Community peer-led STI/HIV point-of-care testing and knowledge, attitude and practice (KAP) survey in men who have sex with men (MSM) attending an NGO-led clinic in the outskirts of Beirut (Lebanon)

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ABSTRACT

Objective This pilot study assesses HIV, syphilis and hepatitis point-of-care test (POCT) utility in men who have sex with men (MSM) attending a non-governmental organisation-led clinic in Beirut and evaluates knowledge, attitudes and practices in relation to sexual health.

Methods A cross-sectional study was conducted over 4 months. A physician offered sexual health consultations and sexually transmitted infection (STI)/HIV testing and administered an anonymous questionnaire assessing demographics, STI knowledge and practices, condom use, chemsex, experiences of sexual violence and perceived HIV-related stigma.

Results The cohort consisted predominantly of young, highly educated, working-age men: 91.2% were male and 86.4% identified as MSM, with most participants aged 26–40 years. The majority were Lebanese (79.6%), while 18.4% were Syrian. Overall, 21.4% were persons living with HIV. High levels of STI/HIV awareness coexisted with condomless sex and recreational drug use. Perceived community beliefs and stigma emerged as notable barriers to testing. The use of POCT facilitated same-day counselling and linkage to care for individuals with positive results.

Conclusions This study highlights the substantial HIV-related stigma experienced by MSM, which is linked to risky behaviours. Incorporating POCT into sexual health services allows for rapid on-site diagnosis and immediate counselling as well as linkage to confirmatory testing and care.

KEY MESSAGES

⇒ Men who have sex with men (MSM) in Lebanon experience legal, social and healthcare barriers that hinder testing and care. Community-led non-governmental organisations (NGOs) play a key role in outreach, and sexually transmitted infection (STI) point-of-care testing (POCT) has the potential to expand testing, but local evidence on its implementation and outcomes remains limited.

⇒ This study demonstrates that STI POCT is feasible in a peer-led NGO clinic and provides practical evidence to support scaling up community-based testing alongside targeted sexual health education.

⇒ The findings support integrating community-based STI POCT into peer-led services with stigma-reduction strategies and targeted sexual health education, expanding digital outreach and referral pathways to improve early diagnosis and treatment, and conducting multi-site pilot studies to evaluate feasibility and cost-effectiveness to inform scalable national STI prevention and control programmes. What I like the most is the recent updates presented in the form of guidelines and treatments.

INTRODUCTION

In much of the Arab world, homosexuality is illegal, reinforcing stigma and discrimination against men who have sex with men (MSM).[1] Lebanon has historically been more liberal than neighbouring countries, but this position was threatened in 2023 by a bill criminalising same-sex relations and the 'promotion of homosexuality', with penalties of up to 3 years in prison.[2] These developments occurred amid a severe economic crisis that disproportionately affected marginalised groups, compounded by the presence of 1.5 million Syrian refugees.[3]

MSM in Lebanon face significant barriers in accessing healthcare, alongside higher rates of mental health issues, sexually transmitted infections (STIs) and HIV.[4] Anticipated discrimination in healthcare settings discourages many from seeking necessary services.[5] MSM refugees face heightened vulnerabilities due to overlapping forms of marginalisation. Given the lack of laboratory capacity in many regions in Lebanon, the development and implementation of reliable point-of-care tests (POCTs) for STIs in some cities has been widely advocated to improve the inclusivity of this community and to increase case findings.

Data on HIV and STIs among MSM in Lebanon are scanty. A study by Assi *et al*[4] revealed an HIV prevalence of 5.6%, poor education about HIV/STI prevention and inconsistent condom use.[4] Despite the economic challenges, Lebanon provides free antiretroviral treatment (ART) to people living with HIV (PLWH), including refugees and those with temporary asylum permits. Non-governmental organisations (NGOs) play a crucial role, offering HIV counselling, education, prevention and ART in collaboration with the National AIDS Programme (NAP). Among these, Proud Lebanon, an NGO led by MSM individuals who share the lived experiences and backgrounds of the communities they

