

Influence of Government Health Agencies' Social Media Messages on Knowledge, Attitude, and Practice of Healthy Lifestyles among Civil Servants in Lagos, in Post-COVID-19 Era

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Abstract

The study investigated the impact of government health agencies' social media messages on the knowledge, attitudes, and practices of healthy lifestyles among civil servants in Lagos State in the post-COVID-19 era. Leveraging a survey research design, 615 respondents were sampled using proportionate stratified and purposive sampling techniques. Analysis using SPSS revealed low knowledge levels but moderate attitudes and practices towards healthy lifestyles among civil servants. Positive correlations were found between the amount of health messages received and knowledge, attitudes, and practices. Notably, age did not significantly influence healthy lifestyle practices, but gender differences were observed, with males exhibiting healthier practices than females. The findings highlight the need for targeted interventions to improve health communication strategies, emphasizing the importance of social media in promoting healthy behaviors among civil servants. The study suggested implementing policies encouraging civil servants to share their social media details with government offices to effectively disseminate health information. This research contributes to understanding the role of social media in health communication and underscores its potential in fostering healthier lifestyles among civil servants in the post-COVID-19 era of Lagos.

Keywords: attitudes, civil servants, health communication, knowledge, practices, social media.

Introduction

The modern landscape of health communication is shaped by the dynamic interplay between knowledge, attitudes, and lifestyle behaviors. Social media platforms have emerged as influential mediums for accessing and exchanging health information, fostering changes in these domains, especially during critical periods such as disease outbreaks like COVID-19. These platforms, including Facebook, Instagram, TikTok, and others, have become hubs for sharing knowledge, opinions, and participation in health-related discussions. While social media efficiently disseminates health information, it also presents challenges, such as the spread of misinformation and the rise of influencers. However, it offers opportunities for targeted and tailored health communication. This transformation in communication methods has become a powerful force, influencing changes in knowledge, attitude, and lifestyle behaviors, particularly in the context of disease outbreaks (Al-Dmour et al., 2020).

During the COVID-19 pandemic, governments and health agencies actively utilized social media to communicate preventive measures and promote healthy lifestyles, aiming to foster positive changes (Purewal et al., 2021). Despite challenges, such as misinformation, these efforts have strengthened citizens' trust in government agencies. In Lagos, Nigeria, government health agencies have leveraged various social media platforms to disseminate announcements and health-related information, particularly in the aftermath of COVID-19. Notable examples include video and audio uploads on the Lagos State Ministry of health @LSMOH, and Nigeria Center for Disease Control's verified handles like "@NCDCgov" on X. These platforms are supposed to be essential channels for keeping the public informed about

government efforts and promoting healthy behaviors. This research aims to assess the digital reporting readiness of Nigerians concerning infectious disease symptoms and explores the influence of government health messages on social media, as investigated by Taba (2023). With a specific focus on civil servants, it seeks to provide a localized understanding of the post-acute phase of the COVID-19 pandemic, shedding light on recovery, adaptation, and societal behavior shifts, as highlighted by Mabruka (2021). The study tries to understand how the messages shared by government health agencies on social media influence the knowledge, attitude, and behavior of civil servants in Lagos regarding healthy lifestyles, especially in the post-COVID-19 era.

Government Health Agencies' Social Media Messages here refers to the information, campaigns, and initiatives shared by government health agencies through social media platforms. Knowledge of Healthy Lifestyles reflects how well-informed civil servants are about healthy lifestyle practices. The attitude towards Healthy Lifestyles represents civil servants' feelings, beliefs, and opinions regarding adopting healthy behaviors. While the practice of Healthy Lifestyles indicates the actual behaviors civil servants exhibit concerning healthy lifestyle choices. Essentially, the study explores how communication from health authorities via social media platforms can impact individuals' understanding, beliefs, and actions related to maintaining a healthy lifestyle, particularly considering the unique circumstances of Lagos State in the post-COVID-19 era.

