

Digital health communication and media literacy as tools for civic engagement in India

Soumyadeep Sen

M.A. in Mass Communication, The University of Burdwan,
West Bengal, India

Abstract

The rapid growth of digital media and information technologies has significantly transformed health communication practices in India, reshaping how citizens access, interpret, and engage with public health information. Government-led digital initiatives such as the National Health Mission (NHM), Ayushman Bharat Digital Mission (ABDM), and the CoWIN platform have expanded the reach of health communication and encouraged citizen participation in health-related decision-making. However, alongside these developments, the spread of health-related misinformation and disinformation through social media and digital platforms has emerged as a serious challenge to public trust and civic responsibility. This paper examines the role of digital health communication and media literacy in fostering civic engagement in the Indian context. It adopts a qualitative and analytical approach, drawing on policy documents, government reports, and existing scholarly literature to explore how media literacy enables citizens to critically evaluate digital health information and participate more responsibly in public discourse. The study highlights that media-literate citizens are better equipped to distinguish credible health information from misleading content, thereby contributing to informed civic engagement and collective public health action. The paper further argues that digital health communication functions not only as a tool for information dissemination but also as a platform for civic participation, where citizens engage with health campaigns, share experiences, and hold

institutions accountable. Strengthening media literacy is therefore essential for enhancing democratic participation, reducing the impact of health misinformation, and promoting inclusive public health communication. The study concludes that integrating media literacy initiatives within digital health communication strategies can significantly improve civic engagement and public health outcomes in India's evolving digital ecosystem.

Keywords: Digital Health Communication, Media Literacy, Civic Engagement, Health Misinformation, India

1. Introduction

The rapid expansion of digital technologies has fundamentally transformed the landscape of health communication in India. Over the last decade, the proliferation of smartphones, internet connectivity, and social media platforms has enabled health information to reach citizens more quickly and widely than ever before. Digital platforms are now used extensively by government agencies, healthcare providers, and civil society organizations to disseminate public health messages, promote preventive behaviour, and mobilize communities during health emergencies. Initiatives such as the National Health Mission (NHM), Ayushman Bharat Digital Mission (ABDM), and digital platforms like CoWIN have demonstrated how digital communication can strengthen citizen engagement in public health governance. Through these platforms, citizens are no longer passive recipients of health messages but increasingly become participants in health-related decision-making, information sharing, and feedback processes.

India's digital health ecosystem has expanded rapidly in recent years, particularly following the COVID-19 pandemic. The use of digital applications for vaccination registration, telemedicine, and health data management has brought millions of citizens into direct interaction with state health institutions. This transformation has enhanced accessibility and transparency in public health communication. At the same time, however, it has increased citizens' exposure to a large volume of unverified and misleading information.

Social media platforms, messaging applications, and video-sharing sites have become primary sources of health-related information for many people, often replacing traditional sources such as doctors, newspapers, and public health authorities. While this shift has democratized access to information, it has also complicated the task of ensuring accuracy, reliability, and public trust.

One of the most significant challenges in this digital environment is the spread of health-related misinformation and disinformation. False claims about vaccines, miracle cures, dietary practices, and disease transmission have circulated widely on digital platforms, sometimes leading to harmful behaviours and reduced compliance with public health guidelines. In India, where digital literacy varies significantly across regions, age groups, and socio-economic categories, many citizens find it difficult to distinguish between credible health information and misleading content. During the COVID-19 pandemic, for example, misinformation about vaccines and treatments affected public perception and created hesitation and fear among sections of the population. Such developments demonstrate that digital health communication cannot be effective unless citizens possess the skills necessary to critically evaluate the information they encounter.

In this context, media literacy becomes a central component of effective digital health communication. Media literacy refers to the ability to access, analyze, evaluate, and create media content in a critical and informed manner. In the health domain, media-literate citizens are better able to verify sources, assess the credibility of health messages, and make informed decisions regarding their well-being. Media literacy thus functions not only as an educational skill but also as a civic competence that supports responsible participation in public discourse. When citizens are media literate, they are more likely to engage constructively with digital health campaigns, challenge misinformation, and contribute to collective efforts to improve public health. Civic engagement is another key dimension of digital health communication.

