Social Media as a Health Promotion Tool: Between Education and Misinformation

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Abstract: *Social media has become a central instrument for health promotion in Indonesia, yet it simultaneously serves as a fertile environment for health-related disinformation. This study provides a comprehensive analysis of how social media functions in these dual roles both as a tool for health education and a channel for misinformation using a mixed-method integrative review approach. A total of 62 eligible articles were analyzed using thematic synthesis integrating quantitative and qualitative findings. The results reveal that social media can enhance the reach of health education through multimodal content, personalized messaging, and community engagement. However, engagement-driven algorithms, low digital health literacy, and the influence of non-expert figures enable disinformation to spread more rapidly than accurate information. These dynamics highlight the necessity for systemic interventions, including stronger information governance, improved health literacy programs, collaborations with content creators, and platform-level reforms that reduce the visibility of misleading content. The study concludes that social media can only function effectively as a health promotion tool if its educational potential is balanced with comprehensive and contextually grounded strategies to mitigate disinformation.*
Keywords : algorithms, disinformation, health promotion, social media

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INTRODUCTION

Social media has become one of the most dominant health communication tools in the last decade, along with the increasing penetration of the internet and changes in information consumption patterns in society. The latest report from We Are Social (2024) shows that Indonesia is one of the countries with the highest social media usage rates in the world, with more than 167 million active users, or around 60% of the total population (We Are Social, 2024). Platforms such as Instagram, TikTok, YouTube, and WhatsApp have become the main channels for the public to access health information, replacing traditional patterns that relied on health workers or medical institutions. This phenomenon provides a great opportunity for the government and health institutions to expand the reach of health education in a more effective, rapid, and affordable manner (Willis, 2023). However, the dominance of social media also poses serious challenges related to the spread of health misinformation that can influence public behavior, risk perception, and health decisions.

In a global context, health misinformation on social media has been identified by the WHO (2020) as one of the greatest challenges to modern public health, especially since the COVID-19 pandemic. The WHO refers to this phenomenon as an infodemic, a condition in which an overload of information, both accurate and inaccurate, makes it difficult for the public to find reliable sources (WHO, 2020). A study by The Lancet Digital Health confirms that social media is a major catalyst in the spread of misinformation about vaccines, herbal medicines, and health conspiracy theories, which has a negative impact on public compliance with health protocols (Merecos et al., 2023). In other words, social media has two sides: as an educational tool that can improve health literacy, and as a fertile ground for disinformation that is detrimental to public health.

This phenomenon is also very evident in Indonesia. A report by the Ministry of Communication and Information Technology (Kominfo, 2023) noted that at least 2,200 health hoaxes circulated during the 2020–2023 period, with the majority being spread through WhatsApp, Facebook, and TikTok. A study by the Journal of Medical Internet Research found that 57% of Indonesians admitted to having received incorrect health information on social media, and 34% of them believed it (Yunita et al., 2025). This situation is further complicated by the fact that the level of functional health literacy among Indonesians is still relatively low. A report by the Indonesian Ministry of Health (2023) reveals that only 55% of the population has adequate ability to assess the credibility of digital health information. This low level of digital and health literacy makes the public more susceptible to believing non-experts, influencers, or commercial health accounts that prioritize engagement over information accuracy (Arief, et al , 2023).

On the other hand, social media still offers great opportunities for health promotion efforts if used strategically. Research in Health Communication (Chen & Wang, 2021) shows that social media can increase public awareness, expand the reach of health campaigns, and strengthen community participation in specific health issues. In Indonesia, the Ayo Vaksin (Let's Get Vaccinated) and Cuci Tangan 20 Detik (Wash Your Hands for 20 Seconds) campaigns, as well as the promotion of healthy lifestyles through educational video content on TikTok, have been proven to significantly increase exposure to health information during the pandemic (Indonesian Ministry of Health, 2022). In theory, social media can simplify complex health messages through visualization, storytelling, or microlearning, thereby facilitating public understanding (Willis, 2023). Therefore, the potential of social media as a health education tool remains significant and cannot be ignored.

