

Chapter Two

Personalized healthcare in Africa through social media

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Abstract

Social media is rapidly changing the nature of healthcare systems' interaction. As more and more people worldwide go online to search for health-related information, it also provides them with appropriate information that would assist them in saving lives. With social media technologies at their disposal, the healthcare system would be able to provide valuable peer, social and emotional support to the public and patients at large. Patients and the public can easily exchange their experiences through chatrooms, instant messaging, or even remote consultations with qualified medical personnel. There are a variety of benefits and limitations to social media usage within the healthcare system. Compared to traditional communication methods, a perceived benefit is the accessibility and enhanced access to health information for various population groups, regardless of age, education, race/ethnicity, locality, and location. However, social media also present potential risks to patients with regard to the distribution of poor-quality information, breaches of patient privacy, violation of personal-professional boundaries, and many more. Social media brings a new dimension to health care, offering a platform used by the public, patients, and health professionals to communicate about health issues and to potentially improve health outcomes. This chapter investigated the role of social media in administering personalized healthcare services in Africa. The study adopted a Narrative Literature Review (NLR) research methodology. It found that although there are benefits of using social media for health communication, the information needs to be monitored for validity and reliability, and confidentiality and privacy must be maintained. This chapter concluded that healthcare can be personalized through social media platforms while explaining how.

Keywords: Africa, Health, Healthcare, Patient, Personalized healthcare, Social media

Introduction

Advances in Information and Communications Technologies (ICT) have further improved the capacity of medical sciences in general, and healthcare in particular. ICT continues to redefine the landscape of social media in promoting healthcare accessibility which encourages what is now known as personalized healthcare. Personalized healthcare is a situation where social media users have the opportunity to consult for medical matters at any time, without locational barriers. It underscores the pros and cons of social media usage for accelerating health to all and sundry in Africa, while noting areas where it constitutes challenges and working towards proffering solutions as a way forward.

Today, more medical personnels like clinicians and patients around the globe consult social media to understand and access information about specific ailments. Personalized healthcare now leverages a person's medical history, diagnostic testing, and circumstances. What is more, people continue to gather information about genetics or tailor medical treatment and other preventative care efforts through various social media platforms. Personalized healthcare in Africa through social media is seeing a boom because of smartphone and WiFi Internet penetration. For those in the medical field, personalized healthcare constitutes a substantial advancement in how patients across various medicinal fields set up parameters for health management and improvements. Personalized healthcare on social media promotes patient education, which is faster and more efficient (PayrHealth, 2022). Personalized healthcare in Africa through social media can be regarded as a welcome development in the discipline and present a bright future as a result of a high rate of Internet growth on the African continent. Thus, this chapter uses NLR methodology to explore the role of social media in administering personalized healthcare services in Africa.

Problem statement

This chapter is predicated on the proliferation of social media networks across the world as tools for facilitating healthcare services in Africa. While these healthcare approaches seem efficient and effective in the West, they appear novel in the global south. This is because of limited access to electricity, the Internet, and other social media handles. Power outages and the cost of data constitute a huge gap despite social disruptions in Africa. The obsession with apprehensions about the negative use of social media has further reduced the capacity of people to see them as beneficial to humanity. This notwithstanding, the enthusiasm for medical personnel and patients in employing social media for various reasons seems not to abate.

According to Owoyemi, Owoyemi, Osiyemi and Boyd (2020), confronting the above challenges involve the use of digital technologies such as artificial intelligence (AI). While Olusanya, Ammar, Davis, Bednarczyk and Shaban-Nejad (2021) believed that personalized digital healthcare services will promote access to healthcare in the case of Human papillomavirus (HPV) and many others. As such, this study investigates the potential that social media presents for personalized healthcare services in Africa.

The rationale of this chapter

The chapter aspires to investigate the place of social media technologies in the healthcare system in Africa, more especially in promoting personalized healthcare services. Notwithstanding apprehensions about social media, it leverages on the gains of social media to argue that they remain huge assets that increase valuable peer, social and emotional support to the public and patients at large. More importantly, the chapter hopes to see how patients and the public can easily exchange their experiences through chatrooms, instant messaging, or even remote consultations with qualified medical personnel in the overall interest of an improved healthcare system in Sub-Saharan Africa.

