

**SOCIAL MEDIA AND HEALTH LITERACY IN NIGERIA'S INFODEMIC ERA**

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**Abstract**

Social media has emerged as a primary channel for health information dissemination in Nigeria, exerting a multifaceted influence on health literacy during periods of heightened information overload, referred to as infodemics. Although these platforms broaden access to health knowledge, they also accelerate the spread of misinformation, thereby complicating informed health decision-making. This study, guided by Social Ecological Theory, employed a qualitative library research design, systematically reviewing and analysing purposively selected scholarly sources on social media, health literacy, and infodemic dynamics within the Nigerian context. Data were analyzed using content analysis to identify recurring patterns, themes, and conceptual relationships relevant to users' engagement with health information on digital platforms. The findings indicate that social media enhances health literacy by increasing access to information, promoting awareness, and enabling interactive engagement among users, health professionals, and institutions. Conversely, these platforms also undermine health literacy by facilitating the circulation and normalisation of misinformation, a process amplified by algorithmic curation, cultural authority figures, and closed social networks such as WhatsApp groups. Users' perceptions of credibility are shaped by institutional trust as well as interpersonal, community, and socio-cultural influences, often resulting in heuristic-based rather than evidence-based judgments. Repeated exposure to misleading health content further diminishes users' ability to distinguish credible information from false narratives. The study concludes that social media operates as a double-edged sword within Nigeria's health communication ecosystem. In alignment with Social Ecological Theory, enhancing health literacy in the infodemic era necessitates multi-level interventions that integrate digital literacy education, community engagement, institutional transparency, and supportive policy frameworks to mitigate misinformation and improve public health outcomes.

**Keywords:** Social media, Health Literacy, Infodemic, Misinformation, Community Engagement

## **Introduction**

Social media functions as a primary channel for health information dissemination and exerts a significant influence on health literacy. Its interactive and accessible features enable rapid distribution of health messages, facilitate peer-to-peer learning, and promote engagement with public health initiatives, thereby supporting individuals' ability to access, comprehend, and use health information. However, the absence of rigorous gatekeeping on these platforms permits the widespread circulation of inaccurate, misleading, or unverified health information. This dynamic contributes to an infodemic, defined by an overabundance of both accurate and false information, which complicates the identification of trustworthy sources and impedes informed health decision-making. During such periods, health literacy becomes especially critical, as users must assess credibility, verify sources, and interpret health content accurately. Therefore, while social media has the capacity to enhance health literacy, it can also undermine it by amplifying misinformation, highlighting the need for strategic health communication and digital literacy interventions.

The advent of social media has fundamentally transformed the ways in which individuals access, exchange, and interact with health information. Platforms like Facebook, X, Instagram, TikTok, and YouTube have become central to public discourse and now serve as key nodes within the global information ecosystem. This transformation in health communication presents both opportunities and challenges. Social media enables health organisations, experts, and governments to disseminate critical information rapidly and broadly. Conversely, the unregulated and user-driven nature of these platforms creates fertile ground for the proliferation of misinformation, disinformation, and conspiracy theories, particularly during crises. This duality was evident during the COVID-19 pandemic, which precipitated not only a global health crisis but also an infodemic characterised by an excess of both accurate and fraudulent information. According to the World Health Organization (2020), this infodemic impeded public health measures and undermined trust in science-based interventions such as immunization. The rapid spread of health disinformation on social media—including false cures, anti-vaccination rhetoric, and conspiracy theories about viral origins—has led to tangible consequences, such as vaccine hesitancy, stigmatization, and increased public confusion. Health literacy, defined as the ability to obtain, comprehend, evaluate, and apply health

