

EVALUATING THE USE OF SOCIAL MEDIA FOR HEALTH PRACTICE AND AWARENESS AMONG HEALTHCARE PRACTITIONERS IN KUJE AREA COUNCIL, ABUJA, NIGERIA.

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Abstract:

Social media platforms have emerged as innovative communication tools with the potential to enhance and raise public health awareness, cater to patient needs, and foster networking among healthcare professionals. This study focuses on evaluating the use of social media for health-related activities among healthcare practitioners in Kuje Area Council, Abuja, Nigeria. Employing a survey research design, data were collected from 128 respondents, and the

study was underpinned by the Uses and Gratification theory. Findings revealed that Facebook, WhatsApp, and X are the predominant social media platforms employed for health-related practices. The results further indicated a consistent and widespread use of social media for accessing and disseminating health information. Moreover, the study identified key applications of social media in spreading health-related information, mobilising volunteers for health advocacy programs, connecting with global experts, and rectifying misinformation circulated on social media. Notably, the research identified challenges hindering the effective application of social media for health-related activities in Kuje, including the absence of clear laws and policies, inadequate electricity supply, high data costs, and poor network connectivity. Consequently, the study recommends enhancing infrastructure such as electricity and network services as a crucial step for the effective use of social media in health activities. Additionally, healthcare practitioners are advised to critically verify health information before sharing or referencing it on social media platforms. Finally, the Nigerian government is urged to formulate and implement comprehensive laws and policies that facilitate the optimal use of social media for health practices in the country.

Keywords: *Social media, healthcare, professionals, awareness, practice, Nigeria*

Introduction:

The rapid expansion of the Internet and new media has profoundly transformed individuals' behaviours and activities worldwide. According to Pelchen (2024), the global usage of the Internet is reported to be 5.35 billion people. Scholars like Ikpi, Undelikwo, and Ubi (2022) assert that social media platforms have undergone substantial advancements, continually evolving as dynamic communication tools. These online communication platforms have proven instrumental in the healthcare industry, offering opportunities for professional networking and public enlightenment on health-related phenomena. Social media facilitates effective communication with patients, enhances the quality of care and education provided, and contributes to the success of public health enlightenment programs and the implementation of government laws and policies concerning health. Moreover, social media has demonstrated utility in organizational activities and supports research endeavours (Alsobayel, 2016). Carroll, Bruno, and von Tschudi (2016) and Jalali, and Wood, (2013) concur that social media has become a vital tool for health industries globally, being utilized for health advocacy through the creation of groups. Health organizations leverage social media to connect, train, and educate, emphasizing its crucial role in providing accurate, vetted health messages. Establishments recognize that encouraging live-tweeting or blogging of conferences offers opportunities for the wide dissemination of content (Jalali, Sherbino, Frank & Sutherland, 2015). Health care practitioners widely embrace the use of social media in medical education, contributing to the growing tradition of sharing open resources in the field (Elkheir, et al., 2021).

In Canada, as indicated by the Digital 2024 Canada report, data from Data reportal reveals that 36.74 million individuals, accounting for 94.3% of the population, engage with social media platforms for a myriad objectives, encompassing the acquisition and dissemination of health-related information (Digital 2024 Canada, 2024). The data further indicates that the average Canadian spends at least 6 hours daily online (Digital Canada, 2024). In the United States of America (USA), data from the Pew Research Centre (2022) shows that a significant

82% of adults use digital tools to obtain information on various issues, including health. Huang (2022) corroborates that TikTok has become the primary search engine for Gen-Z. Forman-Katz and Matsa (2021) found that 51% of US adults often get their news from online devices, indicating that digital media is now the most widely used news source in the USA.

Similarly, in Russia, approximately 115 million people utilize social media for various activities, with eight out of ten Russians using social media networks as their primary news source (Statista, 2023). The social media user base in Germany stood at 72.60 million in 2023 (Lemmetty, 2023). In 2019, the Asia Pacific region accounted for 50% of the world's social media users and witnessed the addition of 102 million new internet users. Southeast Asian countries, including the Philippines, Thailand, and Indonesia, were among the top 15 fastest-growing nations using Facebook in 2019, indicating a significant shift in how information is shared (International Federation of Red Cross and Red Crescent Societies, 2019). Data from China suggests that approximately 960.4 million of the country's population actively engage with social media for various endeavours (OSGA, 2022).