However, the relationship between social media and health promotion cannot be separated from the dynamics of digital platform algorithms. Social media platforms are designed to maximize engagement, so content deemed appealing by the algorithm is more likely to be recommended, regardless of its accuracy. A study in Nature Human Behaviour (2021) shows that health misinformation spreads six times faster than verified content, due to its sensational and emotional nature (Molina et al., 2021). In Indonesia, similar findings were reported by Maulidia et al (2025), who found that health content based on unsubstantiated claims appeared more often on TikTok's For You Page than science-based educational content, because the algorithm assessed a higher level of interaction. This condition puts health workers and government institutions at a disadvantage in the narrative competition in the digital space.

Furthermore, the social media ecosystem in Indonesia is heavily influenced by a culture of collectivity and informal communication. WhatsApp, as a closed conversation platform, has become the primary medium for spreading chain messages and false health claims. Research by Anwar et al., (2023) shows that Indonesians tend to trust information shared by family members or their social community, even if the information is unverified. This pattern reinforces the impact of disinformation and slows down

the dissemination of accurate information. These challenges highlight the need for health communication strategies that are more adaptive, contextual, and utilize local communication patterns.

In the context of health promotion, the presence of health influencers has an increasingly important role. However, research shows that the presence of influencers can be a double-edged sword. A study in Digital Health (2023) found that although influencers can increase the reach of health campaigns, they can also be a source of disinformation when spreading claims without scientific basis (Mulcahy et al., 2025). In Indonesia, the role of influencers is a sensitive issue because several viral cases show that health content popularized by public figures is more trusted than official information. This situation highlights the need for stronger regulation and collaboration between the government, health workers, and digital content creators.

A number of previous studies have attempted to understand the dynamics of social media in health promotion in Indonesia, but there are several important research gaps. First, research by Febriyanti (2021) focuses on the effectiveness of Instagram-based health education campaigns, but does not examine the risks of misinformation that arise simultaneously. Second, the study by Setiani et al., (2025) discusses public perceptions of digital health information, but does not examine the role of algorithms and platform structures in reinforcing misinformation. Third, research by Aminah & Saksono (2021) analyzes government strategies in digital health campaigns, but does not integrate perspectives on public behavior and socio-cultural factors that influence information acceptance.

These three studies show that previous research is still partial and has not comprehensively combined the aspects of education, misinformation, algorithms, and social dynamics. Based on these research gaps, the novelty of this article lies in its presentation of an integrative analysis of the role of social media as a health promotion tool in Indonesia by balancing its two main sides: educational potential and the risk of misinformation.

This article not only discusses the benefits of social media in disseminating health information but also analyzes the role of algorithms, Indonesian digital culture, health literacy, and the social environment in strengthening or weakening the accuracy of information. Thus, the approach used is more holistic than previous studies.
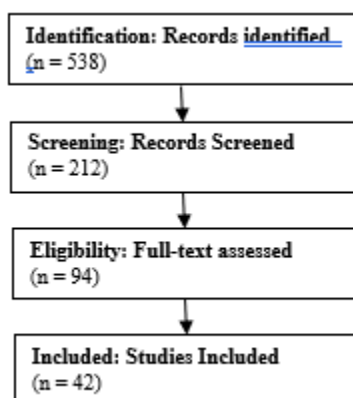
Considering all these arguments, the purpose of this study is to analyze in depth how social media functions as a health promotion tool in Indonesia, highlighting the interaction between educational potential and the dangers of disinformation through a mixed-method integrative review approach that combines empirical findings and theoretical analysis.