information for informed decision-making, is a recognised determinant of health outcomes. While traditionally examined within formal education and healthcare settings, health literacy now increasingly depends on digital competence, including the ability to critically assess online content, evaluate source credibility, and resist persuasive, deceptive narratives. Consequently, social media exerts a paradoxical influence: it can enhance health literacy by democratising access to information and fostering interactive learning, yet it can also undermine it by obscuring distinctions between expert and non-expert voices and amplifying emotionally charged or misleading content. Recent research highlights the roles of algorithmic curation, filter bubbles, and disinformation in eroding public awareness, particularly among individuals with limited digital or health literacy. Vulnerable populations, such as older adults, those with lower educational attainment, and marginalised communities, are especially at risk. Despite these challenges, gaps remain in the literature regarding how individuals interpret and respond to conflicting online health information. Additionally, the complex interplay of demographic, cognitive, and environmental factors influencing the relationship between social media exposure and health literacy is not yet fully understood.

This study aims to address these gaps by investigating the dual role of social media in both promoting and undermining health literacy. By analysing how various users engage with health information, assess trustworthiness, and respond to disinformation, the research seeks to generate insights that can inform public health campaigns, digital literacy interventions, and platform governance policies. Understanding these complex dynamics is essential for maximizing the benefits of social media while mitigating its risks within the context of global health communication.

### **Statement of the Problem**

The widespread adoption of social media has produced a dual-edged phenomenon in relation to health literacy. While these platforms provide unprecedented opportunities for disseminating health information and advancing public health initiatives, they also facilitate the spread of health misinformation, resulting in what is termed an infodemic ([Radu,2020](#)) This infodemic is characterised by an overabundance of both accurate and inaccurate information,

complicating individuals' efforts to distinguish credible sources from unreliable ones. The rapid and extensive dissemination of misinformation can foster confusion, erode trust in health authorities, and lead to the rejection of public health recommendations. This dual role presents a significant challenge for public health systems and researchers. Although social media platforms can empower users with knowledge that supports informed decision-making and positive health behaviours, they also expose users to a flood of contradictory and often misleading information. This paradox complicates individual attempts to assess the credibility and accuracy of health content and may undermine trust in health institutions and science-based guidance. The consequences are particularly pronounced among populations with limited health literacy, where the capacity to critically evaluate digital information is unevenly distributed. Despite increasing scholarly attention to the health impacts of digital media, there remains a lack of systematic research examining how social media simultaneously enhances and undermines health literacy. The mechanisms by which users engage with, interpret, and act upon health-related content are underexplored, especially in environments where misinformation is prevalent. Addressing this gap is crucial for developing strategies that leverage the benefits of social media while minimising its harms. This study aims to investigate the complex, dual nature of social media's influence on health literacy, thereby contributing to a more nuanced understanding of how digital information ecosystems shape public engagement.

### **Research Objectives**

1. Examine users' experiences with accessing and engaging with health-related information on social media platforms.
2. Identify and analyse the dominant themes that emerge from users' discussions of health misinformation on social media.
3. Assess how social media content influences users' ability to make informed health-related decisions, either by promoting or hindering accurate understanding

### **Research Questions**

1. How do users describe their experiences with health-related information on social media?

2. What themes emerge in users' discussions around health misinformation
3. How does social media content promote or hinder users from making informed health decisions?

