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Are We Fighting a Lost Cause? Gay Applications and the HIV Epidemic amongst Young Adults in Malaysia

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Abstract

The widespread use of geo-social dating applications among adolescents and young adults, particularly those identifying as homosexual, bisexual, or queer, has introduced both opportunities for social connectivity and heightened health risks. This case series presents three individuals aged 19 to 24 who engaged in early men who have sex with men (MSM) sexual encounters largely facilitated by online gay dating platforms. The cases illustrate common pathways to sexual initiation, including grooming by older adults, peer influence, and exposure through social media. All three individuals were diagnosed with human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs) at a young age, prior to fully understanding the associated health risks. In addition to physical health complications, they experienced significant self-stigma and mental health challenges. This case series is particularly important in the Malaysian context, where sexual health education often lacks inclusivity and open discussions about MSM identities are limited by cultural and legal constraints. By highlighting these cases, we emphasize the urgent need for comprehensive, culturally sensitive digital sexual health education, early intervention, and protective measures tailored to the realities faced by youth in Malaysia.

Keywords:
Geo-social dating applications, Men who have sex with men (MSM), Sexual health education, HIV/STI infections, Malaysia

Introduction

Adolescents and young adults are among the most vulnerable groups for acquiring STIs, particularly HIV. According to Joint United Nations Programme on HIV/AIDS (UNAIDS), they accounted for 12% of new adult HIV infections globally in 2023 [1]. While females are generally at higher risk worldwide, the pattern in Asia differs, with men especially those engaging in MSM, bearing a disproportionate burden. In Asia and the Pacific, 44% of new HIV infections occur among MSM [1]. This trend is reflected in Malaysia, where 50% of

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newly reported HIV cases involve young male MSM [1]. Since 2014, male-to-male sexual contact has surpassed intravenous drug use as the primary transmission mode. Those practicing MSM in Malaysia are now 26 times more likely to contract HIV and were reported to have higher rates of co-infection such a syphilis and hepatitis C [2].

Understanding this public health challenge requires examining underlying behavioural drivers. The Theory of Planned Behaviour (TPB) proposes that behaviour is shaped by attitudes, perceived norms, and perceived behavioural control [3]. In Malaysia's conservative socio-cultural context, stigma surrounding MSM identities may foster internalised shame and drive young MSM toward anonymous encounters facilitated by gay dating applications such as Grindr, Blued, and Hornet. These platforms offer connection but also amplify risk by enabling spontaneous, often unprotected, sexual activity with nearby partners. Peer norms within application-based communities may further normalise risky behaviours, while limited access to inclusive sex education and developmental immaturity reduce the capacity to make informed decisions, increasing vulnerability to coercion and unsafe sex.

Online dating application usage has been significantly associated with higher STI and HIV risk. A meta-analysis revealed that application users were more likely to be diagnosed with syphilis, gonorrhea, and chlamydia, due to having multiple partners and engaging in unprotected sex [4]. In a Chinese study, nearly all university-attending MSM used gay applications, and frequent users reported high-risk behaviours such as group sex (28.7%), multiple casual partners (38.2%), and drug use during sex (17.6%) [5]. This case series aims to highlight the emerging reality of Malaysian adolescents and young adults contracting STIs at an early age, often facilitated by sexual encounters through gay dating applications, emphasizing the urgent need to understand and address this growing public health concern.

Case 1

A 20-year-old male was diagnosed with HIV when he was 15 years old, following presentation with pulmonary tuberculosis (TB) and syphilis. He was sexually abused when he was six years old and that triggered his change in sexual orientation during adolescence which he concealed due to a conservative religious background. Lacking family support, he turned to social media and gay dating application (e.g., Grindr) to explore his identity, leading to high-risk sexual encounters with anonymous partners and subsequent HIV infection. At diagnosis, his viral load was 15,000 copies/mL with a CD4 count of 102 cells/mm^3. Though initially adherent to antiretroviral therapy (ART) and anti-TB treatment, family rejection upon disclosure of his HIV status led to homelessness, sex work, and substance use, during which he defaulted on treatment. Following a drug-related arrest, he resumed HIV treatment in his hometown and re-engaged in treatment. Despite a period of non-adherence, he did not develop resistance to ART. He is currently virally suppressed and remains adherent to ART. He is employed as a volunteer with a non-governmental organisation (NGO) supporting MSM health education. Despite continued lack of familial acceptance and ongoing feelings of shame and rejection, he finds purpose in promoting safer sex practices and STI prevention within his community and maintains a stable relationship with a male partner with consistent condom use.

