

**UTILIZATION OF SOCIAL MEDIA IN WORK-RELATED ACTIVITIES
AMONG HEALTHCARE PROVIDERS AT NATIONAL SPINAL INJURY
HOSPITAL, NAIROBI**

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**A THESIS SUBMITTED TO THE SCHOOL OF MEDICINE AND HEALTH
SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE CONFEREMENT OF DEGREE OF MASTER OF SCIENCE IN NURSING
EDUCATION OF KENYA METHODIST UNIVERSITY.**

SEPTEMBER, 2024

DECLARATION

I declare that this thesis is my original work and has not been presented in any other university".

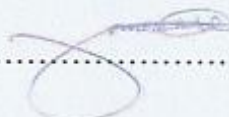
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DEDICATION

This thesis is dedicated to my family and friends for their tremendous support and words of encouragement throughout the entire process.

ACKNOWLEDGEMENT

Dr. Peter Kailemia and Dr. Moses Mulu, my supervisors, deserve special appreciation for their unwavering support thus far.

I would also like to thank all my classmates for their continuous encouragement and support.

ABSTRACT

Technology has permitted all aspects of life. Social media has been used to improve health and enhance practice. However, many professionals have not developed ways to extend professionalism in social media platforms, which has consequences for individual healthcare providers, the profession, the organization, and the patients. Globally, World Health Organization (WHO) has used various online platforms like Facebook and Twitter for the population's health improvement through healthy behaviors promotion, supporting health policies, public health surveillance, encouraging citizen participation, and increasing citizen's knowledge of public health matters and allow them to take informed decisions hence optimize health care systems. The exploration of various ways in which healthcare providers utilize digital spaces in their work-related activities at the National Spinal Injury Hospital was the reason for the survey. The study was guided by several objectives including social media patterns used and the purpose of use by healthcare providers, the benefits, and adverse impact of online space to healthcare providers, and lastly, how the organization's culture influenced how social media was used in work-related activities. Method: The design of a convergent mixed method was used. Using stratified random sampling, a sample of 109 healthcare providers used for descriptive data was collected, and data from three key informant interviews with managerial positions within the hospital was also taken. Ethical clearance was sought from the relevant authorities which included KEMU (Ethical Review Committee) ERC, NACOSTI, The Ministry of Health, and the Ethical Committee from the Hospital. The response rate was 93%. Descriptive data was analyzed statistically using a scientific package for Social Sciences version 27 arranged in graphs and tables. Qualitative data was organized, analyzed thematically, and presented in prose. According to the reports from the survey, utilization of digital spaces was notably high (86.1%). Healthcare professionals (HCPs) predominantly utilized WhatsApp (M=3.72) and YouTube (M=3.05) at work, with increased usage of one platform likely associated with increased usage of others ($P < 0.05$). They primarily employed social media platforms for knowledge sharing (M=3.61), networking with colleagues (M=3.56), and receiving professional updates (M=3.56). There was high knowledge about ethical social media use (M=4.5), technical proficiency (M=3.83), and benefits of ethical use of social media (M=4.31). Inferential statistics confidential level of significance used was 95%, there was no relationship between social demographic characteristics and the effects of using online spaces ($p > 0.05$). A strong positive correlation was observed between various social media platforms ($p = 0.502$). The Majority of social media effects were significantly and positively correlated with increased social media platforms use where ($p < 0.05$). There are occasional instances of irresponsible social media were observed. In conclusion, lack of professionalism in online platforms was mainly because of the inadequate formal policies and rules governing responsible digital platform use or even non-adherence to them. Among others, this study recommended that the hospital administration and the hospital management committee should enhance regular sensitization programs to ensure all healthcare professionals are knowledgeable about ethical social media use.

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LIST OF ABBREVIATIONS AND ACRONYMS

AHPRA: Australian Health Practitioner Regulation Agency

ANA: American Nurses Association

ICN: International council of nurses

NMC: Nursing and Midwifery Council

HCPs Health care providers

NSIRH The National Spinal Injury Referral Hospital

COVID-19 Coronavirus Disease 2019

KEMRI Kenya Medical Research Institute

NNAK National Nurses Association of Kenya

CHAPTER ONE

INTRODUCTION

1.1 Background

Technology has permitted all aspects of life. Many health professionals have embraced social media as a key communication tool. Social media is a group of applications based on the internet, allowing one to create and share content online(Yilmaz et al., 2022). Digital platforms are a general name that defines various digital spaces such as social networking sites, blogs, sharing of pictures, sharing videos, playing online social games, business networks, and virtual worlds (Aichner et al., 2021). Digital platforms therefore also mean that individuals or groups interact via the internet; they generate information by sharing ideas, pictures, and videos, among other activities in online platforms and virtual communities. (Akram, 2018). According to Voorveld (2019), with the new applications coming up often, the landscape of social media keeps changing. It was noted that in early 2019, the social media platforms that were most famous worldwide were Facebook, WhatsApp, Instagram, YouTube, Facebook Messenger, and We Chat. It was also noted that social media platforms like YouTube and Facebook have existed for more than a decade, with over 2.4 billion users in 2019.(Ortiz-Ospina & Roser, 2023).It was also observed that other larger sites are much newer. A million people were actively using My Space as an online platform by the year 2004. Having been launched in September 2016, half a billion people were using TikTok by mid-2018. There has been significant growth in the last 10 years for many social media platforms, which have survived based

on what they avail (Ortiz-Ospina & Roser, 2023). Initially, one could not upload pictures or videos on Twitter, but since 2011, half of the viewed content includes images and videos. However, Snapchat and Instagram are relatively new platforms.(Ortiz-Ospina & Roser, 2023)

The use of technology to improve communication has opened a new frontier in how we communicate with our families, friends, and colleagues (Alhadlaq, 2016). Social media has opened up the world to endless possibilities for individuals whereby people can connect; the world of business has been opened up such that one can market their product through social media, attracting potential customers to buy them and make money, and education sectors whereby knowledge has been enhanced through various social media platforms. Additionally, some platforms have significantly reduced the hindrances to communicating and connecting (Yilmaz et al., 2022).

Murphy et al. (2014) found that healthcare providers often face disciplinary action due to online professionalism violations. To address this, it was recommended that providers on social media be aware of and follow national, local, and institutional policies and guidelines. These policies include not sharing information when upset, being courteous, maintaining truth and accuracy, protecting patient privacy and confidentiality, upholding boundaries, avoiding impropriety, maintaining professional standards, and alerting colleagues about inappropriate content (Murphy et al., 2014).

Digital platforms and telecommunication technologies adventure, more health providers can connect with their patients, promoting health (Khan & Loh, 2022). Among healthcare

providers the use of online platforms has some advantages: enhanced professional network, expedited health promotion enabled e-learning, and improved communication between healthcare providers and their patients (Khan & Loh, 2022). Similarly, Yilmaz et al. (2022) other benefits include research, recruitment, career advancement, collaboration, online journal clubs, and enhanced knowledge translation. Additionally, easy accessibility and convenience in communicating patient work-related information, community support, health promotion, and continuous life-extended learning.(Wang et al., 2019) .Health institutions can use social media for surveillance, analyzing unstructured online health content to communicate to the public matters of health and public health policy, dissemination of health information and combating misinformation in regards to health issues, and health intervention by mobilizing the public and educating them on matters on health risks, diseases and how to prevent them (Chen & Wang, 2021). According to Akram (2018), patients can use social media to consult doctors online anywhere and anytime and share doctors' prescriptions with relatives and friends. However, potential privacy breaches, incorrect self-diagnosis, and self-medication can also arise.

The demerits of using social media among healthcare providers have been linked to behaviors that are not professional, like inappropriate sharing of images, and comments, violating the privacy of the patient, lack of trust, blurred professional boundaries, and poor quality of Information (Khan & Loh, 2022) and Wang et al., 2019). Other potential pitfalls in using social media by healthcare providers include being harassed on online platforms, breach of patient confidentiality, and failure to maintain professional standards on online platforms (Yilmaz et al., 2022). Litigation measures have also been taken against

individual healthcare providers and also health institutions for violating the rights of patients on online platforms (Chen & Wang, 2021)

Social media use among healthcare providers has been an area of much debate, especially on the intricacies of the justification for use in light of professional ethics that are critical in health professions(Farsi, 2021).

Healthcare providers' utilization of online spaces in patient work-related activities has been demonstrated at different levels. Globally, according to Mendoza-Herrera et al. (2020), the World Health Organization (WHO)has used various online platforms like Facebook and Twitter to improve population's health through encouraging health and healthy behaviors, support health policies, public health surveillance, encourage citizen participation and increase citizen's knowledge on public health matters and allow them to take informed decisions hence optimize health care systems. This was similar to the previous study (Chen & Wang, 2021). that social media in health care was used to meet global health needs by the World Health Organization to influence healthcare information, knowledge, perception, attitude, behavior, belief, and outcome of health information and requirements of a population.

Another survey carried out Griffin et al. (2021) and Crilly et al. (2019) in Australia among nurses and midwives online platforms in their work-related performance was approached with caution as support on the evolving nature of users to improve proficiency was required in ensuring professionalism. Another study observed that more surgeons in their professional roles use social media platforms. However, there were barriers that were

perceived, including failure to have value, inadequate time, and the concerns about client's doctor. The surgeons' attitudes suggested that using social media among surgeons in work-related activities will increase over time(Wagner et al., 2018). Literature supports the professional use of various social platforms among healthcare providers. However, guidelines, policies to improve social media benefits use and reduce harm are essential (Crilly et al., 2019; Wagner et al., 2018)

Regionally, online space use among healthcare providers has been found to have some benefits, such as improving health outcomes in health promotion. According to Chen & Wang (2021), it was reported that in health care, social media platforms were used for health purposes: disease outbreak surveillance, health campaigns, medical intervention, and also health intervention. Another study on social media use by health professionals in disseminating Information on COVID-19- 19 in Zanzibar identified positive outcomes (Khamis & Geng, 2021). Similarly, a study on social media use in professional practice in South Africa Durban highlighted that social media can effectively enhance learning opportunities and have significant implications for practice (Naidoo et al., 2018). In the broader context, especially during the coronavirus pandemic, social media was used by healthcare providers to share important communication and had an important role in mitigating the effects of the pandemic(Watat & Jonathan, 2020) This is further supported by Glasdam et al. (2022) who identified that nurses as a profession who use various online platforms to access and disseminate details about COVID 19 furthermore, digital spaces were also used to assist fellow nurses during the challenging periods of the pandemic. In another study done in Africa, Okocha et al. (2023) also reported some advantages of using

online platforms among health professionals, including career enhancement, borderless connectivity, knowledge transfer, medical consultation, and fostering medical research.

Locally in the Kenyan context, according to the National Nurses Association of Kenya (NNAK) Code of Conduct 2009, nurses must maintain professional standards in practice and all dealings with patients. Other reviewed literature has shown a scarcity of information on social media use among healthcare providers; however, some provide benefits, including facilitating mass communication, disease surveillance, knowledge translation, and collaboration among health providers(Hagg et al., 2018). Additionally, in other studies that provide benefits of social media in health promotion, a specific focus can be drawn on a survey by Zinke-Allmang et al. (2022) that identified that dissemination of information on family planning achieved greater adoption through social media platforms.

A survey done by Singh et al. (2016) about global use of social spaces among health workers has shown that social media has been associated with some harm, including poor-quality information, such as unreferenced, informal, or incomplete medical information. Legal issues have also emerged due to breaches of patients' privacy and rights and damage to professional image due to posting unprofessional content. Other observed associated risks of social media use among healthcare providers regionally and locally include misinformation or poorly communicated information that may be difficult to control in terms of message speed and weaknesses in healthcare where standards of care have not been established in online platforms, endangering patients as a result of false online information provided to them, leading to negative health behaviors and adverse health

outcomes among consumers (Singh et al., 2016). Addiction to social media sites by healthcare providers, distracting them from their work, has also been noted (Farsi, 2021)

1.2 Problem Statement

Digital platform use among healthcare providers has increased globally—however, social media benefits and harms patients, healthcare providers, and Institutions. The risks involved in social media use by healthcare providers include online harassment (Akram, 2018), inappropriate behavior on online platforms that do not align with online professionalism, such as posting photographs of drunk patients to Facebook and Instagram, violating patient's rights to privacy and confidentiality such as posting the details of patient in social media platforms without the consent of the patient, repetitive distractions in the work environment by healthcare providers leading to medical errors consequently endangering the life of a patient, deleterious effects on the career of the healthcare provider and the employer and destroy the image of the profession and the institution (Aiyer et al., 2018). Some Professional bodies, such as the American Nurses Association, the American Nursing Midwifery Council, and the Australian Health Practitioner Regulatory Agency, have issued guidelines to help nurses utilize online platforms hence optimizing benefits in service delivery while protecting themselves, their profession, and patients from the negative consequences of using social media (American Nurses Association [ANA], 2015; Australian Health Practitioner Regulation Agency [AHPRA], 2019; Nursing and Midwifery Council [NMC], 2018). The Royal College of Physicians and the Royal College of Surgeons forbid their members from violating clients' confidentiality and privacy and posting messages on all media platforms. The National

Nurses Association of Kenya Code of Conduct (2009) requires nurses to maintain professional standards in practice and all dealings with patients, including professional standards in online spaces. However, the national guidelines or policies on social media use by nurses and other healthcare providers in the Kenyan context needs further exploration. Notably, there is a gap in the way some healthcare providers use social media in their work related activities at the National Spinal Injury Referral Hospital (NSIRH) such that they fail to demonstrate professional standards in online platforms. Therefore, the National Spinal Injury Referral Hospital (NSIRH) also lacks social media use formal guidelines or policies for its HCPs in work-related activities. The national regulatory framework in Kenya or the NSIRH on social media use among healthcare providers in their professional roles remains an area that needs to be explored further, particularly in its effects on patients, healthcare providers, and Institutions. This gap in policies or guidelines on social media use by HCPs may result in harm, such as potential litigation issues, damage to the Institution's reputation, disciplinary actions, and professional image, which may diminish the benefits associated with social media use among healthcare providers. It was noted that some healthcare providers at National Spinal Injury Hospital, are actively engaging themselves in social media platforms while offering their services to the patients consequently, making errors that risk the life of the patient as a result of lack of focus in their work. Other healthcare providers while communicating with their colleagues on matters concerning the management of patient's conditions, they end up taking patient's photos without their consent which ends up in other unintended forums and this has highly pose the risk of potential litigation measures by clients or even the concerned patient. The purpose of the study, was to narrow evidence gap hence explicitly

investigating types of various online platforms and the purpose of social media use platforms and the effects on work-related activities among healthcare providers in an urban public hospital. Such evidence may help optimize the advantages of using social media among healthcare providers while minimizing its potential pitfalls.

