cañari *et al* (2021) adopted cross sectional analytical survey to examine the frequency of self-medicated drugs used for respiratory symptoms among aged persons 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. Study submitted that continuous sensitization to enthrone awareness about the risks of self-medication should be deployed. While the Peru study administered online questionnaire this study will engaged thematic study to know the extent to which awareness and sensitization programmes influenced the knowledge attitude and practice of aged persons.

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 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. 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.

Celorio-Sardà *et al.* (2021) examined the changes in lifestyle during the COVID-19 among a specific population with academic and professional knowledge in food sciences from Spain. The study employed an online survey. Their study showed a higher intake of fruit and vegetables, legumes, eggs, fish, and yogurt together with a decrease in consumption of alcoholic beverages during the lockdown period. However, an increase in consumption of some fruity foods and an increase in self-reported weight were also observed,

although in lower percentages than in other populations. A worse sleep quality and an increase in working hours and sitting time were also reported. The study concluded that healthier dietary habits were observed within the study sample during COVID-19 confinement period. Their study was conducted in Spain where conditions during lockdown were quite different from what was obtainable elsewhere.

Lehtisalo et al. (2021) engage longitudinal study to investigate changes in lifestyle, behaviors, and risk factors for cognitive impairment in older persons during the first wave of the Coronavirus disease 2019 pandemic in Finland. The study adopted postal survey approach, administering structured questionnaire to 856 respondents. Findings from the study showed that Finnish older persons generally reported less negative changes in lifestyles and behaviors during the pandemic than expected. Older people and those living alone seemed more susceptible to negative changes. The study done in Finland did not capture self medication and social media touted drugs on aged of which present study covers

Theoretical Framework

The Health Belief Model

The Health Belief Model proposes that people are most likely to take preventative action if they perceive the threat of a health risk to be serious, if they feel they are personally susceptible and if there are fewer costs than benefits to engaging in it. Therefore, a central aspect of the Health Belief Model is that behavior change interventions are more effective if they address an individual's specific perceptions about susceptibility, benefits, barriers, and self-efficacy (Science Direct, 2020).

This Health Belief Model presents the progressive relationship among knowledge, attitudes and behavior as follows: knowledge is the foundation of behavior change, and belief and attitudes are the driving force of behavior change. "Health belief model" was put forward in the 1950s (Rosenstock, 1974), which pointed out that the formation of health belief played a key role for people to accept the persuasion, change the bad behavior, and adopt the healthy behavior. The model explains and predict health-related behaviours, particularly with regard to the uptake of health services. The health belief model suggests that people's beliefs about health problems, perceived benefits of action and barriers to action and efficacy explain engagement in health-promoting behaviour.

The tenets of the theory submits that individuals who perceive a given health problem as serious are more likely to engage in behaviours to prevent the health problem from occurring (or reduce its severity). Perceived seriousness encompasses beliefs about the disease itself as life-threatening or may cause disability or pain. Relevance of the Health Belief Model to the Study could be on the approach for effective interventions to change health-related behaviours by targeting various aspects of the model's key constructs. Interventions

based on the health belief model may aim to increase perceived susceptibility to and perceived seriousness of a health condition by providing education about prevalence and incidence of disease, individualized estimates of risk, and information about the consequences of disease.

Methodology

This study adopts thematic research design; it tries to examine the impact of COVID-19 awareness and sensitization programmes on knowledge, attitude and practice of aged persons. The study relies solely on secondary data. The research is conducted by examining literature concerning COVID-19 awareness and sensitization programmes on the KAP of aged persons. The literature was obtained through searches in publicly available material. Literature from non-serial publications, official reports, and conferences have been included particularly if they have been cited by other references in term of COVID-19.

Discussion of Findings

The review of literature reveals that where COVID-19 Sensitisation is official stunted through government channels and left at the whims and caprices of social media, there exist apparent skewed knowledge of COVID-19 by aged persons. The finding contradicts the submission in the previous works of Turkish Red Crescent Society (2020); Erfani et al. (2020); Reuben et al. (2020); Arthur-Holmes et al. (2020) who found that awareness level is very high and supported by government institutions in and health advocacy groups.

The result gotten from reviewed empirical literature is that the perception of aged persons about the existence of COVID-19 was that of disbelief. This finding is consistent with the findings in the previous work of El-Elimat et al. (2021); Al-Hanawi et al. (2020); Reuben et al. (2020); Mofolorunsho et al. (2021)

The result from prior empirical studies is that the poor attitude of the aged person was responsible for their non-compliance to NPI. This indicates official altercating position and the conspiracy theories influence the aged health practice towards COVID-19. This finding is inconsistent with the findings in the previous work of Quispe-Cañari et al. (2021); Ahmed et al. (2020); Celorio-Sardà et al. (2021); Lehtisalo et al. (2021). Where aged conform with, guidelines given in a bid to stay safe.

Conclusions and Recommendations

The study concludes that sensitization and awareness programmes by government institutions and health advocacy agencies is not encouraging and should be scaled up.

The study equally concludes that because the awareness driven is very low or nonexistence, its resultant effect on attitudinal disposition of aged persons towards Covid-19 are very poor.

The study also concludes that most of the health practices engaged in by aged persons are not yet medically proven and such practice could be seen slowing down vaccination of COVID-19 which could slow down the attainment of achieving herd's immunity.

Based on the conclusions of this study, the following recommendations are made;

- i. The study recommends that government institutions, intergovernmental organisations, and Nigeria's Governors' Forum should facilitate and decentralized COVID-19 awareness and sensitization programmes. Such that misinformed disbelief by leaders will not compromised endangered communities during a declared pandemic.
- ii. The study recommends that Civil Society Groups, Community Based Organisations, and Faith-Based organisations should be at the forefront of fighting against unwholesome knowledge dissemination which births poor attitude
- iii. In the light of the results of this study, the study recommends the need for aged persons State residents to have more access to health education to get enlightened on matter relating to COVID-19 health practices such as vaccination and engage less of unqualified health practices that are not yet medically proven.

Compliance with ethical standards

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