## **Review Of Related Literature**

### **Health Literacy and Infodemic Paradigm**

Health literacy is the ability of individuals to gain access to, understand, and use information in ways that promote and maintain good health for themselves, their families, and their communities. (WHO,2020). Similarly, Julvata et al. (2023) describe health literacy as the ability to understand and use health information to make informed decisions. These definitions emphasise an individual's capability to understand and access information related to health for the benefit of themselves and others to help make informed decisions. O'Leary and Walker. (2024) asserts that it affects individuals, healthcare systems, and public health initiatives and is linked to patient outcomes and healthcare costs. and apply the knowledge gained to addressing or solving a health problem Functional health literacy involves the basic ability to read, understand, and act on health information, Interactive health literacy refers to the ability to communicate and interact effectively with healthcare providers, Critical health literacy encompasses the ability to analyze, question, and understand complex health-related information and issues, Verbal exchange health literacy focuses on oral and aural communication in healthcare settings, E-health literacy refers to the ability to seek, find, understand, and appraise health information from electronic sources (Schillinger et al., 2024). The importance of health literacy cannot be overstated; it plays a crucial role in various aspects of health and healthcare. It enables individuals to make informed decisions about their health, understand medical instructions, and navigate the healthcare system effectively. However, studies have shown that the more exposed an individual is to health-related information, the better health outcomes and positive health-related behavior for such an individual. For instance, individuals with higher health literacy are more likely to engage in preventive healthcare practices and manage chronic conditions effectively (Soheila, 2024). Low health literacy can result in negative patient outcomes and diminished quality of care. Patients with limited health literacy often struggle to understand health information, which can lead to medication mistakes, poor follow-through on treatment plans, and more frequent hospital visits. Additionally, this lack of understanding can drive up healthcare costs due to increased reliance on emergency

services and preventable hospital re-admissions. For example, individuals with low health literacy are more prone to misusing emergency services.

Several factors influence an individual's health literacy, which includes educational background, language proficiency, cultural factors, and access to information (Wang, 2024). Individuals with lower levels of education and income often have lower health literacy, making them more vulnerable to health disparities, particularly in this part of the world, where most people do not have access to a good healthcare system. Socioeconomic factors such as income and social support also play a significant role (Zhang & Liu, 2024). Health literacy is critical in specific populations, particularly amongst the elderly, immigrants, and individuals with chronic diseases. Anderson and Rivera-Vargas. (2020) observed that older adults often have lower health literacy due to age-related cognitive decline and limited access to technology. This implies that adults most times face challenges with health literacy due to deterioration related to aging, which makes it difficult for them to comprehend health information. Mohr and Smith (2023) also argue that immigrants may face language and cultural barriers that hinder their ability to understand health information. However, with the increasing use of technology in healthcare, digital health literacy has emerged as a crucial skill. Honeyman and Jones (2020) stated that digital health literacy, at first glance, can be regarded as the convergence of digital literacy and health literacy. WHO (2024) defines digital health literacy as the ability to search, find, understand, and evaluate health information from electronic resources and to use the knowledge gained to solve health-related problems. It involves not only the ability to use digital devices but also the ability to critically evaluate online health information. Infodemic, on the other hand, is the overwhelming amount of information, including misinformation, surrounding health issues, particularly during public health crises. According to the World Health Organisation (WHO, 2020) infodemic too much information, including false or misleading information, in digital and physical environments during a disease outbreak. It is an overabundance of information, which is both accurate and inaccurate, and occurs during an epidemic.

This phenomenon was particularly evident during the COVID-19 pandemic, where the rapid spread of both accurate and inaccurate information created confusion, mistrust, and risk-taking behaviors (Aslan et al., 2024). This can result in risky behaviors that are detrimental to health and undermine confidence in health authorities. Infodemic can have several adverse effects on

public health, including increased anxiety, mental health disorders, and the rejection of public health recommendations (Pagoto et al., 2023). For example, during the COVID-19 pandemic, the spread of misinformation regarding unverified treatments, conspiracy theories, and vaccines significantly hampered public health efforts. The WHO (2020) emphasizes that infodemics can undermine the trust in health authorities and increase anxiety among the public. Furthermore, managing the spread of misinformation effectively needs a well-structured strategy. This includes monitoring the information available, connecting with communities, and encouraging media and digital literacy. The WHO has created tools and training programs to help health professionals tackle misinformation and reduce its negative impacts. There are three relevance of health literacy in the infodemic, the first is empowerment against misinformation. Health literacy equips individuals with the skills to critically evaluate health information, which helps them navigate the infodemic and discern credible sources from misinformation. Secondly, improved public health outcomes, when individuals understand health information, they are more likely to engage in behaviours that promote public health. Thirdly, it facilitates effective communication; high health literacy enhances communication between patients and healthcare providers.