1.3 Broad Objective

To explore social media, use and impacts on work-related activities among healthcare providers at Spinal Injury Hospital, Nairobi.

1.4 Specific Objectives

1. To establish patterns of social media, use in work-related activities among HCPs at NSIRH
2. To determine the effects of social media, use on the patient, institution, and the HCPs in work-related activities at the NSIRH.
3. To identify how organizational culture influences social media, use among HCPs' professional roles at NSIRH.

1.5 Research Questions

1. What are the patterns of social media use in work-related activities among HCPs at NSIRH?
2. How does social media use affect the HCPs in their work-related activities at the NSIRH?

3. What organizational culture is attributed to using social media in their professional roles among NSIRH HCPs?

1.6 Justification of the Study

Like all other professions with a robust social media presence, HCPs in Kenya should also exploit the advantages of using social media: acquiring, sharing information, communicating with colleagues and patients, connecting with others in the field, health promotion, career development (Farsi, 2021) while avoiding the pitfalls which may include various unethical behaviors such as improper social media posts, violation of the privacy of the patient and the clients, lack of maintaining confidentiality (Wang et al., 2019). Reviewed evidence shows gap in regulation and nature of using social media among healthcare providers in Kenya. The NSIRH calls for more studies to be done to explore this area. Kenya has no national social media use guidelines or policies for HCPs. Similarly, the National Spinal Injury Referral Hospital has no social media use guidelines for its HCPs. Therefore, highlighting social media use among HCPs in Kenya is imperative to point out any harmful usage. This study's purpose was to close that gap. The findings have made recommendations on guidelines and policies on social media use among nurses and HCPs, which will optimize the advantages in terms of utilizing digital online platforms in the health sector.

1.7 Significance of the Study

The survey has unravelled the patterns and impacts of online platforms used by healthcare providers in the Kenyan context. Its findings have made suggestions to different

stakeholders, including the National government, on policies and guidelines regulating social media use among health professionals and consequently adoption by county government county governments. By adopting these policies and guidelines, the hospital and the healthcare providers will be protected from potential litigation measures and financial implications arising from inappropriate sharing of information concerning the patient and photos, hence protecting the image of the health profession and that of the hospital. In addition, the patients will be protected from unprofessional behaviors like breaches of patient privacy and confidentiality, which may negatively harm the patient, and the healthcare managers will be able to ensure that healthcare providers adhere to set professional online standards. Adherence to policies and rules governing the use of digital spaces among healthcare providers in work-related activities will significantly reduce medical errors that occur as a result of healthcare providers' divided attention geared toward service delivery to the patient and clients. The study will also contribute to the increase in knowledge of online platforms use among healthcare providers in their work-related activities in terms of patterns of use, and the effects of social media use by healthcare providers, on the clients, the facility, and the profession at the National Spinal Injury Hospital.

1.8 Limitations of the Study

The study relied on self-reports about the respondents. Self-reports carry the risk in terms of recall and social desirability biases. Participants with negative experiences with social media use during work were hesitant to answer questions or even participate. Staff may also have avoided exposing any hidden wrongs they may have done around social media

use at work, which may affect data reliability. Participants were reassured that the anonymity was to be maintained and therefore they became more positive about participating in the study which improved the reliability of the results. Another mitigation measure was explaining to the participants that the information or the data collected in the study would inform majorly on the findings or the results which informed different stakeholders on the rules and regulation on responsible the use of digital platforms among healthcare providers in their work-related activities.

1.9 Delimitation of study

This study focused on healthcare providers at the National Spinal Injury Hospital. Data was specifically on social media patterns, effects, and organizational culture influencing social media usage.

1.10 Study assumptions

This study assumed that healthcare providers (HCPs) at NSIRH use social media. It also assumed the presence of an organizational culture at NSIRH influencing social media use among HCPs. Additionally, it assumed HCP's willingness to share their experiences and perspectives accurately.

1.11 Operational definition of terms

Social media: Various modes of communication: Facebook, Instagram, WhatsApp, YouTube, and Twitter, whereby individuals or groups interact, produce, and share ideas, videos, and pictures via the internet.

Utilization: Using social media platforms by healthcare providers related to their work activities.

Healthcare providers: Health workers who directly give clinical services to the patient, for example, doctors, nurses, occupational therapists, physiotherapists, nutritionists, Orthopedic technologists, medical social workers, and Psychologists.

Work-related activities: Professional services offered to patients by healthcare workers

Patterns: Type of social media, frequency of use, purpose of use and what extent, who is using, when is the use

Organizational culture: These policies, and regulations, govern online platforms used among health professionals while discharging their services to patients and clients.

Supportive staff: The employees of the hospital who are not permanently employed and offer supportive services within the facility.

Students: Learners attached to the hospital for clinical placement.

Patient's attendants: Employees of the hospital whose main job is to attend to the patient's needs.

Professional boundaries: The extent to which healthcare providers can go in regards to interaction with patient or the client, such that privacy, confidentiality, integrity ought to be observed by the healthcare providers while offering their services to the patient or even the client.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter entails a review of relevant literature related to patterns and effects on the use of digital spaces while discharging their duties and also how communication culture within the institution influences social media use by healthcare providers in their roles.

2.2 Empirical literature review

2.2.1 Patterns of social media use

Patterns have different connotations. In a study by Koiranen et al. (2020), patterns denoted the different platforms used and the purpose of using social media. It also characterized trends in social media use over the years. The study also examined the variations in social media use across diverse populations and demographics. Notably, the study observed variations in social media use across various demographics, periods, and populations. Koiranen et al. (2020) also mentioned other uses: work and career-related issues, commercialized, political reasons, social and leisure organizations, and social activities. Similarly, Ahmed et al. (2022) cited that individuals can exchange digital content, including videos, messages, photos, or information. Additionally, Naslund et al. (2020) have defined social media as various online platforms: Instagram, Snapchat, Facebook, Linked In, Web, which connects people via a network.

Many social media platforms are currently in use (Wamuyu, 2020). These are : Facebook, YouTube, Twitter, Instagram, WhatsApp, and TikTok (Koiranen et al., 2020; Wamuyu, 2020). The popularity of each platform has changed over the years (Koiranen et al., 2020).

Glasdam et al. (2022) noted that nurses, like any other health professional use different online platforms for different purposes and are not limited to knowledge searching, sharing of knowledge, emotions, and experiences due to patient interaction.

Globally, - a cross-sectional study done in a teaching hospital medical college in Nepal found that 65.5% of the doctors' interns used social media platforms to gather information on matters of public concern like COVID-19 (Subedi et al., 2020). In 2018, Facebook emerged as the dominant social media platform among nurses in the USA, accounting for 82% of all social media use among this cadre. (Aiyer et al., 2018). Similarly, past studies have reported that the health sector is visualizing social media as a vital mode of promoting health, marketing healthcare providers (Hcps), building a brand name, and employment as the world is becoming more digital (Farsi, 2021)

Globally, various academic articles have outlined the disadvantages and advantages of WhatsApp while discharging clinical services and ethical issues have also been discussed. The issues that were majorly raised were failure to maintain the privacy of the patient, consent, and confidentiality. Communication governance technology and an increase in information were among the suggestions offered by various authors. Guidelines in clinical settings on instant messaging have been provided in the UK, by the National Health Service (NHS) (Venter et al., 2020)

According to Venter et al. (2020) As a result of the increased use of social media guidelines, it was acknowledged that the use of online platforms formed an integral part of the clinical setting and therefore use of the guidelines while discharging clinical duties was ethical . Furthermore, some few publications from South Africa on social media use in clinical settings agreed with that notion, as long as social platforms respects confidentiality of the patients and clients, adhere to procedure for getting the consent and maintain the image of the profession without compromising on ethics.

A study conducted in South Texas showed that the majority of healthcare providers who owned electronic devices use social media platforms to interact with other colleagues, engage with hospitals in relation to work fields, and also channels where healthcare providers can gather information related to the illness of the patient, or any other health-related information (Surani et al., 2017)

Regionally, in a study done in South Africa to track the progress of patients with pulmonary tuberculosis, it was reported that healthcare providers use social media platforms like Facebook for health promotion, influencing individual healthy behavior positively by improving information related to health, consequently improving health results (Acha-Anyi et al., 2020). Additionally, cross-sectional survey in Uganda by Olum & Bongomin (2020) on the usage of social media by healthcare providers, it was observed that Facebook and WhatsApp were commonly online platforms used. Social networking sites were used to disseminate information and expel false beliefs about Coronavirus, making tests available for the suspected persons and sending the results to the clients. For

example, WhatsApp, dedicated to the public by the Ministry of Uganda, was used to report any suspected case (Olum & Bongomin, 2020)

Elkhayat et al. (2018) conducted a cross-sectional survey of Egyptian cardiothoracic physicians to determine doctors' use of online space and how it impacts the management progress of surgical practice and patients. It was observed that most respondents used social platforms for advertisement reasons, enlightening the patients.

In Ghana, a study by (Gamor et al. (n.d.) revealed that nurses use social media for career enhancement, enabled referral networks, professional development, reception, and dissemination of information. Additionally, they believed that social media use did not require much thinking and perceived it as easy to utilize.

In Kenya, WhatsApp, Facebook, and YouTube dominate social media (Wamuyu, 2020); however, as Wamuyu et al. report, there are variations across the different demographics (age and geographical locations). Healthcare providers share various content on social media, including patient progress, education materials, health information, and personal reflections on their experiences as HCPs. Hence, patterns in this study focus on the reasons and platform used.

2.3 Effects of social media

Social media use among healthcare providers has several advantages and disadvantages. To begin with, social media has several positives for individual HCPs and their organizations(Khan & Loh, 2022)

According to Cho et al. (2019). They promote access to information. Online platforms such as Facebook, Twitter and LinkedIn can provide healthcare professionals with quick latest news access, research, and best practices. HCPs can stay informed on the latest medical developments, clinical guidelines, and new treatment options, which can improve patient care. Social media platforms can help healthcare providers to network with colleagues and experts in their field. They can share experiences, exchange ideas, and collaborate on research projects, which can help them stay connected with the latest field development, hence developing new professional relationships. Social media platforms can educate patients about their health conditions, treatment options, and preventive care Cho et al. (2019). Similarly, Health professionals use social platforms to share reliable and accurate health information, engage patients in discussions about their health, and promote healthy behaviors (Rozenblum et al., 2017). Social media can help healthcare organizations to recruit and retain talented healthcare providers.

Additionally, it can promote organizational visibility and job openings, showcase the organizational culture, and highlight employee testimonials which can help attract and retain qualified healthcare professionals (Kordzadeh & Young, 2018). Social media can manage crises and public health emergencies. Healthcare providers can use social media to communicate important information, share updates, and respond to questions and concerns from the public (Khamis & Geng, 2021).

Globally, in a study conducted in Palestine to assess the impact of the Internet and the use of social media by healthcare providers, it was reported that social media utilization among nurses and physicians was the same at 88% (Ahmead et al., 2022). It was also

observed in the same study that physicians who used one social media platform daily for private reasons were at 90%. Similarly, Surani et al. (2017) noted that healthcare providers approximately one hour every day on social media at 87.9%. A survey by Ahmead et al. (2022), utilization of social platforms on digital spaces by healthcare providers has positive effects, including discussing health issues, sharing health information, promoting primary health behaviors, communicating with patients, and collaborating with each other. It was also reported that social media enables healthcare providers to communicate with peers and colleagues and get updates on recent healthcare developments (Ahmead et al., 2022).

Additionally, social media and the internet have enabled physicians to consult colleagues concerning patient issues, read articles, and develop research. At the same time, nurses have influenced the learning experience and nursing education by using social media to deliver professional training (Ahmead et al., 2022). However, the same study also reported that social media use by healthcare providers can become a risk if employees share confidential, internal information on social media, affecting their competitive advantage. Ahmead et al. (2022) observed other risks associated with social media use by healthcare providers in the workplace, including data getting lost as a result of outdated passwords, leakage of communication from staff to the outside environment, loss of staff productivity, cybercrime and damage to an organization's reputation.

In a study done globally to explore nurses' social networking during the COVID-19 pandemic (O'Leary et al., 2022), it was reported that nurses used social media platforms like Twitter to promote health, which opened up communication practices and was hence

likely to get more information. Additionally, the implications of using social media in nursing as a digitally engaged health profession can potentially inform and shape debates in public health communication in the digital age (O’Leary et al., 2022).

According to the International Council of Nurses (ICN), social media has provided platforms through online discussion forums for educators, regulators of nursing, students, nurse practitioners, and engagement of nurses both in rural and urban settings.