METHODOLOGY

This study uses a mixed-method integrative review, which is a literature review approach that systematically combines quantitative and qualitative findings to produce a comprehensive understanding of the phenomenon of social media as a health promotion tool. This approach is in line with the recommendations of Masava et al., (2023), who emphasize that integrative reviews are effective for complex topics involving interactions between behavioral, social, technological, and health factors, such as in the case of health education and digital misinformation. Through this approach, the study not only identifies patterns of social media use as a health communication tool but also maps the dynamics of algorithms, user behavior, and the Indonesian socio-cultural context that influence information dissemination.

The literature search was conducted systematically in several reputable academic databases, namely Scopus, PubMed, ScienceDirect, SAGE Journals, and Google Scholar, covering the period from 2015 to

2024. The keywords used included "health communication," "social media misinformation," "digital health promotion," "public health Indonesia," and "online health literacy." The initial identification process yielded 538 articles. Selection was carried out by screening titles and abstracts, resulting in 212 relevant articles. The next stage was full-text eligibility screening using the following inclusion criteria: (1) articles examining social media as a medium for health education or a source of misinformation, (2) research conducted on the general population, and (3) articles with an Indonesian context or providing relevant international comparisons. Articles in the form of opinions, editorials, or those not based on data were excluded from the analysis. In the final stage, 62 articles were deemed eligible for in-depth analysis. Data analysis was performed using convergent synthesis, a process that integrates quantitative and qualitative findings into main themes. This approach is in line with the method recommended by Fetters Wasti et., al (2022) for mixed-method research to produce holistic interpretations. All articles were analyzed through thematic coding to identify patterns related to the effectiveness of social media as a means of health education, the dynamics of misinformation dissemination, cultural factors and digital literacy of the community, as well as the role of the government and digital platforms. The integration of both types of data enabled this study to present a comprehensive picture of how social media works simultaneously as an educational tool and a source of disinformation in the Indonesian context.

RESULTS AND DISCUSSION
Social Media as a Tool for Health Education: Opportunities, Engagement Dynamics, and Public Health Impact

Social media has fundamentally transformed the way health information is disseminated, offering unique opportunities for expanding health education to diverse populations. In Indonesia, where geographic disparities, limited healthcare personnel, and varying levels of health literacy persist, social media provides an accessible and cost-effective platform for promoting public health. Research in *Health Communication* shows that social media can bridge gaps between healthcare providers and communities by facilitating direct interaction, encouraging participatory communication, and enabling rapid dissemination of preventive health messages (Chen & Wang., 2021). These platforms support multimodal communicationsuch as visual, textual, and audiovisual making health information more appealing and easier to understand compared to traditional pamphlets or clinical explanations. In settings such as Indonesia, where more than 70% of users primarily consume visual and short-video content on platforms like TikTok and Instagram, the visual adaptability of social media significantly enhances the reach and resonance of health messages (We Are Social, 2024).

Furthermore, social media can amplify public health campaigns by leveraging network effects. Messages shared by health authorities can be redistributed by influencers, micro-communities, and peer networks, creating multiplier effects that broaden message exposure. Studies demonstrate that online engagement namely likes, shares, and comments correlates strongly with increased message retention and behavioral intention (Willis, 2023). For instance, Indonesia's "Ayo Vaksin" campaign during the COVID-19 pandemic achieved high engagement levels on platforms like Instagram and Twitter, contributing to improved public awareness and vaccination uptake (Kemenkes RI, 2022). These findings illustrate that social media can act not only as a broadcasting channel but also as a conversational ecosystem where health narratives evolve through user interaction.

Social media's potential is further enhanced by its capacity for personalization. Algorithms can tailor health messages based on user interests, past interactions, and demographic characteristics. This capability allows public health institutions to design targeted interventions for specific groups such as youths, mothers with young children, or individuals at risk of chronic diseases. Research published in *Journal of Medical Internet Research* indicates that personalized health messages delivered through social media significantly improve behavioral outcomes, including increased physical activity, improved dietary habits, and enhanced adherence to medication routines (Yip et al., 2024). In Indonesia, targeted campaigns addressing smoking cessation, reproductive health, and mental health awareness have demonstrated notable reach among younger demographics, who form the largest segment of active social media users.