### **Social Media as Health Information Ecosystem**

Social media has evolved into a significant ecosystem for health information, impacting how individuals seek, share, and utilize health-related content (Jafar et al., 2023). This suggests that social media has become an important platform for disseminating health information. It implies that individuals now rely on social media not just to find health-related content, but also to share it with others and apply that information in their lives. Social media refers to digital platforms and technologies that enable users to create, share, and exchange content and information in virtual communities. According to Merriam-Webster dictionary (2023), social media is defined as “forms of electronic communication (such as websites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos).” There are various forms of social media, which include: X, Facebook, Instagram, WhatsApp, YouTube, and Snapchat, among others. The health information ecosystem on social media creates a dual landscape where public health officials, healthcare providers, and individuals can benefit from improved access and engagement, while also facing risks related to misinformation and privacy

concerns. Social media platforms serve as vital tools for rapid dissemination and accessibility of health information; it provides timely updates and educational resources, and at the same time enhance communication between clinicians and patients. This is especially crucial during public health crises, such as the COVID-19 pandemic, when organisations like the CDC and WHO effectively used social media to engage the public and promote informed decision-making. The incorporation of multimedia formats improves information retention, and online communities offer essential support for individuals facing various health concerns (Alsuyayfi et al., 2025). Chen et al. (2020) assert that the use of social media is particularly important during public health crises. Additionally, Mukherjee and Lee. (2022) argues that online communities help individuals manage various health concerns. Social media significantly contributes to community engagement and encourages positive health behavior changes. It provides health officials with a platform to share timely information and connect individuals with trustworthy resources. Social media platforms like Facebook, X, Instagram, and TikTok have become primary channels for disseminating health information. The interactive features of these platforms foster communication between patients and healthcare providers, as well as among patients themselves, which can improve health literacy and increase community awareness. Moreover, social media facilitates the exchange of social support, promotes preventive health behaviors, and enhances social connections, ultimately benefiting mental health (Alsuyayfi et al., 2025). It also allows health officials to disseminate information promptly (Jafar et al., 2023). With the use of social media, there is no disruption of information. Despite the benefits, the social media health information ecosystem is plagued by issues of information quality and the spread of misinformation (Suarez-Lledo & Alvarez-Galvez, 2021). Although the social media health information ecosystem offers valuable benefits, such as increased access to resources and community engagement, it is also hindered by challenges related to the spread of inaccurate information and unverified sources.

### **Empirical Review**

Lewis et al. (2024) carried out research titled *The Role of Social Media in Health Information Seeking: A Qualitative Study*. This study employed a qualitative approach, utilizing focus group discussions to explore how individuals seek health information on social media platforms. A total of (N=30) participants from diverse backgrounds engaged in discussions about their experiences and perceptions regarding health information on social media. Data

were analyzed using thematic analysis. Naeem and Boulos (2021) conducted a study titled: COVID-19 misinformation online and health literacy: A Review of Social Media Usage, it employs a systematic review of existing literature on misinformation spread via social media and its effects on health literacy. A comprehensive search of databases resulted in 50 relevant studies. The review synthesized findings regarding how misinformation negatively influences health decisions and literacy levels. Thompson & White (2019) did a study on Social Media as a Tool for Improving Health Literacy in Young Adults. It was an experimental study that employs intervention where participants received tailored health information through social media platforms. The researchers conducted pre- and post-intervention surveys with N=100 young adults to assess changes in health literacy levels. The analysis involved statistical comparisons of literacy scores. Patel and Kim (2022) examined Health Literacy in the Age of Social Media: Challenges and Opportunities. This study used a mixed-methods approach and combined surveys and interviews to explore perceptions of health literacy in the context of social media. Quantitative data were collected from 200 participants, while qualitative interviews provided deeper insights into their experiences with health information online. Comez and Patel (2023) analyzed Social Media on Health Literacy Among Minority Populations.