Another study done in Pakistan (Majid et al., 2020) observed addiction to social networking sites by nurses resulted in distraction at work, which stimulated various stressors among nurses: social anxiety, rumination, and envy, hence augmenting its negative effect on task distraction.

Regionally, in an Egyptian study (Elkhayat et al., 2018), physicians reported significant use of social media in work-related advertisements and patients' education. Similarly, Adams (2019), in an analytical study done on the impact of social media utilization in 21st-century nursing practice in Nigeria, observed some positive impacts of social media use on nursing practice, which include information dissemination among healthcare providers, improving communication with the patients, professional education, and enhancing professional development.

Studies have shown that healthcare providers use social media for health campaigns, medical education, health intervention, and monitoring patient progress, leading to improved health outcomes (Naslund et al., 2020).

According to (Adams, 2019), social media use by nurses in Nigeria was found to have some negative effects on nursing practice, including breach of confidentiality and patient privacy, damage to professional image, for example, unethical behavior of sending messages to patients or befriending them, unethical conduct demonstrating questionable moral character like posting nude pictures among others, inaccurate health information and lack of concentration at work (Adams, 2019). Similarly, (Okocha et al., 2023) reported in a study done in Nigeria that despite the advantages of using social media for the communication of health, the content needed to be supervised for the confidentiality of patients, the validity of information, and reliability.

In Ghana (Gamor et al., n.d.), in a study, it was revealed that some nurses had developed negative attitudes towards the use of social media since inaccurate information, distraction, addiction, breach of confidentiality, and privacy in nursing practice were likely risks of using social media.

In Kenya, a study done by Zinke-Allmang et al. (2022) in Nairobi on the use of online platforms on family planning content by females and their networks socially pointed out that the last interventions to improve availability to family planning details realized misinformation on family planning was greatly addressed by targeting social networks. Zinke-Allmang et al. (2022) also noted that in Kenya, healthcare providers are sharing important family planning content with various groups, especially young people, by inventing new ways of digital media, hence addressing the lack of accessible information as a key barrier.

A study in rural Kenya (Y. T. Chen et al., 2021) reported that anti-retrovirus therapy uptake by patients with human immune virus disease is highly influenced by social connectedness in social networks, which have been associated with various human-related behaviors. Healthcare providers can use such platforms to sensitize individual patients, improving their health outcomes.

In another study done in Nairobi county, Kenya, to determine marketing by hospitals on social media adoption, it was noted that effective communication is an important function within any hospital. Furthermore, many hospitals market their services using social media platforms (Mwangi, 2018).

Adverse effects of online platforms use have also been identified (Gholami-Kordkheili et al., 2013). A systematic literature review into the social media-related challenges and opportunities identified detrimental consequences due to HCPs using social media. For example, violating patient confidentiality has been observed (Cho et al., 2019; Schoenbrunner et al., 2019). The study also reported inappropriate behaviors such as vulgar language, prejudices based on posting content on another person's website, race, age, alcohol misuse presentation, substance abuse, and sexual promiscuity.

Social media has been noted to cause work-related interruptions, errors due to reduced diligence when executing duties, and work time wastage (Aiyer et al., 2018)

According to Olum & Bongomin (2020), misinformation on matters of public concern like COVID-19, where fear, anxiety, and panic among the public can be spread by using social media, Therefore we can conclude by saying that from the reviewed literature

effects on social media use by healthcare providers in their work-related activities in regards to the patient, the healthcare providers and the organization and the profession has not been fully explored hence prompt the need to conduct more research in this area.

2.4 Organization culture

In literature, social media use among healthcare providers has been well documented. The Healthcare provider's (HCPs) use of social media is influenced by various communication culture factors, namely individual factors (e.g., age, cadre, perceived benefits and personal attitudes, and technical proficiency of individual), organizational cultural factors (e.g., policies supporting responsible social media use, organizational awareness campaign on social media use). These factors can either facilitate or block social media use as a communication channel among HCPs.

2.4.1 Individual factors

Age, gender, cadre, and level of education are some of the individual factors that have been studied. Gholami-Kordkheili et al. (2013) claim that age influences social media use. The authors contend that healthcare providers who grew up when the education system had already incorporated technological tools (such as computers, the internet, text messaging, blogging, Facebook, Instagram, WhatsApp, etc.) are digital natives. On the other hand, digital Immigrants are HCPs born before the integration of information communication and technology (ICT) into the education system and often have challenges adapting to the particularities of the digital age (Gholami-Kordkheili et al., 2013).

Globally, Koironen et al. (2020), in a 2016 study done in Finland on patterns of social media use, reported widespread (more than 90%) among those under the age of 35. The findings are consistent with the healthcare providers survey in South Texas (Surani et al., 2017). In their research, Surani et al. observed a higher rate of social media usage among HCPs aged below 40 years compared to their older. Additionally, a study to evaluate social media usage among healthcare providers in South Texas (Surani et al., 2017) noted identical with physicians and nurses social media use. However, the percentage of healthcare providers aware of social media usage policies was higher among physicians than nurses.

According to a study (Farsi, 2021), it was observed that healthcare providers mostly used online platforms were Facebook, LinkedIn, Twitter, and WhatsApp, which were spread across different social demographics: younger age, lower rank, and fewer years of experience. Additionally, (Farsi, 2021) healthcare providers must adhere to principles of ethics while addressing the public in the digital world, the patient and the colleagues. Further inter-cadre differences in usage and awareness of matters connected to digital space utilization among healthcare workers have been explored during past studies.

Locally, a study to establish the social media landscape in Kenya (Wamuyu, 2020) observed variations in patterns of social media use across various age groups. Gender variations have also been observed in the general population. A Finnish-based study by Koironen et al. (2020) observed notable differences between various education groups and individuals living in varied districts.

According to Wamuyu (2020), Kenyan men are more active on social media than their female counterparts. The media used also varies between men and women. Whereas men have been observed to patronize Telegram, LinkedIn, and Skype, women frequently use Snapchat, TikTok, and Pinterest (Wamuyu, 2020).

The technical proficiency of healthcare providers in using digital platforms impacts the use of social media. Globally, a qualitative study on healthcare providers' perceived digital competencies in Finland (Jarva et al., 2022) observed that prior experience with, familiarity with, and interest in using digital technologies promote the use of social media among HCPs in work-related activities. Based on reviewed literature, the researcher calls for the need to do more studies to explore on other individual factors that influence social media use in work-related activities among healthcare providers.

2.4.2 Organizational Culture Factors

Organizational culture entails implicit and explicit ways of communication within the organization. It also entails those policies and activities that support or hinder how communication is done in the organization.

The presence and awareness of guidelines and policies governing social media usage among healthcare providers in work-related activities have been cited as critical in enhancing harmonized communication patterns in institutions (Gholami-Kordkheili et al., 2013); Surani et al., 2017). Therefore, some organizations and healthcare providers associations have developed policies and guidelines on social media use (ANA, 2011; AHPRA, 2019)

In addition, courses on professionalism in social media usage have been incorporated into the curricula of HCPs in some countries (Gholami-Kordkheili et al., 2013). However, the policies and guidelines are non-existent. In some areas where they exist, not all HCPs are aware of the communication policy at the place of work, which could lead to a breach of confidentiality (Surani et al., 2017).

Globally, a study done in public health institutions in Chile (Lazzaro-Salazar & Pujol Cols, 2020) reported that healthcare providers' organizational life of communication in a hospital will either hinder or promote professional efficiency and effectiveness in service delivery.

In a survey in South Texas, Surani et al. (2017) reported that 40% of healthcare providers are unaware of policies governing the professional use of social media among HCPs. The nurses scored poorly on awareness as compared to the physicians. The presence of official social media pages in organizations or health facilities is a factor in this study.

In another study done in Europe (Bhatt et al., 2021), it was reported that organizations could use social media platforms as an important channel for the fast exchange of global information in healthcare. Additionally, the dissemination of clinical practice guidelines via social media platforms led to major advancement in terms of awareness, compliance, knowledge, and positive behavior regarding clinical practice guidelines versus old methods.

A study by (Islam et al., 2020) observed that the World Health Organization utilized online social media platforms to complement traditional surveillance system data during

the pandemic of COVID-19. It was reported that using social media as a communication channel played a great role in managing rumors, dispelling conspiracy theories, also misinformation, and mitigating fear and stigma associated with the disease.

Regionally, a study was done in Nigeria (Okocha et al., 2023), and it was reported that more medical personnel, like clinicians and patients in health institutions, consult social media and access information about specific ailments. Similarly, it was cited by Chukwuere and Dyikuk (2023) that personalized healthcare on social media promotes patient education more efficiently and faster.

In Ebola research in Africa (Xie et al., 2020) on health information, it was observed that hospital employees, especially nurses who had access to communication channels, could receive more self-care information than they wanted. Additionally, a study (Berg et al., 2021) reported that Health Authorities and Institutions used different modes of communication, including video, mass media, websites, and prints on health risk communication with the public during emergent infectious diseases and the COVID-19 pandemic and reduced the adverse effects of the infection..

Locally, in A survey of the social media landscape in Kenya, Wamuyu (2020) established that 34% of Kenyans sought healthcare-related information from social media sites such as blogs. According to a study done at MP Shah Hospital Sekah (2019), it was observed that the organization was recommended to ensure technology as a channel of communication is up to date and the hospital management ensures confidentiality and

anonymity of information is maintained because some nurses feared communicating their mind for fear of being victimized.

Another survey done in Kenya observed that social media, as an emerging communication technology, offers the possibility for better emergency and crisis management in public health of its capacity for interactivity and dependence.(Saroj & Pal, 2020) Moreover, Other studies have reported that the chain of command in hospitals hardly allows communication directly from those at lower levels to higher level individuals; hence, potential mistakes or discipline cases are likely to arise (Blacklock et al., 2022). Additionally, healthcare providers access information based on how individuals relate in the hospital setup; hence, this study recommended that hospitals look for ways to improve communication.

Institutions increasingly use social media platforms to engage their customers for reasons such as marketing and information sharing (Kordzadeh & Young, 2018 ; Wamuyu, 2020) . Healthcare consumer behaviors have shifted, towards online sources of Information (Surani et al., 2017). Consequently number of the institutions increased which engaged their clients on social media pages (Rozenblum et al., 2017) such as Facebook, Twitter, blogs or WhatsApp. Similarly, Surani et al. (2017) observed that by 2017, 40% of American healthcare consumers were utilizing social media for their healthcare information needs. In conclusion, the researcher noted the scarcity of information in regards to organizational culture influencing social media use by healthcare providers in their work-related activities hence a need to do further studies in the same area.

2.5 Theoretical literature review: Social Identity Theory

The purpose of the theory was to aims to predict and identify the condition under which healthcare workers consider themselves as a group rather than an individual. The theory also considers social identities for the group and the individual and group perceptions behavior, therefore personal factors such as technical proficiency and organizational factors such as policies or guidelines governing social media use by healthcare providers in their work-related activities determine the behavior of the healthcare providers in social platforms.

Social identity theory views opportunities of a person and outcomes as dependent on their talents, life choices, and achievements rather than on their ethnic origin or social forums, hence this makes healthcare providers show case their talents and professional achievements on social media platforms. Social media can give healthcare providers a sense of belonging, fulfilling their needs for social Identity and increasing their engagement in their professional role.

This study is anchored in Social Identity Theory (SIT) by Tajfel and Turner (1979) as cited in Rubin and Hewstone (2004). It pointed out that the self-esteem and self-concept of persons are gotten from the group they associate with. Social media can significantly fulfill individuals' Social Identity needs by providing opportunities for social comparison, presentation, and group affiliation.

For healthcare providers, social media use can provide a platform for building professional networks, exchanging knowledge, and forming communities of practice. By interacting

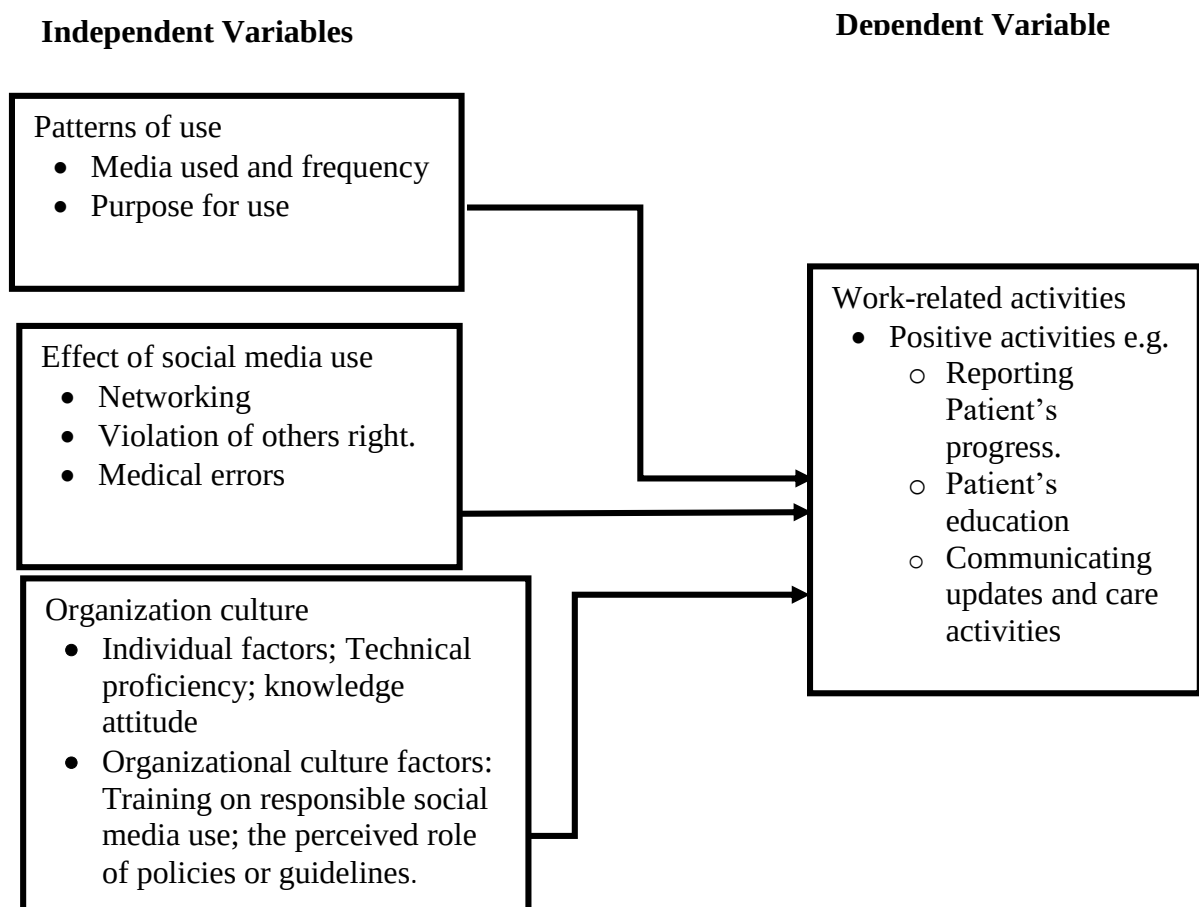
with other healthcare providers on social media, they can develop a sense of belonging and shared Identity as members of the same profession or specialty. Furthermore, social media can also provide opportunities for healthcare providers to present themselves positively, showcase their achievements, and receive recognition and validation from others. This can enhance their self-esteem and reinforce their professional Identity.