In Africa, South Africa has over 43.48 million Internet users, with 25.80 million actively using social media (South African Population, 2023). Kubheka's (2017) editorial article confirms that nurses and health practitioners in South Africa adopt social media for networking and supporting health education. In Kenya, statistics indicate that around 10.5 million of the population use social media to access and share various information, including health-related tips. According to Digital Nigeria (2023), approximately 31.60 million, representing 14.3% of the total population, have access to social media in Nigeria, using it for political, social, economic, health, and other matters impacting the nation's growth and development. The critical inquiry arises: How has social media been employed for health practice in Nigeria, particularly among health professionals in the Kuje Area Council of the Federal Capital Territory, Abuja?

Statement of the Problem:

Healthcare professionals have increasingly embraced various online communication platforms, including social media, as tools to disseminate health informations. This effort aims to augment public awareness of health-related issues and enhance practitioners' knowledge within the healthcare sector (Mohammed, Alanzi, Alanezi, Alhadaib & AlShammari, 2021). Numerous studies have highlighted the utility of social media for health advocacy, enlightenment, and education (Hart, Stetten, Islam, & Pizarro, 2017; Ku, Markson, Costello, Xing, Demissie & Llanos, 2016; Bahkali, Almainan, Househ & Alsurimi, 2015; Chung, Skimmer, Hasty & Perrin, 2017).

Despite the recognized potential of social media for fostering professional engagement, investigations, and collaborations, the employment of this online communication platform is not fully used in Nigeria (Folaranmi, Ibiyeye, Odetunde, & Kerr, 2022). Assessing the use of social media for health practice and awareness among healthcare practitioners in Kuje Area Council, Abuja, Nigeria presents a compelling area for investigation.

Objectives of the Study:

The objectives of the study are to:

1. Investigate the types of social media used by healthcare practitioners in Kuje Area Council, Abuja, Nigeria, and determine the frequency of their usage for promoting health awareness and practice.
2. Assess the purpose of employing social media for health-related practice.
3. Analyze the constraints and challenges associated with the application of social media for health awareness and practice among healthcare professionals in Kuje Area Council, Abuja, Nigeria.

Concept of Social Media:

The concept of social media, initially introduced in 1994 within a Tokyo online media environment called "Matisse" (Bercovici, 2010) encompasses different types of online communication platforms like Facebook, WhatsApp, MySpace, X, Instagram, YouTube, Flickr, etc. These platforms facilitate user engagement and content creation (Lazworld, 2023). They are software communication tools that enable group of people to create and share content (Bottle PR, 2023). This implies that they are collection of various interactive platforms like Facebook, Flickr, YouTube, MySpace that assist organizations and individuals to grow their business better (Axel Schultze, 2023). Social media is also defined as the different activities that make use of technology to enable people across the globe to interact through the use of words, pictures and videos (www.anvilmediainc.com/marketing-resources/searccccc-engine-marketing-glossary/). In the words of Aichner and Jacob (2015), social media are different kinds of online platforms, including blogs, business networks, joint undertakings, venture social networks, forums, micro blogs, photo sharing, products review, social bookmarking, social gaming, video sharing, and virtual world. These definitions collectively suggest that social media are new communication innovative that allow people to search for information, share opinions, views and ideas on various issues affecting them.

Social Media for Health Practice: A Global Empirical Review

Elkheir, Boumarah, Bukhamseen, Masoudi, and Boubshait (2021) conducted an in-depth research project titled "The Saudi Experience of Health-Related Social Media Use: A Scoping Review." The main goal of this study was to examine, summarize, and clarify the current understanding in Saudi Arabia regarding the use of social media in health practices. The researchers employed a systematic approach to search various databases for relevant documents. The study involved a comprehensive search of databases to collect important documents related to social media use in health practices in Saudi Arabia. The results indicated a widespread and significant adoption of social media for health-related purposes among both the general public and healthcare professionals in Saudi Arabia. The study found

that the use of social media for health-related practices is increasing in Saudi Arabia. The researchers recommend a continued focus on educational initiatives and awareness campaigns through social media platforms to improve the understanding of health-related practices among the public and professionals in the country. The study highlights the ongoing need for efforts to educate and inform the population through intensified interventions on social media.

