

Sexual behaviors, HIV, and syphilis infection among adolescent and young adult MSM in Bali, Indonesia

Wati K D¹, Wulandari L P L^{2,3}, Widyantini D N⁴, Setiyawan I M K¹, Purnama S G⁴, Nilawati G A P¹, Sudarmaja I M⁵, Boetigger D³, Kariminia A³

¹Department of Child Health, Faculty of Medicine, Universitas Udayana/ Prof Ngoerah Hospital, Bali, Indonesia, ²The Kirby Institute, University of New South Wales, Sydney, NSW, Australia, ³Centre for Adolescent Health, Murdoch Children's Research Institute, Parkville, Victoria, Australia, ⁴Department of Public Health and Preventive Medicine, Faculty of Medicine, Udayana University, Denpasar, Bali, Indonesia ⁵Department of Parasitology, Faculty of Medicine, Udayana University, Denpasar, Bali, Indonesia

Background:

Adolescents and young adults represent a key population in the HIV epidemic. Among young men who have sex with men (MSM), higher rates of HIV and syphilis have been reported. This study explores the prevalence of HIV and syphilis among adolescent and young adult MSM in Bali and examines associated sexual risk factors.

Methods:

A cross-sectional study was conducted among adolescent and young adult MSM attending an STI clinic at Kerti Praja Foundation Bali, Indonesia, between December 2023-February 2024. Eligible participants were those consented to be interviewed and to undergo HIV and syphilis testing. Data were collected through a questionnaire that captured demographic information, sexual behaviors, and health-seeking practices. HIV and syphilis testing were performed following the completion of the survey. Data were analysed using SPSS 30.0.0.0

Results:

A total of 207 eligible participants were enrolled during the study period, with a mean age of 21 ± 2 years. The majority (62.3%) had completed senior high school. Over half (51.7%) identified as homosexual, while 48.3% identified as bisexual. Multiple sexual partners were reported by 77.8% participants. Insertive anal intercourse was reported by 58.8%, while receptive anal intercourse by 41.2% respondents. Reactive HIV test and reactive syphilis test were found in 10.1% and 15.5% of the participants, respectively. Receptive anal sex was significantly associated in higher likelihood of HIV seropositivity, while insertive anal intercourse was associated with a lower likelihood of reactive HIV test (OR 3.368, 95%CI 1.296-8.753 and OR 0.321, 95%CI 0.115-0.897, respectively). No statistically significant associations were observed between the measured variables and a syphilis-positive test.

Conclusions:

This study highlights a concerning prevalence of HIV and syphilis among adolescent and young adult MSM in Bali. Receptive anal intercourse was found to be significantly associated with HIV infection, underscoring the need for targeted risk-reduction strategies within this population.

Disclosure of Interest Statement:

This study was funded by the International Partnership (INSPIRE) Grant from Universitas Udayana.