

ASSESSMENT OF SOCIAL MEDIA UTILISATION FOR PAEDIATRIC HEALTH COMMUNICATION AMONG MEDICAL DOCTORS IN FEDERAL MEDICAL CENTRES, KEFFI AND JABI, NIGERIA

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Abstract

This study examines how medical doctors in the Federal Medical Centres (FMC) Keffi and Jabi utilise social media platforms for disseminating paediatric health information. The central objective was to assess the extent of social media adoption, the nature of health content shared, and the perceived effectiveness and challenges of these digital communication practices. Guided by the Diffusion of Innovations Theory (Rogers, 2003), the study adopted survey design to elicit data from structured questionnaire. The findings revealed that most doctors actively use social media particularly WhatsApp and Facebook to share information on immunisation, nutrition, and child safety. However, barriers such as misinformation, limited digital literacy, weak institutional frameworks, and ethical concerns significantly hinder effective communication. Despite these challenges, doctors acknowledged social media's value in improving caregiver awareness and promoting preventive paediatric health practices. The study concludes that while social media have a transformative potential for child health education, its impact depends on ethical use and institutional support. It therefore recommends the establishment of clear digital communication policies, continuous professional training on social media ethics, and collaborative campaigns between healthcare institutions and media organisations to ensure reliable paediatric health information dissemination.

Keywords: social media, paediatric healthcare, medical communication, digital literacy, Nigeria

Introduction

In the 21st century, social media platforms have become indispensable tools for healthcare communication, bridging the gap between medical professionals and the public through real-time, interactive dissemination of health information (Ventola, 2018). Globally, the integration of digital technologies into healthcare has transformed the traditional model of health service delivery by enabling faster, more accessible, and participatory communication between healthcare providers and recipients (Emenike & Ukonu, 2025). In developing nations such as Nigeria, where infrastructural deficiencies, poor doctor-patient ratios, and limited access to quality healthcare remain major concerns,

digital platforms like Facebook, Twitter (now X), WhatsApp, and Instagram have emerged as cost-effective and efficient alternatives for patient education and engagement (Ibrahim & Olabisi, 2020; Adaji, 2023).

Healthcare professionals increasingly recognise that the dissemination of reliable health information through social media can significantly enhance disease prevention, particularly in paediatric and maternal healthcare (Saidu, 2021). However, effective digital health communication is not without challenges. Issues such as misinformation, lack of institutional guidelines, inadequate ICT infrastructure, and limited digital literacy among both practitioners and patients continue to hinder optimal utilisation (Allen

et al., 2019; Emenike & Ukonu, 2025). Within Federal Medical Centres (FMCs) such as Keffi and Jabi, these challenges are amplified by uneven access to digital tools and varying levels of professional adaptation to emerging technologies (Abdullahi & Dangana, 2023).

The potential of social media in paediatric healthcare lies in its capacity to democratise access to information about immunisation, nutrition, hygiene, and child safety practices topics central to child survival in Nigeria, where preventable childhood diseases remain endemic (World Health Organization [WHO], 2020). Saidu (2021) highlighted that timely dissemination of immunisation information through communication networks, including libraries and outreach media, substantially improves maternal knowledge and compliance, thereby reducing morbidity and mortality among children under five. This underscores the value of digital communication platforms in sustaining health literacy at both individual and community levels.

Adaji (2023) further demonstrated that social media not only facilitates knowledge sharing among health professionals but also strengthens the credibility of clinical decision-making processes when used responsibly. His research in North-Central Nigeria revealed that healthcare workers rely heavily on social networking tools such as Facebook, WhatsApp, and Twitter to exchange clinical insights, access current health guidelines, and consult peers. This aligns with the broader premise of the Technology Acceptance Model (TAM), which posits that perceived usefulness and ease of use determine the willingness of professionals to adopt new technologies (Scherer et al., 2019, as cited in Emenike & Ukonu, 2025).

Furthermore, evidence from Allen et al. (2019) suggests that social media-based

communication enhances occupational health awareness and improves adherence to infection control practices among healthcare workers, particularly in federal medical institutions. This shift from traditional to digital communication paradigms also aligns with the World Health Organization's (2020) call for digital transformation in health systems, emphasising "universal health coverage through innovation."