In a correlated investigation, Mohammed, Alanzi, Alanezi, Alhadaib, and AlShammari, (2021) evaluated the "Usage of Social Media for Health Awareness Purposes among Health Educators and Students in Saudi Arabia". The research employed a cross-sectional design. The study's findings indicated that approximately 60% of healthcare practitioners in Saudi Arabia utilized various social media platforms, including Twitter (now X), Instagram, Telegram, Facebook, WhatsApp, LinkedIn, and YouTube, for health awareness initiatives. The data revealed that social media served as a crucial tool for educating and enhancing health awareness among diverse communities. Additionally, it was identified that social media played a role in dispelling and rectifying misinformation related to health. The research also established that over 40% of participants in the study refrained from using social media for health awareness due to concerns about the credibility of health information shared on these platforms. The study asserted that social media constitutes a valuable platform for disseminating health information, fostering public awareness, and positively influencing health behaviours. As a result, the research recommended that health educators and students in the country should continue to utilize social media responsibly to educate the public on improving their health habits

Similarly, Ikpi, Undelikwo, and Ubi, (2022) in their research titled: "Social Media Use for Patient Care: An Evaluation of Health Practitioners in Cross River State, Nigeria," looked into how healthcare professionals use social media in the promotion of healthcare practices in the state. The study uses both qualitative and quantitative research methods and found that health practitioners in Cross Rivers State, Nigeria, use social media to advance the cause of

their discipline at a minimal level. The study establishes a connection between minimal social media use by health professionals and identified barriers, specifically the lack of regulatory framework and inadequate institutional resources. The findings underscore the need for a more supportive environment to integrate social media into medical practice. Addressing these barriers is crucial to encouraging greater social media engagement among health practitioners. Recommendations include creating flexible policies aligned with medical practice and providing necessary materials and resources. The study highlights the underutilization of social media for patient care by health professionals in Cross Rivers State and identifies key barriers hindering widespread adoption. To make social media more appealing for healthcare workers, the study suggests integrating it into medical practice through flexible policies and resource provision. Additionally, improving network connectivity and electricity at the governmental level is vital for effective social media use in patient care.

Researchers (Ghahramani et al. 2019) conducted a study titled "Increased Use of Social Media for Education among Young Professionals in Cardiology: Results of a Survey of Cardiologists and Cardiology Fellows in the American College of Cardiology." The research explores the growing use of social media platforms for educational purposes among young professionals in cardiology. They used a survey methodology to collect and analyze data, aiming to understand how social media is becoming part of the educational landscape in the American College of Cardiology. The study involved surveying cardiologists and cardiology fellows to investigate how they use social media for educational purposes. The findings showed that social media is widely used by these professionals for learning, including networking with colleagues, connecting with professionals, accessing and sharing medical journal articles, and exploring complex medical topics. Participants also mentioned using social media to stay updated on new techniques and advancements in the medical field. The study provides empirical evidence that social media has become a crucial aspect of professional education for young cardiologists. The results highlight the importance of social

media platforms in facilitating collaborative learning, sharing knowledge, and enhancing skills within the cardiology community.

While the study offers valuable insights, the researchers suggest further exploration of the implications of social media use in clinical disciplines. Future studies should delve deeper into the specific educational benefits of social media engagement and explore potential challenges and opportunities associated with its integration into professional practices within the field of cardiology.

Alsobayel, (2016) focused on the "Utilization of Social Media for Professional Advancement by Healthcare Practitioners: A Web-Based Survey with Cross-Sectional Analysis." The study employed a web-based survey with a cross-sectional approach to gather insights. The data revealed that over 70% of participants utilized social media to enhance their professional growth, specifically in knowledge sharing and networking. The study concluded that social media serves as a powerful tool for career development in the medical field. In a related study, Almainan, Bahkali, Al FA, Bamuhair, Househ, and Alsurimi (2015) corroborated these findings. Their research indicated that approximately 80% of participants confirmed using Twitter (now X) to access health-related messages. They expressed that utilising this online platform expanded their understanding of medical practices.

Majali, Alsoud, Omar and Alhassan (2021) conducted a study on "Social Media Use as Health Awareness Tool: A Study among Healthcare Practitioners". The study focuses on the use of social media as a tool for health awareness among healthcare practitioners in Malaysia. The research aimed to establish a conceptual framework for Malaysian healthcare practitioners (MHPs) adopting social media to promote health in the country. Using the Unified Theory of Acceptance and Use of Technology (UTAUT), the study employed qualitative research methods for data collection. The results revealed widespread use of social media among healthcare professionals in Malaysia. The study recommended the continued use of social media for health awareness campaigns, suggesting involvement from

healthcare practitioners and relevant authorities to educate Malaysians about various health conditions in the country.