2.6 Conceptual framework

This conceptual framework shows the link between the dependent variable (work-related activities) and the independent variables.

Figure 1.1

Conceptual Framework



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter contains the Research design, study area, populations, sample techniques, data collection methods and tools, and data analysis methods.

3.2 Research Design

Convergent mixed methods design was used. Quantitative and qualitative data were collected simultaneously then the results were compared to determine whether both results agree or disagree. The qualitative research question was about the three questions of the research including patterns of social media use among healthcare providers in their work-related activities such that the patterns connoted various social media platforms used and the purpose of their use by healthcare providers. The second objective was to assess the effects of social media use among healthcare providers in their work-related activities. The effects to the healthcare providers, to the patient, to the organization, and to the profession. The last objective was on how organizational culture influenced social media use by healthcare workers in their work-related activities.

By intentionally integrating data, the researcher can access knowledge or insights unavailable to a quantitative or qualitative study undertaken independently. According to (Moseholm & Feters, 2017), The researchers can achieve mixed-method research

integration through philosophical, research design methods and data collection, or during the interpretation and reporting levels of research. The motivation behind using the convergent mixed method was that using different methods to collect data on the same subject, makes results credible and hence convergence of qualitative and quantitative data strengthens the validity of the conclusions.

3.3 Study area

National Spinal Injury Referral Hospital is located along Lenana Road in Kilimani. The level six public hospital treats and manages spinal injury patients. It also specializes in rehabilitating both paraplegic and quadriplegic patients and short-stay patients who have undergone other surgeries like total hip replacement and hernia repair. It has a bed capacity of about 40 patients and approximately 170 healthcare providers across different cadres. The facility offers Several other services: outpatient services, theatre, laboratory, radiology, physiotherapy, occupational therapy, nutrition, and dental services. The facility has supportive staff, patient attendants, nurse aid students, and physiotherapy students who come for attachments.

3.4 Target population

The study targeted all 118 healthcare providers who offer clinical services directly to patients. These providers included nurses, doctors, physiotherapists, occupational therapists, orthopedics technicians, nutritionists, laboratory technologists, psychologists, and medical social workers at the National Spinal Injury Referral Hospital. They are employed through the Ministry of Health, including those working voluntarily. The

breakdown of these providers is as follows: 40 nurses, 30 doctors/clinicians, 20 physiotherapists/occupational therapists, and 28 others, including nutritionists, medical social workers, orthopedic and laboratory technologists, and psychologists. Additionally, three key informants who hold managerial positions at different levels were included in the study for key informant interviews. These key informants are the hospital administrator, matron, and ward manager.

3.5 Sampling and Sample Size Determination

Purposive sampling was used to select the Key informants. Probability sampling was applied to select respondents from all cadres who meet the eligibility criteria. Stratified random sampling was used because the target population consisted of diverse subgroups, and the researcher ensured that the sample included representation from all of these subgroups. Potential respondents were identified through stratified random sampling, where healthcare providers in different strata with similar characteristics, such as gender and level of education, were selected to participate in the study (Frost, 2021)

3.6 Sampling and Sample Size Determination

3.6.1 Sample size determination

The baseline sample was derived using Fishers' formula as recommended by Mugenda and Mugenda.Jung (2014)

$$n = \frac{Z^2 p(1 - p)}{d^2}$$

Z is the value for the corresponding confidence level (i.e., 1.96 for 95% confidence);

d is the margin of error (i.e., 0.05 = ± 5%) and

P is the estimated value for the proportion of a sample that has the condition of interest.

P= 50% (the most conservative estimate).

$$n = \frac{1.96^2 p(1-p)}{0.05^2} \quad n = \frac{1.96^2 0.5(1-0.5)}{0.05^2} \quad n = \frac{3.8416 * 0.25}{0.0025}$$

$$n = \frac{0.9604}{0.0025} \quad n = 384.16$$

$$n=384$$

Finite Population Correction for Proportions

The sample size was adjusted using the formula by Yamane (1967) recommended for populations of below 10000

$$\text{Thus, } n_f = \frac{n}{1 + \frac{n}{N}}$$

Where

n_f =desired sample size

n =calculated sample size

N estimate of population in the study area

$$\frac{384}{1 + (384 \div 170)} = \frac{384}{3.25} = 118$$

The rationale behind using the sample size of 118 which was used for quantitative data was based on fishers' formula by Mugenda and Mugenda's recommendation. All cadres who participated in the quantitative study were drawn from the above sample size.

The rationale behind the three key Informant Interviews was that they represented the administration who hold managerial positions at different levels in the facility and also they were actively involved in the formulation of policies and guidelines to be followed in the facility.

3.5 Inclusion and Exclusion Criteria

3.5.1 Inclusion Criteria

The target population who were healthcare providers directly involved in providing clinical care to patients who agreed to participate in the study. Those available during data collection included nurses on locums and key informants who hold managerial positions at different levels and are involved in formulating policies and guidelines followed within the organization. These key informants consisted of the hospital administrator, the hospital matron, and the ward managers.

3.5.2 Exclusion Criteria

Those healthcare providers working outside the clinical setting: administrative staff who are not involved in policy and guidelines formulation, those staff on leave or off duty during the time of data collection, those staff on study leave, those staff whose work commitments at the time of the study may not allow them to participate despite meeting

the criteria for participation and also those who may feel that providing certain information especially those that may have had negative impact on patients while using social media and still unexposed may be used against them.

3.6 Data collection instrument

The data collection instruments consisted of questionnaires and key informant interviews. A structured questionnaire was used to collect data for three research questions, specifically focusing on patterns, the effects of social media, and organizational culture factors. The interview schedules were used for questions related to perceived policies and guidelines influencing the use of social media by healthcare workers in their related activities. Both instruments incorporated a combination of open and closed-ended questions.

The questionnaires comprised four main sections: Section A: Socio-demographics, containing six questions, where participants were to select their responses by ticking the appropriate boxes. Section B: Patterns of social media use, which presented a table displaying various social media platforms used for work-related activities. Respondents were asked to indicate the frequency of their use (questions 7-12).

Section C: Questions on a Likert scale assessing the negative effects (questions 20-26) and the positive effects (questions 27-33) of social media use on work-related activities based on past experiences. Section D: Individual and organizational factors influencing social media use. This section presented statements, and respondents were asked to indicate their level of agreement or disagreement with each statement. These factors

included technical proficiency (questions 34-37), attitude (questions 38-41), knowledge (questions 42-44), and organizational factors (questions 45-50).

The interview schedules were conducted which consisted of five parts, including an introduction and agenda discussion covering patterns, effects of using social media, individual and organizational culture's impact on social media use, and whether there were measures in place to ensure healthcare providers maintain professionalism while using digital platforms for work-related activities.

3.7 Validation and reliability

The integrity of the tools for the research were diligently ensured. The questionnaire was developed based on an extensive literature review on social media use by healthcare providers. At the same time, an interview schedule was crafted from insights into the organizational communication culture. The questions were aligned with the study's objectives, guiding the tool's development process. After the initial draft of the questionnaire was created, it was distributed to healthcare providers from various cadres to solicit their opinions regarding its content, the validation of the questionnaire was done after pretesting of the tool was done at Mbagathi County Hospital specifically the orthopedic ward. The testing of the tool was done by distributing questionnaires to a few healthcare providers working in the orthopedic ward. Any suggestions given in terms of modifications were considered and incorporated into the final draft, ensuring consistency with the existing literature. Following thorough discussions, the researchers finalized the questionnaire and distributed it to the participants for their responses.

Additionally, interviews were conducted with heads of departments from Spinal Injury Hospital to include clinicians/doctors, nurses, physiotherapists, nutritionists, medical social workers, and psychologists. Suggestions arising from these interviews were considered and incorporated into the key informant's schedule during the qualitative data collection process. The reliability of the questionnaire was assessed for internal consistency using Cronbach's alpha test, and the items were above the acceptable value of (> 0.7) utilizing Statistical Package for the Social Science version 26. Detailed field notes were taken to enhance the reliability of the interviews, and a recording device was used. The digital files were transcribed, and the respondent validation technique was employed to verify if the initial results of the participants were still held.

3.8 Pre-testing

Before the study began, the questionnaire was pretested. The pretesting took place in Mbagathi Hospital in Nairobi, specifically the Orthopaedics ward. The questionnaires were tested on 10% of the final sample which were 12 participants. Ethical approval from the hospital was sought before the testing of the tool began. The researcher introduced herself to the participants, explained to them that the study was about utilization of social media in work-related activities among healthcare providers giving their services directly to the patients. It was explained to them that the study had three objectives namely: patterns of social media where it denoted to be various social media platforms used and also the purpose of use. The second objective was to assess the effects of social media use by healthcare providers on the patient, healthcare provider, the profession, and the organization. The last objective was to determine organizational, and individual factors

that influence social media use among healthcare providers in their work-related activities. It was explained that the researcher was pre-testing the tool and any input given in regards to perfecting the tool would be incorporated in the final tool. The participants who agreed to participate in the study and had met the criteria were given the consent form to sign having understood the risks involved. They were given about 10 to 15 minutes to fill out the questionnaire and the researcher was around to answer any questions or even clarification. The researcher thanked all the respondents who participated in the pre-testing of the tool. All the errors were corrected in the final draft of the tools.

3.9 Data Collection Technique

The data collection period was to in March 2024 and a response rate of 93% (109 out of 118). The researcher administered structured questionnaires with open and closed-ended questions to individual respondents. After introducing herself and explaining the study's purpose, respondents were provided with consent forms to voluntarily agree to participate, with an estimated completion time of 10-15 minutes, allowing them to attend to other clinical duties. The researcher was available throughout for any questions or clarifications. Once quantitative data was collected, completed tools were securely stored following the privacy and confidentiality requirements of the Kenya Data Protection Act of 2019. Prior bookings were made for interviews with key informants, specifying the interview's purpose, time, and venue. Consent was obtained through completed consent forms, after which the researcher introduced herself and the discussion agenda.

3.10 Methods of Data Analysis

Accuracy was ensured by checking the completeness of questionnaires, cleaning the data, and coding. Quantitative data was then analyzed using Statistical Package for the Social Sciences (SPSS) version 27 for Windows. The analysis involved descriptive statistics because it is a simple method of summarizing quantitative data which is fundamental and meaningful in statistical analysis and also can be used as a building block on which further analysis can be tested.(Dong, 2023). According to Dong (2023), descriptive statistics is a set of brief descriptive coefficients that summarize a given data set representative of an entire or sample population hence making it applicable to this study. Inferential statistics with a confidence level of 95%. Was used which help the researcher come to a conclusion and made predictions based on the researcher's data (Bhandari, 2020). Descriptive statistics, including mean, mode, median, and percentiles, were derived. Inferential statistics, such as Spearman's correlation matrix was employed to determine relationships between variables as appropriate. The information generated was presented in graphs, tables, and charts. Qualitative data was thematically analyzed to answer the three research questions, presented in prose.

3.11 Ethical approval

Permission was sought from the Kenya Methodist University Ethical Review Committee (ERC) before the study began after having fulfilled the requirement by the university, the National Commission for Science Technology and Innovation (NACOSTI), the Ministry of Health, and the hospital for data collection. The ethical committee in the hospital gave

the approval letter to conduct the study in the facility. There were no risks involved, or inducements in the data collection process, however, the participants were informed that the findings of the results will contribute to theoretical knowledge on social media utilization among healthcare providers in their work-related activities, in terms of patterns of social media used, the effects on the patient, the healthcare provider, the profession and the organization.

