



Evidence and
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Behavioural and Implementation
Science Interventions
Yong Loo Lin School of Medicine



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#241 - Factors influencing behavioral intention of women in sustained digital health adoption from pre- to post-pregnancy

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Country of residence

Singapore

Objectives/aims

This study aims to explore factors influencing women's behavioural intention to adopt and sustain usage of digital health (DH) tools before, during and after pregnancy in Singapore. By understanding facilitators and barriers to the use of DH for health management across pregnancy, DH can be better leveraged upon to improve maternal and child health outcomes.

Methods

One-hour semi-structured interviews were conducted with forty-four women (age range = 21-40 years) to explore their experiences in the pre-conception, pregnancy and post-birth phases, including their DH usage and expectations. Interviews (range = 40.8-86.1 minutes) were audio-recorded, transcribed verbatim and analysed thematically.

Main findings

Preliminary analyses revealed five overarching themes – existing attitudes toward DH, perceived ease of use, perceived usefulness, perceived credibility and perceived value of DH tools.

Overall, women's existing attitudes influenced their inclination to adopt DH tools, including their motivation to use technology for health management, as well as their openness to and awareness of DH. For instance, women's resistance towards using DH tracking tools was shaped by their previous negative experiences which led to disengagement, thereby reducing motivation to re-adopt DH. Some women were also less open to DH due to the issue of excessive technology usage. Still, women conveyed that increasing awareness of DH tools that are functional for health management is an important first step in encouraging adoption. Next, women emphasised the importance of perceived ease of use. Tools with user-friendly interfaces and positive user experiences are more likely to be adopted and sustained; tools that require disproportionate resources like time and effort may deter women's long-term usage. Furthermore, perceived usefulness plays a significant role in women's intention to use DH tools. Women articulated the need for relevant and continuous support from pre-conception to post-birth that complements their



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healthcare experiences. For example, mothers expressed desire for a comprehensive all-in-one platform that provides quality information personalized to their child's development, while incorporating references to their child's health records. In terms of perceived credibility, women prefer DH tools that are advocated by trusted parties through social networks. In particular, healthcare professionals' endorsement, women or mothers' recommendations on parenthood forums or social media platforms, and positive reviews from friends and family may increase the likelihood of DH adoption. Finally, women tend to evaluate the value of DH tools in their decision to adopt and use it in the long run. Although costs are a potential barrier, women were willing to pay for a DH tool if the perceived benefits, such as having access to personalised and expert healthcare advice or consultations, outweigh the cost of subscription to such features.

In conclusion, existing attitudes toward DH, as well as perceptions of its ease of use, usefulness, credibility and value are factors that may facilitate or hinder DH usage for women throughout the pre-conception, pregnancy and post-birth phases. Healthcare providers, policymakers and digital implementers should consider these attitudes and perceptions in the design and implementation of DH to ensure that it addresses women's needs and overcomes barriers to DH usage. By employing effective implementation strategies to encourage sustained DH adoption, DH can greatly enhance women's maternity experiences and contribute to improved health outcomes for women and their children.