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Health Information Processing and Online Health Information Seeking Pathways in the New Media Environment: A Review Based on Shaohai Jiang's Research

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Abstract

The advancement of internet technology has reshaped health communication, bringing new opportunities and challenges to academic exploration. Centering on "how new media technologies improve people's health," this study systematically synthesizes the academic achievements of Shaohai Jiang in health communication. This study found that at the health knowledge level, Jiang explores the dual influential mechanisms of digital technology on health communication based on theoretical frameworks such as the Cognitive Mediation Model (CMM) and the Three-Stage Model of Interactive Media Use for Health Promotion. Besides, at the health behavior level, Jiang conducts multi-dimensional and cross-contextual academic investigations into the antecedent mechanisms and behavioral effects of online health information seeking (IHIS). Additionally, Jiang examines the application value of new media in specialized areas including patient-centered communication (PCC) and older adults' e-health literacy. His research enriches the application boundaries of health communication theoretical models from a quantitative perspective, providing significant academic references for health communication practices in today's new media environment.

Keywords

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New media; Health communication; Health literacy; Online health information seeking; Patient-centered communication

Author Introduction

Shaohai Jiang is an Associate Professor and Doctoral Supervisor in Department of Communication and New Media at the National University of Singapore (NUS). He obtained his Ph.D. in Communication from Texas A&M University (TAMU) in 2017. His research focuses on health communication, new media, and strategic communication, primarily investigating how communication and new media technologies enhance people's health, with a focus on doctor-patient communication, electronic health (eHealth), mobile health (mHealth), and health promotion and intervention activities. Currently, Jiang serves as the Associate Editor of *Patient Education and Counseling* (SSCI, Q1) and *Journal of Applied Communication Research*, and is a member of the editorial board of several international journals including *Health Communication* and *Communication Monographs*. He has been awarded the Early Career Scholar Award from the Health Communication Division of the National Communication Association (NCA) in 2024 and the Early Career Award from the Chinese Communication Association in 2023. He was also recognized as one of the Top 2% Scientists Worldwide by Stanford University in 2023 and 2024.

After receiving his Ph.D. from TAMU in 2017, Jiang joined NUS to further his research in health communication. According to Google Scholar, he has published 59 papers in total by November 2025, with his research findings featured in top international journals in the field of health communication such as *Health Communication* and *Journal of Health Communication*. His research topics cover doctor-patient communication, online health information seeking, social media and health communication, eHealth, and mHealth, among others, with "how new media technologies improve people's health" as his core research thread.

The Double-Edged Influential Mechanisms of Digital Technology on Health Communication

At the health knowledge level, Jiang takes the Cognitive Mediation Model (CMM) as the main research framework to systematically explore the mechanism through which new media affects health knowledge acquisition. The core proposition of this model is that driven by different motivations, individuals will increase their attention to media content, triggering in-depth processing and elaboration of information, thereby influencing the effectiveness of knowledge learning. Through a secondary analysis of data from the Health Information National Trends Survey (HINTS), he found that health-related internet use motivation is a core driver of relevant behaviors and can significantly improve people's health literacy (Jiang & Beaudoin, 2016). In the research on HPV knowledge acquisition, Jiang incorporated information discussion into the theoretical framework and found that the interactive nature of social media can enhance the in-

depth processing of health information, thereby facilitating the learning of health knowledge (Jiang, 2024). Furthermore, different forms of new media such as fitness apps and eHealth can all influence people's health literacy (Jiang et al., 2021; Lei & Jiang, 2025).

The theory of Three-Stage Model of Interactive Media Use for Health Promotion divides the impact of interactive media on health into three stages: the first stage is the implementation and use of interactive media; the second stage involves user-media-message interaction, leading to intermediate outcomes such as motivation, knowledge, and self-efficacy; the third stage is the transformation of intermediate outcomes into final health outcomes, such as improved health and enhanced emotional well-being (Jiang & Ngien, 2020).

In his highest-cited study, Jiang (2020) applied this model to the context of Instagram use and found that social media use is positively correlated with social comparison, which further reduces users' self-esteem and indirectly increases social anxiety. In addition, online health information seeking follows a similar pathway to influence health outcomes: positive online health information seeking experience can strengthen the relationship between online health information seeking and social support, thereby improving users' overall health, emotional health, and physical health. However, negative experience will weaken this relationship, making it difficult for internet use to translate into effective social support and improved health outcomes (Jiang & Street, 2017). Moreover, social media use can help cancer survivors actively engage in health management and plays a key role in improving their emotional well-being, further expanding the applicable scenarios of the model (Jiang, 2017).

The development of digital technology is a double-edged sword. With the continuous evolution of the new media environment, information overload and the proliferation of false health information have become pressing social issues. For instance, Jiang found that while health-related internet use can significantly improve health literacy, it also increases users' perceived information overload, resulting high cognitive burden and inversely reducing the effective acquisition of health knowledge (Jiang & Beaudoin, 2016). At the health behavior level, Jiang discovered that social media fatigue affects health fact-checking behavior, which is a crucial link in curbing false health information. For example, based on the O-S-O-R model, Jiang (2022) found that individuals' health worry triggers excessive online health information seeking, which further induces social media fatigue and ultimately hinders the occurrence of health fact-checking behavior (Zhou et al., 2025).