The respondents signed consent forms after reading them. Respondents participated voluntarily in the study without coercion, and those who opted not to participate were not punished. No personal identification information was included in the questionnaire to ensure they were anonymous and confidential. In the interview, the participants were reassured that any information given would be for the study and would not be used against them. Questionnaires were stored in a locked cabinet. For privacy purposes, the principal investigator was the only one accessible to the questionnaires. Any benefits were shared with those participating in the study, such as the opportunity to suggest how social media use may best be used, any risks, if any, and that there was no reward or compensation for participating in the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the findings and the discussions of those findings whereby 68 of the healthcare workers interviewed were below 35 years, 74 were female, 39 were nurses, those with bachelor's degrees were 59 and those who had a working experience of 6 years or more were 57.

4.1 Socio-Demographic data

Table 4.1 shows that most (62.4%, n=68) of the HCWs interviewed were aged between 18 and 35 years, were female (67.9%, n=74), nurses (44.3%, n=39), had a bachelor's degree (57.8%, n=59), and had working experience of 6 years or more (52.3%, n=57). This indicates that most of the healthcare workers interviewed were young adults (18-35 years), predominantly female nurses with bachelor's degrees and extensive work experience.

Table 4.1*Demographic Characteristics of the Respondents*

Characteristic		n	Percentage (%)
Age group	18-25	35	32.1%
	26-35	33	30.3%
	36-45	21	19.3%
	46-55	15	13.8%
	56+	5	4.6%
	Total	109	100.0%
Gender	Female	74	67.9%
	Male	35	32.1%
	Total	109	100.0%
A) Job position at NSIRH	RN	39	44.3%
	Therapists	36	40.9%
	Others	7	8.0%
	Dr	6	6.8%
	Total	88	100.0%
Highest education level	Bachelor	59	57.8%
	Diploma	37	36.3%
	Master's	4	3.9%
	Secondary	2	2.0%
	Total	102	100.0%
Years of service experience	1-5	52	47.7%
	6-10	29	26.6%
	>15	16	14.7%
	11-15	12	11.0%
	Total	109	100.0%

The findings of the results showed that the majority of participants who use social media in work-related activities were between the ages of 18 and 35years (n=68) which was 62.4%, female (n=74) 67.9%, they were nurses (n=39) 44.3%, they had bachelor degrees (n=59) 57.8% and those that were 6 years and above were n=57 (52.3%). In terms of qualitative findings, the majority of the interviewees agreed that social media platforms

had contributed to improved means of communication such that they used WhatsApp platform to communicate official matters to the healthcare providers in the facility.

4.1.1 Effect of social media use

The dependent variable in this study was the 'effects of social media use in work-related activities.' Before assessing the association between the dependent variable and other variables (such as sociodemographic), this sub-section shows the perceived effects and how they were derived.

Effects of social media were assessed using the questionnaire (survey) and Key Informant Interviews (KIIs) Table 4.2 presents the effects of social media use as derived from the survey of HCWs. There were both positive and negative benefits that were accrued from the use of social media in work-related activities. On the negative, the respondents occasionally expressed concern (median=3) about the risk of exposing confidential information on social media. They were rarely worried (median score=2) that social media use blurred professional boundaries, reduced productivity in work-related tasks, social media being a source of misinformation in their field, and raised privacy and security concerns. Data from KIIs echoed the findings from the survey. For example, during the collection of qualitative data by way of KII interviews, the KIIs raised major reservations about social media usage, particularly regarding ethical and legal concerns such as violations of patients' right to privacy. KII respondent SNo2 acknowledged hospitals' concerns about "medical-legal issues associated with videos and photos where consent is not provided."

On the positive side, the survey also revealed that social media was frequently utilized (median score = 4) for connecting with colleagues or professionals in their field, accessing valuable industry news and updates, showcasing work or professional achievements to a wider audience, facilitating networking opportunities and career advancement, providing a platform to learn new knowledge or skills, and discovering job or business opportunities. Additionally, social media was occasionally used (median = 3) to showcase work or professional achievements to a wider audience.

These positive uses of social media were also mentioned during the KIIs. This illustrates that while social media use has positive aspects, such as professional networking, accessing industry news, showcasing achievements, career advancement, learning new skills, and discovering job opportunities, it carries potential negative consequences, such as concerns about confidentiality breaches and the spread of misinformation. The majority of the respondents admitted the fact that social media has played an immense role as a channel of communication between the administration and the staff, that healthcare professionals can continually upgrade their careers through online platforms hence improving their knowledge. At least one respondent indicated that when healthcare providers engage in social media platforms, there is burnout relief caused by pressure at the workplace. Exchange of information and updates on patient management also came out strongly

In regards to potential negative effects or challenges associated with social media use among healthcare providers in their professional roles, the respondents admitted that

sometimes patient's information and photos end up in the wrong forums which risk litigation measures and also infringe the rights of other people.

Table 4.2

Effects of social media use

Negative	Median Score
Distracted from crucial work tasks.	2.00
Heightened risk of exposing confidential information.	3.00
Blurred professional boundaries.	2.00
Reduced productivity in work-related tasks.	2.00
Source of misinformation in my field.	2.00
Raised privacy and security concerns.	2.00
Overall	2.28
Positive	
Connected with colleagues or professionals in my field.	4.00
Provided valuable industry news and updates.	4.00
Showcased work or professional achievements to a wider audience.	3.00
Facilitated networking opportunities and career advancement.	4.00
Provided a platform to learn new knowledge or skills.	4.00
Discovered job or business opportunities.	4.00
Connected and communicated with colleagues or professionals in my field.	4.00
Provided valuable industry news and updates.	4.00
Overall	3.52

Key: 1=never, 2=rarely, 3=Occasionally and 4=Frequently

4.1.2 Relationship between socio-demographic data and social media Use

Table 4.3 illustrates the differences in various categories of sociodemographic characteristics in their social media use, encompassing both positive and negative usage. Across demographic variables such as age group, gender, job position, highest education level, and years of service experience, no significant differences were found in media

usage. This means that the socio-demographics were not linked to the effects of usage of social media.

Table 4.3

Relationship between Socio-demographic Characteristics and Social Media Effects

		Effects			
		Negative/Harmful	p	Positive/Beneficial	p
Demographic characteristic		Mean		Mean	
Age group	18-25	2.22	P=0.723	3.36	P=0.079
	26-35	2.31		3.67	
	36-45	2.42		3.60	
	46-55	2.27		3.52	
	56+	1.97		3.46	
	Total	2.28		3.52	
Gender	Female	2.32	P=0.409	3.54	P=0.753
	Male	2.21		3.49	
	Total	2.28		3.52	
A) Job position at NSIRH	Dr	3.06	P=0.42	3.52	P=0.647
	RN	2.34		3.57	
	Therapists	2.06		3.51	
	Others	2.98		3.73	
	Total	2.33		3.56	
Highest education level	Sec	2.42	P=0.773	3.75	P=0.834
	Diploma	2.18		3.51	
	Bachelor	2.34		3.52	
	Masters	2.17		3.44	
	Total	2.28		3.52	
Years of service experience	1-5	2.28	P=0.526	3.46	P=0.243
	6-10	2.35		3.60	
	11-15	2.36		3.70	
	>15	2.08		3.49	
	Total	2.28		3.52	

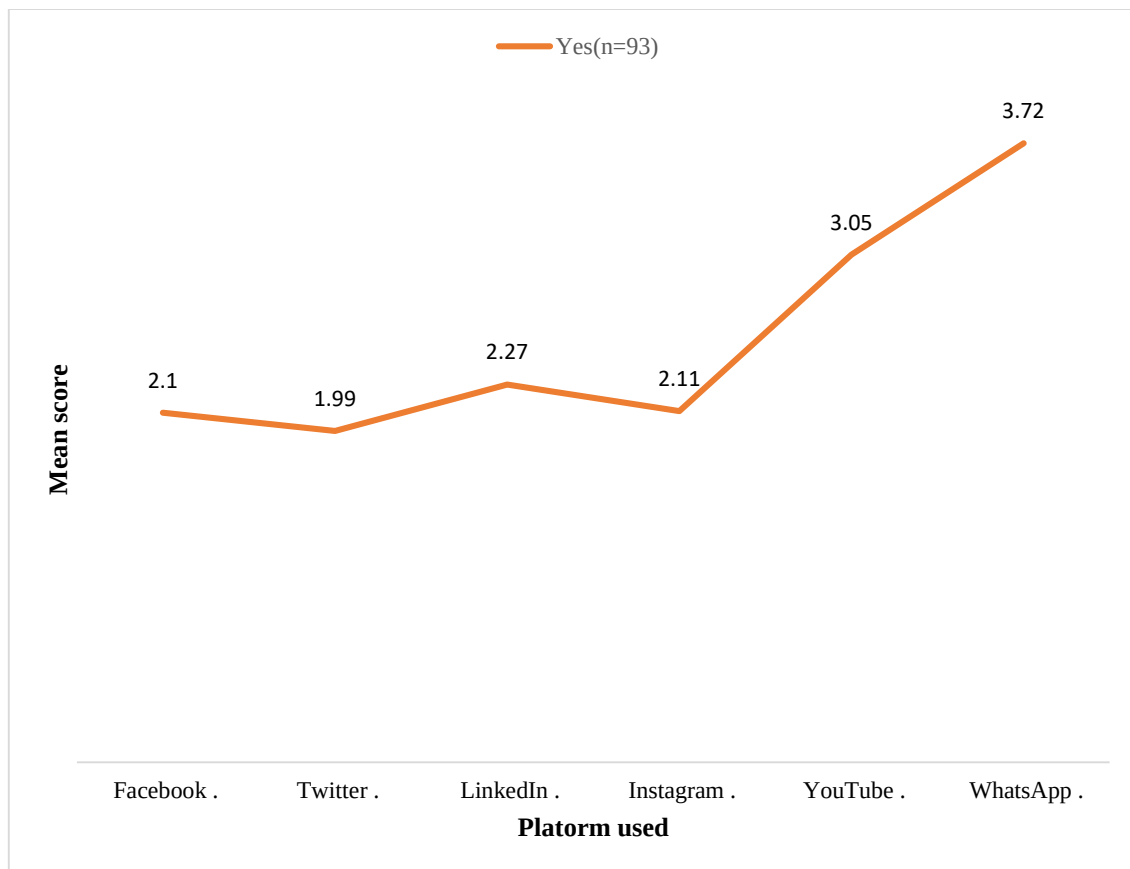
4.2 Patterns of use

4.2.1 Media (Platforms) used

Figure 4.1 shows that 86.1% (93) of respondents use social media for work, with WhatsApp (M=3.72) and YouTube (M=3.05) being the most frequently used platforms.

Figure 4.1

Patterns of use: Media (Platform) used

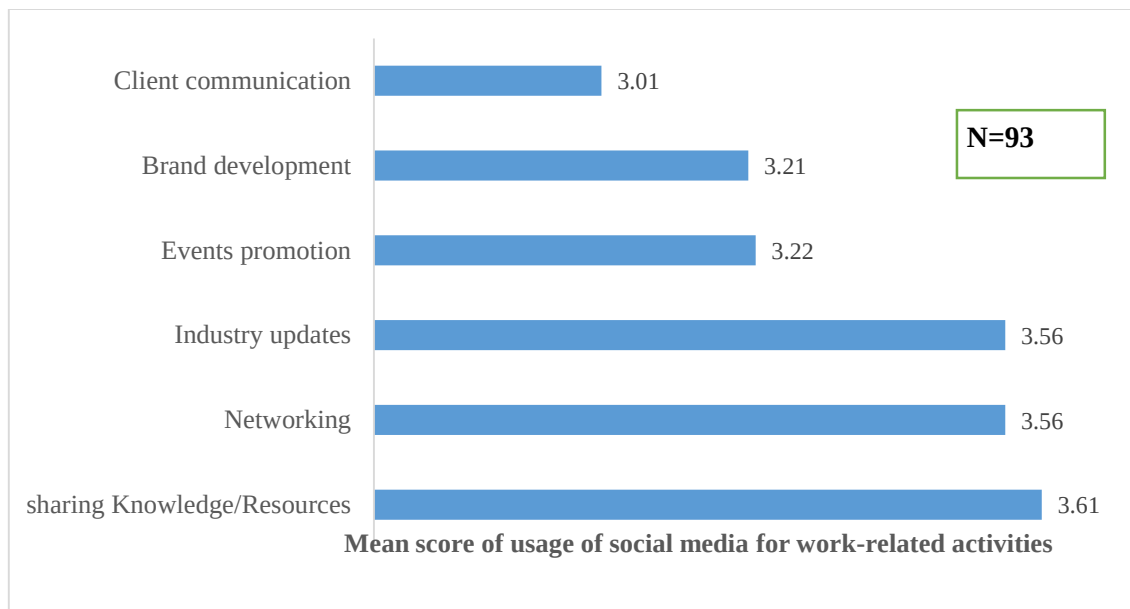


4.2.2 Purpose of use

Figure 4.2 shows high social media usage for work-related activities, especially for sharing knowledge/resources (M=3.61), networking with colleagues (M=3.56), and obtaining professional updates (M=3.56).

Figure 4.2

Patterns of use: Purpose



4.2.3 Correlation between Social Use Effects and purpose, and Platforms

Correlation patterns were derived at two levels: inter-social-media application correlations and correlations between social media platforms and their effects (See Table 4.4). Inter-social-media application correlations among Facebook, Twitter, LinkedIn, Instagram, YouTube, and WhatsApp, as shown in the table, indicate varying degrees of association. Strong positive correlations are observed between Instagram and YouTube ($\rho = 0.687$), Twitter and LinkedIn ($\rho = 0.590$), and Facebook and Instagram ($\rho = 0.502$), among others. However, weaker correlations are noted between platforms like Facebook and LinkedIn ($\rho = 0.299$). Overall, the findings suggest interconnected usage patterns among different social media platforms among the respondents.