However, the educational impact of social media depends not only on message dissemination but also on engagement dynamics. Engagement, in this context, is shaped by platform aesthetics, content format, message framing, and emotional resonance. Short-form videos, storytelling formats, and interactive tools such as polls or quizzes tend to promote higher engagement and comprehension. A study on digital learning behaviors in Southeast Asia found that emotionally resonant narratives (particularly those involving personal testimonies) significantly increase the perceived credibility of health messages (Htay et al., 2022). This suggests that health campaigns must move beyond didactic approaches and adopt more culturally and emotionally adaptive communication strategies.

Nevertheless, reliance on engagement-driven dissemination introduces tensions between public health goals and platform logics. The fundamental objective of social media platforms is to maximize user engagement for commercial purposes, not necessarily to promote accurate health information. Consequently, content that is entertaining or sensational often performs better than factual health information, even when the latter is crucial for public well-being. Research in *Nature Human Behaviour* (Molina et al., 2021) demonstrates that false health claims spread significantly faster and farther than verified information due to their novelty and emotional arousal. This dynamic complicates public health strategies that depend on platform amplification, because educational content may be overshadowed by more provocative but inaccurate information.

Another important consideration is the credibility of sources disseminating health messages. While healthcare professionals possess the expertise to provide accurate information, their presence on social media remains limited compared to influencers or lay content creators. In Indonesia, health influencers with little or no formal medical training often attract larger audiences than certified professionals, shaping public perceptions of health and wellness. A study by Aisyah and Aminah (2021) found that many Indonesian users prioritize trust based on narrative style, relatability, and frequency of posting, rather than professional credentials. This creates opportunities for health promotion but also introduces risks, as influencers may unintentionally share incomplete or misleading health advice.

Additionally, socio-cultural contexts shape how Indonesian communities interpret and respond to health information on social media. Indonesia's collectivist communication patterns emphasize

interpersonal trust, particularly within family and community networks. Therefore, health messages shared by trusted peers or community leaders can have a stronger influence than institutional communication. While this dynamic supports peer-based health promotion, it also facilitates the rapid spread of misleading information when community gatekeepers circulate inaccurate content (Anwar et al., 2023). Understanding these socio-cultural dynamics is essential for designing health communication strategies that resonate with local norms and values.

Despite these challenges, numerous studies highlight that when properly designed, social media health campaigns can produce measurable improvements in knowledge, attitudes, and health behaviors. For example, mobile-based health promotion interventions in Indonesia have been shown to significantly increase awareness of maternal health services and early detection of non-communicable diseases (Yunita et al., 2025). Moreover, hybrid campaigns that combine online content with offline community engagement demonstrate greater effectiveness in sustaining behavioral change. These findings suggest that social media should be seen as part of a broader ecosystem of health communication rather than an isolated tool.

In summary, social media offers unprecedented opportunities for expanding health education due to its accessibility, multimodal communication capabilities, and engagement-driven dissemination. However, these opportunities exist alongside significant structural and behavioral constraints. Effective utilization requires strategic message design, culturally informed communication, and active involvement of healthcare professionals to ensure that health information circulating online is accurate, engaging, and contextually relevant. As the next section will explore, the same dynamics that enable social media to function as a powerful educational tool also create fertile ground for the proliferation of misinformation.

Disinformation, Algorithmic Amplification, and Public Risk: The Dark Side of Health Information on Social Media

While social media offers significant opportunities for health promotion, it simultaneously serves as a conduit for extensive health-related disinformation. This disinformation ecosystem thrives because platform algorithms are optimized for engagement rather than accuracy, enabling misleading or sensational content to spread rapidly. Health disinformation is particularly dangerous because it can influence people's behavior, delay treatment, reduce vaccine uptake, and undermine trust in health institutions. The COVID-19 pandemic revealed the scale of this problem globally, with WHO (2020) acknowledging the *infodemic* as a parallel crisis that compromised pandemic response efforts. In Indonesia, similar patterns emerged, where hoaxes on herbal COVID-19 cures, vaccine conspiracies, and pseudoscientific treatments inundated digital platforms (Kominfo, 2023).

