



USING DIGITAL TECHNOLOGIES TO FILL GAPS IN HIV MANAGEMENT IN LOW RESOURCE SETTINGS



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ABSTRACT

HIV is one of the leading causes of death in the developing world and continues to be a global health concern. Text messaging and social networking sites offer an opportunity to improve the reach of health information and services to diverse and remote populations.

Over half of the world's population is now online. Mobile phone use in low-income and middle-income countries has increased, and with that offers huge potential to provide timely support for overworked and under-resourced health systems. Going digital for health is no longer an option, it is the default.

WHY DIGITAL TECHNOLOGY?



85% of the world is covered by cell phone signal and 95% of the population live in an area that is covered by a mobile-cellular network (Wallis et al, 2017)



In 2017, Facebook had 139 million users per month in Africa, 98% of whom connected via mobile (GMSA, 2018)

WHAT IS DIGITAL TECHNOLOGY?

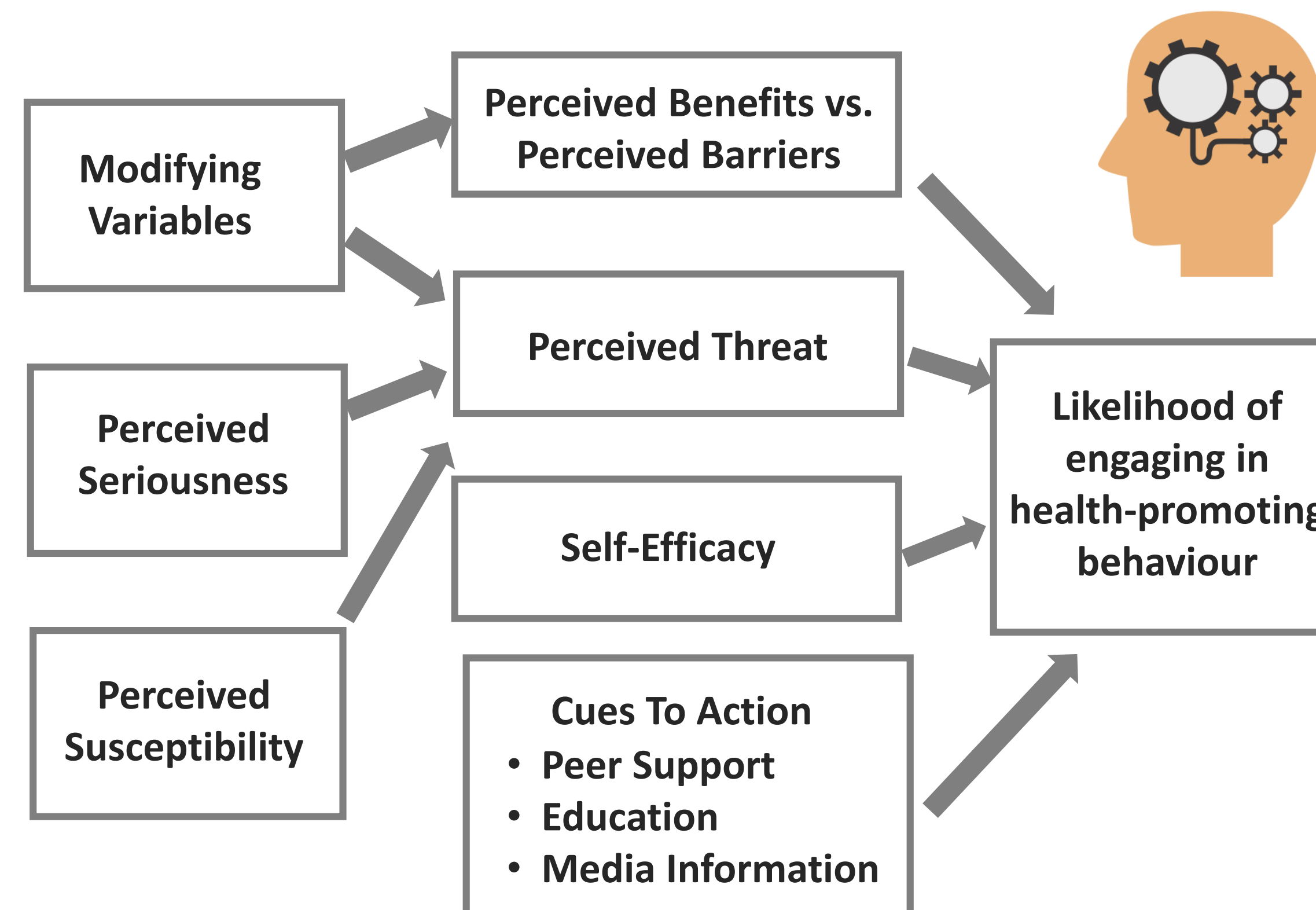
- Digital technologies are electronic tools, systems, devices, and resources that generate, store or process data (Labonté, Mohindra & Schrecker, 2011)
- Mobile technology and social media are two types of digital technology
- Mobile technology in the context of health care, refers to the use of smartphones, tablets and other mobile devices to deliver health care and preventive health services

RESEARCH QUESTION AND METHODS

The purpose of this research project is to explore ways in which digital technology can fill gaps in HIV management, with a focus on low-resource countries. A literature review was conducted to examine interventions involving digital technology to improve health outcomes, health behavior, and delivery of health care services for HIV positive patients

THE HEALTH BELIEF MODEL

The health belief model is a psychological model that can be used to explain and predict both short-term and long-term health behaviors.



- As digital technologies continue to evolve, there are new opportunities to broaden our understanding of health behaviors and mechanisms of behavior change
- Mobile technology and social media strategies can be used to influence behavior change through the constructs of the health belief model, specifically through cues to action

RESULTS



- There is limited literature on the use of social media to stimulate HIV-related behavior change in low-income countries



- Many studies have explored mobile technology as a tool to improve ART adherence involving communication via text messaging (SMS) between community health workers or nurses and patients



- SMS Intervention in South India: The optimal ART adherence of the intervention group who received regular mobile phone reminders increased from 85% to 91% (Haberer et al., 2017)



- SMS Intervention in Kenya: Patients who received weekly text message reminders from clinic nurses had significantly improved ART adherence and rates of viral suppression with sustainable results (Yeo et al., 2017)



- Main challenges and barriers: low literacy rates, limited mobile network coverage, limited access to mobile phones, disparities among rural communities, and acceptability among target populations

WHY DOES THIS MATTER?

- The World Health Organization has urged member states to prioritize the development and use of digital technologies, to advance the Sustainable Developmental Goals
- Digital technology can be a cost-effective strategy to increase the impact, quality, and reach of HIV management programs in low-resource settings