The Spearman's correlation matrix in Table 4.4 illustrates the interconnectedness between various social media platforms and specific beneficial usages. Marketing events such as brand development and events promotion activities were positively and significantly correlated with increased usage of all media platforms ($p < 0.05$). Networking was positively and significantly correlated with Facebook ($p=0.033$) and WhatsApp ($p=0.003$). Knowledge sharing and communication of industry updates were positively and significantly correlated with all platforms (all $p < 0.05$), except for Facebook ($p > 0.05$). Client communication was positively and significantly correlated with increased usage of Facebook, Twitter, LinkedIn, and Instagram ($p < 0.05$).

Table 4.4*Correlation matrix: Social media applications and specific social media usages*

		Facebook .	Twitter .	LinkedIn .	Instagram .	YouTube .	WhatsApp .	Networking .	Knowledge Sharin g.	Client com	updates	Brand devt	Events prom
Facebook	P (rho)												
ok	P	.											
Twitter	P (rho)	.606											
.	P	.000	.										
Linked	P (rho)	.299	.590										
In .	P	.002	.000	.									
Instagr	P (rho)	.502	.575	.525									
am .	P	.000	.000	.000	.								
YouTu	P (rho)	.298	.460	.510	.687								
be .	P	.002	.000	.000	.000	.							
Whats	P (rho)	.107	.170	.189	.135	.278							
App .	P	.274	.081	.053	.168	.004	.						
Networ	P (rho)	.207	.180	.145	.119	.161	.288						
king	P	.033	.066	.141	.228	.100	.003	.					
Knowl	P (rho)	.168	.347	.306	.240	.403	.314	.506					
ege.sha	P	.084	.000	.002	.014	.000	.001	.000	.				
r.	P (rho)	.321	.239	.318	.319	.154	.140	.289	.287				
Client	P	.001	.013	.001	.001	.117	.153	.003	.003	.			
com.	P (rho)	.122	.307	.285	.361	.305	.230	.473	.360	.263			
Iupdate	P	.212	.001	.003	.000	.002	.018	.000	.000	.006	.		
s	P (rho)	.487	.404	.339	.513	.496	.181	.268	.194	.331	.414		
Brand	P	.000	.000	.000	.000	.000	.065	.006	.048	.001	.000	.	
develo	P (rho)	.409	.357	.300	.553	.567	.400	.362	.440	.351	.435	.547	
pment	P	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.
Events	P (rho)												
prom	P												

4.3 Individual factors and use of social media

4.3.1 Individual Technical Proficiency

Individual technical proficiency in using social media applications was assessed using three 5-point Likert scale items, with 1 (strongly disagreeing) to 5 (strongly agreeing) (refer to Table 4.5). These items demonstrated an acceptable internal reliability coefficient of .803. Factor analysis revealed that these items mainly loaded onto Factor 1, suggesting a common underlying dimension related to social media use technical proficiency. The level of technical proficiency was the average cumulative mean score of the three items. Respondents demonstrated high proficiency in using social media applications, with an overall mean score of 3.83 and a median score of 4.

Table 4.5

Factors Extracted from Principal Component Analysis on Social Media Proficiency Items

Component Matrix^a		
	Component	
	1	2
Proficient in using Facebook, Twitter, and other platforms.	.795	.603
Experienced in managing privacy settings on social media.	.883	
Skilled in creating and managing professional accounts.	.861	
Extraction Method: Principal Component Analysis.		

a. 2 components extracted.

NB: Overall technical proficiency score: Mean 3.83, Median 4.0 Mode 4.33

4.3.2 Knowledge of and Attitude towards the ethics of social media use

Through Principal Component Analysis (See Table 4.6), two distinct constructs were extracted: 1) knowledge about social media policies and regulations, and 2) attitude to its ethical use. The analysis revealed strong loadings for both constructs, with Cronbach's alphas of 0.803 and 0.739, respectively, indicating their reliability.

Table 4.6

Pattern Matrix of Constructs: Knowledge & Compliance with Ethics of Social Media Use

Pattern Matrix^a			
Items	Scale Reliability	Component	
		1(Knowledge)	2(Attitude))
Knowledgeable about social media usage policies and regulations.		.941	
Understand legal and ethical implications of posting patient information.	Cronbach $\alpha=0.803$	.802	
Understands patient confidentiality's importance on social media.		.763	
Prioritizes ethical considerations in healthcare social media use.			.859
Thinks there are risks and consequences of posting patient information.	Cronbach $\alpha=0.763$		.841
Cautious and responsible in posting patient information.			.784

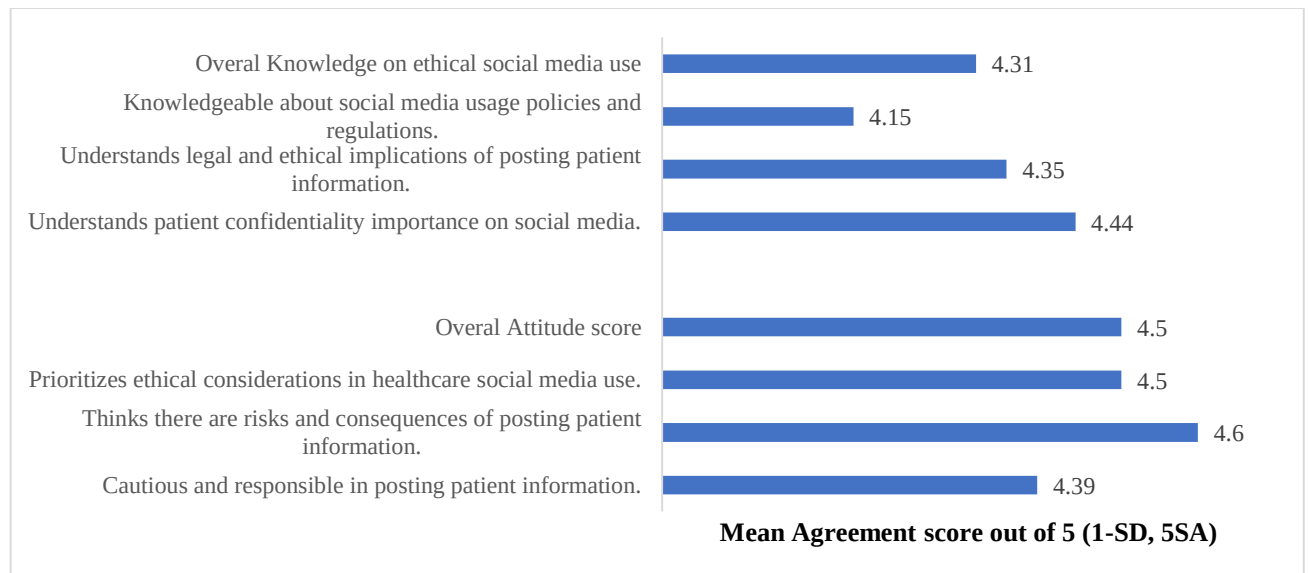
Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

As depicted in Figure 4.3, overall, the interviewed healthcare workers (HCWs) demonstrated a high level of knowledge of ethical social media use, with an average score of 4.31 out of 5. Among the items used to determine overall knowledge, 'Knowledgeable about social media usage policies and regulations' scored the lowest at 4.15.

Similarly, the overall attitude towards ethical social media use was positive, with an average score of 4.5 out of 5. The lowest scoring item, 'Cautious and responsible in posting patient information,' had a mean score of 4.39.

Figure 4.3

Level of knowledge and attitude of HCWs towards ethical social media use



4.3.3 Correlation between Social use effects and Individual factors (technical proficiency, attitude and knowledge)

The correlation matrix (Table 4.7) reveals relationships between various factors, namely technical proficiency, attitude score, knowledge of ethical social media use and negative and positive usage scores. Notably, there is a strong positive correlation between technical proficiency and knowledge of ethical social media use (Spearman's $\rho = 0.466$, $p < 0.001$), indicating that individuals with higher technical skills tend to possess a greater understanding of ethical social media practices. Additionally, a positive correlation exists

between attitude score and knowledge of ethical social media use ($\rho = 0.302$, $p = 0.002$), suggesting that individuals with more positive attitudes toward social media also tend to have a better grasp of its ethical usage. Conversely, there is a weak negative correlation between attitude score and negative usage ($\rho = -0.260$, $p = 0.007$), indicating that individuals with more positive attitudes are less likely to engage in negative social media behaviors. On the other hand, a positive correlation is observed between attitude score and positive usage ($\rho = 0.170$, $p = 0.081$), suggesting that individuals with positive attitudes are more inclined to engage in positive social media activities.

In addition, there is a significant positive correlation between technical proficiency and positive usage (Spearman's $\rho = 0.309$, $p = 0.001$), indicating that individuals with higher technical skills are more likely to engage in positive social media activities. The correlation between knowledge of ethical social media use and positive usage is also significant, with a positive correlation coefficient of 0.318 ($p = 0.001$). This indicates that individuals who possess a better understanding of ethical social media practices are more likely to engage appropriately in positive social media activities.

Table 4. 7 Correlation matrix: Usage and individual factors (Technical proficiency, Attitude, and Knowledge of social media ethics)

			Technical Proficiency	Attitude score	Knowledge on ethical social media use	Negative usage score	Positive usage score
Spearman's rho	Technical Proficiency	P (rho)	1.000				
		P		.			
	Attitude score	P (rho)	.283	1.000			
		P	.003		.		
	Knowledge on ethical social media use	P (rho)	.466	.302	1.000		
		P	.000	.002		.	
	Negative usage score	P (rho)	.096	-.260	.070	1.000	
		P	.328	.007	.474		.
	Positive usage score	P (rho)	.309	.170	.318	.195	1.000
		P	.001	.081	.001	.046	.

a. Listwise N = 106

4.4 Organizational factors: Policies and guidelines

The survey findings revealed a strong consensus among respondents at NSIRH (See Table 4.8) regarding the necessity of implementing policies and guidelines to promote responsible social media use among healthcare workers (HCWs). They overwhelmingly perceive social media use in work-related activities by HCWs as highly responsible (M=4.19) and expressed confidence that formal policies or guidelines would positively influence such behavior (M=4.16). Additionally, respondents indicated a high level of familiarity with best practices and guidelines for healthcare providers using social media platforms (M=4.01). However, they also note occasional instances of irresponsible social media use in the absence of formal policies or guidelines (M=3.73). Overall, respondents are highly confident that the presence of formal policies or guidelines would encourage responsible social media

use by HCWs at NSIRH (M=4.48). From the KIIs, evidence of regular training on the ethical use of social media for work-related activities was observed. Respondent 1 stated, "It has provided a digital platform for communication, engaged experts to teach people on how to use the gadget" (KII 1) The respondents were asked to respond to individual factors or issues that they believe may contribute to healthcare providers using social media for work-related activities.

Most of the respondents were of the opinion that age factor really plays a big role whereby the younger people in the profession spend most of their time on social media platforms probably because they are more proficient in the digital space than the older people additionally the level of education also contribute to the usage of social media platforms in that more educated people are eager to get new updates in matters related to health than less educated people,

The key informant interview agreed that the more the provider is technically proficient, the more they were able to use social media positively while observing ethics in online platforms.

It was also noted that there were no active guidelines governing responsible social media use in the facility and hence they recognize the need to formulate the guidelines and implement them to ensure healthcare providers working in the facility were able to observe ethics in the online spaces while discharging their clinical services to the patient.

Table 4.8*Organizational policies and guidelines to promote responsible social media*

	Level of agreement on a scale of 1-5
I consider social media use in work-related activities by healthcare providers at NSIRH to be highly responsible	4.19
If formal policies or guidelines were to exist, I believe they would positively influence social media use for work-related activities	4.16
I am familiar with best practices and guidelines for healthcare providers using social media platforms.	4.01
In my experience, the absence of formal policies or guidelines has occasionally led to irresponsible social media use at NSIRH.	3.73
I am very confident that the presence of formal policies or guidelines would encourage responsible social media use by healthcare providers at NSIRH	4.48

4.4.1 Correlation between Social use effects and Organizational factors

These findings (See Table 4.9) suggest that the desired effects, or positive outcomes, were significantly positively correlated with considering social media use in work-related activities as highly responsible, believing in the positive influence of formal policies or guidelines, being familiar with best practices, feeling confident that formal policies would encourage responsible social media use, and experiencing occasional irresponsible social media use due to the absence of such policies at NSIRH. These findings imply that positive outcomes are strongly associated with considering social media use in work-related activities responsibly, believing in the impact of formal policies, being acquainted with

best practices, feeling assured of policy benefits, and recognizing the consequences of policy absence at NSIRH.

Table 4.9

Correlational between organizational factors and positive effects (desirable effects) of social media use

			Desired/positive effects
Spearman's rho	I consider social media use in work-related activities by healthcare providers at NSIRH to be highly responsible	Correlation Coefficient	.441**
		Sig. (2-tailed)	.000
		N	108
	If formal policies or guidelines were to exist, I believe they would positively influence social media use for work-related activities	Correlation Coefficient	.441**
		Sig. (2-tailed)	.000
		N	108
	I am familiar with best practices and guidelines for healthcare providers using social media platforms.	Correlation Coefficient	.399**
		Sig. (2-tailed)	.000
		N	109
	In my experience, the absence of formal policies or guidelines has occasionally led to irresponsible social media use at NSIRH.	Correlation Coefficient	.347**
		Sig. (2-tailed)	.000
		N	106
	I am very confident that the presence of formal policies or guidelines would encourage responsible social media use by healthcare providers at NSIRH	Correlation Coefficient	.409**
		Sig. (2-tailed)	.000
		N	109
	+ve	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	109

4.5 Discussion

In this study, the use of social media in work-related activities was very high (86.1%). This is almost similar to the findings of Surani et al. (2017), who reported that 87.9% of doctors and nurses use social media, although not necessarily limited to work-related purposes alone.