Research method, objectives/questions

There are different kinds of research methods used in conducting scientific research: qualitative, quantitative, mixed methods, systematic literature review (SLR), narrative literature review (NLR), and many more. However, this chapter employs the Narrative Literature Review (NLR) which collates and analyses data on the subject matter with the view of discovering the gaps in literature towards proffering valuable suggestions, that would engender the use of social media in improving healthcare in Africa.

According to Green, Johnson and Adams (2006) and Ferrari (2015), NLR is a non-systematic research methodology process, that provides a summary of a piece of information from different articles and presents them in a readable format for decision-making. The NLR uses keywords like personalized healthcare in Africa, social media healthcare, healthcare in Africa, the healthcare system in Africa, and a few others. This chapter aims to explore the role of social media in administering personalized healthcare services in Africa through the following research questions:

1. What factors affect the adoption of social media in providing personalized healthcare services in Africa?
2. How is social media used in promoting personalized healthcare in Africa?
3. What are the challenges and remedies in using social media in providing personalized healthcare in Africa?

Literature review

Healthcare system in Africa

Providing basic and advanced healthcare systems remains a challenge for many countries and across continents, and Africa is not exempted. The African continent faces growing social, economic, political, and healthcare inequalities. The growth comes with challenges that have shown Africa's weak healthcare system. Zekeng (2016) pointed out that the African healthcare system and the rest of the world face a growing challenge. The healthcare system in Africa continues to experience some changes in recent years toward addressing the growing healthcare challenges. Also, patients spend a long time in the healthcare center for appointments and consultations, which leads to aggravated health situations, patients dying and other sad

situations. Some changes have been implemented to confront the healthcare system challenges, which involves integrating technology and the improvement of physical infrastructures.

According to World Health Organisation (WHO), the healthcare system requires people and activities (actions) to deliver advanced health services (Mazibuko-Makena, 2021). The challenges confronting the healthcare system in Africa can be attributed to financial issues as a result of underfunding and neglect (Oleribe, Momoh, Uzochukwu, Mbofana, Adebisi, Barbera & Taylor-Robinson, 2019). These challenges continue to undermine the development and implementation of healthcare policies and transformation in Africa. However, achieving quality and advanced healthcare service remains a challenging task because of issues like funding, management, staffing, and infrastructure. The challenges directly affect patients because they spend a long time at healthcare centers which can lead to patients missing their appointments and many more (Mazibuko-Makena, 2021). Mitigating the healthcare challenges in Africa calls for the application of different majors that include technology devices and social media platforms. Through social media, personalized healthcare is provided by healthcare practitioners, centers, hospitals, and organizations to patients. Social media is commonly used in Africa across age, educational level, social and economic status.

Social media healthcare in Africa

Social media provides a platform for healthcare information and services to be shared with patients, health staff, and organizations. Social media has become a personal tool for information sharing across Africa and beyond, connecting billions of people to various activities, including healthcare. Regional and national government health agencies and departments (ministries) continue to adopt social media to provide healthcare services. The global adoption of social media in the health sector is growing (Moorhead, Hazlett, Harrison, Carroll, Irwin & Hoving, 2013). Twitter and Facebook have become popular social media platforms used by healthcare practitioners and students (Grobler & Dhai, 2016). The platforms have become an avenue for healthcare seekers to source healthcare services. Healthcare organizations and providers in Africa have adopted social media to render healthcare services to patients (Kituyi, Langmia, Moya, Tsuma & Mbarika, 2014). The services range from the posting of healthcare information to campaigns, job opportunities, consultation, and many more. The platforms empower people to always share healthcare information. Social media promotes healthcare services in South Africa (Mwaura et al., 2020).

The wider use of social media in promoting and providing healthcare needs and services is no longer a national issue but continental; for example, during the COVID-19 pandemic, health organizations and individuals in Africa depend largely on social media platforms to promote and provide healthcare services. Prasad (2013) found that social media can provide patient support, compliance with medication, consultation, medical education, enhance doctor-patient interaction and relationship, borderless medical services, and others.

The platforms can be used to promote and motivate patients to engage in medical programs and activities. Medical fundraising can be done on platforms, and clinical experiences, opportunities, and challenges can be shared with peers on social media (Prasad, 2013). However, using social media in providing medical services is difficult for patient confidentiality because exposing patients in public can constitute a breach of medical ethics (confidentiality) (Noakes, 2017). The author further noted that patients would not consult on Twitter because of issues. The issues can be attributed to the lack of policy to assist healthcare personnel in adopting social media (Kituyi et al., 2014). Nonetheless, personalized healthcare service through social media platforms is possible because many citizens (netizens) in Africa have adopted social media platforms as part of their daily lives. The platforms can provide consult-as-you-go medical services for patients. Patients can interact with their medical doctors (physicians) at any time without border or physical limitations.