Before presenting the analytical table, it is important to highlight the nature of algorithmic amplification. Social media platforms such as TikTok, Facebook, and Instagram rely on engagement-based recommendation systems that prioritize content likely to receive likes, comments, and shares. Unfortunately, emotional and controversial content tends to generate higher engagement, making false information more likely to go viral. Research in *Science* (Molina et al., 2021) found that misinformation spreads up to six times faster than factual content because it triggers stronger emotional reactions fear, anger, or excitement. This systemic bias creates a structural disadvantage for evidence-based health communication.

To illustrate the mechanisms through which disinformation circulates and impacts public health, the following analytical table maps key drivers of disinformation across algorithmic, behavioral, and socio-cultural domains:

Drivers and Mechanisms of Health Disinformation in Social Media Ecosystems

Domain	Mechanism	Public Health Impact
Algorithmic	Engagement-based recommendation; virality bias; emotional amplification	Faster spread of hoaxes; reduced visibility of accurate content
Behavioral	Low health literacy; confirmation bias; reliance on influencers	Misinterpretation of health risks; adoption of unsafe practices
Socio-cultural	Peer-trust networks; rumor dynamics; collectivist sharing norms	Rapid offline-online propagation; persistence of local myths

The table demonstrates that disinformation is sustained by interlocking structural and cognitive factors. In Indonesia, low health literacy exacerbates the situation. Research shows that many Indonesians struggle to differentiate scientifically validated content from anecdotal claims, especially when content is presented in emotionally appealing narratives (Yunita et al., 2025). Confirmation bias further reinforces this vulnerability; individuals tend to prefer information that aligns with their existing beliefs, even if the information is incorrect.

The role of influencers intensifies this behavioral dynamic. Influencers often possess persuasive communication styles and large audiences, but lack medical expertise. During the COVID-19 crisis, several viral videos promoting unverified treatments or discouraging vaccination gained significant traction, prompting repeated corrections from health authorities. Studies reveal that content presented by charismatic figures is more likely to be trusted, regardless of accuracy (Mulcahy et al., 2025). This dynamic presents a dilemma: influencers can either amplify public health efforts or become powerful vectors of disinformation.

Socio-cultural factors also play a pivotal role. Indonesia's strong reliance on interpersonal trust means that information shared through family WhatsApp groups is often perceived as credible. Rumor dynamics within close-knit communities accelerate both the spread and persistence of false information. Once misinformation is embedded in community discourse, correcting it becomes exceedingly difficult. A study in *Asian Journal of Communication* (Anwar et al., 2023) highlights that debunking efforts tend to be less effective when they collide with pre-existing cultural narratives about health, spirituality, or traditional medicine.

The consequences of disinformation are far-reaching. Disinformation can lead individuals to delay seeking medical care, adopt harmful home remedies, or reject scientifically proven treatments. During the pandemic, vaccine hesitancy driven by misinformation significantly affected vaccination rates in several Indonesian regions (Kemenkes RI, 2023). Even beyond the pandemic, misinformation about nutrition, reproductive health, and chronic disease management continues to circulate widely, posing ongoing risks to public health.

Moreover, combating disinformation requires more than fact-checking. Studies emphasize that corrective information must be timely, emotionally engaging, culturally appropriate, and delivered by trusted sources to be effective (Willis, 2023). This requires collaboration between health institutions, digital platforms, and community stakeholders. Without systemic interventions addressing the roots of disinformation such as algorithmic bias, cognitive vulnerabilities, and socio-cultural dynamics, the challenges will persist.