Case 2

A 24-year-old schoolteacher with HIV infection. He presented to health facility at the age of 16 with symptoms of gonorrhoea, which lead to diagnosis of HIV co-infection as well. He was exposed to online homosexual pornography when he was 14 years old and that led him to experiment with oral sex with a male classmate. Between the ages of 14-16 years, he actively sought sexual partners through various dating applications (Omni, Tinder, and Grindr) and ultimately engaged in unprotected intercourse with

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approximately ten different male partners during this period. At the time of his HIV diagnosis, he accepted treatment for the gonococcal infection but declined initiation of ART due to concerns about potential disclosure of his status to family members and school authorities for fear of rejection. Once recovered from gonorrhoea, he resumed high-risk sexual behaviours with new partners found through dating applications. At age 19, he developed severe cerebral toxoplasmosis, requiring one month admission to intensive care unit. His CD4 count at admission was 50 cells/ mm^3 indicating profound immunosuppression and his viral load at the time was extremely high at 1,130,000 copies/mL. Contrary to his earlier fears, his family not only accepted his diagnosis but provided active support throughout his recovery and subsequent treatment. Following this episode, he became compliant to ART and has now achieved virologic suppression with no further opportunistic infections. He continues to use dating applications and remains sexually active with both male and female partners. He maintains regular clinical follow-up at the HIV clinic.

Case 3

This case illustrates a 19-year-old male barista who experienced a complex interplay of early gender nonconformity, adolescent sexual grooming, and delayed disclosure of sexual orientation due to familial and societal stigma. He claimed to have attraction to male physique and developed feelings for male peers since he was 6 years old. Over the years, he gradually developed characteristically feminine mannerisms that distinguished him from his siblings. Around the age of 13, he began privately researching homosexuality through online platforms, driven by both curiosity and shame about his emerging sexual identity. During high school he befriended older peers who practiced man sex man and they introduced him to adult-oriented dating applications (Grindr, Blued) and explicit pornography. These progressed to sexual grooming, where he was systematically taught to perform sexual acts for older male partners, and he eventually developed compulsive sexual behaviours. At the age of 16, he was raped by his first male online partner during one of their outings. He did not report the incident, for fear of rejection and stigma if his adoptive family and others found out about his sexual orientation. However, this caused him to go into depression. At 18 years old, he underwent a voluntary HIV testing through an NGO outreach program found in Grindr, which revealed his seropositive status (initial CD4 count: 256 cells/mm^3; viral load: 10,350 copies/mL). He started ART treatment at a public health clinic upon the advice from an NGO personnel and achieved virological suppression within twelve months. Despite this, he is still active sexually with multiplemen he found online. He continues to struggle with depression and has declined referral to the counsellor. His reluctance to engage with healthcare services stems from mistrust of providers' cultural competence regarding MSM issues, as well as ongoing fears of familial disclosure.

Discussion

Dating applications are increasingly used by adolescents, particularly sexual minority youth, introducing serious public health and digital safety challenges across Southeast Asia. While platforms like Grindr, Tinder, Hornet, Romeo, and Omni officially restrict access to users aged 18 and above, enforcement of age-verification mechanisms remains largely superficial. As a result, pre-adolescents as young as 11 or 12 years old have been found to access these platforms by falsifying age credentials, actively seeking romantic or sexual partners [6]. This age group, characterized by ongoing neurodevelopment and limited capacity for impulse control and risk assessment, is particularly susceptible to sexual grooming, exploitation, and abuse [6]. This was seen in our case series, where all three individuals engaged in early online interactions that preceded risky sexual activities and ultimately led to HIV infection.

Adolescents engaging in these platforms, especially MSM such as in our cases, are at heightened risk for a range of adverse outcomes, including STIs, HIV, and psychological trauma. Studies indicate that homosexual adolescents are more likely to engage in unprotected anal intercourse with partners met

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online. Although representing a minority within the broader LGBTQ+ community, homosexual youth have been reported to use dating applications up to 13 times more frequently than their heterosexual peers, highlighting both their isolation and the role of digital platforms in identity exploration [5–7]. In our series, patients used apps such as Grindr and Blued to find sexual partners before the age of 18. One was diagnosed with HIV at 15 after repeated anonymous encounters, another at 16 following symptoms of another sexual infection, and the third at 18 after years of grooming and a traumatic assault.

In Malaysia, these risks are intensified by complex legal, religious, and cultural dynamics. Same-sex sexual activity remains criminalized under Section 377 of the Penal Code and is penalized under state-level Shariah laws [8]. Guilt and fear of being stigmatised in a way lead LGBTQ+ youth into anonymity and digital spaces where protective measures are minimal. Neighbouring countries demonstrate varied responses. Indonesia enforces nationwide digital censorship, especially of LGBTQ+ content and dating applications [9]. Singapore, while having repealed Section 377A, continues to rely on platform-based age restrictions [10]. Thailand adopts a more progressive, harm-reduction approach toward LGBTQ+ sexual health [11].