Civic engagement in the health sector includes activities such as participating in health campaigns, sharing information within communities, interacting with public institutions, and advocating for better health services. Digital platforms have expanded the opportunities for such engagement by providing spaces where citizens can voice concerns, seek information, and collaborate with others. For example, social media and online forums allow people to discuss health issues, mobilize support for health initiatives, and hold institutions accountable. When combined with media literacy, these digital spaces can strengthen democratic participation and promote a more informed and active citizenry.

Despite the growing importance of digital health communication, media literacy, and civic engagement, these concepts are often studied separately in academic research. Health communication studies frequently focus on message design and campaign effectiveness, while media literacy research tends to emphasize educational outcomes and critical thinking skills. Similarly, studies on civic engagement often examine political participation without adequately considering the role of health communication in shaping civic responsibility. In the Indian context, there is a particular need for integrated research that examines how digital health communication and media literacy together influence citizens' engagement with public health issues. This paper seeks to address this gap by exploring how digital health communication, supported by media literacy, can function as a tool for enhancing civic engagement in India. By analysing policy initiatives, digital health platforms, and existing scholarly literature, the study aims to provide a comprehensive understanding of how citizens interact with digital health information and how this interaction shapes their participation in public health. The focus on India is especially important given the country's large and diverse population, rapid digitalization, and ongoing efforts to improve health outcomes through digital governance. By examining the interconnections between digital health communication, media literacy, and civic engagement, this paper contributes to

a broader understanding of how communication practices can support democratic participation and social development in the digital age. The study ultimately argues that strengthening media literacy within digital health communication strategies is essential for building informed, engaged, and responsible citizens who can actively participate in shaping India's public health future.

2. Review Of Literature

2.1. Digital Health Communication: Global and Indian Perspectives

The field of digital health communication has grown substantially over the last two decades as information technologies have become ubiquitous in people's lives. Globally, researchers have recognized that digital media can enhance public health outcomes by facilitating timely dissemination of health information and promoting health literacy. For example, Wilson et al. (2013) argued that digital platforms such as social media and online health portals can improve awareness and behavioral intention when used effectively in public health campaigns (Wilson et al., *Journal of Health Communication*). Similarly, Moorhead et al. (2013) in a systematic review concluded that social media enables greater reach and engagement for health promotion by providing spaces where users share experiences and health advice, thereby amplifying key messages (Moorhead et al., *Journal of Medical Internet Research*). In the Indian context, digital health communication has been studied predominantly in relation to large-scale public health initiatives. Rajan and Sen (2020) examined the role of digital media in disseminating maternal and child health information in rural Uttar Pradesh, finding that mobile messaging and interactive voice response systems increased awareness among low-income women (*Indian Journal of Public Health Research & Development*). Similarly, Singh and Kaur (2021) analyzed the use of WhatsApp by community health workers in Punjab to provide timely vaccinations updates, highlighting improvements in vaccine adherence (*Media Asia*). Both studies reinforce that digital

platform, when aligned with community health strategies, can bridge communication gaps in underserved areas. However, several researchers have also pointed out that the effectiveness of digital health communication is contingent on other social and institutional factors. Gupta and Bhatia (2019) noted that digital messaging alone cannot ensure behavior change unless there is parallel investment in health infrastructure and community mobilization (Health Communication Research). This suggests that digital communication must be integrated with ground-level health efforts to achieve sustained impact.

2.2. Media Literacy Research: Foundations and Health Applications

Media literacy research has evolved from early work emphasizing critical viewing skills in the 20th century to contemporary studies focusing on digital information environments. Buckingham (2003) defines media literacy as the ability to access, analyze, evaluate, and create messages in a variety of forms a framework widely adopted by scholars across disciplines (Media Education: Literacy, Learning, and Contemporary Culture). In the health domain, Hobbs (2010) demonstrated that media literacy interventions can significantly improve individuals' ability to critically evaluate health messages and resist misinformation, particularly when coupled with classroom or community training (Journal of Communication Education). Internationally, research by Vraga and Tully (2021) highlighted the role of media literacy in combating health misinformation on social media. Their experimental studies showed that participants with higher media literacy scores were significantly more likely to identify misleading public health posts correctly and less likely to share them (Health Communication). This finding is particularly relevant given the proliferation of digital misinformation in recent years.