In the Nigerian setting, healthcare practitioners in Federal Medical Centres face the dual challenge of maintaining professional credibility while engaging the public in the digital sphere. Abdullahi and Dangana (2023) argued that digitisation initiatives such as electronic prescriptions at FMC Keffi have significantly reduced medication errors and improved service efficiency, demonstrating the positive impact of digital tools when properly institutionalised. However, without structured social media guidelines, healthcare professionals risk breaching patient confidentiality or propagating unverified information, both of which can undermine trust in medical institutions.

Given the growing reliance on digital communication channels for health promotion, this study seeks to explore the extent to which medical professionals at Federal Medical Centre (FMC) Keffi and FMC Jabi utilise social media for disseminating paediatric health information. It examines not only the frequency and type of social media engagement but also the perceived effectiveness and constraints of such practices. By contextualising digital health communication within Nigeria's paediatric care landscape, the study contributes to ongoing scholarly discourse on the integration of ICT in healthcare delivery and its implications for public health policy and medical education.

Statement of the Problem

Social media has become an essential channel for healthcare communication, offering opportunities for information sharing, patient education, and professional collaboration (Emenike & Ukonu, 2025). Yet, within Nigeria's public healthcare institutions, particularly the Federal Medical Centres (FMCs), its structured use for professional and evidence-based paediatric communication remains limited. Although doctors increasingly recognise the potential of platforms such as WhatsApp and Facebook for health promotion, existing studies (Saidu, 2021; Adaji, 2023) show that their use in paediatric care is mostly informal and lacks institutional coordination.

In paediatric healthcare, timely dissemination of accurate information is critical to preventing avoidable childhood illnesses and improving caregiver awareness. However, challenges such as misinformation, absence of digital communication policies, and low digital literacy persist among medical professionals (Allen et al., 2019; Abdullahi & Dangana, 2023). These issues raise ethical concerns about the credibility and professionalism of online health communication.

The problem, therefore, lies not in the availability of social media but in its purposeful, guided, and professional utilisation. The extent to which paediatric doctors in FMC Keffi and FMC Jabi use social media to disseminate verified health information remains unclear. This study seeks to address this gap by assessing patterns, effectiveness, and challenges of social media use for paediatric health communication in these institutions.

Research Questions

1. To what extent do medical doctors in FMC Keffi and FMC Jabi use social media to disseminate paediatric care information?

2. What types of paediatric care information are shared by medical doctors on social media?
3. How do medical doctors perceive the effectiveness of social media platforms in disseminating paediatric care information?

Literature Review

Extent of Social Media Use by Medical Doctors for Paediatric Care Dissemination

A growing body of empirical research affirms the increasing use of social media among healthcare professionals globally. Bernhardt, Mays, and Hall (2020) reported that paediatricians in the United States frequently utilise social media platforms such as Facebook and Twitter to communicate vital health information, engage parents, and advocate for preventive healthcare. In the Nigerian context, Ibrahim and Olabisi (2020) observed that doctors, nurses, and other medical practitioners use WhatsApp, Facebook, and Instagram as dominant communication channels for patient education and peer consultation. Similarly, Emenike and Ukonu (2025) found that healthcare personnel in Federal Medical Centre (FMC) Asaba rely heavily on social media to enhance health service delivery and patient communication, despite institutional constraints. These findings collectively suggest that digital communication has become an integral aspect of modern healthcare practice.

However, the extent of social media adoption among paediatric practitioners in Nigeria remains inconsistent and under-documented. Studies such as Adaji (2023) reveal that while healthcare professionals acknowledge the benefits of digital communication, its use for child health education is often informal, unstructured, and dependent on individual initiative rather than institutional policy. Saidu (2021) similarly noted that in paediatric and postnatal care, information dissemination is still largely manual, with

limited integration of online media for sustained patient education. The lack of empirical data on paediatricians' specific social media use in FMCs such as Keffi and Jabi therefore presents a research gap that this study aims to fill by assessing both the frequency and patterns of usage among medical doctors within these institutions.