Folaranmi, Ibiyeye, Odetunde, and Kerr, (2022) in their study titled: "The Influence of Social Media in Promoting Knowledge Acquisition and Pathology Excellence in Nigeria," focused on the impact of social media on pathologists in Nigeria. They used a survey research design to gather data and found that social media plays a crucial role in enhancing pathologists' education, facilitating mentorship, and promoting research collaborations.

However, the study highlighted challenges such as maintaining patient privacy, insufficient power supply for social media-enabled devices, and issues with network connectivity and expensive internet services. The researchers recommended that the government address these challenges by improving electricity and network infrastructure in the country.

In a related study, Mahmoud and Husein (2022) investigated the "Impact of Social Media on Undergraduate Orthopaedics and Traumatology Education in Sudan." Using a quasi-experimental approach, their aim was to assess student-created social media groups in terms of their application in education and the attitudes of students towards social media. The study found that while online social media discussions had no significant impact on students' grades, the platforms motivated students to acquire new knowledge and improve their learning. The research also revealed that students found asking questions in social media groups easier than in traditional classrooms. Although no significant connection between social media use and academic performance was established, the study concluded that social media serves as a valuable tool for obtaining feedback and enhancing the learning experience.

Sutherland, and Jalali, (2017) conducted a study titled: "Social Media as an Open-Learning Resource in Medical Education: Current Perspectives." The researchers used content analysis as their research technique. The study findings indicated that existing reviews provided a

substantial amount of information about the use of social media for health-related purposes. However, the actual impacts of social media in this context remained unclear. Consequently, the study recommended further empirical evaluative research to determine social media's educational effectiveness in medicine.

Theoretical Framework:

Developed by Elihu Katz (1959), the thrust of the uses and gratification theory is that it explains a move away from the focal point of communication coming from the sender to the receiver. The theory further explains the role that mass communication is performing to members of the public. According to Severin and Tankards (2010), the uses and gratification theory attempts to provided answers to questions like the motive behind using the online media and the conventional media. The focus of the theory is on the reasons individuals use the mass media as opposed to what the mass media offer to the individuals.

The theory debunks the claim that those who consume media products are passive, rather proposing that the media audience remains active users of the mass media. Audience activity can be defined as the deliberate choice by users of media content to satisfy their needs. People use the media according to their individuals needs whether social or psychological.

From the foregoing, the theory is, therefore, considered relevant in this study because it assists the study to understand the reasons healthcare practitioners in Kuje Area Council, Abuja use the social media. Taking into consideration, the Internet and World Wide Web grew at a more rapid rate than any other previous mass medium, encourages different age groups to access social media (Severin & Tankard. 2010). Therefore, as explained above, through the uses and gratifications theory helps to clarify why and how medical practitioners in Kuje Area Council, Abuja are using social media.

Methodology:

The research employed a survey design to gather a broad understanding of respondents' perspectives on a particular subject of investigation. According to Olaoye, Enyindah, and Asemah (2022), a survey is an empirical study that utilizes questionnaires to uncover descriptive characteristics of a phenomenon (p. 302). To ensure the efficient handling of data, eight health professionals were selected from each of the following health institutions in Kuje Area Council through availability sampling technique: Lea Jeda Joseph Hospital, Kuje; White Dove Hospital Limited; Stevan Hospital and Maternity; Tinto Clinic and Medical Services; Agape Clinic; Alfad Specialist Clinic; BHM Medical and Wellness Centre; Gade Clinic and Maternity; Agape Biomedical Hospital; Capital Doctor's Clinic and Maternity; Kaura Primary Health Clinic, Gaube. The study also encompassed Allison Clinic and Maternity, Chibiri; Epttome Hospital and Maternity, Chibiri; Arise Hospital, Gaube; and Kuje General Hospital. In total, the sample size for the study was 128. To ensure the validity and reliability of the questionnaire, external professional academics were consulted, and their recommendations for changes and modifications were considered by the researcher. The presentation and analysis of data were conducted using tables.

In adherence to ethical standards, the researcher informed the participants about the study's objectives and secured their consent, aligning with established international protocols.

Measures were implemented to safeguard participants from potential physical or psychological harm from the research methodologies.