Personalized healthcare in Africa: A qualitative analysis

From South Sudan to Morocco, Nigeria to Burkina Faso, and all over the continent, healthier recoveries are now associated with improved attention due to the advent of social media. The proliferation of medical data and individual patient discovery is seen as longer-lasting results of optimized healthcare systems. The concept of personalized healthcare means different things to different people. This section shall highlight what personalized healthcare means for patients and providers in Africa.

What personalized healthcare means for patients in Africa

Personalized healthcare means different things to different people. This implies that what it means to patients might be different from how providers conceive it. Leaning on recent studies (PayrHealth, 2022), the researchers highlighted the main issues regarding the patient's perspectives when it comes to personalized healthcare:

- **More confidence:** More than ever, personalized healthcare is increasing the confidence of patients in how clinicians treat them. In an unprecedented manner, extensive medical and Deoxyribonucleic Acid (DNA) data are now collected across various patients. Personal diagnostics and sequencing assists in reducing stress in patients. It also minimizes discomfort that would have been accompanied by a series of physical tests and randomized trials in the name of treatment. In the end, it helps those who are sick to have confidence in the overall healthcare plan. Then, through social media, medical personnel can engage with their patients on the platforms in offering medical consultations and treatments.
- **Better treatment:** Personalized healthcare enables patients to receive monitored supplementary care. Specific dietary consultation, physical therapy, and support groups are part of the whole package namely, primary treatment plans. The process makes patients benefit from these services even as it helps doctors and nurses arrive at deeper insights into treating their patients successfully with improved methods. Better treatment is being accelerated on social media platforms as it improved quick access to medical services.
- **Increased patient engagement:** Preventative care rather than curative care is now trending in medical sciences. In line with international best practices, clinicians use

preventive care to address various health concerns thus satisfying the yearnings of their patients. Here, predispositions are kept at bay so as not to become conditions that would graduate into something worse. Improved tracking technologies such as biometric data, and monitoring of blood sugar results over time for diabetic patients, to keep them abreast with their health conditions are now trending. This is made possible in medical centers in Africa because easier management helps patients to know what is happening to their bodies and how to regulate what they eat. Patients and the public can easily exchange their experiences through chatrooms, instant messaging, or even remote consultations with qualified medical personnel. In all, proactive management helps keep a doctor-patient relationship which is better managed through social media platforms.

- **Reduction in costs:** Patients are now able to see the benefit of spending less through preventative and proactive health management, than spending huge money on treatment. The application of social media in the healthcare process, helps in cutting the spending which results from movement from one place to another, because medical personnel and patients can move from any place, at any time. For instance, with a clear insurance policy in place as in the United States of America and the United Kingdom, most African nations are beginning to encourage their citizens, especially workers to prioritize National Healthcare Insurance Schemes. Healthy citizens may need corrective procedures. It may be later in life that they might receive treatments for chronic diseases which would invariably decrease their bills over time. Where data, tracking, and personalization are rife, patients can enjoy improved healthcare with better and cheaper insurance (PayrHealth, 2022).

What personalized healthcare means for providers on the continent

All the role players view personalized healthcare differently, but the section highlighted the perception of personalized healthcare to health providers.

- **Increased access to patient data:** In the field of medical sciences, doctors of other paramedics can generate data from different patients and analyze same. This enables them to get more insight in the decisions they take when consulting. As such, for healthcare providers, personalized healthcare means more access to patient data, and greater analysis and results. Then, medical caregivers can share patients' information and data using social media which increases access to patient data and medical services.
- **Quicker patient-recoveries:** Doctors and caregivers now target open treatment schedules for sophisticated technologies with Magnetic Resonance Imaging (MRI) machines involving specialists. This is possible because providers reduce the time they consume in treating their patients through trial-and-error by assisting them to recover fast just as they can utilize their bandwidth, time, and resources. For instance, instead of spending the whole-time seeing patients physically one after the other, a doctor might just decide to see a Patient A, while allowing Patient B to access care faster. In this digital age, social media patients users can connect with other patients with a similar illness which assist in quick patient recovery.

