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EDITED AND REVIEWED BY
Mohan Jyoti Dutta,
Palmerston North, New Zealand

*CORRESPONDENCE

Archana Krishnan
✉ akrishnan@albany.edu

RECEIVED 07 November 2024

ACCEPTED 11 December 2024

PUBLISHED 20 December 2024

CITATION

Krishnan A, Bellur S and Ranjit YS (2024)
Editorial: Mobile health: a
communication-centered approach.
Front. Commun. 9:1524609.
doi: 10.3389/fcomm.2024.1524609

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Editorial: Mobile health: a communication-centered approach

Archana Krishnan^{1*}, Saraswathi Bellur² and Yerina S. Ranjit³

¹Department of Communication, University at Albany, State University of New York, Albany, NY, United States, ²Department of Communication, University of Connecticut, Storrs, CT, United States, ³Department of Communication, University of Missouri, Missouri, MO, United States

KEYWORDS

mobile health (mHealth), communication, wearable devices, health inequities, social support, wellbeing

Editorial on the Research Topic

Mobile health: a communication-centered approach

Mobile health (mHealth) refers to the use of mobile and wireless devices to improve health outcomes. This interdisciplinary domain encompasses various applications, including electronic health records, digital healthcare delivery systems, telemedicine, and wearable devices.

Communication, specifically, has a significant role to play in extrapolating the myriad processes used to examine health outcomes. Just as communication can be examined from interpersonal, mass, technological, and organizational perspectives, mHealth too taps directly into these core domains of communication research and practice. Whether it is patient-provider interaction over text messages, tracking and sharing of one's wearable data, or building online social networks and communities, the presence and influence of communication in mHealth is undeniable.

In the fast-evolving and fragmented area of mHealth, one of the challenges is to collate theoretical and applied knowledge to move research forward. To address this and to highlight the contribution of communication-centered theories, variables, and processes to address pressing questions in the field, this Research Topic was proposed. The call to scholars requested work that emphasized emerging theories, methodologies, and practices in mHealth while foregrounding communication principles. The resultant five papers exemplify the Research Topic and do so while encompassing a variety of methodological approaches - cross-sectional survey (Pennington and Dam), five-wave trend study (Zhang et al.), in-depth interviews (Ning et al.), focus groups (Ranjit et al.), and secondary data analysis (Xu et al.). The studies also heeded the call to integrate appropriate theoretical frameworks; these ranged from the uses and gratifications theory (UGT), social cognitive theory, elaboration likelihood model (ELM) to the unified theory of adoption and use of technology (UTAUT). Collectively, the papers identify theoretically meaningful mediators and moderators that unpack the underlying mechanisms, and equally importantly, consider principles of health equity by studying historically-underserved populations such as those at risk of HIV (Ranjit et al.), cancer patients (Ning et al.), and older adults (Zhang et al.).

Pennington and Dam provide valuable insight into the social factors that influence the use of wearable health trackers (WHTs) and users' behavioral intentions toward using them. The authors first tested their hypothesized relationships in a student sample and

followed up with a more representative online panel sample, thereby establishing external validity. By examining factors such as social connections, need for support, comfort with seeking support, social sharing, and social comparison, Pennington and Dam show that comfort with seeking support consistently predicted both weekly WHT use and behavioral intentions to continue using them across both studies. This finding along with the interesting negative association between need for support and WHT use, aligns with the UGT tenet that media and technology engage in need-fulfillment (Blumler and Katz, 1974). The importance of social connections and comfort with seeking support in predicting WHT use aligns with the social cognitive theory's emphasis on social support and its impact on behavior. Additionally, by comparing dedicated WHT users with smartwatch users, the study provides nuanced insights into how different types of devices may influence user behavior.

The UGT also framed Ranjit et al.'s study exploring mobile phone use among female sex workers (FSWs) in Nepal. Using focus groups, the authors showed that FSWs - an underserved population, use mobile phones for seeking information in a stigma-free environment, and managing their professional and social needs. The UGT framework revealed that FSWs' motivations for mobile use align with those of the general populations, but with unique privacy and safety considerations. Based on these findings, there are several key implications for developing mHealth interventions targeting HIV/STI prevention among FSWs in Nepal including privacy considerations, mitigating stigma, and managing informational needs and social support.

Social support, which was a recurring variable across the studies, can take various forms. Xu et al. examined social support cues, namely knowledge attractiveness and knowledge popularity metrics that users share with one another in online health communities. Drawing from the ELM (Petty and Cacioppo, 1984), the authors analyzed a large database containing physicians' knowledge-sharing posts and showed that peripheral cues of knowledge-attractiveness, quantity, and popularity shape patients' consultation behaviors. By recognizing the role of peer recognition and knowledge popularity, platforms can tailor strategies to drive engagement and maintain physician retention, ultimately growing an engaged and sustainable online health community. While Xu et al. consider positive social cues, Zhang et al. show how subjective perceptions of social fairness can have an indirect negative effect. Based on national data from five waves of the China General Social Survey, Zhang et al. found positive associations of key demographic variables such as educational level, location and age with subjective wellbeing among older adults.

In a similar vein, Ning et al. examined key benefits and barriers to physical activity that could be addressed by better design features in mHealth applications among head and neck cancer patients. Based on semi-structured face-to-face interviews, Ning et al. identify many important themes revolving functionality needs such as educational videos, clear and customizable goal-setting features, along with better social support mechanisms from peers, families and health care providers alike. The study integrates rich, qualitative insights with constructs from the UTAUT, and offers many guidelines for mHealth researchers to pursue when studying the role of mobile health and technologies among cancer patients.

The versatility of methodological approaches, theories, and populations examined in the five papers in this Research Topic enhance our understanding of critical health outcomes such as social support, decision-making, and overall wellbeing. As we move toward an increasingly connected world, it is essential to ensure that communication remains integral to mHealth research, reflecting its theories and variables in the new media landscape. This research collection certainly lends credence to this viewpoint and makes a valuable contribution from both a communication and mHealth perspective.

Author contributions

AK: Writing – original draft, Writing – review & editing, Conceptualization, Project administration. SB: Writing – review & editing. YR: Writing – review & editing.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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References

Blumler, J., and Katz, E. (1974). *The Uses of Mass Communication: Current Perspectives on Gratifications Research*. Beverly Hills: Sage Publications.

Petty, R. E., and Cacioppo, J. T. (1984). The effects of involvement on responses to argument quantity and quality: central and peripheral routes to persuasion. *J. Person. Soc. Psychol.* 46, 69–81. doi: 10.1037/0022-3514.46.1.69