Data Presentation and Analysis

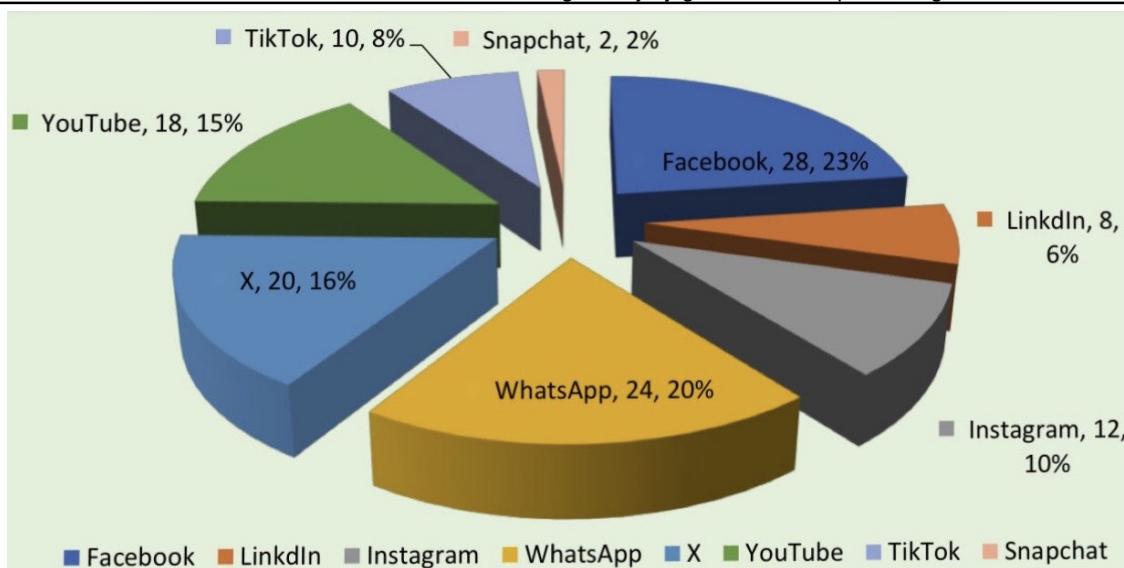


Figure 1: Types of Social Media Usage for Health Awareness and Practice

The findings suggest that social media has emerged as a primary means for health professionals to convey health messages to the public and enhance practitioners' understanding of the health discipline.

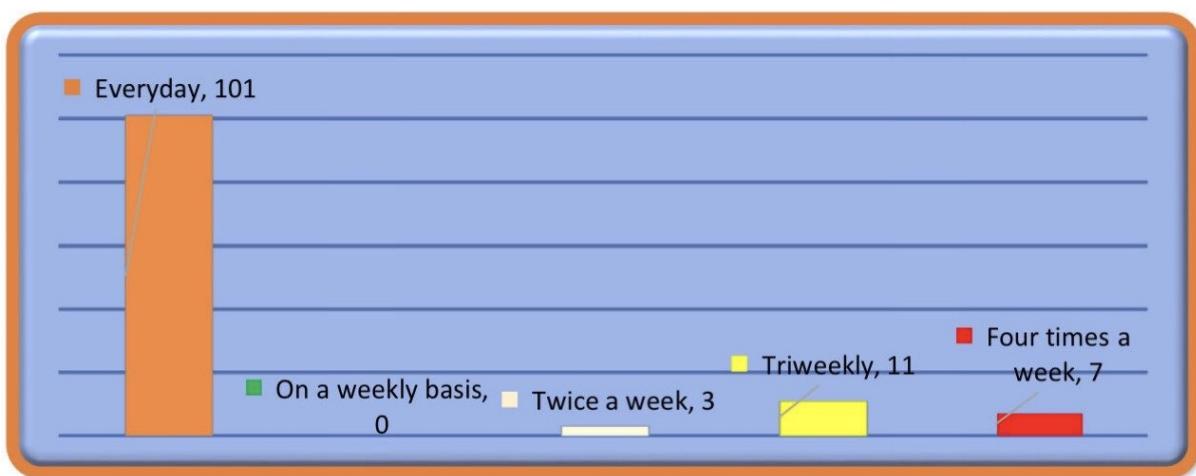


Figure 2: Frequency of Social Media Usage for Health Awareness and Practice

The results suggest that healthcare professionals often use social media to raise awareness about societal health issues while improving their knowledge.