- **Greater care-offerings/partnerships:** Most providers now increase their staff and offer additional health services. This is because they identify the best treatment options and are open to offering supplementary healthcare opportunities. This way, they can develop mutual and beneficial collaboration with other partners in complementary medical fields. The collaboration can be facilitated through the application of social media platforms. Currently, medical personnels in Africa and beyond depend on social media in deepening partnerships with each other. In the end, the partnership leads to growth in access to personalized healthcare services.
- **More fulfillment:** Personalized healthcare and its concomitant ingredient of precision care makes patients happier and, in the end, healthier. It has the potential of giving clinicians opportunities to assist a greater number of people. Patients who have positive feedbacks to give would often advocate for a specific provider because they felt cared for. Indeed, personalized care offers more opportunities for providers to value their careers while getting value for their service's revenue (PayrHealth, 2022). Through social media, healthcare personnel can be happy in carrying out their routine tasks.

Answers to the research questions

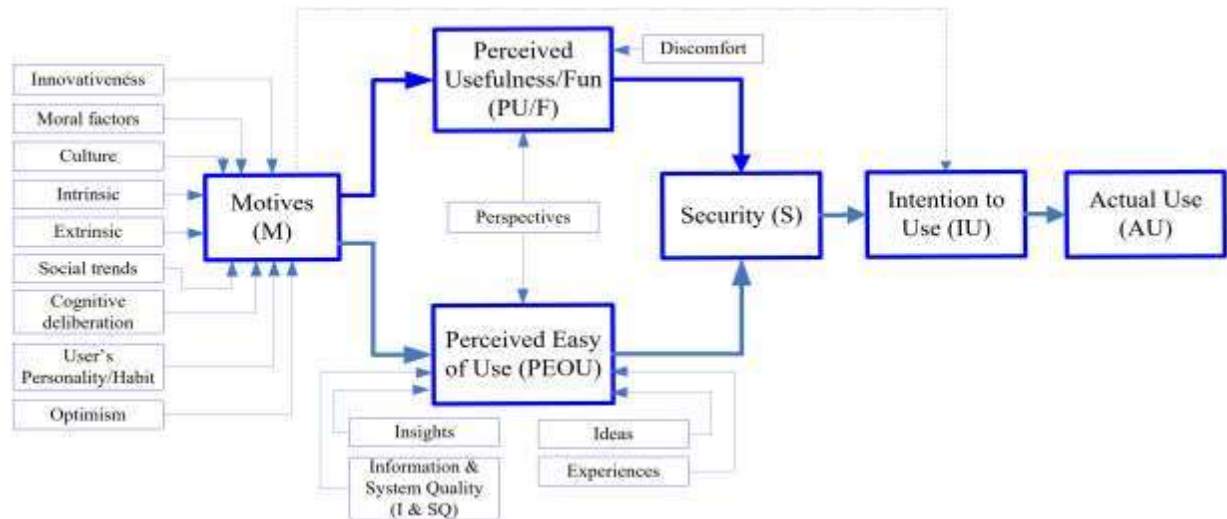
Personalized healthcare service through social media in Africa is possible as a result of the high rate of social media penetration in the African continent. The following are to be discussed for a better understanding of the possibility of offering personalized healthcare in Africa. This section of the chapter presents comprehensive answers to the proposed research questions guiding this chapter.

The factors affecting the adoption of social media in providing personalized healthcare services in Africa

There are a number of factors that impact the application of social media for personalized healthcare in Africa. According to Huo, Zhang and Ma (2018), among the factors that influence the adoption of social media in providing personalized healthcare services is health knowledge. Mwaura, Carter and Kubheka (2020) added that “developing personal skills”, developing public health policy and many others improves the adoption of social media in providing personalized healthcare. While Manyazewal, Woldeamanuel, Blumberg, Fekadu and Marconi (2021) understood that social, financial, or geographic factors affect medical health (mHealth) adoption. The above literatures and many more, shows various factors that inform the adoption of technology for social, personal, educational, and other usages. Through this, researchers depend on the existing framework (theoretical framework) to determine factors that inform the adoption of technology for social and sectorial use. Research writing is reinforced by applying an existing framework called the theoretical framework. Adopting a theoretical framework makes it possible for the current research idea to be built on existing and tested knowledge informed through the theoretical framework. This book chapter adopted a conceptual, social media banking (SMB) framework (Chukwuere & Ohei, 2019). A social media banking (SMB) framework is used to understand how social media can be used to provide personalized healthcare services. The SMB framework components provide factors that influence the users,

healthcare workers, and organizations' adoption of social media in providing personalized healthcare services. Through the SMB framework, the researchers determine “the factors that affect the adoption of social media in providing personalized healthcare services in Africa.”