The COVID-19 pandemic prompted government agencies worldwide to utilize social media extensively for disseminating emergency information and engaging citizens effectively (Aliyu & Amadu, 2017). In Nigeria, despite the pandemic's decline, the threat of resurgence remains, particularly in urban areas like Lagos, where health crises are exacerbated by issues such as inadequate water supply and sanitation (Okoroiwu, 2021). Given that a significant percentage of pandemic-related deaths occurred in Lagos, it serves as a pertinent location to investigate the influence of government communication on healthy lifestyle practices post-pandemic.

Since the onset of the pandemic, social media has played a crucial role in health communication. However, the impact of government health agencies' social media messages on civil servants' knowledge, attitudes, and practices regarding healthy lifestyles remains uncertain. It is imperative to assess how these messages contribute to health awareness and behavior change among civil servants for the development of effective public health communication strategies.

Research Questions

1. What is the influence of government health agencies' social media messages on the level of knowledge regarding healthy lifestyles among civil servants in Lagos in the post-COVID-19 era?
2. What is the influence of government health agencies' social media messages on the attitudes toward healthy lifestyles among civil servants in Lagos in the post-COVID-19 era?

Hypothesis

- Ho1: Government health agencies' social media messages have no significant influence on knowledge of healthy lifestyles among civil servants in Lagos in the post-COVID-19 era.
- Ho2: Government health agencies' social media messages have no significant influence on attitudes towards healthy lifestyles among civil servants in Lagos in the post-COVID-19 era.

Methodology

Quantitative data was drawn with the use of a survey instrument (questionnaire). This method is used to quantify attitudes, opinions, behaviors, and other defined variables and generalize results from a larger sample population by the way of generating numerical data (Mohajan 2020). The study's population is civil servants in Lagos State with 12 ministerial offices selected, which include the Ministry of Education, Ministry of Transportation, Ministry of Works and Infrastructure, Ministry of Information and Strategy, Ministry of Energy and Mineral Resources, Ministry of Local Government and Community Affairs, Ministry of Justice, Ministry of Health Affairs, Office of the Chief of Staff, Ministry of Environment, Badagry General Hospital, Primary HealthCare Board which sums up to 8,427 civil servants according to the Lagos State Bureau of Statistics (2018).

The sample size for this study was drawn using the formula developed by Krejcie and Morgan (1970) sample size formula to determine the required sample size representative of the population (Johnson, 2012). The proportionate stratified sample approach and the purposive sampling technique (Campbell 2020) were used for this study. A test-retest method was implemented, involving three essential steps. Initially, a pilot study was conducted with 10% of the sample size of 615 with simply randomly selected civil servants. A subset of study participants completed the research instrument, i.e., the questionnaire, and the collected data underwent analysis using Cronbach's Alpha to determine the level of consistency between the two sets of responses. The reliability of the questionnaire for Knowledge (0.71), attitude (0.74), and Healthy lifestyle practice (0.81) was identified, through which absolute agreement proved the internal consistency of the questionnaire. In addition, a reliability score of 0.7-0.8 indicates acceptable reliability and a reliability score of 0.8-0.9 indicates good reliability. The N is the number of observations correlated with a p-value less than 0.05 ($p < 0.05$), and the overall Cronbach's Alpha coefficient is 0.79 which is acceptable.

The research employed a comprehensive statistical analysis approach, utilizing both descriptive (mean, frequency, and percentage) and inferential (correlation, independent t-test, ANOVA, simple linear regression) statistics to examine the data gathered through the survey. The Statistical Package for the Social Sciences (SPSS) was used for processing the analyses, ensuring a robust and efficient exploration of the dataset. Descriptive statistics provided a detailed overview of the central tendencies, variations, and patterns within the data. The mean, median, mode, frequencies, and percentages were used to analyze the data descriptively. Inferential statistics helped explore relationships between variables by assessing whether there are significant associations between different categories of the variables, determining whether there are significant differences between categories, and assessing the strength and direction of the relationship between variables.

Ethical Considerations

Before proceeding with the study, approval was sought from the Babcock University Health Research and Ethics Committee (BUHREC) and the consent of interview participants was obtained. The objective of the study was thoroughly explained before proceeding with the interview, and participation was on a voluntary basis.