Strategies for Strengthening Digital Health Communication: Governance, Platform Responsibility, and Community-Based Interventions

Effective digital health communication requires more than increasing the volume of accurate information; it demands structural, behavioral, and governance-level interventions capable of counterbalancing the systemic forces that enable disinformation to thrive. Given that social media

platforms are not neutral transmitters of information but are designed around algorithmic incentives, an effective strategy must directly engage with the platform ecosystem, regulatory structures, and community-level practices. Indonesia's unique socio-cultural dynamics further necessitate a contextualized approach that integrates public policy, technological regulation, and grassroots health promotion. This section analyzes the multidimensional strategies needed to strengthen digital health communication while mitigating the risks associated with misinformation.

At the governance level, a foundational requirement is the development of a coherent national digital health communication framework. While Indonesia has introduced several initiatives under the Digital Transformation Office (DTO) of the Ministry of Health, there remains fragmentation across agencies responsible for communication, cybersecurity, and public health. OECD (2021) emphasizes that countries with unified digital governance structures where health ministries work alongside communication ministries and data protection authorities, are more successful in managing misinformation ecosystemically. In Indonesia, coordination between Kemenkes, Kominfo, and the National Cyber and Encryption Agency (BSSN) is often reactive rather than proactive, limiting the ability to anticipate misinformation trends before they escalate. A unified framework would entail standardized communication protocols, rapid-response fact-checking teams, algorithmic risk monitoring, and integration of official health channels across platforms.

Regulation plays a central role in shaping platform responsibility. Most social media platforms remain reluctant to intervene aggressively in misinformation unless pressured by regulators or public health authorities. Evidence from the European Union, especially through the Digital Services Act demonstrates that regulatory levers can compel platforms to adopt stronger moderation policies, transparency audits, and improved algorithmic accountability (Merecos et al., 2023). Indonesia's regulatory environment does not yet impose comparable obligations. Current regulations under UU ITE and Permenkominfo primarily address harmful content but do not specify responsibilities for algorithmic amplification of health misinformation. Without explicit regulatory mechanisms requiring platforms to downrank misinformation, elevate verified health sources, and transparently report content moderation metrics, educational content will remain structurally disadvantaged in comparison to sensationalized health hoaxes.

However, governance and regulatory interventions alone are insufficient, particularly when computational propaganda and emotion-driven content circulate in closed messaging networks like WhatsApp. Because encrypted platforms provide limited visibility for monitoring harmful content, public health strategies must also employ indirect and community-centered approaches. Studies in *Digital Health* (Mulcahy et al., 2025) show that interventions leveraging trusted community figures like religious leaders, local influencers, teachers, and health volunteers are significantly more effective in correcting misinformation than institutional announcements. This reflects Indonesia's communication culture, where interpersonal trust outweighs institutional authority. Therefore, the integration of community health workers (*kader posyandu*, *bidan desa*) as digital intermediaries could bridge formal health communication with informal digital spaces, particularly in rural and peri-urban areas.

At the platform design level, social media companies need to adopt "healthy information architecture" models. Scholars in *Journal of Medical Internet Research* emphasize design-based solutions such as friction prompts (e.g., "Are you sure you want to share this?"), source transparency labels, and contextual fact-matching, which have demonstrable effects on reducing impulsive sharing of misinformation (Wasike, 2023). Indonesia could advocate for platform-level reforms tailored to local health communication priorities, such as automatic elevation of official Kemenkes content in health-related hashtag searches. A recent observational study in Asia revealed that contextual labeling can reduce belief in false health claims by up to 25%, but only when labels are clear, consistent, and culturally

contextualized (Htay et al., 2022). Thus, platform responsibility must extend beyond content removal to include architectural interventions that structurally support evidence-based health communication.