In India, media literacy research is still emerging, especially in relation to health communication. Kumar (2018) explored media literacy levels among urban youth, showing that while young adults are heavy users of digital platforms,

they often lack the skills necessary to distinguish between credible and non-credible sources (International Journal of Communication Research). More recently, Banerjee and Chakraborty (2022) conducted a mixed-methods study with rural adolescents in West Bengal, revealing that targeted media literacy workshops increased participants' skepticism of health misinformation and improved their search for authoritative health information (Indian Journal of Media and Communication). These Indian studies underscore that media literacy is not merely a cognitive skill but a mediating factor that influences how people interpret and act on health communication.

2.3. Civic Engagement and Digital Participation: Linking Health and Citizenship

Civic engagement traditionally refers to citizens' involvement in public life to influence community and policy outcomes (Putnam, 2000; Bowling Alone). In the digital age, scholars argue that online platforms have expanded the scope of civic engagement. According to Boulianne (2015), digital media can facilitate political and social participation by lowering barriers to communication and enabling collective action (New Media & Society). In the health context, digital civic engagement includes activities such as participating in online health discussions, sharing personal health experiences on social media, and engaging with health authorities through digital feedback channels.

Several studies document this trend internationally. For example, Brunton et al. (2019) found that participatory digital campaigns, such as hashtag movements supporting mental health awareness, led to measurable increases in community engagement and resource sharing (Journal of Public Health Policy). Similarly, Xie et al. (2020) analyzed engagement metrics from public health campaigns on Weibo, showing that interactive content significantly enhanced community responses compared to static messaging (Telematics and Informatics).

Indian research into digital civic engagement in health is limited but expanding. Mishra and Sinha (2021) examined how Twitter was used by citizens during the second wave of COVID-19 in India to share real-time information about hospital beds, oxygen supplies, and vaccination slots. Their analysis revealed that digital civic engagement helped fill critical information gaps during emergencies (Indian Journal of Communication Studies). Another notable study by Roy and Das (2022) investigated online patient groups on Facebook, finding that peer-to-peer support and shared experiences enhanced community resilience and collective problem-solving (Asian Journal of Communication).

However, scholars also caution that digital engagement is not automatically democratic or constructive. Dasgupta (2020) argued that digital participation can be skewed by socio-economic inequalities, where more privileged groups dominate online spaces, leaving marginalized voices underrepresented (Communication Research Trends). This points to the need for media literacy and inclusive digital policies that empower diverse segments of society.

2.4. Synthesis: Gaps and Opportunities

Three key patterns emerge from the literature:

- Digital health communication has potential for broad outreach but its effectiveness depends on contextual factors such as infrastructure, literacy, and trust.
- Media literacy is a strong predictor of individuals' ability to critically engage with health content, yet empirical work in the Indian context remains limited.
- Civic engagement through digital platforms is evident in crisis contexts (e.g., COVID-19), but sustained participatory practices and their links to health outcomes are underexplored.

Specifically, there is a dearth of integrated research that simultaneously examines:

- Digital health communication
- Media literacy competencies

- Civic engagement outcomes

specially in the Indian socio-cultural context. Most studies explore these themes in isolation, limiting theoretical synthesis and policy relevance.

2.5. Conclusion of Review

The literature suggests that while digital media has transformed health communication and civic engagement opportunities globally, the interaction between digital health communication and media literacy in enhancing civic participation remains under-studied, particularly in India. Addressing this integrated gap is critical for understanding how digital health initiatives can be more effective in promoting informed and responsible civic engagement among diverse Indian populations.

3. Objectives of the Study

- To examine the role of digital health communication in promoting civic engagement among Indian citizens in the context of public health.
- To analyze how media literacy influences people's ability to identify, evaluate, and respond to health-related information circulated through digital platforms.
- To investigate the relationship between media literacy and the spread of health misinformation in the Indian digital environment.
- To assess how digital platforms such as social media, websites, and mobile applications are used for public health communication in India.
- To explore the impact of digital health communication on public participation, awareness, and trust in health institutions.
- To identify the challenges faced by Indian users in accessing and interpreting digital health information.

3.1. Research Questions

- How does digital health communication influence civic engagement in public health issues in India?
- What role does media literacy play in enabling citizens to critically evaluate digital health information?
- How does media literacy affect the spread and acceptance of health misinformation in India?
- Which digital platforms are most effective for health communication and public participation?
- What challenges do Indian citizens face while accessing and understanding online health information?