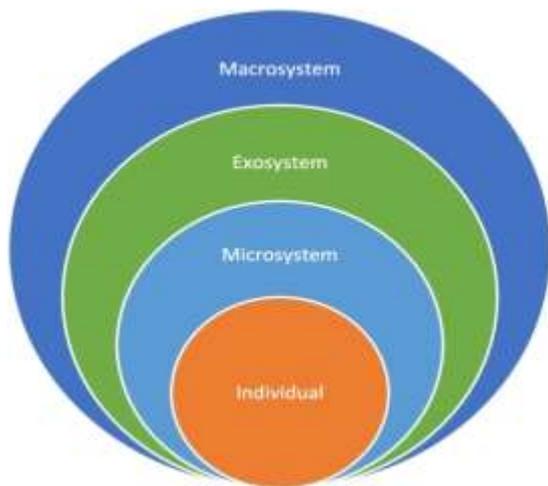
The researcher used a cross-sectional study to assess how social media influences health literacy in marginalized communities. Survey research method was employed; a total of 250 questionnaire was administered to Participants from various minority groups, analyzing their social media usage patterns and health literacy levels using regression analysis. The reviewed studies primarily examine specific dimensions of social media's influence on health literacy, employing diverse methodologies including focus groups and systematic reviews. In contrast, the current study employs a library search to investigate the complexities of health literacy; it also offers a more comprehensive narrative regarding its development and societal impact, especially during public health crises. This integrative perspective enhances our understanding of how individuals interact with health information in the contemporary digital environment.

## **Theoretical Framework**

### **Social Ecological Theory**

Bronfenbrenner (1979). Propounded the social ecological theory, which posits that human development is shaped by various environmental systems. It presupposes that human behaviour and development are shaped by a dynamic interplay between individuals and the multiple environments in which they are embedded. It asserts that no individual exists in isolation; rather, their actions and experiences are continuously influenced by a series of nested environmental systems ranging from immediate, personal contexts to broader societal and policy frameworks. At the heart of the theory is the principle of multiple levels of influence. Behaviour is not solely the product of individual traits such as knowledge, attitudes, or biological predispositions. Instead, it is influenced by interactions across various levels—namely, the individual, interpersonal, organisational, community, and policy levels. These systems are interdependent, meaning that a change in one system can produce ripple effects across others. For instance, a change in public health policy can alter institutional practices, reshape community norms, and ultimately influence personal health behaviours. The theory also stipulates that human development is embedded within a network of relationships that function within these multiple environments. The microsystem, such as family, school, and peers, represents the most immediate context. The mesosystem involves the interconnections between these microsystems—for example, how relationships between parents and teachers affect a child's educational outcomes. The exosystem includes settings that indirectly affect the individual, such as a parent's workplace. The ecosystem encompasses broader cultural values, societal norms, and legal systems. Lastly, the chronosystem introduces the element of time, acknowledging that both individuals and their environments evolve over time, influenced by historical events, life transitions, and generational changes. Another core presupposition is that effective behavioral change requires multi-level interventions. Efforts that focus solely on the individual level often fall short without corresponding support at the social, organisational, and policy levels. For sustainable impact, interventions must recognise and address the broader environmental context in which individuals operate. Furthermore, it assumes that there must be a fit between the individual and their environment. Optimal outcomes occur when there is alignment between personal needs and the resources or demands of the environment. Conversely, misalignment can lead to manipulative behaviors, stress, or developmental delays. The social ecological perspective emphasizes that individuals are not passive recipients of