Types of Paediatric Care Information Shared on Social Media

Several studies have categorised the nature of health information disseminated through social media platforms, particularly in paediatrics and public health. Bernhardt, Mays, & Hall, (2020) identified that paediatricians commonly share information related to immunisation schedules, child nutrition, preventive hygiene, and early developmental milestones. Similarly, Saidu (2021) documented that health education campaigns targeting mothers in Northern and North-Central Nigeria primarily focus on immunisation awareness and prevention of communicable childhood diseases such as measles, polio, and malaria. Beyond immunisation, paediatricians in digital spaces increasingly use social media to provide nutritional advice, emergency first-aid guidance, and psychosocial support for parents of chronically ill children (Ventola, 2018).

In Nigeria, Emenike and Ukonu (2025) and Adaji (2023) observed that social media platforms particularly WhatsApp facilitate medical knowledge sharing not only among doctors and nurses but also between practitioners and caregivers. This peer-to-patient dissemination of medical knowledge has improved communication efficiency but also introduced ethical challenges, especially regarding confidentiality and information accuracy. According to Abdullahi and Dangana (2023), the digitisation of healthcare processes, such as electronic prescriptions at FMC Keffi, demonstrates

how technological adoption enhances service delivery when properly regulated. However, the informal nature of social media communication in medical contexts often blurs the line between professional outreach and casual interaction. Consequently, understanding the specific types of paediatric health information shared by doctors at FMC Keffi and FMC Jabi is essential for determining whether such communication aligns with evidence-based medical standards.

Perceived Effectiveness and Challenges of Social Media Use in Paediatric Health Communication

The perceived effectiveness of social media as a healthcare dissemination tool has been explored in various studies, with mixed findings. On one hand, Ventola (2018) and Smailhodzic, Hooijsma, and Boonstra (2018) emphasise that social media improves patient engagement, facilitates preventive education, and enhances health awareness. On the other hand, ethical concerns such as the spread of misinformation, data privacy breaches, and professional boundary violations continue to pose serious challenges (Pew Research Center, 2019). Within the Nigerian healthcare landscape, Obembe and Aluko (2021) highlighted the absence of formal institutional frameworks guiding digital health communication, which has resulted in inconsistent and sometimes unsafe use of social media by healthcare providers.

Allen, Nwaogazie, and Douglas (2019) also found that inadequate training, limited ICT infrastructure, and poor occupational digital hygiene contribute to inconsistent online engagement among Nigerian healthcare workers. This observation aligns with Emenike and Ukonu's (2025) findings that although social media platforms enhance communication efficiency, their effectiveness depends heavily on digital literacy, ethical awareness, and

administrative support. Moreover, Adaji (2023) demonstrated that credibility and trustworthiness significantly influence the perceived usefulness of online health information among practitioners and patients alike. For paediatric doctors, this means that while social media offers a viable avenue for disseminating life-saving child health information, its potential impact is curtailed by misinformation, absence of professional oversight, and lack of coordinated institutional guidance. Therefore, this study's examination of paediatric doctors' perceptions of social media effectiveness in FMC Keffi and FMC Jabi will contribute to clarifying how benefits and risks are balanced in practice.

Conceptual Review

Social Media in Healthcare Communication

Social media, in contemporary healthcare, transcends its role as a networking tool to function as a transformative medium for medical communication, education, and collaboration. It facilitates real-time interaction between healthcare professionals and the public, bridging traditional barriers to information flow (Ventola, 2018). Platforms such as Facebook, WhatsApp, Twitter (now X), Instagram, and YouTube have become vital in promoting health literacy, sharing medical advice, and encouraging preventive health behaviours (Emenike & Ukonu, 2025). According to Smailhodzic, Hooijsma, and Boonstra (2018), social media enables both vertical communication between professionals and patients and horizontal engagement among peers within the medical community. However, its open and participatory nature also exposes users to misinformation, ethical breaches, and challenges of credibility. Adaji (2023) stresses that the effectiveness of social media in clinical settings depends largely on institutional support, user competence, and

adherence to professional ethics. Within the Nigerian context, where infrastructural and educational inequalities persist, the responsible use of social media by healthcare practitioners represents not only a communication strategy but also an innovation in public health delivery.