Table 1: Purpose of Using Social Media for Health Practice and Awareness

Option	SA	A	U	D	SD	Mean	Decision
						Rating	
To improve the health habit of members of the community	86	36	0	0	0	4.7	Accepted
To increase Nigeria's health information laws and policies among members of the community	71	51	0	0	0	4.5	Accepted
To improve and increase the knowledge of community members about the kind of services health practitioners render	100	22	0	0	0	4.8	Accepted
To debunk and correct wrong messages shared about health in the community	91	31	0	0	0	4.7	Accepted
To disseminate information on health education concerning area of expertise	105	15	2	0	0	4.8	Accepted
To give quick and easy access to members of the community when trying to sensitise them on health issues	83	39	0	0	0	4.6	Accepted
To search for information regarding new diseases ailment, epidemics and pandemics	117	7	0	0	0	5.0	Accepted
To be in touch with sick people	95	27	0	0	0	4.7	Accepted

To link up with other experts so as to give a patient the needed treatment	111	11	0	0	0	4.9	Accepted
To build and increase one's name in the discipline	89	33	0	0	0	4.7	Accepted
To assist colleagues in the medical line	101	21	0	0	0	4.8	Accepted
To disseminate information about new findings or health matters	113	9	0	0	0	4.9	Accepted
To engage people who are willing to take part in health awareness programmes (volunteers)	81	41	0	0	0	4.6	Accepted

The result is an indication that social media is used to spread health information, mobilise volunteers for health advocacy programmes, connect with other experts across the globe and to correct wrong health messages circulated on social media, among others.

Table 2: Constraints to the Use of Social Media for Health Practice and Awareness

Option	SA	A	U	D	SD	Mean	Decision
	Rating						
There is no clear laws and policies regarding the employment of social media for health practice and awareness in Nigeria	54	31	22	9	6	3.9	Accepted
Constraints of electricity supply in the country	69	51	2	0	0	4.5	Accepted
The patients do not usually trust the health information shared to them on social media	13	6	11	20	72	1.9	Rejected

Fear of revealing patient health history on social media by patients	68	31	13	7	3	4.2	Accepted
Fear of the implications that may come after individuals use information shared on social media by health practitioners	34	53	12	16	7	3.7	Accepted
There is usually no enough time to engage with people on social media to share health tips with them	27	74	8	4	9	3.8	Accepted
Challenges associated with networks in Nigeria and high cost of data	93	21	6	2	0	4.6	Accepted

It could be deduced from the findings that social media in Nigeria has not been fully deployed for health promotion and improvement of health practitioners' knowledge due to numerous challenges as shown in the Table.

Discussion of Findings

The examination of data revealed that among the respondents, Facebook (23%), WhatsApp (20%), and X (16%) are the most frequently use social media platforms for health-related purposes (refer to Figure 1 above). This outcome can be attributed to the popularity of Facebook, WhatsApp, and X as the primary social media tools in Nigeria. This result is consistent with the research conducted by Mohammed, et al., (2021), which highlighted that in Saudi Arabia, health practitioners predominantly use WhatsApp for their health-related activities compared to other social media platforms. Additionally, the findings of studies by Hart et al. (2017), Ku et al. (2016), Bahkali et al. (2015), and Chung et al. (2017) corroborate the notion that X is widely employed by health experts to disseminate health-related information, especially targeting women and obese youth to promote overall

health. Furthermore, the investigation revealed a substantial use of social media for health practices by health professionals in Kuje Area Council, Abuja, as illustrated in Figure 2. This result aligns with Mahmoud and Husein's (2022) discovery that students extensively use social media platforms to access the latest information related to their disciplines, enhancing their learning skills. Similarly, Majali et al. (2021) found that healthcare professionals in Malaysia heavily rely on social media for various health-related activities.

Moreover, the study highlighted that health practitioners in Kuje Area Council, Abuja, leverage social media to enhance community health habits, disseminate information on Nigeria's health laws and policies, and debunk misinformation regarding health issues within the community. The data indicated that social media is employed to educate the community about the services offered by health practitioners and correct inaccurate health-related information circulating on social media. Additionally, the study revealed that health professionals use social media to reach and sensitise the community on health issues quickly, search for information on new diseases and epidemics, connect with global experts, build professional reputations, and assist colleagues in the medical field. Almaiman et al.'s (2015) findings support these results, indicating that over 80% of health experts uses X to access health-related information and broaden their understanding of health matters. These findings are consistent with the uses and gratification theory, which posits that individuals use media for diverse purposes.