Digital health literacy remains a cornerstone of long-term resilience against misinformation. Without critical evaluation skills, the public remains susceptible to persuasive but inaccurate content. Large-scale digital literacy efforts in Indonesia, such as "Siberkreasi" led by Kominfo, contribute to foundational skills, but studies show that generic digital literacy does not equate to health literacy. Research in *Health Literacy Research and Practice* indicates that health-specific digital literacy trainingvfocusing on evaluating claims, identifying scientific sources, and recognizing commercial biasvis significantly more effective in shaping health decision-making (Willis, 2023). Therefore, Indonesia's digital literacy programs need to incorporate health literacy modules tailored to common misinformation themes such as herbal cures, vaccine myths, nutrition misconceptions, and reproductive health taboos.

In addition to institutional and community-based interventions, hybrid communication models combining online and offline strategies are essential. Offline health promotion activities can reinforce accurate information disseminated online, while online platforms can extend the reach of community-level health campaigns. Evidence from Southeast Asia shows that programs integrating social media campaigns with village-based workshops significantly increase the retention of health information and reduce susceptibility to misinformation (Komi et al., 2023). This hybrid approach aligns with the socio-cultural realities of Indonesia, where interpersonal communication remains highly influential and can complement digital messaging effectively.

Strategic collaboration between health professionals and content creators is another critical element. Studies demonstrate that co-creation of content between clinicians and influencers enhances message credibility and appeal, producing higher engagement and better comprehension (Arief, et al , 2023). Instead of positioning influencers as adversaries, public health institutions should leverage their reach through structured partnerships: co-designed campaigns, medically reviewed scripts, or ambassador programs. Such collaborations help ensure that popular content is scientifically accurate while maintaining the emotional resonance and relatability valued by Indonesian audiences.

Finally, a sustainable digital health communication ecosystem requires continuous monitoring, evaluation, and research (MER). Public health communication strategies must be evidence-driven and adaptive, especially in the rapidly evolving digital information landscape. MER systems can track misinformation trends, analyze content virality patterns, evaluate campaign effectiveness, and identify emerging risk areas such as deepfake health misinformation or AI-generated claims. Longitudinal studies that examine behavioral responses to misinformation can support the design of targeted interventions, while cross-sector collaboration with universities and health research bodies can strengthen the scientific rigor of digital health strategies.

In essence, strengthening digital health communication in Indonesia requires a comprehensive, multi-layered approach that aligns governance, platform regulation, digital literacy, community engagement, and interdisciplinary collaboration. Social media will continue to play a dual role, powerful for education, dangerous for disinformation yet with strategic interventions, its risks can be significantly mitigated. The integration of technological, behavioral, and cultural strategies is indispensable to ensuring that social media becomes a catalyst for equitable public health outcomes rather than a threat to them.

CONCLUSIONS

Social media has great potential as a health promotion tool in Indonesia because it can disseminate information quickly, easily, and to a wide audience. However, the analysis in this article shows that the power of social media in health education goes hand in hand with significant risks in the form of misinformation amplified by algorithms, low health literacy, and the socio-cultural dynamics of Indonesian society. The impact of misinformation not only hinders the effectiveness of health campaigns,

but also has the potential to undermine public trust in health institutions and encourage harmful health behaviors. Therefore, social media cannot be understood merely as a communication tool, but rather as a complex ecosystem that requires comprehensive strategies to maximize its benefits and minimize its risks.

The results of the analysis show that increasing the effectiveness of health promotion on social media requires a systemic approach that includes the integration of digital health policies, increased platform accountability, and strengthening the capacity of health workers and the community to critically understand health information. Community-based approaches, collaboration with content creators, and healthier information system design have also proven to be important in creating a safer and more informative digital environment. By consistently adopting these strategies, social media can be repurposed as an educational space that supports the improvement of public health literacy and the strengthening of information security at the national level.

In conclusion, the use of social media in health promotion will only be effective if it is accompanied by the strengthening of information governance, community empowerment, and cross-sector collaboration between the government, health workers, researchers, and digital platforms. With an integrated and evidence-based approach, social media can become an important pillar in efforts to build a more inclusive, safe, and sustainable public health ecosystem in Indonesia.

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