5. Methodology

This study adopts a qualitative research design to examine the relationship between digital health communication, media literacy, and civic engagement in India. Given the exploratory nature of the research and the absence of primary field data at this stage, the study relies on secondary data analysis, including policy documents, government reports, and peer-reviewed scholarly literature. This approach allows for an in-depth understanding of how digital platforms are used in health communication and how media literacy shapes public engagement in the Indian context.

5.1. Research Design

A qualitative, interpretive research design is used to analyze how digital health communication operates within India's public health system and how citizens engage with digital health information. Qualitative research is particularly suitable for this study because it enables the exploration of meanings, patterns, and interpretations rather than numerical measurement. Since health communication involves complex interactions between institutions, media, and citizens, a qualitative framework provides deeper insights into how information is produced, circulated, and received.

The study is guided by a document analysis approach, which involves the systematic examination of official policy documents, government portals, and academic publications related to digital health communication, media literacy, and civic participation. This method helps identify recurring themes, policy priorities, and communication strategies used by the Indian government and public health agencies.

5.2. Data Sources

The study uses multiple secondary data sources to ensure credibility and triangulation:

5.2.1 Government Policy Documents and Digital Platforms

Key national policy frameworks and digital health platforms were analyzed, including:

- National Health Mission (NHM): To understand the government's communication strategies for public health awareness and outreach.
- Ayushman Bharat Digital Mission (ABDM): To examine how digital infrastructure is used for health data, patient records, and communication.
- CoWIN Portal: To analyze digital communication during India's COVID-19 vaccination campaign and its role in public engagement.

These documents and portals provide insight into how the Indian state uses digital tools to communicate health information, promote participation, and manage public health initiatives.

5.2.2. Government Reports

Reports from the Ministry of Health and Family Welfare, NITI Aayog, and Press Information Bureau (PIB) were examined to understand the scope and impact of digital health initiatives. These reports include data on digital adoption, vaccination outreach, telemedicine services, and public communication strategies.

Such reports are valuable because they reflect official narratives, performance indicators, and policy objectives related to digital health and citizen engagement.

5.2.3. Scholarly Literature

Peer-reviewed journal articles, books, and research reports on:

- Digital health communication
- Media literacy
- Health misinformation
- Civic and digital engagement

were systematically reviewed. International journals such as *Health Communication*, *Journal of Medical Internet Research*, and *New Media & Society*, along with Indian journals like *Indian Journal of Communication Studies* and *Media Asia*, were used to provide both global and local perspectives.

5.3. Data Collection Procedure

Relevant documents and academic articles were identified through academic databases such as Google Scholar, Scopus-indexed journals, and government websites. Keywords such as digital health communication, media literacy in India, health misinformation, and civic engagement were used to locate appropriate sources.

Only documents published between 2015 and 2024 were included to ensure contemporary relevance, particularly in light of India's rapid digital transformation and the COVID-19 pandemic.

5.4. Data Analysis Technique

The collected materials were analyzed using thematic analysis. This involved:

- Familiarization – Reading and re-reading documents to understand content and context.
- Coding – Identifying key concepts related to health communication, media literacy, and civic engagement.

- Theme Development – Grouping codes into broader themes such as government digital outreach, misinformation challenges, citizen participation, and media literacy gaps.
- Interpretation – Linking these themes to the research objectives and theoretical framework.

This method allows patterns and relationships to emerge from the data, offering a structured way to interpret large volumes of textual material.

5.5. Ethical Considerations

Since the study relies exclusively on publicly available secondary data, no direct human participants were involved. Therefore, issues of informed consent or personal data protection do not arise. However, care was taken to accurately represent government documents and scholarly sources without misinterpretation or misquotation.

5.6. Limitations of the Study

A key limitation of this methodology is the absence of primary field data such as surveys or interviews. While secondary data provides a broad understanding of trends and policies, it does not capture individual experiences or grassroots perspectives. Future research may incorporate interviews with health workers, citizens, and media professionals to deepen empirical insights.

5.7. Justification of Method

Despite its limitations, this methodology is well suited for the present study because it allows for a systematic and theory-driven examination of digital health communication and media literacy in India. The use of government policies and scholarly literature ensures that the findings are grounded in both practice and academic theory, making the study relevant for policymakers, researchers, and public health communicators.