Online Health Information Seeking: A New Health Practice in the New Media Era

Online Health Information Seeking (IHIS) refers to the process through which individuals retrieve, browse, and obtain health-related information via the internet. As a new health practice, IHIS has not only become an important way for the public to manage their own health but also an important research topic in the field of new media and health communication. Jiang has conducted multi-

dimensional and cross-contextual academic explorations around the antecedent mechanisms and behavioral effects of IHIS.

Firstly, in terms of antecedent mechanisms, Jiang found that demographic characteristics influence IHIS behavior. For example, young people and female in India are more likely to regard the internet as their preferred source of health information (Jiang et al., 2021). In addition, three health belief factors (perceived susceptibility, perceived severity, and self-efficacy) had positive and significant relationships with diversity of IHIS with no significant impact on search preference and discussing Internet health information with doctors (Jiang et al., 2021).

Furthermore, acceptance of technology also affects the conduct of IHIS behavior, leading to the concept of the digital divide. Digital divide refers to disparities in the use of digital technology among different social groups, specifically including differences in four dimensions: technology access, basic skills, information content, and contact willingness. In a study on internet use among cancer survivors, Jiang found that different dimensions of the digital divide have varying impacts on IHIS behavior, with a favorable technological environment being more conducive to driving internet health behaviors among cancer survivors (Jiang & Liu, 2020).

Secondly, at the behavioral effect level, Jiang found that different types of information lead to different health outcomes under different behavioral patterns. For example, in research on HPV vaccine information, he found that scanning policy information only improves relevant knowledge levels, while active seeking significantly enhances vaccination intention; guidance information emphasizes information discussion, reflecting the important value of interactive information communication. Meanwhile, scandals, whether accessed through scanning or seeking , exacerbates users' concerns about vaccine safety (Jiang et al., 2023).

As mentioned earlier, while positive IHIS experience can indirectly improve health outcomes (Jiang & Street, 2017), negative experience will affect users' in-depth processing of health information and have a negative impact on the improvement of health literacy (Jiang, 2024). In addition, excessive health information seeking can induce perceived information overload, leading to negative emotions such as anxiety and tension, a phenomenon known as cyberchondria. Especially during the COVID-19 pandemic, to reduce uncertainty in a risk society, users began to excessively search for health information. The emergence of the infodemic created a cognitive burden, which in turn fostered more severe negative emotional reactions (Zheng & Jiang, 2022).

From Doctor-Patient Relationship to Older Adults: Special Topics in New Media Health Communication Research

Jiang once mentioned in an interview that before pursuing his Ph.D. in the United States, he knew little about health communication. After arriving in the U.S., under the influence of his supervisor, Professor Richard Street, he gradually became involved in many health communication research topics and developed a strong interest in doctor-patient conflict issues in the Chinese context. After moving to Singapore, Jiang discovered that new media technology plays an important role in the construction of Singapore. Therefore, leveraging his accumulated expertise in new media research, he specifically focused on the construction path of patient-centered communication (PCC) in the

new media era in his subsequent research. For example, Jiang (2020) found that different IHIS models affect the communication effectiveness of PCC, emphasizing that two-way IHIS models (such as participating in online health communities, consulting online doctors, and exchanging health information with others online) can not only directly improve the quality of PCC but also enhance patients' self-efficacy in medical decision-making, indirectly promoting the transformation of doctor-patient communication towards a patient-centered model.

With the growing severity of population aging, Jiang has recently turned his research focus to the e-health literacy of older adults. He found that social norms play an important role in promoting older adults' e-health use (Wu et al., 2023), and e-health literacy indirectly influences older adults' e-health use behavior through attitude (Lei & Jiang, 2025).

Conclusion

This study systematically synthesizes Shaohai Jiang's academic achievements in the field of new media health communication. At the knowledge level, based on the Cognitive Mediation Model, Jiang analyzes the mechanism through which new media affects health knowledge acquisition, confirming the important value of health information attention, in-depth processing, and two-way interaction on social media for improving health literacy. Meanwhile, using the Three-Stage Model of Interactive Media Use for Health Promotion as a theoretical framework, he explores the influence path of social media use on health outcomes. At the behavioral level, Jiang conducts multi-dimensional and cross-contextual academic explorations into the antecedent mechanisms and behavioral effects of IHIS, finding that factors such as demographic characteristics, health belief, and digital divide influence IHIS behavior. He also confirms that excessive health information seeking can induce users' perceived information overload and social media fatigue, further affecting people's health fact-checking behavior and leading to mental health issues such as cyberchondria. At the special topic level, Jiang focuses on the application value of new media in areas such as patient-centered communication and older adults' e-health literacy.

"I think health communication research often starts with a social phenomenon or issue, and then we explore how media and communication can play a role in helping us solve such problems." It is in this way that Jiang embarked on his academic journey in health communication. In his exploration of new media and health communication, driven by concerns about social issues and marginalized groups, Jiang continuously enriches existing theoretical models and expands their application boundaries from a quantitative research perspective, providing academic insights and supplementary perspectives for health communication research in the new media era.

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