Figure 2. 1: Social media banking (SMB) framework, adopted from Chukwuere and Ohei (2019)



The adoption of social media by patients, healthcare workers, and organization for personalized healthcare services are influenced by several factors, as proposed by Chukwuere and Ohei (2019):

- **Motives** – Anyone who wishes to use social media platforms must be motivated and have motives. According to Chukwuere and Ohei (2019), *motives* are an element that defines users' intentions and actions in acceptance or rejection of any given technology (social media for personalized healthcare platforms). Motives propel Africans to determine whether to accept or reject social media platforms, to access personalized healthcare services or not. Motives are influenced by *innovativeness* (the design, structure, and features of social media); *moral factors* (right and wrong principle); *culture* (personal background, environment, and tradition); *intrinsic and extrinsic* (inner and external factors like perceived benefits and design respectively); *social trends* (news and information around); *cognitive deliberation* (available information); *users personality/habit* (personal attributes that distinguishes one from another); and *optimism* (confident views and perceptions). All these subconstructs are different factors that define personal motives towards the adoption of social media platforms in accessing personalized healthcare services in Africa, to the general public and healthcare workers.
- **Perceived usefulness/fun (PU/F)** – The perceived usefulness or fun defines users' acceptance of social media for accessing personalized healthcare services from physicians or any healthcare worker. The perception is defined by *discomfort*, which deals with the unpleasant feeling about technology, in this case, social media adoption for personal healthcare service platforms.
- **Perceived ease of use (PEOU)** – The perception of users' ease to use social media will undoubtedly define their perception to adopt the platforms. This factor is defined by insights (clear view about the use of social media as a healthcare service provider);

perspective (defines users' view about the platforms); *ideas* (what users think about the platforms as a healthcare service providers); *experience* (previous insights and ideas about the platform in delivering healthcare services); and *information and system quality (I&SQ)* (the kind of healthcare information and service produced by the platforms).

- **Security** – Security stands as a big determinant factor in adopting modern technology. The security of social media platforms determines if patients (users), healthcare workers, and organizations will adopt social media as a healthcare delivery platform in Africa. Advanced and convincing security measures addressing the protection of the patient's (users) details will make them adopt social media platforms, to deliver personalized healthcare services on those platforms.
- **Intention to use (IU)** – This factor covers the ability of the users to adopt and use technology. The ability of patients, healthcare workers, and organizations to use social media in delivering healthcare services depends on their positive intention, which is influenced by other factors.
- **Actual use (AU)** – This factor shows the usage and adoption of social media to serve as a personalized healthcare platform. In a backward movement, the actual usage of social media as a personalized healthcare platform is influenced by other factors in the framework. Patients (users), healthcare workers, and organizations might use social media to access healthcare information, consultation, appointment, and other services when other factors are in place.

Role of social media platforms in promoting personalized healthcare in Africa

Exchange of information

In a world where people resort to social media to browse for information, especially that which relates to healthcare, experts have alluded to the fact that new media is a huge resource in the field of medical sciences. It is crucial to note that social media platforms are increasingly becoming a catalyst for promoting personalized healthcare, especially in Africa. For instance, in the article *Fighting Childhood Cancers through Digital Communication*, Dyikuk (2017a: 46) maintained that “In fighting child cancers, the exchange of information between kids suffering from the disease and their parents or doctors can become a true communication, develop into full-blown friendships and facilitate real communion.” The exchange of information promotes personalized healthcare services.

Career enhancement, fostering medical research

Clinicians now leverage the benefits of communication to manage their professional responsibilities (Phillips, Lewis, Bruce, 2013; Dyikuk, 2017a). Scholars have argued that digital media plays a critical role in providing information, education, mobilization, and indeed funding for medical or health research (Galadima & Goshit, 2013; Dyikuk, 2017b). For example, both medics and paramedics look to social media as a tool for career enhancement and fostering medical research as they surf the internet for relevant information on the latest innovations in learned journals which are shared on various social media platforms like Facebook, Twitter, Instagram to mention just a few. Through Skype, Zoom, Team and

WhatsApp doctors in Africa can connect with their counterparts in other parts of the world. Also, during the COVID-19 pandemic, in Africa, both the old and young relied mostly on social media to access information on how to observe the protocols. It was also a resource for getting personal information towards mitigating the pandemic (Mwaura et al, 2020).