RESULTS

The questionnaire collected and used for analysis was 615 out of 676 due to attrition caused by incomplete responses to questionnaires and/or withdrawal of respondents from the survey exercises. This implies that only 91% of the questionnaires were valid for analysis. Some items do not have 100% responses and were excluded because the SPSS recognizes it as a missing system. Such can be attributed as non-responses (NA). The NA were excluded to focus on the

specific frequency and percentage required for the interpretation of data. The study's three main outcome variables were measured by converting the response items (questions) into weighted-aggregate scores with the maximum scale of points for each of overall knowledge, total level of attitude, and total level of practice.

Presentation of Data Analysis

Table 1

Demographic Characteristics analysis of all samples (participants) in the study

| Variable | Frequency (N=615) | Percentage (%) |
|--|--------------------------|-----------------------|
| Age | | |
| 18-27 | 116 | 18.9 |
| 28-37 | 187 | 30.4 |
| 38-47 | 188 | 30.6 |
| 48-57 | 120 | 19.5 |
| 68-77 | 3 | 0.5 |
| NA | 1 | 0.2 |
| Total | 615 | 100 |
| Gender | | |
| Male | 269 | 43.7 |
| Female | 332 | 54.0 |
| Prefer to say no | 12 | 2.0 |
| NA | 2 | 0.4 |
| Total | 615 | 100 |
| Marital Status | | |
| Divorced | 8 | 1.3 |
| Single | 184 | 29.9 |
| Married | 403 | 65.5 |
| Separated | 15 | 2.4 |
| NA | 5 | 0.8 |
| Total | 615 | 100 |
| Highest level of education | | |
| Non-formal | 3 | 0.5 |
| Primary | 8 | 1.3 |
| Secondary | 31 | 5.1 |
| Tertiary | 515 | 84.7 |
| Technical | 50 | 8.2 |
| NA | 8 | 1.3 |
| Total | 615 | 100 |
| Grade Level | | |
| Junior | 174 | 28.3 |
| Senior | 417 | 67.8 |
| NA | 24 | 3.9 |
| Total | 615 | 100 |
| Kind of phones used to source for information | | |
| Techno | 149 | 24.3 |
| iPhone | 166 | 27.0 |

| | | |
|--------------|------------|------------|
| Samsung | 126 | 20.5 |
| Others | 171 | 27.8 |
| NA | 3 | 0.5 |
| Total | 615 | 100 |

Note. Data collected by author March, 2024

The results in Table 1 show that there were more female participants at 54%, slightly higher than males at 43.8%. The age of respondents ranged from 18 to 77 years with the majority (30.6%) of the participants within the categories of 38 to 47 years of age. The results also indicated that the majority, 403(65.5%) of the participants are married. On the educational attainment, non-formal education was 3(0.5%), primary education was 8(1.3%), secondary education was 31(5.1%), while the tertiary education of respondents was 515(84.7%). Concerning the grade level, 174 (29.4%) of the respondents were junior grade level, while respondents of senior grade level were 417(67.8%). All respondents identified with different brands of phones such as Techno (24.3%), Samsung (20.6%), iPhone (27.1%), and others (27.8%). Figure 1 revealed that sources of the internet for respondents' phones or Home Wi-fi account for 450 (73%) of the users while 61(10%) of the internet source was from the Office Wi-fi. Another 103 (17%) claimed to be using both Home Wi-fi or phone and Office Wi-fi as their internet.

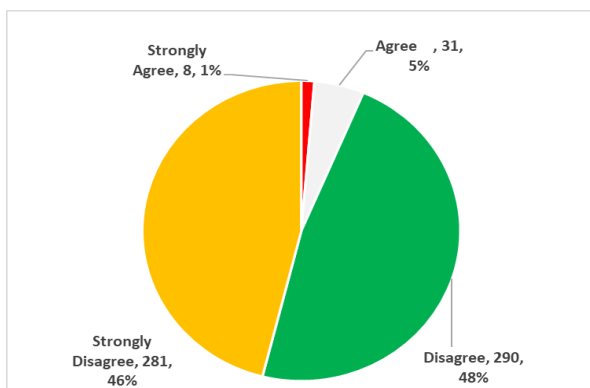


Figure 1 Responses on government agencies' social media messages received in connection to a healthy lifestyle (N=610).