environmental influences. Rather, they possess agency and the capacity to shape and modify their environments through their choices, behaviors, and social actions. This bidirectional influence reinforces the complexity of human behavior and the necessity of considering multiple, interacting factors in both research and intervention design. (SET) has been widely examined through systematic reviews as a comprehensive framework for understanding health behaviors as outcomes of interacting influences across multiple levels. Lorenzo et al. (2025) demonstrate that interventions grounded in the socioecological model are most effective when they integrate individual, interpersonal, community, and policy-level factors, showing that sustainable behaviour change occurs when personal motivation is reinforced by social support, enabling environments, and supportive structures. Similarly, Cholley-Gomez et al. (2023) report that multilevel interventions informed by SET are more effective than single-level approaches in reducing sedentary behaviour among children, particularly when individual behaviour change strategies are combined with family, school, and community-based interventions. Extending the application of the theory, Nyambe and Van Hal (2016) reveal through their systematic review that preventive health behaviours such as screening and vaccination uptake are strongly shaped by socioecological factors, including institutional trust, health communication systems, cultural norms, and policy environments. The theory is relevant to this study because it explains how individuals navigate health information during an infodemic, particularly through social media. The framework highlights that individuals' understanding of health literacy is significantly shaped by their immediate environments, such as family, peers, and educational institutions. It emphasises that individuals are influenced by their social identities, which are formed through interactions with peers and trusted sources. This influence drives their ability to critically evaluate health information, as they actively seek out reliable content that aligns with their social circles and community values.



Bronfenbrenner (1979)

### **Methodology**

This study adopted the qualitative research approach using the library search method, which relies on the collection and analysis of existing scholarly materials, journals, books, publications, and other credible online materials related to the dual role of social media infodemic and health literacy. Library search is a systematic and critical process of identifying, retrieving, and reviewing existing scholarly literature from books, academic journal and credible databases in order to establish theoretical grounding. (Wimmer & Dominick,2023). The population of the study comprises all published and unpublished works relevant to social and health literacy in Nigeria, accessible academic sources within the University library, media archive, and online scholarly databases. From the population, purposive sample of key texts was selected based on their recency, relevance, credibility, and thematic alignment with the study objectives. Purposive sampling was employed to allow the researcher to deliberately select materials that provide robust insights, in depth perspective, and a holistic view on the topic. Data collection involved systematically reviewing and synthesising these sources, focusing on thematic content such as infodemic, health literacy, dual role of social media. Data analysis was conducted through content analysis, which allowed for the identification of recurring themes, patterns, and conceptual linkage across the reviewed literature, thereby facilitating an interpretative understanding of how social media enhances and undermines health literacy.

## **Data Presentation And Analysis**

Themes were deduced deductively following the research questions. The following themes were deduced: Perceived Credibility and Trust in Health Information Sources; Circulation and Normalisation of Health Misinformation; and Influence of Social Media on Health Decision Making. These were presented and discussed below.

### **Perceived Credibility and Trust in Health Information Sources**

This theme explores how Social media has become a primary source of health information in Nigeria and across Africa due to its wide accessibility and reach. Platforms such as Facebook, WhatsApp, X, (TikTok, and Instagram are widely used to share health-related content, but the credibility of this information remains a critical concern. Perceived credibility and trust influence whether users accept, question, or act on health information, shaping health behaviors and decision-making. According to Haghghi and Farhadloo (2025), information quality and transparency are central to trust. Users prefer health content that cites authoritative sources, references medical evidence, and avoids sensational language. In Nigerian contexts, users are more likely to trust information linked to recognised institutions such as teaching hospitals, government agencies, or international organizations like the WHO. Studies like Sathianathan et al (2025) emphasise that users actively assess credibility, relying on source expertise, consistency with prior knowledge, and cross-verification with reputable institutions. In Nigeria and Africa, cultural authority—such as community leaders, religious figures, and social media influencers—also plays a significant role in shaping trust. However, Mullen et al. (2025) show that repeated exposure to health misinformation can undermine confidence in identifying credible information. In Nigeria's social media ecosystems, misinformation often spreads through closed networks like WhatsApp groups, generating confusion and prompting heuristic-based judgments based on popularity or emotional appeal rather than evidence.