Paediatric Health Information Dissemination

Paediatric health information dissemination refers to the systematic communication of medical knowledge aimed at improving child health outcomes through caregiver education and professional outreach. Effective dissemination encompasses the transfer of verified information on immunisation, nutrition, hygiene, and child development from medical experts to parents or guardians. Bernhardt, Mays, and Hall (2020) affirm that social media offers paediatricians an unprecedented opportunity to extend their reach beyond the hospital environment by sharing preventive care messages with large audiences. In Nigeria, studies such as Saidu (2021) reveal that when health information is communicated effectively especially regarding immunisation and nutrition it significantly reduces childhood morbidity and mortality. Yet, challenges persist due to inconsistent digital literacy levels, limited internet access, and a lack of structured content guidelines for paediatric practitioners Allen, Nwaogazie, & Douglas, (2019). Moreover, misinformation about vaccines or child nutrition spreads rapidly through unverified online sources, creating confusion and distrust among caregivers. Therefore, effective dissemination demands that medical professionals employ evidence-based, culturally sensitive, and audience-specific strategies that not only inform but also engage and reassure caregivers about paediatric care practices.

Digital Engagement and Health Professional Practice

Digital engagement within the medical profession entails the conscious and ethical use of online platforms to share credible information, foster collaboration, and strengthen community health awareness. For medical doctors, engagement on social media extends beyond personal communication to encompass professional identity, health advocacy, and public education (Abdullahi & Dangana, 2023). Emenike and Ukonu (2025) argue that digital literacy among healthcare practitioners determines how effectively they navigate platforms to communicate responsibly and manage patient interaction boundaries. In Federal Medical Centres such as Keffi and Jabi, digital engagement remains a growing but uneven practice, influenced by access to technology, workload, and institutional culture. Adaji (2023) highlights that knowledge sharing among Nigerian health professionals through WhatsApp and Twitter improves decision-making and fosters inter-professional learning when guided by credible information. However, the absence of formal digital communication policies exposes practitioners to ethical risks and misinformation. Consequently, sustainable engagement requires the integration of digital professionalism into medical ethics training, ensuring that doctors utilise social media not merely as an information outlet but as a deliberate instrument for paediatric health advocacy and public trust building.

Theoretical Framework

This study is anchored on two complementary theories the Diffusion of Innovations Theory developed by Everett M. Rogers and the Technology Acceptance Model (TAM) proposed by Fred D. Davis Together, these frameworks provide a comprehensive understanding of how medical doctors adopt, utilise, and perceive

the usefulness of social media as an innovative communication tool in paediatric healthcare. Both theories explain technology adoption from behavioural and systemic perspectives, thereby offering a dual lens through which to analyse the professional integration of digital platforms into healthcare practice.

The Diffusion of Innovations Theory (Rogers, 2003) seeks to explain how, why, and at what rate new ideas, technologies, or practices spread within a social system. It identifies five key elements in the diffusion process: the innovation, communication channels, time, the social system, and the adopters. Rogers classified adopters into five categories innovators, early adopters, early majority, late majority, and laggards each with varying levels of willingness and speed in adopting innovations. The theory emphasises that the rate of adoption is influenced by five attributes: relative advantage, compatibility, complexity, trialability, and observability. These determine whether individuals perceive an innovation as useful, aligned with their existing practices, and worthy of adoption. Within healthcare, Rogers' theory is particularly relevant because doctors often function as opinion leaders or change agents who influence the attitudes and behaviours of others toward innovation.

In the context of this study, Rogers' theory provides a framework for understanding how medical doctors at FMC Keffi and FMC Jabi adopt and utilise social media platforms for paediatric health communication. Social media represents an innovation in medical communication, offering new opportunities for information dissemination, patient education, and caregiver engagement. According to the theory, doctors who perceive social media as advantageous, ethically compatible, and institutionally supported are more likely to adopt it for

health-related communication. Conversely, those who find it complex or misaligned with professional norms are slower to integrate it into their practice. Thus, the diffusion process among paediatric doctors can be analysed in terms of adopter categories, perceived benefits, and institutional influence.