Descriptive summary of government agencies' social media messages received in connection to a healthy lifestyle.

| | N | Maximum scale points | Mean | Std. Deviation | Level |
|---|-----|----------------------|--------|----------------|-------|
| Government Health Agencies' Social Media Messages | 610 | 3 | 0.6164 | 0.64612 | low |

Figure 2: The majority (94%) of the respondents do not receive health-related information from government agencies on their social media.

Influence of Government Health Agencies' Social Media Messages on the Level of Knowledge of Healthy Lifestyles among Civil servants in Lagos in the post-COVID-19 era

The level of knowledge of respondents is low on healthy lifestyles based on government health agencies' social media messages. Across the items knowledge only messages on Diphtheria

and how to prevent it have a maximum mean of 1.1260 but this is still low on a maximum scale point of 3. The majority (95.6%) of the respondents do not know how to keep their surroundings clean against contracting Lassa fever. Furthermore, 81.6% of the respondents do not know who to contact as a result of disease symptoms because of no government health agencies' social media messages.

Influence of government health agencies' social media messages on the attitudes towards healthy lifestyles among civil servants in Lagos in the post-COVID-19 era

The attitude of respondents towards healthy lifestyle practices in the post-COVID-19 era is moderate based on government health agencies' social media messages. The majority (86%) of the respondents do not trust that government health agencies to effectively convey messages on healthy lifestyles through social media. Only about 17.6% of the total respondents reported that social media information by government health agencies has prompted them to seek medical information for themselves or their family members.

Hypothesis 1: Government health agencies' social media messages have no significant influence on knowledge of healthy lifestyles among civil servants in Lagos in the post-COVID-19 era

Table 2: Correlation test analysis between government health agencies' social media messages and knowledge of healthy lifestyles among civil servants in Lagos in the post-COVID-19 era.

| Descriptive statistics | | | | Correlation statistics (R) | |
|---|-----|--------|----------------|----------------------------|---------|
| | N | Mean | Std. Deviation | Pearson Correlation | 0.438** |
| -Social mediamessages received | 610 | 0.6164 | 0.64612 | Sig. (2-tailed) | 0.000 |
| -Total Knowledge | 597 | 3.3943 | 1.87524 | N | 596 |

** . Correlation is significant at the 0.01 level (2-tailed); Adj. R square =0.191, F=141.2. p=0.001

Correlation and regression test analysis on the influence of government health agencies' social media messages on knowledge of healthy lifestyles among civil servants in Lagos in the post-COVID-19 era. On a maximum scale of 12 points for Self-reported knowledge of healthy lifestyles among respondents, the mean score for respondents was $(X)=3.39\pm 1.87$, while the mean for government health agencies' social media messages was $(X)=0.62\pm 0.65$ on a maximum point scale of 3. The result of the correlation test shows that the correlation of coefficient (R) is 0.438 on a scale of 0 to 1 this is moderate.

Hypothesis 2: Government health agencies' social media messages have no significant influence on attitudes towards healthy lifestyles among civil servants in Lagos in the post-COVID-19 era.

Table 3: Correlation and regression analysis between government health agencies' social media messages and attitudes towards healthy lifestyles among civil servants in Lagos in the post-COVID-19 era

| Descriptive statistics | | | | Correlation statistics (R) | |
|--------------------------------|-----|--------|----------------|----------------------------|---------|
| | N | Mean | Std. Deviation | Pearson Correlation | 0.288** |
| Social media messages received | 610 | .6164 | .64612 | Sig. (2-tailed) | 0.000 |
| Total Attitude | 558 | 6.2059 | 2.12703 | N | 576 |

** . Correlation is significant at the 0.01 level (2-tailed); Adj. R square =0.081, F=51.86 p=0.001

On a maximum scale of 1-points for respondents’ attitude on healthy lifestyles, the mean score for respondents was $(X)=6.21\pm 2.12$, while the mean score for the variable on government health agencies' social media messages was $(X)=0.62\pm 0.65$ on a maximum point scale of 3. The result of the correlation test shows that the correlation coefficient (**R**) is 0.288, and on a scale of 0 to 1 this is slightly low.