In this study, the findings of results showed that the usage of social media among healthcare providers in their work related activities showed no significant variations across demographic variables such as age group, gender, job position, highest education level, and years of service experience meaning there was no linkage between different social demographic characteristics and social media usage among healthcare providers. This finding contradicts previous studies by Wamuyu et al. (2020), who reported variations across different demographics, including age and geographical locations. According to Wamuyu, among the general population, social media use was more prevalent in urban areas compared to rural areas. Additionally, Wamuyu noted that social media users who are 26-35 years old are more active on professional networks such as LinkedIn, Skype, and Twitter, representing individuals often seeking to establish their careers. The current study findings align with those of Surani et al. (2017), who found no significant differences in the use of social media among nurses and doctors.

This study found that healthcare professionals (HCPs) predominantly use WhatsApp and YouTube at work. Significant positive correlations were observed among these platforms, including Facebook, Twitter, LinkedIn, Instagram, and YouTube (all $p < .05$), suggesting

that increased usage of one platform is likely associated with increased usage of others. These findings partially align with a cross-sectional survey in Uganda by Olum & Bongomin (2020), which observed that WhatsApp and Facebook were the most commonly used social media platforms by healthcare providers. Similarly, in Kenya, WhatsApp, Facebook, and YouTube dominate social media (Wamuyu, 2020).

In this study, healthcare providers primarily use social media platforms for sharing knowledge, networking with colleagues, and receiving professional updates, which is consistent with previous research (Farsi, 2021). Similarly, a study conducted in South Texas demonstrated that a majority of healthcare providers with electronic devices utilize social media platforms for interacting with colleagues, engaging with hospitals regarding work matters, and accessing health-related information (Surani et al., 2017). Additionally, in Uganda, the MOH used WhatsApp to disseminate COVID-19 information, facilitate testing, and combat misinformation (Olum & Bongomin, 2020).

Most of the healthcare providers (HCPs) interviewed were knowledgeable about ethical social media use, technically proficient, and expressed a positive attitude towards its ethical use. Technical proficiency, knowledge level regarding ethical social media use, and attitude were positively associated with appropriate social media usage. This is consistent with a qualitative study on healthcare providers' perceived digital competencies in Finland (Jarva et al., 2022) which observed that prior experience, familiarity, and interest in digital technologies promote the use of social media among HCPs in work-related activities.

Occasional instances of irresponsible social media use, involving the unauthorized sharing of videos and photos featuring patients, were reported. Respondents expressed concern, both personally and at the hospital level, that without formal guidelines or policies on ethical social media use, the risk of exposing confidential information through social media usage is likely to increase. This prompted hospital to institute measures such as training and providing cautionary advice on responsible and ethical social media usage. These findings are consistent with the literature. Negative consequences of social media use have also been identified (Gholami-Kordkheili et al., 2013). A systematic literature review into the social media–related challenges and opportunities identified detrimental consequences due to HCPs using social media. For example, violating patient confidentiality has been observed (Cho et al., 2019; Schoenbrunner et al., 2019). The study also reported inappropriate behaviors such as vulgar language, prejudices based on posting content on another person's website, race, age, alcohol misuse presentation, substance abuse, and sexual promiscuity.

Qualitative data analysis

Patterns of social media use among healthcare providers in work-related activities.

To get more information and back up the report obtained from the quantitative data, supplementation of the study was done to increase the rigor of the study. This was achieved by conducting a key informant interview schedule whereby the questions were directed to the respondents relating to patterns of social media use in work-related activities among healthcare providers in the National Spinal Injury Hospital. The results

of patterns of social media use in terms of different platforms used and the purpose of use were analyzed using a thematic approach and the results were as follows;

According to the key informants, Considering their experiences on which were the social media platforms that are commonly used by healthcare providers for work-related activities and how frequently they are used, the results should that most of the healthcare providers use social media platforms mostly WhatsApp to communicate matters patient, updating one another on social issues happening in the facility, engage on continuous medical education on various health-related topics by clicking on various links sent by the organizers on their various WhatsApp groups, additionally they use the same platform to also used by the administration a channel of communication to pass any message to the health workers, however, some information have been forwarded to the wrong forums hence it has infringed on other people's privacy and rights.

“I think what app is the most commonly used social media platform used by the healthcare providers to communicate matters affecting them and their patient”.

As to elaboration on the extent to which social media is integrated into the daily activities and routines of healthcare providers, at least most of the respondents reported that all healthcare providers know where to get any updates concerning their patient's progress, whereby they just go to social media platform which is WhatsApp and that it comprised of different cadres of healthcare providers who offer their services directly to the patients to include doctors, nurses, clinicians, physiotherapists among others hence making

communication easier on matters patient's care, therefore social media platform especially WhatsApp is integrated to a large extent.

“The official communication from the administration to the staff is mostly done through the official social media platform created which comprised of all healthcare providers working in the facility, additionally nurses have their own WhatsApp group where they give any update about their patients”.

On whether there are particular types or formats of content shared or accessed through social media that are more prevalent in the healthcare profession, the responses from the respondents, agreed that there is a lot of health content that healthcare providers access through social media platforms that are more prevalent in the health profession. They also identified various social media platforms for example WHO website where various updates on health-related issues are found.

“Healthcare workers are able to enhance their professional knowledge through accessing updates on health matters posted on various social media platforms like the Ministry of Health website”

Effects of social media use by healthcare providers in their work-related activities

To establish the effects of social media, use among healthcare providers in their work-related activities, the key informants were asked to respond to the question by telling their experience in terms of the positive effects of social media use among healthcare providers in their professional roles. The majority of the respondents admitted the fact that social

media has played an immense role as a channel of communication between the administration and the staff, that healthcare professionals are able to continually upgrade their careers through online platforms hence improving their knowledge. At least one respondent indicated that when healthcare providers engage in social media platforms, there is burnout relief caused by pressure at work place. Exchange of information and updates on patient management also came out strongly.

“I think nurses have greatly benefitted from social media use because they are able to send photos of patient’s wounds to doctors who directs them on how to manage them”.

In regards to potential negative effects or challenges associated with social media use among healthcare providers in their professional roles, the respondents admitted that sometimes patient’s information and photos end up in the wrong forums which risk litigation measures and also infringe the rights of other people.

“I have ever seen a patient from this facility complaining because his photo showing the wound he had was circulating on social platforms”

Individual and organizational culture on social media use

The respondents were asked to respond to individual factors or issues that they believe may contribute to healthcare providers using social media for work-related activities.

Most of the respondents believed that the age factor plays a big role where the younger people in the profession spend most of their time on social media platforms probably

because they are more proficient in the digital space than the older people additionally the level of education also contribute to the usage of social media platforms in that more educated people are eager to get new updates in matters related to health than less educated people.

“I think young people are more conversant on how to operate on various digital spaces”

The respondent was also asked to explain how the organization promotes responsible social media use and the sharing of work-related information among healthcare providers.

At least one respondent admitted that the organization has not been proactive in promoting responsible use of social media by healthcare providers working in their facility citing that it is a big challenge.

“It is very difficult to control what other people are posting in social media platforms”

On how the healthcare providers perceive the role of organizational policies in shaping their social media use for work-related matters, the respondents admitted that there no policies in place governing social media use in the organization hence that was an eye opener to the organization.

“That must be a very good idea on how we can start formulating organizational policies that will regulate how healthcare workers use social media in work -related activities.”

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter offers a summary of the findings regarding the patterns of social media use in work-related activities among healthcare providers, the effects of social media use, and how the organizational culture influences social media use by healthcare providers at NSIRH from which conclusions were made based on the findings and recommendations are subsequently drawn to be channeled towards the concerned stakeholders.

5.2 Summary

5.2.1 Patterns of social media use

In this study, the utilization of social media in work-related activities was notably high (86.1%), with no significant variations observed across demographic variables like age group, gender, job position, highest education level, and years of service experience. Healthcare professionals (HCPs) predominantly utilize WhatsApp and YouTube at work, with increased usage of one platform likely associated with increased usage of others. This agreed with the findings from the qualitative data whereby majority of key informant interview said that WhatsApp was predominantly used as a channel of communication between the administration and the healthcare providers within the facility.

5.2.2 Effects of Social Media Use

The healthcare providers primarily employ social media platforms positively for knowledge sharing, networking with colleagues, and receiving professional updates. There was high knowledge about ethical social media use, technical proficiency, and a positive attitude toward ethical use of social media. Despite this, occasional instances of irresponsible social media in terms of the negative effect of social media use among healthcare providers were also noted. For example, some healthcare providers were involved in the unauthorized sharing of videos and photos featuring patients, which compromised professional ethics on social media platforms. The negative usage of social media by healthcare providers in their work-related activities posed the risk of potential litigation measures against the individual healthcare provider, violation of patient's privacy, and damage to the image of the profession and the institution. The findings of qualitative data showed that social media platforms were used positively by the healthcare providers, however, they reported that some healthcare providers were not observing ethical social media use in their work-related activities posing the risk of potential litigation measures against individual healthcare providers and the institution. For example, posting patients' photos and videos without their consent hence violating the right of the patient to privacy, and confidentiality and also damaging image of the profession and the reputation of the institution.

5.2.3 Organizational factors and social media use

In terms of organisational culture, the negative effects of social media use were partly attributed to the lack of formal policies and guidelines governing ethical social media usage among healthcare providers in their professional work. Individual factors such as technical proficiency was attributed to positive social media use by healthcare providers in their work related activities. Healthcare providers who had positive attitude and were knowledgeable on the ethical use of social media used social media platforms positively in their professional roles.

5.3 Conclusion

5.3.1 Patterns of social media use

In this study, the utilization of social media in work-related activities was notably high at 86.1%. Most of the patterns used were WhatsApp which scored highest with a mean score of 3.72 followed by YouTube. The study concluded that healthcare providers ought to utilize social media platforms while observing ethics in social platforms.

5.3.2 Effects of social media use

They have been predominantly used for knowledge sharing, networking with colleagues, and receiving professional updates, however, the study revealed that some healthcare providers were not observing professionalism on social media platforms by posting patients' photos and videos without consent.

Social media was frequently utilized by healthcare providers for connecting with colleagues or professionals in the field, accessing valuable industry news and updates, showcasing work to a wider audience facilitating networking opportunities, and also providing platform to learn new knowledge or skills.

5.3.3 Organizational factors and social media use.

In regards to organizational factors, despite the high knowledge about ethical social media use, technical proficiency, and a positive attitude toward its ethical application, occasional instances of irresponsible social media use, involving the unauthorized sharing of videos and photos featuring patients, were also noted. This could be the case for several reasons: despite the high levels of knowledge, technical proficiency, and positive attitude observed, there may still be healthcare professionals who lack knowledge on ethical social media use, possess low technical proficiency, or harbour negative attitudes toward ethical usage. Additionally, the absence of formal policies governing ethical social media usage in professional work could partly contribute to this phenomenon, therefore formal guidelines and policies governing responsible social media use among healthcare providers in their work-related activities ought to be implemented in the organization

The study had limitations, such that the sample size for qualitative data was too small and those respondents who participated in the study were from National Spinal Hospital hence the results may not represent the general population.

Further research

The researcher recommends more studies that investigate other aspects of social media use among healthcare providers in their work-related activities to be explored such as organizational dynamics, and motivational factors that lead to irresponsible social media use by healthcare providers in their work-related activities.

5.4 Recommendations

Based on the conclusions drawn above, this study makes the following recommendations:

1. The chief executive officer and the hospital management team should enhance regular sensitization programs to ensure all healthcare professionals are knowledgeable about ethical social media use, regardless of their current level of understanding.
2. The hospital administration and the health management team in the facility should foster a culture that promotes a positive attitude toward ethical social media use through ongoing communication and awareness campaigns.
3. The hospital administration and the health management team should develop and implement formal policies governing ethical social media usage in professional work to establish clear guidelines and consequences for inappropriate behaviour.

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APPENDICES

Appendix I: Consent form

Kenya Methodist University

PO BOX 267-60200

Meru, Kenya

SUBJECT: INFORMED CONSENT

Dear Respondent,

My name is Martha Wangui Wambugu, a MSc Nursing Education student from Kenya Methodist University. I am conducting a study titled: Utilization of social media in work-related activities among health providers at National Spinal Injury Referral Hospital Nairobi. The findings will be utilized to strengthen the health systems and especially on how to utilize social media by health professionals and also. It will generate new knowledge in this area that will inform decision makers to make decisions that are research-based.

Procedure to be followed

Participation in this study will require that I ask you some questions in regard to social media utilization in professional roles. You will record the information in a questionnaire. You have the right to refuse to participate in this study. You will not be penalized nor victimized for not joining the study, and your decision will not be used against you nor affect you at your work

Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions and may also stop being in the study at any time without any consequences to the services you are rendering.

Discomfort risks

During the time you will be answering the questions, some questions might be uncomfortable for you to answer. In case of such incidents, you are allowed to skip them. You have the right to refuse the interview or any questions asked during the interview.

Benefits

If you participate in this study, you will help us to know if you are utilizing social media platforms in your professional roles. The results obtained from this study will be shared with the relevant policy makers, which will consequently improve the quality of care to the patients and clients at the same time, enhance quality service delivery.

Rewards

There is no reward for anyone who chooses to participate in the study.