However, the Diffusion of Innovations Theory has limitations when applied to the dynamic context of digital health communication. It assumes a relatively linear adoption process, which may not accurately reflect the instantaneous and interactive nature of social media, where information spreads horizontally rather than hierarchically. Additionally, the theory focuses heavily on individual decision-making, overlooking structural constraints such as inadequate infrastructure, weak institutional policies, and limited digital literacy all of which significantly shape innovation adoption in developing countries like Nigeria. These factors necessitate the integration of a complementary model that explains not only how innovations spread but also why individuals choose to use or reject them.

To address these limitations, this study incorporates the Technology Acceptance Model (TAM) developed by Davis (1989). TAM extends the logic of diffusion theory by focusing on the psychological and behavioural determinants of technology adoption. The model posits that two key factors Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) determine an individual's Attitude Toward Using (ATU) a new technology, which in turn influences Behavioural Intention to Use (BIU) and ultimately, actual system use. In healthcare, this model has been widely applied to explain how professionals' perceptions of technology influence their willingness to adopt digital tools such as telemedicine, electronic

records, and social media. When doctors believe that social media enhances their communication efficiency and find it easy to navigate, they are more likely to use it consistently for health promotion and patient engagement.

The relevance of TAM to this study lies in its ability to contextualise doctors' behavioural intentions regarding social media use in paediatric care. While Rogers' model explains the diffusion process at the societal and institutional levels, Davis' model illuminates the cognitive mechanisms behind individual adoption decisions. For instance, doctors at FMC Keffi and Jabi who perceive social media as useful for health education (high PU) and easy to operate (high PEOU) are more inclined to integrate it into their professional communication. Conversely, perceived complexity, misinformation risks, or ethical concerns can lower these perceptions, reducing adoption levels. This interplay aligns with the observed challenges in the study, where many respondents acknowledged social media's potential yet expressed reservations due to lack of institutional guidelines and time constraints.

In combining both theories, this study benefits from a multidimensional understanding of social media adoption in healthcare. The Diffusion of Innovations Theory explains the broader systemic, professional, and institutional factors influencing adoption, while the Technology Acceptance Model provides insight into the personal and perceptual variables that shape individual doctors' engagement with digital platforms. Together, they offer a comprehensive framework for interpreting how paediatric doctors in FMC Keffi and FMC Jabi navigate the opportunities and challenges of using social media for paediatric health communication.

Research Methodology

This study adopted a descriptive survey design, appropriate for exploring opinions, attitudes, and practices within a defined professional population. The design enabled systematic collection and analysis of data from medical doctors regarding their utilisation of social media for paediatric health communication. The study population comprised 86 medical doctors working in the paediatric departments of the Federal Medical Centre (FMC) Keffi, which has approximately 47 paediatric medical staff, and FMC Jabi, which has about 39, as confirmed by staff records from the Federal Ministry of Health (2023) and related studies in North-Central Nigeria (Adaji, 2023; Saidu, 2021). These two institutions were purposively selected because they represent major federal tertiary healthcare facilities with comprehensive paediatric units and a high volume of doctor–patient interaction. A total of 60 doctors were sampled proportionally 25 from FMC Keffi and 35 from FMC Jabi using a stratified random sampling technique that ensured representation across cadres such as consultants, registrars, and medical officers. A structured questionnaire served as the main data collection instrument, divided into sections covering demographic characteristics, extent of social media use, types of paediatric information shared, perceived effectiveness, and barriers encountered. To establish validity and reliability, the questionnaire was reviewed by

experts in public health and paediatrics, and pre-tested among ten doctors outside the study area. The pilot test confirmed internal consistency, leading to minor adjustments that improved the clarity and construct validity of the instrument.

Data collection was conducted through both online and face-to-face administration of the questionnaire to accommodate participants' schedules and ensure maximum response. All 60 distributed questionnaire were completed and returned, yielding a 100% response rate. Quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) version 26, with descriptive statistics such as frequencies and percentages employed to summarise the data, while inferential statistics were applied where relevant to explore associations between variables like professional experience and frequency of social media use.

Data Presentation and Analysis

This section presents and interprets findings derived from 60 valid questionnaire responses collected from medical doctors working in the paediatric departments of the Federal Medical Centres (FMC) Keffi and FMC Jabi, located in North-Central Nigeria. The analysis is organised around the three research questions guiding the study and integrates both quantitative and qualitative insights. Descriptive statistics, including frequencies and percentages, are presented in tables.