6. Analysis And Discussion

This section interprets the findings emerging from the analysis

of policy documents, government reports, and scholarly literature to explain how digital health communication, media literacy, and civic engagement interact in the Indian context. The discussion is organized around five major themes: digital platforms in health campaigns, citizen participation, the role of social media, media literacy outcomes, and key Indian examples such as COVID-19, vaccination, and Ayushman Bharat.

6.1. Digital Platforms in Indian Health Campaigns

India's public health system has undergone a significant transformation through the adoption of digital platforms. The National Health Mission (NHM), Ayushman Bharat Digital Mission (ABDM), and CoWIN platform illustrate how digital infrastructures have become central to health communication. These platforms are not merely administrative tools but also function as communication channels that connect the state with citizens. The CoWIN portal, developed during the COVID-19 pandemic, enabled citizens to register for vaccination, receive appointment updates, download certificates, and access official information about vaccines. This integration of service delivery and communication enhanced public trust and transparency. Similarly, ABDM provides a digital ecosystem where citizens can access health records and interact with health services, which strengthens informational continuity and engagement with the healthcare system. From a communication perspective, these platforms reflect a shift from one-way dissemination of information to interactive digital engagement, where citizens are active participants in managing their health. This supports the argument that digital health communication is no longer limited to awareness campaigns but is embedded in governance and service delivery.

6.2. Citizen Participation in Digital Health Communication

One of the most important findings from this study is that digital platforms have expanded opportunities for civic participation in health matters. Indian citizens now engage with health systems not only as patients but also as informed users, content sharers, and feedback providers.

During COVID-19, citizens used digital tools to:

- Share information about hospital beds and oxygen availability
- Alert others about vaccination slots
- Disseminate official health advisories

This form of participation represents digital civic engagement, where individuals contribute to collective well-being through information sharing and online coordination. Unlike traditional civic engagement, which relied on physical meetings and institutional channels, digital participation allowed citizens to act rapidly and collaboratively during a public health crisis.

However, the quality of this engagement depends on information accuracy and digital competence. When users are media literate, civic engagement becomes constructive. When they are not, it can amplify panic and misinformation. Thus, digital participation is both an opportunity and a risk.

6.3. Role of Social Media in Health Communication

Social media platforms such as WhatsApp, Facebook, X (Twitter), and YouTube have become central to India's health communication ecosystem. Government agencies, health professionals, and citizens all use these platforms to share health information.

During the COVID-19 pandemic, the Indian government used social media extensively to:

- Promote mask-wearing and vaccination
- Counter rumors
- Provide real-time updates

Health ministries, state governments, and even district authorities maintained active social media accounts to disseminate verified information. This enhanced reach, especially among young and urban populations.

At the same time, social media also became a major source of misinformation. False claims about vaccines, home remedies, and virus origins circulated widely. This demonstrates that social media functions as a double-edged sword it can empower public health communication but also undermine it.

The effectiveness of social media therefore depends not only on institutional messaging but also on citizens' ability to critically evaluate content, which brings media literacy into focus.

6.4. Media Literacy and Its Impact on Health Information

Media literacy plays a crucial role in shaping how individuals engage with digital health communication. Media-literate users are better able to:

- Distinguish credible from unreliable sources
- Cross-check health claims
- Avoid sharing misleading content

In the Indian context, where digital access has expanded faster than digital education, many users encounter health information without adequate critical skills. This gap makes them vulnerable to misinformation, particularly on encrypted platforms like WhatsApp.

Government initiatives such as PIB Fact Check, MyGov, and health ministry advisories attempt to correct misinformation, but their effectiveness depends on users' willingness and ability to trust and verify official sources. When media literacy is high, citizens are more likely to:

- Follow evidence-based health advice
- Participate responsibly in online discussions
- Support public health measures

Thus, media literacy acts as a mediating variable between digital health communication and civic engagement.

6.5. Indian Examples: COVID-19, Vaccination, and Ayushman Bharat

The COVID-19 pandemic provides a powerful illustration of how digital health communication, media literacy, and civic engagement interact. The CoWIN platform facilitated the world's largest vaccination drive, while social media enabled rapid dissemination of information. Citizens actively participated by booking slots, sharing updates, and encouraging others to get vaccinated.

However, vaccine hesitancy fueled by misinformation also emerged. Rumors about side effects and conspiracy theories spread online, particularly in communities with low media literacy. This demonstrates that digital access alone is not enough; critical engagement is equally necessary. Similarly, Ayushman Bharat Digital Mission aims to create a digitally empowered health ecosystem. Its success depends on citizens' ability to understand, trust, and use digital health services. Media literacy determines whether people see these platforms as helpful tools or as confusing and unreliable systems.

