



Voices and Visions: Qualitative Insights into the Roles and Challenges of Health Communication on Social Media

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Abstract. With the continuous development of internet technology in recent years, social media platforms have gradually replaced traditional media and become one of the primary channels for users to engage in health communication. This paper addresses two main research questions: firstly, to investigate the roles played by social media in health communication, and secondly, to identify the issues existing in health communication through social media. Employing content analysis, this study examines user comments related to health communication on three platforms—Douyin, Weibo, and Xiaohongshu—to address the aforementioned research questions. The findings reveal that social media assumes five distinct roles in health communication, concurrently highlighting the existence of three issues. The significance of this research lies in addressing these two knowledge gaps, contributing to the advancement of this field. Moreover, it serves as a guide for government and industry on how to steer social media towards responsible health communication.

Keywords: Social Media; Health Communication; Role Functions; Issues

1 Introduction

With the continuous progress and development of industry and technology, incidents related to food safety, public health, and other events have entered a high-incidence stage. Concurrently, the material living standards of residents have been steadily improving, leading to an increased focus on health information. Health communication, considered a crucial component of mass communication, was first conceptualized by Jackson LD in 1992. He defined health communication as an activity that utilizes mass communication channels to disseminate health-related information with the purpose of preventing diseases and promoting health.

In recent years, the relentless advancement of internet technology has seen social media platforms gradually supplant traditional media, emerging as one of the primary

channels for users to engage in health communication. Social media, an indispensable tool in our daily lives, plays a pivotal role in communication and information acquisition. Despite the lack of a unified definition of social media in both domestic and international academic circles, its fundamental characteristics encompass applications or platforms based on network technology and ideology. These platforms facilitate connections between users, publicly display these connections, involve independent or collaborative content production by users, and enable the sharing and dissemination of content visible to other users. Within this defined scope, social media encompasses social networking sites such as Facebook, LinkedIn, Twitter, Weibo, Zhihu, as well as previously popular domestic platforms like Renren and Xiaonei. It also includes mobile network-based social applications like WeChat, WhatsApp, and Line, along with websites and mobile applications compatible with platforms like Twitter, Instagram, Tencent QQ, among others. The role of social media in health communication has thus become a subject of significant interest.

2 Research Questions and Methodology

Building upon the aforementioned background, the aim of my study is to investigate the roles played by social media in health communication and to identify the associated challenges. Specifically, my research questions are twofold: firstly, what roles does social media play in health communication? Secondly, what issues are present in the context of social media and health communication? To address these research questions, I employ a content analysis approach, analyzing user comments on platforms such as Douyin, Weibo, and Xiaohongshu to ultimately distill several overarching themes.

3 Significance of the Study

In the existing academic literature, there has been a notable absence of research dedicated to the functional roles of social media in health and the problems arising from these roles. This research addresses these two knowledge gaps, contributing to the advancement of this field. Simultaneously, it serves as a guide for government and industry on how to steer social media towards responsible health communication.

4 Roles Played by Social Media

4.1 Persuader in Health Education

Traditional health education utilizes mass media such as newspapers and broadcasts to disseminate health information. With the advancement of communication technologies, the landscape of health communication has become more diverse, incorporating newspapers, television, radio, social media, and other digital/online platforms as carriers. Through various modes of communication, this approach aims to enhance public health knowledge and behavior, promote positive health behavioral intentions, and reduce

health risk behaviors. Social media platforms like Facebook and Twitter, representing low cost, interactive sharing, customized information, and high dissemination rates, have attracted researchers' attention as a potential means of health communication—effectively sharing health information through active audience participation and interaction. In recent years, social media has found extensive applications in areas such as smoking cessation, prevention and control of sexually transmitted diseases, mental health education, diabetes prevention and treatment, weight management, healthy eating, and women's health[1]. The ultimate goal of health communication is to achieve persuasive effects, with information serving as the core link connecting content producers and specific target audiences. As a disseminator of information, social media plays the role of an information bridge in health communication, channeling information from producers to users. Users on social media receive information from disseminators and engage in continuous circulation and interaction through actions such as likes, comments, group discussions, or adhering to the disseminator's requested online behaviors. This process triggers potential diffusion behaviors and self-reflection, leading to a positive trend in subjective experiences and ultimately influencing behavioral changes. Simultaneously, social media platforms offer features such as comments, enabling information producers to prompt.