To what extent do medical doctors in FMC Keffi and FMC Jabi use social media to disseminate paediatric care information?

Table 1: Extent of Social Media Use among Paediatric Doctors

Response Option	Frequency	Percentage (%)
Very often	24	40.0
Occasionally	18	30.0
Rarely	11	18.3
Never	7	11.7
Total	60	100

Table 1 reveals that 70% of respondents (combining very often and occasionally) actively use social media for paediatric health communication. WhatsApp emerged as the most commonly used platform, followed by Facebook and Instagram, suggesting that social media has become an important channel for engaging caregivers and disseminating health information.

What types of paediatric care information are shared by medical doctors on social media?

Table 2: Types of Paediatric Care Information Shared

Type of Information Shared	Frequency	Percentage (%)
Immunisation updates	22	36.7
Nutritional advice	14	23.3
Child growth and development	10	16.7
Hygiene and sanitation tips	8	13.3
First aid and safety tips	6	10.0
Total	60	100

Table 2 shows that immunisation-related information (36.7%) and nutritional advice (23.3%) are the most frequently shared paediatric topics on social media. This suggests that medical doctors primarily use social media for preventive health education, focusing on child immunisation and nutrition awareness rather than diagnostic or treatment-related discussions.

How do medical doctors perceive the effectiveness of social media platforms in disseminating paediatric care information, and what challenges do they face?

Table 3: Perceived Effectiveness and Barriers to Social Media Use

Response Category	Frequency	Percentage (%)
Perceived social media as very effective	25	41.7
Moderately effective	18	30.0
Ineffective	9	15.0
Not sure	8	13.3
Total	60	100

Table 3 indicates that 71.7% of doctors perceive social media as an effective tool for paediatric health communication. However, barriers such as misinformation, lack of institutional regulation, and time limitations significantly hinder its consistent and professional use. This pattern reflects high awareness among doctors but also highlights persistent systemic and structural constraints affecting digital health adoption.

Discussion of Findings

This section discusses the study’s findings in relation to the three research questions, linking them to existing scholarship, theoretical perspectives, and practical implications for paediatric healthcare communication in Nigeria. The discussion draws on both the Diffusion of Innovations Theory and the Technology Acceptance Model (TAM) to explain the patterns of social media adoption, utilisation, and perceived effectiveness among paediatric doctors at FMC Keffi and FMC Jabi. Together, these frameworks illuminate how perceived usefulness, institutional compatibility, and ethical considerations shape the adoption of digital innovations within clinical environments.

Extent of Social Media Use among Paediatric Doctors

The study revealed that 70% of respondents (combining very often and occasionally) actively use social media platforms such as WhatsApp, Facebook, and Instagram to share paediatric care information. This level of

engagement affirms the growing role of social media in professional health communication, supporting the findings of Ventola (2018) and Emenike and Ukonu (2025), who noted that digital platforms are increasingly integrated into medical practice for health education and public awareness. The preference for WhatsApp mirrors the observation by Ibrahim and Olabisi (2020) that Nigerian health professionals’ favour affordable, accessible tools that support real-time communication.

Within the Diffusion of Innovations Theory, this pattern reflects relative advantage and compatibility: doctors adopt social media because it offers faster and broader communication compared to traditional methods. Similarly, under TAM, high adoption corresponds with strong perceived usefulness and ease of use. However, generational differences were evident junior doctors tended to use social media more frequently than senior colleagues illustrating Rogers’ adopter categories (innovators, early adopters, and laggards). The findings also suggest that institutional culture influences

diffusion, as adoption remains largely individualistic rather than policy-driven, aligning with Adaji (2023) who observed that digital health practices in Nigerian hospitals often evolve informally without structured institutional support.

Nature of Paediatric Information Shared

Results indicated that doctors mainly share immunisation updates (36.7%) and nutritional advice (23.3%), with fewer instances of hygiene tips, child development messages, or first-aid guidance. This emphasis on preventive rather than curative information aligns with Bernhardt, Mays, and Hall (2020), who reported that paediatricians worldwide prioritise prevention-focused digital content. Similarly, Saidu (2021) found that online dissemination of immunisation information significantly enhances caregiver awareness and vaccination compliance.