6.7. Integrating Digital Communication, Media Literacy, and Civic Engagement

The analysis shows that digital health communication, media literacy, and civic engagement are deeply interconnected. Digital platforms provide the infrastructure, media literacy shapes interpretation, and civic engagement reflects how people act on health information.

In India, where public health challenges are vast and diverse, this integration is especially important. Effective digital health communication can strengthen democratic participation by enabling citizens to engage with health policies, demand accountability, and support collective well-being.

7. Conclusion of the Discussion

The findings suggest that India's digital health initiatives have created unprecedented opportunities for public engagement. However, the quality and impact of this engagement depend heavily on media literacy. To maximize the benefits of digital

health communication, India must invest not only in digital infrastructure but also in critical digital education, ensuring that citizens can participate meaningfully and responsibly in the digital public sphere.

8. Findings

This study analyzed government policy documents, digital health platforms, and scholarly literature to understand how digital health communication, media literacy, and civic engagement interact in the Indian context. The key findings are summarized below.

8.1. Media-literate citizens engage more responsibly

One of the most significant findings is that media literacy strongly influences how citizens participate in digital health communication. Individuals who possess higher levels of media literacy are better able to evaluate the credibility of online health information, identify misinformation, and avoid sharing unverified content. These users are more likely to consult official government platforms, follow scientific guidelines, and engage constructively in online discussions related to health issues. In contrast, citizens with lower media literacy are more vulnerable to misleading messages, which can result in panic, mistrust, and the spread of false information. This demonstrates that media literacy acts as a critical filter between digital content and civic behavior.

8.2. Digital health communication improves awareness and participation

The study finds that digital health communication has significantly improved public awareness and participation in health initiatives in India. Platforms such as CoWIN, Ayushman Bharat Digital Mission (ABDM), and government social media channels have enabled citizens to access real-time information about vaccination, health services, and disease prevention. These tools have made health information more accessible, especially during emergencies such as the COVID-19 pandemic. Digital platforms have also increased opportunities for citizens to interact with health

authorities, register for services, and receive updates, thereby strengthening their involvement in public health systems.

8.3. Misinformation weakens public trust

Despite the benefits of digital communication, the study reveals that health misinformation remains a major challenge. False or misleading health content circulated through social media and messaging apps has contributed to confusion, fear, and skepticism toward medical advice and government health programs. This misinformation undermines public trust in health institutions and reduces compliance with preventive measures such as vaccination and testing. The findings indicate that without adequate media literacy and effective fact-checking mechanisms, digital platforms can become channels for harmful narratives rather than reliable health communication.

8.4. Overall Insight

The findings clearly show that while digital health communication has the potential to enhance awareness and civic engagement, its success depends largely on the level of media literacy among citizens. Strengthening media literacy is therefore essential for building informed, responsible, and trust-based participation in India's digital health ecosystem.

9. Conclusion

This study set out to examine the relationship between digital health communication, media literacy, and civic engagement in India, using secondary data drawn from policy documents, government platforms, and scholarly research. The findings clearly demonstrate that digital technologies have fundamentally reshaped how health information is produced, circulated, and consumed in the country. Platforms such as CoWIN and the Ayushman Bharat Digital Mission have not only improved service delivery but also created new opportunities for citizens to actively engage with public health systems. In this sense, digital health communication has become a powerful tool for enhancing transparency, awareness, and participation in India's healthcare governance.

However, the study also reveals that the benefits of digital health communication are not automatic. Media literacy plays a crucial mediating role in determining whether digital platforms promote informed engagement or contribute to confusion and mistrust. Media-literate citizens are better equipped to evaluate the credibility of health messages, avoid misinformation, and participate responsibly in online discussions related to public health. Conversely, limited media literacy increases vulnerability to false and misleading content, which can weaken public trust in health institutions and undermine the effectiveness of health campaigns. This makes media literacy not merely an educational concern, but a public health and democratic issue.

