HIV PrEP Initiation Leads to Reduction in Sexual Partners, alongside More Condomless Anal Sex Among GBMSM in Singapore: A Prospective Cohort Study and Mixed-Methods Analysis

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#### Background:

Past studies have indicated that PrEP initiation may lead to changes in sexual behaviour and perceptions of sexual wellness among gay, bisexual and other men who have sex with men (GBMSM). However, data are lacking on the impact of PrEP initiation on the sexual health of GBMSM in Singapore.

#### Methods:

A concurrent mixed-methods study design was employed. Quantitative data were collected at baseline, 6 and 12 months following PrEP initiation at a clinical setting. Longitudinal mixed effect negative binomial model and ordinal logistic regression were employed for analyses. Participants were purposively sampled to participate in in-depth interviews about their PrEP experience at the end of the study, which were analysed through inductive thematic analysis.

#### **Results**:

The baseline cohort consisted of 53 participants, with 40 individuals remaining in the study at the 6-month follow-up and 36 participants at the 12-month follow-up. A total of 13 participants participated in in-depth interviews. At the 12-month mark, a notable reduction in the rate of sex partners compared to baseline was observed, corresponding to a factor of 0.73 (CI=0.56, 0.97). Conversely, there was an increase in the rate of condomless anal sex compared to baseline, which demonstrated a factor of 1.65 (CI=1.12, 2.42). The odds of participants using condoms with regular sexual partners at 12 months decreased to 0.18 (CI=0.04, 0.87) compared to baseline. Correspondingly, participants discussed how starting PrEP helped them prevent HIV while achieving greater sexual pleasure without condoms. This also led to enhancements in their romantic relationships. Taking PrEP and testing regularly for sexually transmitted infections ensured that participants remained acutely aware of such risks, which shaped their decisions around engaging in casual sexual encounters.

## Conclusions:

PrEP initiation may improve sexual pleasure and enhance romantic relationships, while potentially empowering GBMSM to make informed decisions around their sexual partnerships.

# Disclosure of Interest Statement:

None