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### **Abstract**

# Perspectives on Ethical Issues Around the Use of Smartphone Apps for HIV Prevention in Malaysia: Focus Group Study With Men Who Have Sex With Men

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# **Abstract**

**Background:** The use of smartphone apps can improve the HIV prevention cascade for key populations such as men who have sex with men (MSM). In Malaysia, where stigma and discrimination toward MSM are high, app-based strategies have the potential to open new frontiers for HIV prevention efforts. However, little guidance is available to inform researchers about ethical concerns unique to the development and implementation of app-based HIV prevention programs.

**Objective:** This study aims to understand and characterize the attitudes and concerns of Malaysian MSM regarding HIV prevention mobile apps, particularly focusing on ethical aspects surrounding their use.

**Methods:** We conducted online focus group discussions with 23 MSM between August and September 2021. Using in-depth semistructured interviews, participants were asked about their perceived risks, benefits, and ethical issues associated with using mobile apps for HIV prevention. Each session was digitally recorded and transcribed. Transcripts were inductively coded using Dedoose software and analyzed to identify and interpret emerging themes.

**Results:** Overall, participants indicated a preference for using app-based strategies for HIV prevention efforts. Emerging themes on benefits related to app use for HIV prevention included convenience, anonymity (ability to remain anonymous while seeking care), less stigmatizing access to services (ability to avoid the burden and stigma of visiting an HIV clinic in person), readily accessible multimedia resources (eg, text, graphics, videos), and self-management portals (eg, medication adherence, appointment reminders). Prominent concerns raised by participants included privacy and confidentiality concerns, issues around personal health data storage and management, and fear of the Malaysian government accessing data.

**Conclusions:** The findings from this study indicate that app-based strategies for HIV prevention efforts are acceptable among Malaysian MSM. The results further highlighted the role of ethical concerns and the associated risks and benefits related to the use of app-based HIV prevention programs. Given the ever-evolving nature of such technological platforms and the complex ethical and legal landscape, such platforms must be safe and secure to ensure widespread public trust and uptake.

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## **KEYWORDS**

HIV; mHealth; mobile app; HIV prevention; MSM; privacy; confidentiality



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