From a policy perspective, the findings suggest that India's investment in digital health infrastructure must be complemented by a strong focus on digital and media literacy. While initiatives like ABDM and CoWIN have expanded access to health services, their long-term success depends on citizens' ability to understand and critically engage with digital information. Government agencies, educational institutions, and civil society organizations should therefore collaborate to integrate media literacy training into public health outreach, school curricula, and community programs. Strengthening fact-checking mechanisms and promoting transparent communication through official digital channels are also essential to counter misinformation and build public trust. The study also highlights the need for more inclusive digital health strategies. Socio-economic and educational inequalities influence how different groups access and interpret online health information. Policies must therefore ensure that digital health communication is accessible, multilingual, and culturally sensitive, so that no section of society is excluded from meaningful participation. In terms of future research, this study provides a conceptual foundation but also points to several areas that require further investigation. Future studies could incorporate primary data through surveys, interviews, or ethnographic research to capture citizens lived experiences of digital health communication. Comparative

studies across rural and urban contexts, or among different age and socio-economic groups, would provide deeper insight into how media literacy shapes civic engagement. Additionally, longitudinal research could help assess how sustained exposure to digital health platforms influences trust, behavior, and participation over time. In conclusion, digital health communication holds immense potential to strengthen public health and democratic engagement in India, but its success ultimately depends on building a media-literate and critically informed citizenry.

Reference

1. Banerjee, T., & Chakraborty, R. (2022). Media literacy and rural adolescents' engagement with digital health information in West Bengal. *Indian Journal of Media and Communication*, 6(2), 45–60.
2. Boulianne, S. (2015). Social media use and participation: A meta-analysis of current research. *Information, Communication & Society*, 18(5), 524–538. <https://doi.org/10.1080/1369118X.2015.1008542>
3. Brunton, G., Thomas, J., O'Mara-Eves, A., Jamal, F., & Oliver, S. (2019). Digital engagement in public health campaigns: A systematic review. *Journal of Public Health Policy*, 40(2), 182–197. <https://doi.org/10.1057/s41271-019-00168-5>
4. Buckingham, D. (2003). *Media education: Literacy, learning and contemporary culture*. Polity Press.
5. Dasgupta, A. (2020). Digital inequality and online civic participation in India. *Communication Research Trends*, 39(3), 3–21.
6. Gupta, P., & Bhatia, S. (2019). Digital communication strategies and public health outcomes in India. *Health Communication Research*, 11(1), 22–38.
7. Hobbs, R. (2010). Digital and media literacy: A plan of action. *Journal of Communication Education*, 59(4), 385–394. <https://doi.org/10.1080/03634523.2010.496623>
8. Kumar, A. (2018). Media literacy among urban youth in India: A study of digital news consumption. *International*

Journal of Communication Research, 8(2), 145–156.

9. Mishra, S., & Sinha, N. (2021). Twitter and citizen-led health communication during COVID-19 in India. *Indian Journal of Communication Studies*, 5(1), 61–78.

10. Moorhead, S. A., Hazlett, D. E., Harrison, L., Carroll, J. K., Irwin, A., & Hoving, C. (2013). A new dimension of health care: Systematic review of the uses, benefits, and limitations of social media for health communication. *Journal of Medical Internet Research*, 15(4), e85. <https://doi.org/10.2196/jmir.1933>

11. Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.

12. Rajan, M., & Sen, P. (2020). Role of digital health communication in maternal and child health programmes in rural India. *Indian Journal of Public Health Research & Development*, 11(5), 112–118.

13. Roy, P., & Das, A. (2022). Online patient communities and civic engagement in India. *Asian Journal of Communication*, 32(3), 245–261. <https://doi.org/10.1080/01292986.2022.2037465>

14. Singh, R., & Kaur, M. (2021). WhatsApp-based health communication and vaccine awareness in Punjab. *Media Asia*, 48(4), 275–287. <https://doi.org/10.1080/01296612.2021.1983419>

15. Vraga, E. K., & Tully, M. (2021). Media literacy interventions and health misinformation on social media. *Health Communication*, 36(3), 343–352. <https://doi.org/10.1080/10410236.2019.1700430>

16. Wilson, K., Atkinson, K. M., & Deeks, S. L. (2013). Opportunities for using new technologies to increase vaccine confidence. *Journal of Health Communication*, 18(3), 1–11. <https://doi.org/10.1080/10810730.2013.798383>

17. Xie, X., Chen, J., Wang, H., & Yang, J. (2020). Public engagement in digital health communication on social media. *Telematics and Informatics*, 51, 101–405. <https://doi.org/10.1016/j.tele.2020.101405>