4.2 Low-Cost Resolvers of Health Issues

As the pace of modern life accelerates and societal and environmental concerns such as food safety and air quality become more prominent, public awareness of personal health has increased. The widespread use of social media and smartphones allows individuals to easily access preventive health knowledge and even home remedies for minor ailments without leaving their homes[2].

For instance, "Dingxiangyuan" is a highly influential brand in the field of health communication. Evolving from an initial medical knowledge-sharing website, Dingxiangyuan has integrated into social networks. The platforms under Dingxiangyuan are utilized to share experiences in retrieving medical knowledge, impart retrieval methods and techniques, disseminate health knowledge, and facilitate resource sharing among the public. During the pandemic, many hospitals also utilized social media for online consultations[3].

However, it is important to note that, on the other hand, in the era of information overload, patients are inundated with a vast amount of information. Faced with this abundance, they often struggle to discern valuable health information, revealing a scarcity of worthwhile health insights. Additionally, some scholars have pointed out that the use of social media has decreased public trust in medical professionals.

4.3 Collectors of Health Information.

In addition to the characteristics of information dissemination, the structural features of platforms also exert a significant influence. Social media not only functions as an information disseminator but also incorporates features such as likes, comments, and

shares, which inherently possess social attributes and serve as crucial channels for user engagement in information gathering[4].

The combination of professionally generated content (PGC) and user-generated content (UGC) allows social media to aggregate health information, featuring detailed information categorization. When analyzing and discussing widely discussed topics, operators seek resonance with readers or attempt to influence their perception of health issues by collecting and citing viewpoints and feedback from social groups that may include their target audience.

4.4 Disseminators of Health Rumors

With the development of mobile and scene-based services, technologies such as 5G, VR, AR, MR, big data, and cloud computing empower health information and services, which are essential demands and highly match users' needs for medical and health-related information. However, due to the ubiquity of health information, false information has proliferated[5].

Whether in the health information on Weibo or the health popularization on WeChat public accounts, the problems of false information, fear appeals, and sensational language abound. Social media, represented by platforms like Weibo, WeChat, Toutiao, and Douyin, has a tremendous impact, with users and clicks numbering in the billions. In social media, users almost incur zero cost to participate in the most extensive information exchange, becoming producers and amplifiers of information dissemination. Within this context, false health information is continuously generated, uploaded, fermented, and evolved on social media.

Scholars have pointed out that false health information dissemination in social media exhibits three characteristics: high sensationalism, high trustworthiness, and high reposting rates. Despite the lockdown during the pandemic, efforts to distinguish between truth and falsehood never ceased, and health-related rumors, being a widely discussed hot topic, consistently maintained high levels of public attention[6].

Rumors such as "Vitamin C can prevent COVID-19," "Rinsing your mouth with saltwater can prevent the virus," and "Setting off fireworks and firecrackers can prevent the plague" have sparked widespread discussions on the internet.

Compared to traditional media, social media platforms have lower entry barriers, complex information sources, varying user literacy, and outdated information verification mechanisms, contributing to the proliferation of pseudoscientific and false content. If not addressed, this trend may mislead public perceptions and common knowledge, adversely affecting individual health. Individuals.

4.5 Guiders of Health Science Information

In health communication, social media must first capture attention at the cognitive level, raising awareness among the audience regarding disease prevention, prevention of substance abuse, and attention to scientific health practices. Social media must effectively assume the role of guiding health communication, utilizing technology-inte-

grated platforms to enhance the scientific and authoritative nature of health communication content production, thereby performing the crucial initial steps in health communication. For instance, during the COVID-19 pandemic, when public understanding of the severity of the situation was insufficient, mainstream media played the role of a guider, drawing public attention and alertness to the seriousness of the pandemic.

5 Challenges in Health Communication on Social Media

5.1 Information Bubble Under the Diversification of Communication Subjects

In the online health communication during the current pandemic, apart from traditional health communication subjects such as medical institutions, medical professionals, and health industry media, nearly all types of online entities participated in the extensive network construction of COVID-19 information and knowledge, generating a vast amount of pandemic-related information. However, the audience finds themselves overwhelmed by excessive opinions, leading them to retreat into information cocoons to avoid the psychological stress induced by the information explosion[7]. The voice of health communication is filtered out and excluded, becoming a small droplet in the saturated information sea.