Confidentiality

The questionnaires will be answered in a conducive setting within the facility. Your name will not be recorded on the questionnaire, and the questionnaires will be kept in a safer place in the hospital

Contact Information

If you have any further questions or concerns about participating in the study, please contact the following supervisors;

Dr. Peter Kailemia – kailemiahh@gmail.com

Dr. Moses Mulu – moses.mulu@kemu.ac.ke

Participants Statement

The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions, and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study at any time. I understand that I will not be victimized at my place of work whether I decide to leave the study or not, and my decision will not affect the way I am treated at my workplace.

Name of participant..... Date Signature

Investigator's statement

I, the undersigned, have explained to the volunteer in the language that she/he understands the procedures to be followed in the study and the risks and the benefits involved. Name of

Interviewer..... Date..... Signature.....

Appendix II: Questionnaire

SECTION A: BIO-DATA

1. Please indicate your age group:

- ☐ 18-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56 and above

2. What is your gender?

- ☐ Male
- ☐ Female

3. What is your cadre or job position at NSIRH?

- ☐ Doctor
- ☐ Nurse
- ☐ Therapist
- ☐ Administrative Staff
- ☐ Other (Please specify)

4. Please indicate your highest level of education:

- ☐ High school
- ☐ Diploma
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Doctorate
- ☐ Other (Please specify)

5. Do you use social media for work-related activities [For example, using social media platforms such as Facebook, Twitter, LinkedIn, or Instagram for professional purposes like networking, information sharing, or communication with colleagues]?

(Yes/No)

6. Years of experience in service

A) 1-5

B) 5-10

C) 10-15

D) Above 15

PATTERNS OF SOCIAL MEDIA USE: PLATFORM

Please indicate the frequency with which you use each social media platform for work-related activities using the following Likert scale:

Statement	1 - Never	2 - Rarely	3 - Occasionally	4 - Frequently
Media used				
7. I use Facebook for work-related activities.				
8. I use Twitter for work-related activities.				
9. I use LinkedIn for work-related activities.				
10. I use Instagram for work-related activities.				
11. I use YouTube for work-related activities.				
12. I use WhatsApp for work-related activities.				

PATTERNS OF SOCIAL MEDIA USE: REASONS

Statement	1 - Never	2 - Rarely	3 - Occasionally	4 - Frequently
Reasons				
13. Social media helps me network with colleagues and professionals.				
14. Social media allows me to share and access professional knowledge/resources.				
15. Social media enables me to communicate with patients or clients.				
16. Social media helps me keep up with industry trends and news.				
17. Social media assists in building my professional reputation and personal branding.				
18. Social media allows me to promote events or initiatives.				
19. Other: _____				

EFFECTS OF SOCIAL MEDIA USE

Please indicate the frequency (by Ticking) with which each negative OR positive effect of social media use on work-related activities has occurred in the past, using the following Likert scale:

Statement	1 Never	2 Rarely	3 Occasionally	4 Frequently
Negative				
20. Social media has distracted me from important work tasks.				
21. Social media has increased the risk of confidential information exposure.				
22. Social media has led to a blurring of professional boundaries.				
23. Social media has negatively impacted my productivity in work-related tasks.				
24. Social media has been a source of misinformation in my professional field.				
25. Social media has raised concerns about the privacy and security of my work-related information.				
26. Other: _____				
Positive Effects				

Statement	1 Never	2 Rarely	3 Occasionally	4 Frequently
27. Social media has helped me connect and communicate with colleagues or professionals in my field.				
28. Social media has provided me with valuable industry news and updates.				
29. Social media has allowed me to showcase my work or professional achievements to a wider audience.				
30. Social media has facilitated networking opportunities and career advancement.				
Social media has provided me with a platform to learn and acquire new knowledge or skills related to my profession.				
31. Social media has helped me discover job or business opportunities.				
32. Social media has helped me connect and communicate with colleagues or professionals in my field.				
33. Social media has provided me with valuable industry news and updates.				

INDIVIDUAL AND ORGANIZATION FACTORS INFLUENCING SOCIAL MEDIA USE

Here are questions related to technical proficiency, Attitude, and knowledge regarding social media platforms in a healthcare context. You can place a checkmark (✓) in the corresponding column that best reflects your level of agreement or disagreement with each statement.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Technical Proficiency:					
34. I am proficient in using social media platforms like Facebook and Twitter.					
35. I have experience in managing and navigating privacy settings on social media platforms.					
36. I am skilled in creating and managing professional accounts on social media platforms.					
37. I have received training on using social media tools and features effectively.					

Attitude:					
38. I understand the importance of patient confidentiality and privacy when using social media.					
39. I have a cautious and responsible attitude towards posting patient Information on social media.					
40. I am aware of the potential risks and consequences of posting patient Information on social media.					
41. I prioritize the ethical considerations and guidelines when using social media in a healthcare setting.					
Knowledge:					
42. I have a good understanding of the legal and ethical implications of posting					

patient Information on social media.					
43. I am knowledgeable about the policies and regulations regarding social media usage.					
44. I possess a deep understanding of the potential impact of social media on patient trust and confidentiality.					
Organizational Factor					
45. Social media use in work-related activities should be regulated					
46. I consider social media use in work-related activities by healthcare providers at NSIRH to be highly responsible					
47. If formal policies or guidelines were to exist, I believe they would positively influence social media use for work-related activities					
48. I am familiar with best practices and guidelines					

for healthcare providers using social media platforms.					
49. In my experience, the absence of formal policies or guidelines has occasionally led to irresponsible social media use at NSIRH.					
50. I am very confident that the presence of formal policies or guidelines would encourage responsible social media use by healthcare providers at NSIRH					

Appendix III: Key Informant Interview

This interview targets hospital administrators in the hospital, beginning at the ward level.

1. Introduction

- Thank the interviewees for their participation and express appreciation for their insights.
- Provide a brief overview of the interview purpose: to explore the patterns and effects of social media use and the individual and institutional factors influencing the use of social media among healthcare providers (HCPs) on work-related issues.
- Assure confidentiality and informed consent, emphasizing that their responses will be kept confidential and used for research purposes only.
- Inform the respondent that the interview will be tape-recorded.

2. Patterns

- In your experience, which social media platforms are commonly used by healthcare providers for work-related activities, and how frequently are they used?
- Could you elaborate on the extent to which social media is integrated into the daily activities and routines of healthcare providers?
- Are there particular types or formats of content shared or accessed through social media that are more prevalent in the healthcare profession?

3. Effects of Social Media Use

- In your experience, what are the positive effects of social media use among healthcare providers in their work-related activities?
- On the other hand, what are the potential negative effects or challenges associated with social media use among HCPs in their professional capacity?

4. Individual and organizational culture on social media use

- What individual factors or issues do you believe may contribute to healthcare providers using social media for work-related activities?
- How does your organization promote responsible social media use and the sharing of work-related information among healthcare providers?
- Additionally, how do healthcare providers perceive the role of organizational policies in shaping their social media use for work-related matters?

5. Closing

- Give the interviewee an opportunity to provide any additional insights or recommendations.
- Express gratitude for their time, expertise, and valuable contribution to the interview.

Appendix IV: Ethical Clearance



KENYA METHODIST UNIVERSITY

P. O. BOX 267 MERU - 60200, KENYA
TEL: 254-064-30301/31229/30367/31171

FAX: 254-64-30162
EMAIL: INFO@KEMU.AC.KE

January 22, 2024

KeMU/ISERC/MSN/02/2024

MARTHA WANGUI WAMBUGU
MSN-3-1700-3/2019

Dear Martha,

SUBJECT: "UTILIZATION OF SOCIAL MEDIA IN WORK RELATED ACTIVITIES AMONG HEALTHCARE PROVIDERS AT NATIONAL SPINAL INJURY".

This is to inform you that Kenya Methodist University Institutional Scientific Ethics and Review Committee has reviewed and approved your research proposal. Your application approval number is KeMU/ISERC/MSN/02/2024. The approval period is 22nd January, 2024 to 22nd January, 2025.

This approval is subject to compliance with the following requirements:-

- I. Only approved documents including (informed consents, study instruments, MTA) will be used.
- II. All changes including (amendments, deviations, and violations) are submitted for review and approval by Kenya Methodist University Institutional Scientific Ethics and Review Committee.
- III. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KeMU ISERC within 72 hours of notification.
- IV. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KeMU ISERC within 72 hours.

- V. Clearance for export of biological specimens must be obtained from relevant institutions.
- VI. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- VII. Submission of an executive summary report within 90 days upon completion of the study to KeMU ISERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,



Appendix V: KeMU Introductory Letter to NACOSTI



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 60200, Kenya

Fax: 254-64-30162

Tel: 254-064-30301/31229/30367/31171

Email: deanrd@keimu.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

January 22, 2024

Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100
NAIROBI.

Dear Sir/Madam,

RE: MARTHA WANGUI WAMBUGU – (REG. NO. MSN-3-1700-3/2019)

This is to confirm that the above named person is a bona fide student of Kenya Methodist University, in the School of Medicine and Health Sciences, Department of Nursing undertaking a Master's Degree in Nursing Education. She is conducting research on: "Utilization of Social Media in Work Related Activities among Healthcare Providers at National Spinal Injury".

We confirm that her research proposal has been presented and approved by the University.

In this regard, we are requesting your office to issue a research license to enable her collect data.

Any assistance accorded to her will be appreciated.

Yours sincerely,

Dr. John M. Muchiri (PhD)

Dean, Postgraduate Studies

Cc: Dean SMHS

CoD, HSM

Program Coordinator -HSM

Student Supervisors

Appendix VI: NACOSTI Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 829720	Date of Issue: 07/February/2024
RESEARCH LICENSE	
	
This is to Certify that Ms.. Martha Wangui Wambugu of Kenya Methodist University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: UTILIZATION OF SOCIAL MEDIA IN WORK-RELATED ACTIVITIES AMONG HEALTHCARE PROVIDERS AT NATIONAL SPINAL INJURY HOSPITAL, NAIROBI for the period ending : 07/February/2025.	
License No: NACOSTI/P/24/32744	
829720	
Applicant Identification Number	Director General
	NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code
	
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.	
See overleaf for conditions	

Appendix VII: Ministry of Health Research Approval



MINISTRY OF HEALTH OFFICE OF THE DIRECTOR GENERAL

Telephone: Nairobi 254-020-2717077

Email: dg@health.go.ke

Afya House
Cathedral Road
P.O. Box 30016-00100
NAIROBI

When replying please quote:

REF: MOH/ADM/1/1/82/ Vol. II/ (65)

15th February 2024

Ms. Martha Wangui Wambugu

National Spinal Injury Hospital

Nairobi, Kenya

Phone: 0720428809

Email: wanguimartha8@gmail.com

**RE: APPROVAL TO CONDUCT A STUDY AT NATIONAL SPINAL
INJURY HOSPITAL**

This is in reference to your letter dated 12th February 2024 requesting approval to conduct a study titled: **"Utilization of Social Media in Work Related Activities among Healthcare Providers at National Spinal Injury Hospital"**

The purpose of this letter is to inform you that this office has **No Objection** to this study.

You are directed to:

1. Fully collaborate with the Spinal Injury –Human Resource Department
2. Provide a study progress update every six months until completion of the study to dhealthpolicy.research.kenya@gmail.com using the attached template;
3. The first such report is expected on or before 30 August 2024; and
4. Submit the final study report to this office.

Note that this approval applies to this request only.

 Dr. Patrick Amoth, EBS
Ag. DIRECTOR GENERAL FOR HEALTH

CC: CEO National Spinal Injury Hospital

Appendix VIII: Approval from National Spinal Injury Referral Hospital

	National Spinal Injury Referral Hospital Off Lenana Road along Rose Avenue P.O Box 20906-00202 Nairobi Kenya Tel: 0722626641, 0202726336 Email: info@spinalinjury.go.ke	
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REF: NSIRH/CEO/024/042

22nd February, 2024.

Mrs. Martha Wangui Wambugu
Kenya Methodist University
Wanguimartha8@gmail.com

RE: APPROVAL TO CONDUCT STUDY AT NATIONAL SPINAL INJURY REFERRAL HOSPITAL

This is in reference to your previous request and the approval from the Director General for Health dated 12th February, 2024 ref: MOH/ADM/1/1/82(Vol/II/65) to conduct research on **“Utilization of Social Media in Work Related Activities among Healthcare Providers”** at National Spinal Injury Referral Hospital.

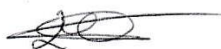
I hereby approve the commencement of the study and you are advised to work closely with the Training and Research Unit.

You are directed to:

- Provide a copy of **Findings and Final report** to National Spinal Injury Referral Hospital before publishing.

Note: the approval applies to this request only.

Yours Faithfully



Dr. Linda Kigera

For Ag. Chief Executive Officer

Appendix IX: Research Authorization from Nairobi County Commissioner



OFFICE OF THE PRESIDENT

**MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL ADMINISTRATION
STATE DEPARTMENT FOR INTERNAL SECURITY AND NATIONAL ADMINISTRATION**

Telegrams.....
Telephone: Nairobi 316845, 341666
When replying please quote

COUNTY COMMISSIONER
NAIROBI.
P.O. Box 30124-00100
NAIROBI

REF: ED 10/6 VOL. XXVII (142)

14th February 2024

Martha Wangui Wambugu
Kenya Methodist University
NAIROBI

RE: RESEARCH AUTHORIZATION

Your letter dated 12th February 2024 refers.

This office has no objection and authority is hereby granted to conduct research on the topic **"Utilization of Social Media in Work-related Activities among Healthcare Providers at National Spinal Injury Hospital"** in Nairobi County for the period ending 7th February 2025.

A handwritten signature in blue ink, appearing to read 'M Kavoi'.

MERCY KAVOI
For: COUNTY COMMISSIONER

Copy to: Deputy County Commissioner
WESTLANDS SUB COUNTY