### **Circulation and Normalisation of Health Misinformation**

This theme examines the extent to which the circulation of Health misinformation in Nigeria has increasingly become a significant public health challenge, particularly in the context of vaccination campaigns and infectious disease outbreaks. Erim et al. (2025) demonstrate that misinformation about vaccines and other health interventions circulates rapidly within communities, often fueled by social networks, local rumors, and limited health literacy. This

circulation contributes to the normalization of false beliefs, making individuals more likely to accept and propagate misleading health information. Similarly, Ayanbode et al. (2024) highlight the pervasive impact of misinformation on COVID-19 vaccine acceptance, even among educated professionals in Nigeria. Their research illustrates that the normalisation of health misinformation occurs not only in the general population but also in professional information networks, where exposure to disinformation can reinforce vaccine hesitancy. It underscores the role of digital media as a key factor in the circulation of false health narratives, underscoring the need for targeted interventions that combine fact-checking, awareness campaigns, and professional training to reduce the influence of misinformation.

### **Influence of Social Media on Health Decision-Making**

This theme describes how social media has emerged as a significant component influencing health knowledge, perceptions, and decision-making in Nigeria. Evidence from recent studies indicates that patients frequently rely on social media to access information about healthcare services, treatment options, and provider credibility, which in turn shapes their expectations and treatment-seeking behaviors (Fadare et al., 2025). Similarly, Nigerian women increasingly use social media and mobile technology to obtain information on family planning and reproductive health, affecting their reproductive choices and preventive health behaviours. While these platforms enhance access to health knowledge, they also carry the risk of circulating unverified content, potentially normalising misconceptions (Ayodeji et al., 2025). Healthcare professionals also engage with social media for information gathering and knowledge sharing, which influences their clinical decisions and indirectly affects patient care (Uzoeghelu & Agoyi, 2025). Collectively, it is important to note that these studies illustrate that social media operates as a multilayered influence on health decision-making in Nigeria, affecting patients, women making reproductive decisions, and healthcare workers alike. Although it offers opportunities to improve informed decision-making, the potential for misinformation underscores the need for strategies that enhance digital health literacy and promote the verification of health content.

## **Discussion of Findings**

This study examined the dual impact of social media on health literacy in Nigeria during the infodemic. Employing a qualitative library-based methodology grounded in Social Ecological Theory, the findings indicate that social media acts as both an enabling and disruptive force in health communication. These platforms increase access to health information and support informed decision-making, yet they also facilitate the widespread dissemination and acceptance of misinformation, complicating individuals' ability to make accurate health choices. Social media has become a primary source of health information for many Nigerians due to its affordability, accessibility, and immediacy. This finding supports the view that health literacy extends beyond mere access to information to include users' capacity to interpret, apply, and translate health knowledge into practical decisions, thereby directly shaping health behaviours and healthcare engagement (Julvata et al., 2023; O'Leary & Walker, 2024). Platforms such as Facebook, WhatsApp, X (TikTok), and Instagram are commonly used to access information about disease outbreaks, treatment options, and preventive measures. As Soheila (2024) notes, increased exposure to health information is often associated with improved preventive health behaviours, which explains why many users turn to social media as a first point of reference for health guidance.

However, the extent to which this information is utilised depends largely on users' perceptions of credibility and trust. Health content associated with reputable organisations, such as government agencies, teaching hospitals, and international bodies like the World Health Organisation, is generally perceived as more reliable. This observation aligns with Haghghi and Farhadloo (2025), who highlight the importance of transparency, quality, and institutional legitimacy in fostering trust in digital health communication. The study further suggests that Nigerian social media users actively evaluate health information, often engaging in verification practices. This behaviour reflects what Honeyman and Jones (2020) describe as digital health literacy—the convergence of digital competence and health knowledge required to navigate online health environments effectively, such as cross-referencing sources and assessing consistency with prior knowledge, as noted by Sathianathan et al. (2025). Nevertheless, trust is also significantly influenced by cultural and social factors. Community leaders, religious authorities, and prominent social media figures frequently serve as trusted intermediaries. In contexts where institutional trust is limited, guidance from these figures may supersede scientific evidence, shaping health beliefs and behaviors irrespective of accuracy. Repeated