The study further identified several challenges impeding the effective use of social media for health activities. These challenges include the absence of clear laws and policies regulating the use of social media for health practices and awareness in Nigeria, insufficient electricity supply, poor network connectivity, and the high cost of purchasing data. Other hindrances involve concerns about disclosing patient health history on social media, potential repercussions of information shared by health practitioners, and time constraints for engaging with people on social media to share health tips (refer to Table 2 above). A parallel discovery was made in Folaranmi et al.'s (2022) study, revealing constraints in the use of social media

for pathology practice in Nigeria, such as issues related to patient privacy, inadequate power supply for charging social media-enabled devices, and challenges with network and expensive internet services.

Conclusion:

This research focused on examining the use of social media for health practices and awareness within the healthcare community in Kuje Area Council, Abuja, Nigeria. Based on the study's findings, the study concludes that health practitioners regularly use social media to educate the public on health matters and enhance their own knowledge. Lastly, healthcare professionals' adoption of social media for health awareness and practice faces various constraints. These challenges include the absence of clear laws and policies governing the use of social media for health practices and awareness in Nigeria, insufficient electricity supply, high data costs, and poor network connectivity.

Recommendations:

1. Enhancing infrastructure, including electricity and network connectivity, is crucial for the successful implementation of social media for health activities in the nation.
2. Health professionals should consistently validate health information shared on social media before reposting or referencing such content, ensuring accuracy and reliability.
3. Collaboration between government bodies, healthcare institutions, and social media platforms is essential to develop guidelines and protocols for responsible and effective use of social media in the healthcare sector.

References

Aichner, T. & Jacob, F. (2015). Measuring the degree of corporate social media use. *International Journal of Market Research*, 57, 257-276.

Almaiman S, Bahkali S, Al FA, Bamuhair S, Househ M, Alsurimi K. (2015). The prevalence of using social media among healthcare professionals in Saudi Arabia: A pilot study. *Stud Health Technol Inform*, 213:263-266.

Alsobayel, H. (2016). Use of social media for professional development by health care professionals: A cross-sectional web-based survey. *JMIR Medical Education*, 2(2):e15 doi:10.2196/mededu.6232.

Bahkali, S., Almaiman, S., Bahkali, A., Almaiman, S., Househ, M. & Alsurimi, K. (2015). The role of social media in promoting women's health education in Saudi Arabia. *Stud Health Technol Inf*, 213, 259–62.

Bercovici, J. (2010). Who coined social media? Web pioneers compete for credit. *Forbes*. <http://forbes.com/sites/jeffbercovici/2010/12/09/who-coinedsocial-media-web-pioneers-compete-for-credit/2/>

Carroll, C. L., Bruno, K., & von Tschudi, M. (2016). Social media and free open access medical education: the future of medical and nursing education? *Am J Crit Care*, 25(1), 93–96.

Chretien, K. C., Azar, J., & Kind, T. (2011). Physicians on twitter. *JAMA - Journal of the American Medical Association*. <https://doi.org/10.1001/jama.2011.68>

Chung, A. E., Skinner, A. C., Hasty, S. E. & Perrin, E. M. (2017). Tweeting to health: a Novel mHealth intervention using fitbits and twitter to foster healthy lifestyles. *Clin Pediatr (Phila)*, 56(1), 26–32.

Digital Nigeria (2023). *The state of digital in Nigeria in 2023*.

<https://dataeportal.com/reports/digital-2023-nigeria>.

Digital 2024 (2024). The state of digital in Canada in 2024.

<https://datareportal.com/reports/digital-2024-canada>

Elkheir, D. Y. M., Boumarah, D. N., Bukhamseen, F. M., Masoudi, J. H. & Boubshait, L. A. (2021). The Saudi experience of health-related social media use: A scoping review.

Saudi Journal of Health Systems Research, 1, 81-92.

Folaranmi, O. O., Ibiyeye, K. M., Odetunde, A. O. & Kerr, D. A. (2022). The influence of social media in promoting knowledge acquisition and pathology excellence in Nigeria.

Frontiers. <https://www.frontiersin.org/articles/10.3389/fmed.2022.906950>.

Ghahramani, M., Foy, A., Mandrola, J., Ruzieh, M., Smith A. & Peterson, B. (2019). Increased use of social media for education among young professionals in cardiology: Results of a survey of cardiologists and cardiology fellows in the American College of Cardiology. *Journal of the American College of Cardiology*, 73(9).