Discussion of Findings

The findings of this research shed light on several important aspects regarding the utilization and impact of government health agencies' social media messages on civil servants' knowledge, attitudes, and practices related to healthy lifestyles in Lagos post-COVID-19. Firstly, it was observed that while the majority of civil servants in Lagos have access to social media platforms, the dissemination of messages about healthy lifestyles from government health agencies is limited (Abdyrashev et al., 2022). This underscores the need for enhanced efforts in leveraging social media as a communication tool to promote healthy behaviors among civil servants. Furthermore, the study revealed significant disparities in healthy lifestyle practices between male and female civil servants, with males exhibiting higher levels of engagement in healthy behaviors. However, no significant variations were observed based on education level and age, highlighting the need for targeted interventions to address gender-specific disparities in health-related practices (Chimnoso et al., 2019).

Regarding the influence of government health agencies' social media messages on knowledge of healthy lifestyles, the findings suggest a low level of awareness among civil servants in Lagos. Despite efforts to disseminate information through social media platforms during the COVID-19 pandemic, there remains a gap in knowledge regarding whom to contact in case of disease symptoms (Nwasum, 2022). This emphasizes the importance of clear and effective communication strategies tailored to the specific needs of civil servants. Similarly, the study found that attitudes towards healthy lifestyles among civil servants are moderate, with social media messages from government health agencies having a weak correlation with attitude levels. However, an increase in the frequency of these messages was associated with a more positive attitude towards healthy lifestyles (Akingbade, 2021). This underscores the potential of social media platforms as a means to promote positive attitudes and behavior change among civil servants.

Conclusion

The COVID-19 pandemic has highlighted the importance of social media in disseminating health information and promoting positive behaviors, especially in Lagos, Nigeria. The findings of this study shed light on the current landscape of healthy lifestyle practices among civil servants in post-COVID-19 Lagos, particularly in relation to the influence of government health agencies' social media messages. Several key insights emerge from the analysis. Firstly, while social media access is widespread among civil servants, there is a notable gap in the dissemination of messages about healthy lifestyles from government health institutions. Despite the popularity of social media platforms like WhatsApp, Facebook, and Instagram, few civil servants reported receiving messages about leading healthy lives or knowing who to contact when experiencing illness symptoms. Secondly, attitudes towards healthy lifestyles were assessed to be moderate among civil servants, with government social media messages prompting some individuals to seek treatment options in hospitals. However, there remains a discrepancy between message clarity and reception, as some respondents found official social media statements unclear or insufficient. Additionally, the prevalence of leading healthy lives among civil servants was found to be low, despite encouragement from government social media posts to exercise, undergo frequent checkups, and consume fruits and vegetables. Overall, the study underscores the importance of enhancing social media outreach strategies, improving message clarity and relevance, and addressing gender-specific differences in promoting healthy lifestyle practices among civil servants in post-COVID-19 Lagos.

Recommendations

Government health institutions should improve their social media outreach strategies to reach more civil servants about healthy lifestyles. This could involve targeted advertising, collaboration with influencers, and engaging content formats. Departmental WhatsApp groups and strategically placed screens can also help. A policy encouraging workers to share their social media details with PRO offices can help. Clear, concise messages should be provided, and awareness campaigns should be launched to educate civil servants about healthy lifestyle practices. Tailoring messaging strategies to gender differences, emphasizing regular health checkups, exercise, and a balanced diet, and providing resources to support those facing financial or social barriers can help. Continuous evaluation of campaigns and collaboration between health institutions and local practitioners can also help improve health outcomes.

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