exposure to misinformation substantially diminishes users' confidence in distinguishing credible from non-credible information. Mullen et al. (2025) observe that frequent exposure reduces epistemic vigilance, leading to reliance on heuristics such as popularity, emotional appeal, or repetition rather than evidence-based evaluation. This is particularly pronounced in Nigeria, where misinformation circulates extensively within closed or semi-private networks, such as WhatsApp groups. In these trusted environments, misleading information is rarely challenged, facilitating its ongoing acceptance and dissemination. From a social ecological perspective, these dynamics underscore the interplay between individual cognition and interpersonal and community-level influences in shaping health literacy. The study also identifies the circulation and normalization of health misinformation as significant public health challenges, particularly during vaccination campaigns and infectious disease outbreaks. False health narratives spread rapidly within social networks, often reinforced by local rumors, cultural beliefs, and deficiencies in formal health communication. Erim et al. (2025) report that vaccine-related misinformation persists within community networks where social trust frequently outweighs scientific authority. Repeated exposure fosters the perception of misinformation as factual, making correction increasingly difficult. This trend is especially concerning as it affects both the general public and professional groups. Ayanbode et al. (2024) demonstrate that even healthcare-adjacent professionals in Nigeria are vulnerable to misinformation during periods of uncertainty, such as the COVID-19 pandemic. This finding challenges the assumption that formal education alone protects against misinformation and highlights the influence of broader ecological factors, including media ecosystems, peer networks, and institutional communication strategies. Viewed through the framework of Social Ecological Theory, the persistence of misinformation reflects systemic deficiencies across multiple levels, including weak policy messaging, inconsistent institutional communication, and limited community-level interventions. These findings show that health literacy in the infodemic era is a socially and digitally mediated process rather than merely an individual cognitive skill, requiring critical thinking, digital competence, and contextual awareness shaped by the broader social ecological environment (Julvata et al., 2023; Honeyman & Jones, 2020; Bronfenbrenner, 1979).

## **Conclusion**

This study concludes that social media plays a paradoxical role in shaping health literacy in Nigeria during the infodemic era, operating across multiple levels. While these platforms substantially increase access to health information and facilitate informed health decision-making, they also enable the widespread dissemination and normalization of misinformation, presenting significant challenges to public health. The findings highlight that trust in health information is shaped by both institutional credibility and cultural and social authority, reflecting the complex, multilayered process by which users evaluate information. Additionally, repeated exposure to misinformation diminishes users' confidence in identifying credible content, demonstrating the interplay of interpersonal, community, and systemic factors in determining health literacy outcomes. The study further shows that misinformation impacts both the general population and professional groups, emphasizing the necessity for interventions that address multiple ecological levels. In line with Social Ecological Theory, effective strategies to improve health literacy should integrate individual education, community engagement, institutional transparency, and policy support. This research extends the theoretical framework by illustrating its relevance to the context of social media and infodemic in Nigeria. Overall, the findings reinforce the notion that social media functions as a double-edged sword, contributing to the expanding body of literature on social media and infodemic.

## **Recommendations**

Based on the study's findings, the following recommendations are proposed.

1. Nigeria's health and education authorities should integrate digital health literacy into Public education and community outreach programmes, particularly for vulnerable populations.
2. Government health agencies should strengthen official health communication on Social Media to maintain consistent, credible, and culturally sensitive social media engagement to counter misinformation and promote evidence-based health information.
3. Policymakers should collaborate with social media platforms to strengthen misinformation control mechanisms and prioritise verified health sources during public health emergencies.

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