<https://www.jacc.org/doi/10.1016/S0735-1097%2819%2933632-0>

Hart, M., Stetten, N., Islam, S. & Pizarro, K. (2017). Twitter and public health (part 2): qualitative analysis of how individual health professionals outside organizations use micro blogging to promote and disseminate health-related information. *JMIR Public Health Surveill*, 3(4):e54.

Huang, K. (2022, September 17). For Gen-z, Tiktok is the new search engine. *New York Times*. <https://www.nytimes.com/2022/09/16/technology/gen-z-tiktok-serach-engine.html>

Ikpi, N. E., Undelikwo, V. A. & Ubi, L. O. (2022). Social media use for patient care: An evaluation of health practitioners in Cross River State, Nigeria. *International Journal of Public Health Science (IJPHS)*, 11(4), 1249-1256.

Jalali, A. & Wood, T. J. (2013). Tweeting during conferences: education or just another distraction? *Med Educ.*, 47(11), 1119–1145.

Jalali, A., Sherbino. J., Frank, F. & Sutherland, S. (2015). Social media and medical education: exploring the potential of Twitter as a learning tool. *Int Rev Psychiatry*, 27(2):140–146.

Kubheka, B. (2017). Use of social media by health professionals in South Africa. *SAMJ*, 107 (9), <https://www.researchgate.net>

Lemmetty, K. (2023). *Social media trends in Germany 2023*.
<https://www.gaasly.com/blog/social-media-trends-in-germany/>

Mahmoud, E. E. & Husein, K. E. (2022). Impact of social media on undergraduate orthopaedics and traumatology education in Sudan. *J. Med. Educ.*, 21(1):e121870.
<https://doi.org/10.5812/jme-121870>.

Majali, T., Alsoud, M., Omar, A. & Alhassan, I. (2021). “Social media use as health awareness tool: a study among healthcare practitioners”. *Multicultural Education*, 7(2),https://www.researchgate.net/publication/350400494_Social_Media_Use_as_Health_Awareness_Tool_A_Study_among_Healthcare_Practitioners?enrichId=rgreq0b5a3a7cbc09fe25017e89beffa17735XXX&enrichSource=Y292ZXJQYWdlOzM1MDQwMDQ5NDtBUzoxMDA1NTU4NjAxNjI1NjA1QDE2MTY3NTUyNjE2MDI%3D&el=1_x_2&_esc=publicationCoverPdf

Meeker, M. (2016). *Internet trends*. Code conference 2016.

Mohammed, W., Alanzi, T., Alanezi, F., Alhadaib, H & AlShammari, M. (2021). Usage of social media for health awareness purposes among health educators and students in Saudi Arabia. *Informatics in Medicine Unlocked*, 23, <http://www.elsevier.com/locate/ imu>

Olaoye G. T., Enyindah, S. C., & Asemah, E. S. (2022). Influence of Politics Today on Channels Television on Public Opinion about Politics in Benin, Edo State, Nigeria. In E. S. Asemah, D. O. Ekhareaf & T. Santas (Ed.), *Thoughts on Political Communication in Nigeria*. (pp. 296-309). GO University Press.

OSGA, (2022). *Social media in China – 2023 stats and platforms trends*.
<https://oosga.com/social-media/chn/>

Pelchen, L. (2024). *Internet usage statistics in 2024*.<https://www.forbes.com/home-improvement/internet/internet-statistics>

Pew Research Centre, (2022). News platform fact sheet.
<https://www.pewresearch.org/journalism/fact-sheet/news-platform-from-fact-sheet/>

Social WA (2018). *Global digital report*.<https://wearesocialcomblog/2018/01/global-digital-report-2018>

South African Population, (2023). Social media users South Africa 2023: Trends and stats.
<https://www.csa.co.za/social-media-users-south-africa-2022>

Statista (2023). *Social media in Russia – statistics and facts*.
<https://www.statista.com/topics/6281/social-media-in-russia/topicOverview>

Sutherland, S. & Jalali, A. (2017). Social media as an open-learning resource in medical education: Current perspectives. *Advances in Medical Education and Practice*, 8, 369-375.

Xu, S., Markson, C., Costello, K., Xing, C., Demissie, K. & Llanos, A. (2016). Leveraging social media to promote public health knowledge: example of cancer awareness via Twitter. *JMIR Public Health Surveill*, 28(1):e1. 2.