Borderless connectivity

Access to healthcare services is a personal endeavor and sometimes community base. But the coronavirus disease (COVID-19) positioned social media as a personal health gadget because of its effort to assist millions and billions around the globe to share and connect with health personnel and organizations in understanding the pandemic and its protocols. Preventing and controlling health crises involves promoting effective tools and creating a digital environment that engineers personalized health availability and usage in the social media age. Social media have the potential to promote personalized healthcare because of its availability, low cost, wider spread (coverage), accessibility, and borderless connectivity (Mwaura, Carter & Kubheka, 2020). Social media access improves health education and other health-related information (Fayoyin, 2016).

Medical consultation, scholar collaboration, knowledge transfer

Dyikuk (2017a) argues that social media platforms such as Facebook, Twitter, Pinterest, Snapchat, and Skype provide leverage for medical sciences. Social media provide users across the continent of Africa the ability to communicate in real-time, in delivering credible, as well as untruthful information into the public domain. For example, social media promotes effective health access in South Africa (Mwaura et al., 2020). While Gani, Evans, Harryparsad and Sykes (2017), suggests that social media promotes collaboration among colleagues and the transfer of knowledge and skills among personnel and patients. In delivering content to the users, social media platforms break access to social, economic, and political information by simplifying easy access to information.

According to Mwaura et al. (2020), social media ensures access to healthcare information in breaking the digital divide and data cost. The COVID-19 pandemic challenged and exposed the world health system affecting different sectors of human and social lives. The COVID-19 pandemic made social media a panacea for sharing and distributing health information to the national and global populace in creating awareness and sensitizing all. Across the African continent, social media became the engine room for the younger and old to engage and share COVID-19 pandemic information and awareness in mobilizing the populace, and in observing the protocols. Many in Africa were able to depend on social media for personal information and consultation towards mitigating and managing the COVID-19 pandemic.

Meeting global health needs

According to Al-Dmour, Salman, Abuhashesh and Al-Dmour (2020), social media is used by healthcare organizations like the World Health Organisation (WHO) and continental health bodies to influence healthcare information, knowledge, perception, attitude, behavior, belief,

and outcomes of health information and needs of the populace. The platform is no longer used for entertainment for many, but it is used to access their doctors and healthcare personnel, and facilities. The question many will be asking is: does social media provide access to personalized healthcare needs in Africa? The answer is yes because users can be able to have virtual one-on-one consultations, access quality health information from reliable and reputable sources, verify infodemics, and many others. However, healthcare system providers and authorities in Africa need to understand the abilities, benefits, and opportunities of social media to assist in quick access to health information. Currently, many depend on social media for news and contents (Chukwuere, 2022).

Challenges and remedies for employing social media in personalized healthcare in Africa

Growing uncertainties

Globally, the healthcare system is facing huge pressure due to growing uncertainties such as the growing .aging population, diseases (epidemic and pandemic), expensive medical treatment, technologies, population growth, and shortage of workforce (Mazibuko-Makena, 2021). The African continent is not exempted from global healthcare challenges. According to Oleribe et al. (2019), the African continent has suffered from human-made issues such as political, financial, climate, human resources, infrastructure, healthcare, and technical development for years now. Africa as a continent faces many socio-economic challenges that continue to promote social, economic, health, and technological divides. The challenges affect the development, implementation, and usage of social media for personal health services both for providers and users.

Basic infrastructure challenge

The challenges range from lack of access to basic infrastructure, poverty, lack of employment opportunities (high unemployment rate), lack of access to Internet facilities, high cost of data, and the list continues. Mazibuko-Makena (2021) found that healthcare system challenges involve the non-existence or functional technology, limited resources, supply chain issues, pharmaceutical problems, shortage of medicine, inexperience and unavailable health workers, and lack of access to quality and advanced healthcare services and funding. A study by Azevedo (2017) shows that the healthcare system is challenged by corruption at health centers (hospitals), empowerment, and citizens' participation in the decision-making process. However, some countries like Nigeria, Kenya, Ethiopia, Ghana, Rwanda, and others have implemented strategies to address the funding issues in their healthcare system (Oleribe et al., 2019). Though, the strategies face some hindrance and obstacles in developing, and implementing a quality health system for the citizens.