5.2 Generational Gap in Communication Channels Under Internet Connectivity

The COVID-19 pandemic unfolded in an era of widespread social media use and an all-media environment. Social media has provided the public with a comprehensive platform for the dissemination of health knowledge and pandemic prevention and control[8]. The health communication of the COVID-19 pandemic exhibits the characteristics of internet-connected channels. However, due to differences in media usage conditions and media literacy, a significant health digital gap has emerged between generations. Imbalances in healthcare, knowledge literacy, and media development have further resulted in a digital gap in health communication between urban and rural areas, making it challenging for health information to achieve effective "downsinking."

5.3 Homogenized Information Under Specialized Content in Communication

Health communication content primarily includes topics related to dietary health, medical popularization, fitness and weight loss, disease prevention, women's health, among others. The alignment of content themes with the development of account entities may lead to homogenization of content under the specialization of communication. For instance, some accounts present the same theme with different titles[9]. The Douyin account "Dingxiang Doctor" has several episodes with titles like "Why are guys' legs thinner than girls'" and "Why is my boyfriend's legs thinner than mine," all expressing content related to guys having "thin legs." From the titles of short videos, it is apparent

that they are created around topics that interest young audiences[10]. However, the expressed content is overlapping, which could lead to visual fatigue among the audience over time, adversely affecting the long-term development of the account.

6 Solutions

6.1 Guide: Uphold the Role of Communicator, Expand the Public Health Awareness Horizon

In health communication, social media must first capture attention at the cognitive level, increasing the audience's focus on disease prevention, prevention of drug abuse, and scientific health preservation. Social media must excel as health communication guides by building technologically integrated platforms, enhancing the scientific and authoritative nature of health communication content production, and performing the crucial role of being the "first player" in health communication. For example, during the COVID-19 pandemic, when public awareness of the severity of the situation was insufficient, mainstream media played the role of a guide, drawing attention and alertness to the seriousness of the pandemic.

6.2 Gatekeeper: Strengthen Fact-Checking Systems, Reverse Public Health Attitudes

Efforts should be made to eliminate false information, rumors, and pseudo-health situations in health communication on social media. Media outlets must strengthen their gatekeeping role, rigorously ensuring the truthfulness and scientific validity of health content. Through long-term, widespread health communication methods, the public's health concepts and value systems can be transformed at the psychological and attitudinal levels. During the COVID-19 pandemic, to enhance public awareness of the situation comprehensively, information was broadcasted through loudspeakers, pandemic updates were played in a loop, and SMS app notifications were sent, effectively changing the indifferent attitude of middle-aged and elderly people toward the pandemic.

6.3 Public-Centric: Adopt Visual Communication Methods, Drive Public Health Behavior

Social media, in health communication, needs to take on the responsibility of the "last mile," ensuring that the public's health consciousness is manifested through behavior and actions, internalizing the dissemination of health knowledge for genuine adoption of healthier lifestyles. For instance, during the COVID-19 pandemic, the use of visual health information and videos aimed at public understanding served as an effective means to convey health messages. This approach ensures that health communication reaches the masses, elevating the overall health level and life expectancy. In the context of the COVID-19 pandemic, with the proliferation of "information epidemic," the importance of effective health communication by social media has become increasingly

prominent. In the post-pandemic era, with the invasion of new virus variants and recurring outbreaks in some areas, public concern about health topics has heightened. In the interconnected information environment, the public increasingly relies on online platforms for information. This underscores the need for media to adhere to journalistic ethics and actively take on the primary responsibility for information dissemination. Health communication demands high professionalism and reflects distinctive contemporary features. Media professionals engaged in health communication should not only focus on disseminating health information but also prioritize a people-centered approach, promoting interdisciplinary development in health communication.

7 Conclusion

This study illustrates the transformative role of social media in health communication, confirming its emergence as a vital channel in the digital age. By analyzing user comments on platforms like Douyin, Weibo, and Xiaohongshu, the research identifies five key roles that social media plays in health communication, while also pinpointing three significant issues that need addressing. These findings not only fill existing knowledge gaps but also offer valuable insights for both policymakers and industry leaders. The study suggests that with informed guidance and responsible management, social media can enhance public health communication, ultimately leading to more informed and health-conscious societies.

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