Despite the diversity in national responses, there is a clear regional gap in comprehensive legal frameworks that enforce age restrictions and ensure digital safety for adolescents. The intersection of punitive laws, social stigma, and lack of inclusive sexual education further marginalizes sexual minority youth, increasing their risk of harm. Enforcement of age-verification mechanisms, such as national ID integration or AI-powered facial recognition, should be considered to help reduce underage access. Content moderation teams, in-app reporting features, and strict application store compliance would further enhance digital protection.

Public health authorities have the potential to play a transformative role in promoting sexual health within dating app ecosystems. In several Asian countries, digital interventions have been adopted to reach marginalized communities, particularly MSM, with HIV prevention strategies. For instance, China and Indonesia have successfully implemented mobile applications that deliver HIV prevention content in accessible formats [12,13].

In Malaysia, a noteworthy example is the JOMPrEP initiative by Malaysia mHealth. This mobile platform integrates essential HIV-related services tailored for highly stigmatized populations, particularly MSM who often avoid traditional healthcare settings due to fear of discrimination. JOMPrEP provides a comprehensive digital health experience, including personalized risk assessments, HIV self-testing kits, and PrEP eligibility screening and prescriptions, delivered via a secure and anonymous interface [14]. Only one of our patients in the case series learned about HIV testing through an NGO promoted on a dating app, which led to diagnosis and linkage to care. Thus, to improve reach, JOMPrEP should consider integration with social platforms frequently used by adolescents such as WeChat, Facebook, Telegram and online dating applications. Disseminating access via QR codes in clinics, schools, and healthcare social media platforms may also enhance youth engagement.

In parallel, non-governmental organizations (NGOs) have embraced app-based outreach strategies. SAHABAT (Persatuan Perantaraan Pesakit-Pesakit Kelantan), an NGO operating in partnership with the Malaysian AIDS Council, has successfully integrated its services into popular gay dating platforms such as Grindr. This initiative connects users with trained volunteers who provide STI education and facilitate access to free HIV testing [15]. In our series, one patient was referred for HIV screening through Grindr-based NGO outreach. This dual approach; digital health tools and community-based peer engagement, illustrates

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a promising, inclusive model for reducing barriers to care and promoting HIV/STI awareness among MSM youths in Malaysia.

Establishing strong rapport with adolescents and young adults is essential in the management of STIs, as individuals in this demographic are often reluctant to disclose their sexual behaviours. Effective management must go beyond pharmacological treatment and include psychological support, risk assessment, and structured behavioural modification strategies. These strategies should ideally be peer- and community-based, aiming to reduce exposure to high-risk sexual activities and promote safer practices. Healthcare professionals must be adequately equipped to support adolescents and young adults grappling with self-stigma, particularly among young MSM. Research has shown that young MSM tend to experience higher levels of internalised stigma compared to their female peers. This can be attributed to traditional masculine norms that emphasize strength, stoicism, and dependability, which in turn make coping with an HIV or STI diagnosis emotionally and socially challenging [16]. In the case series presented, all individuals struggled with significant self-stigma, which contributed to delayed health-seeking behaviours and hindered early access to medical care and emotional support. These delays often led to severe medical complications, prolonged psychological distress, and, in some cases, escalation into high-risk behaviours, including substance abuse and unprotected sexual activities.

The Quality Improvement (QI) Stigma and Discrimination (S&D) Network has been instrumental in reducing HIV-related stigma among healthcare workers in several Southeast Asian countries, including Cambodia, Vietnam, and Thailand. Within Malaysia, similar initiatives such as the Kasih Project, spiritual support programs, health promotion through social media, and informal peer-led interventions in selected public health facilities represent positive steps toward destigmatisation of PLHIV among healthcare workers and the public [17]. However, awareness and implementation of these initiatives remain limited, particularly outside major urban hospitals. To address this, the Malaysian Ministry of Health (MOH) should continue to expand these programs to all levels of public healthcare, including district clinics, and ensure that all healthcare personnel, not only those in HIV/STD clinics, receive training in non-stigmatizing, inclusive care. Counselling and follow-up appointments must prioritize patient empowerment, promote harm reduction strategies, and foster a supportive environment conducive to long-term engagement in care.

Conclusion

This case series highlights the vulnerabilities of adolescents and young adults, particularly MSM, in the context of geo-social dating application use in Malaysia. The cases illustrate how early sexual initiation, grooming, stigma, and limited access to inclusive healthcare contribute to delayed HIV diagnosis and poor mental health outcomes. These findings highlight the need for digital sexual education, stigma reduction in healthcare, and stricter age-verification on dating platforms. Collaborative efforts across public health sectors, NGOs, and digital providers are essential to protect MSM youths.

This report has several limitations. The small sample size and reliance on self-reported, retrospective data limit generalizability and may introduce bias. Standardized assessment tools were not used, and psychological outcomes were not formally evaluated. While the findings are descriptive and not conclusive, they offer valuable insights into underrecognized risks facing sexual minority youth and point to critical areas for intervention, policy reform, and future research.

Declaration

The author (s) declare that no conflict of interest.

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