Data access and cost

Many technological ideas and inventions have emerged to address pressing healthcare challenges; such remedies are through social media platforms to provide and promote quick access to quality and affordable healthcare services. Social media is facing challenges even in the healthcare sector (Mwaura et al., 2020). According to Mazibuko-Makena (2021), ground-

breaking technological inventions are gearing up to provide sustainable solutions to healthcare challenges. The African health system uses modern technological artifacts to solve continental healthcare challenges (Fayoyin, 2016). Individuals using social media for personalized healthcare, and service purposes are confronted with access to data and the cost. Across the African continent, data access and cost remain a big challenge because of social and economic issues that many are confronted with.

Personal security and privacy issues

Again, patients are concerned about their personal information, security and privacy issues. According to Moorhead (2013), many studies highlight the concern for the security and privacy of users' information over social media. At the same time, Ndubuaku and Okerefor (2015) believed that technology adoption in Africa is hampered by poverty, illiteracy, electricity supply, Internet capacity, and many more. Despite these challenges, millions in Africa depend on social media daily for their health, education, entertainment, political, economic, business information and news.

Notable findings

- The study found that in Africa, obsession with apprehensions about the negative use of social media has further reduced the capacity of people to see them as beneficial to humanity.
- It made the point that social media increases valuable peer, social and emotional support to the public and patients at large.
- The chapter demonstrated that both patients and the public are able to easily exchange their experiences through chatrooms, instant messaging, or even remote consultations with qualified medical personnels in the overall interest of an improved healthcare system in Africa through social media.
- The obsession with apprehensions about the negative use of social media has further reduced the capacity of people to see them as beneficial to humanity.
- Although personalized healthcare means different things to different people, when leveraged on social media platforms, it leads to better healthcare services in Africa.

Recommendations

- Clinicians and researchers in the industry should maximize the potential attached to social media platforms in advancing healthcare services in the African continent.
- Media experts ought to indicate a genuine interest in promoting how social media can be used in promoting personal healthcare in Africa.
- Governments across the continent should mitigate the highlighted challenges associated with adopting social media for personalized healthcare services such as power outages, expensive data, and ensuring cyber security through improving infrastructure.
- Africans should take advantage of social media to improve their personal and general well-being.

- There is a need for more quantitative study on how social media platform aids personalized healthcare services in Africa.

Implications of the chapter

Social media makes healthcare communication and interaction easy, it also promotes and provide personalized healthcare for African citizens. Personalized healthcare through social media is a laudable call in making access to healthcare services easy and achievable. Many African populations are active in social media, making personalized healthcare social media realizable in the digital age. This book chapter provides a leading way to increase awareness and promote personalized healthcare services through social media platforms for the citizens of Africa. Through this chapter, African citizens understood the:

- Benefits attached to social media platforms in providing personalized healthcare services.
- Simplified potential attached to social media platforms in advancing healthcare services in the African continent.
- Ways by which social media can be used to promote personal healthcare in Africa.
- Highlighted challenges in adopting social media for personalized healthcare services.
- Remedies for using social media in providing personalized healthcare in Africa.

The implication of this chapter is to provide an in-depth understanding for users, health workers, and organizations of the ways social media platforms can be used in promoting and advancing access to healthcare services for Africans.

Conclusion

We saw that in Africa, patients spend a long time in healthcare centers for appointments and consultations. In the end, patients die without accessing basic healthcare. The advent of digital technology is now offering various options for the sick to get both medical advice or consult medics and paramedics of their choice. These changes in social media penetration and disruptions have involved integrating technology and improving physical infrastructure. The days of trial-and-error are fast fading as more efficient and effective methods are seen and read in the news about medical innovations in the West where social media is used maximally. The SMB framework components which provide factors that influence the users, healthcare workers, and organizations' adoption of social media in providing personalized healthcare services fit into the study. This is because, the framework, has indeed determined the aforementioned factors which affect the adoption of social media by both clinicians and patients in personalized healthcare services in Africa.

To this end, Africa must come out of its experimentation with social media and work towards a social media-savvy global south. For this to be done, there must be access to electricity, the Internet, and other social media handles. This means that various governments must work round the clock to put an end to power outages and make the cost of data affordable for the citizenry. With personalized healthcare at our doorsteps, social disruptions across Africa can knock down an erstwhile obsession with misgivings about the negative use of social media.

This would mean that both the young and the world would view social media handles with enthusiasm even as medical personnel and patients employ the same for their overall well-being and that of the continent.

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