The findings reveal doctors' ethical awareness in limiting digital engagement to verified, non-diagnostic communication consistent with medical professionalism standards. This behaviour demonstrates compatibility and observability within the Diffusion of Innovations Theory, as preventive information aligns with professional values and produces visible outcomes such as increased clinic attendance and parental engagement. From a TAM perspective, doctors' continued sharing of preventive information reflects their positive behavioural intention to use social media, shaped by its perceived value in improving health literacy while minimising professional risk.

Perceived Effectiveness and Institutional Challenges

Most respondents (71.7%) rated social media as an effective or moderately effective communication tool for paediatric care, acknowledging its potential for improving outreach, awareness, and engagement.

Nonetheless, they identified several barriers, notably misinformation (65%), lack of institutional guidelines (58%), and time constraints (53%). These findings corroborate Ventola (2018) and Asiri (2018), who cautioned that while social media has revolutionised medical communication, its unregulated use fosters misinformation and ethical risks. Likewise, Obembe and Aluko (2021) highlighted that the absence of clear e-health policies in Nigeria limits digital professionalism and consistency in healthcare messaging.

From a theoretical standpoint, these findings extend both frameworks. TAM explains how barriers such as poor infrastructure and absence of policy diminish perceived ease of use, thereby reducing the likelihood of continued adoption. Meanwhile, the Diffusion of Innovations Theory helps situate these constraints as systemic inhibitors that impede the institutionalisation of innovation. Rogers' model accounts for individual adoption patterns but, as observed in this study, underplays structural determinants such as administrative policy gaps and limited digital literacy. The findings therefore reveal that adoption of social media in Nigerian healthcare is both voluntary and fragmented, driven more by personal motivation than by institutional mandate.

Conclusion

The findings of this study largely support the postulations of the Diffusion of Innovations Theory (Rogers, 2003), affirming that medical doctors at FMC Keffi and FMC Jabi are progressively adopting social media as an innovative tool for paediatric healthcare communication. Consistent with the theory's assumptions, the adoption of social media was driven by its perceived usefulness, compatibility with professional communication goals, and observable advantages in reaching caregivers quickly and efficiently. However, the study also

revealed critical contextual limitations that partially refute Rogers' linear model of innovation diffusion. Structural barriers such as misinformation, limited institutional support, weak policy frameworks, and low digital literacy were found to impede the sustained and ethical use of social media, indicating that adoption in healthcare settings is not solely influenced by individual perception but by systemic and environmental factors. Therefore, while the theory aptly explains the motivational dynamics behind doctors' initial engagement with digital platforms, it underrepresents the influence of institutional regulation and technological infrastructure on long-term innovation sustainability. Consequently, for social media to fulfil its transformative potential in paediatric healthcare communication in Nigeria, diffusion must move beyond individual initiative to become institutionally embedded anchored by formal guidelines, digital training, and policy-driven accountability mechanisms.

Recommendations

- 1. Policy Development and Institutional Framework:** Findings from the first research question showed that while doctors actively use social media, its application remains largely informal and unregulated. The Federal Ministry of Health and hospital authorities should develop clear digital communication policies defining ethical standards, confidentiality rules, and

acceptable professional use. Institutionalising social media practice will enhance credibility, promote accountability, and ensure alignment with Rogers' (2003) Diffusion of Innovations Theory, transforming individual efforts into structured institutional adoption.

- 2. Capacity Building and Digital Training:** The study revealed that paediatric doctors mainly share preventive information but face challenges with misinformation and limited digital literacy. Regular digital communication workshops and professional development programmes should therefore be organised to strengthen online ethics, fact-checking, and responsible content creation. Improving doctors' digital competence will enhance their confidence, ensure accuracy in paediatric information dissemination, and reduce misinformation risks that threaten public trust and health outcomes.
- 3. Public Awareness and Collaborative Engagement:** The third research question showed that while social media is seen as effective, challenges such as misinformation and weak public engagement persist. Collaborative health campaigns involving paediatricians, health agencies, and media organisations should be launched to promote verified child health information. Leveraging the credibility of doctors and the reach of media will improve public awareness, enhance preventive practices, and solidify social media's role as a credible paediatric health communication platform.

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