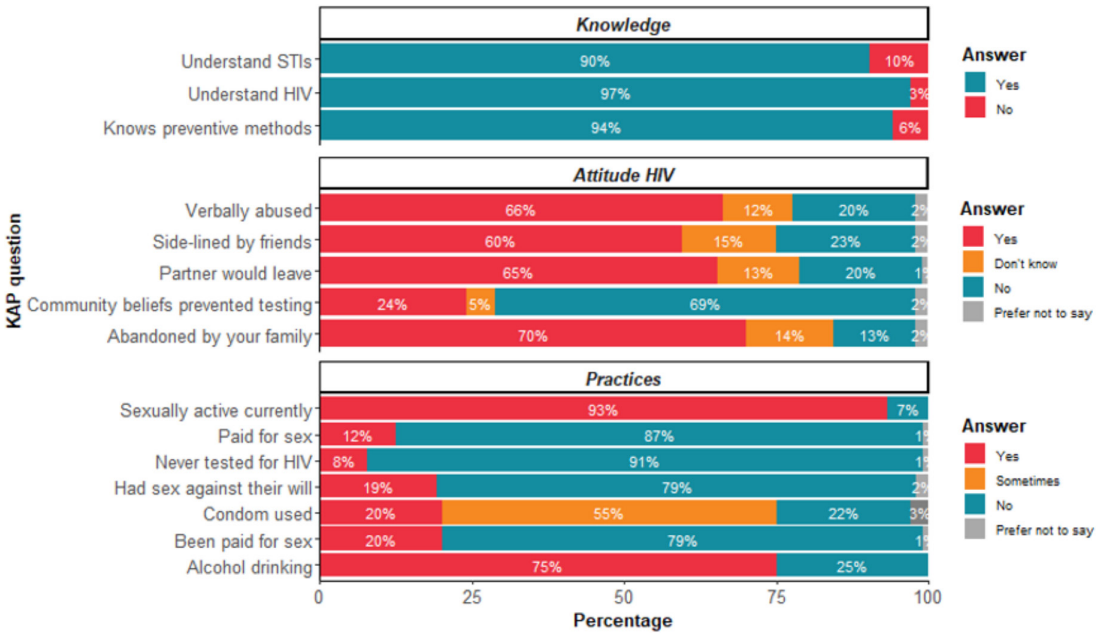

Figure 1 Overview of the responses to the KAP questions of the KAP questionnaire in percentages. KAP, knowledge, attitude and practice; STI, sexually transmitted infection.

serve, protects and empowers marginalised groups through community service initiatives.[6]

This pilot study aims to evaluate the utility of HIV, syphilis and hepatitis POCT in the MSM population attending Proud clinics in Beirut and assess STIs/HIV-related knowledge, attitudes and practices, including perceived stigma towards HIV infection.

METHODS

This is a cross-sectional mixed-methods study carried out over 4 months (June–September 2023) at Proud Lebanon in Beirut. A physician visited all consecutive patients attending the NGO to access ART or HIV pre-exposure prophylaxis (PrEP), offered POCT for syphilis, HIV, hepatitis B and C and administered a knowledge, attitude and practice (KAP) survey to investigate STI/HIV stigma and risk behaviours (figure 1). Patients with a reactive POCT or presenting with symptoms were referred to public hospitals for confirmatory testing and care. Inclusion criteria were age over 18 years and providing written informed consent. Anonymised data were entered into KoboToolbox, a data-gathering tool used for collecting and managing data in challenging environments,[7] extracted in Excel and analysed.

The study was abruptly interrupted due to the escalation of the conflict in Gaza in 2024 and the Israeli bombardment of Lebanon; it was part of the SSKAPP project.

RESULTS

A total of 103 individuals consented to participate in the study and accepted STI POCT. The cohort was predominantly male (91.3%), followed by females (8.7%), including a transgender woman. Regarding sexual orientation, participants were categorised as MSM (86.4%), heterosexual (7.8%) and bisexual (5.8%). Most were Lebanese nationals (79.6%) and aged 26–40 years (65.1%), while 23.3% were aged 18–25 years. Syrian refugees constituted 18.4% (n=9) of the sample and had resided in Lebanon for more than 5 years. Regarding educational attainment, 60.2% held a university degree and 15.5% completed postgraduate education (online supplemental table S1). Most participants were regularly employed (83.5%).

The most frequent clinical diagnoses were genital warts (n=24), followed by skin infections and infestations (n=15) and urethral discharge syndrome (n=10). All participants were tested using dual HIV/syphilis POCT. Overall, 21.4% (n=22) were PLWH on ART. The POCT detected four new HIV cases, who were referred for confirmatory testing and ART initiation. Six symptomatic participants tested positive for syphilis, while the remainder tested negative for both infections or had a previous syphilis diagnosis; therefore, their results were not recorded. No hepatitis B or C cases were identified.

Despite good HIV/STI knowledge, substantial HIV-related stigma was observed. Overall, 24% reported that community beliefs or stigma initially prevented testing, although 92% of them were eventually tested for HIV later in life. When asked about HIV stigma-related behaviours, 66% reported verbal abuse, 60% social marginalisation after their diagnosis, 65% concern about partner abandonment and 70% concern about family abandonment. Alarmingly, 19% experienced non-consensual sex in the past year. One-quarter (24.3%) reported having more than 10 different partners in the past 6 months, 55.3% used condoms only occasionally, and 22.3% never. Recreational drug use and chemsex (gamma-hydroxybutyrate and crystal methamphetamine) were reported by 28%; 59% of them never used condoms. Alcohol was consumed by 75.7%.

Sex work was reported by 33% of participants, with 13% paying and 20% receiving payment for sexual services. Those engaging in sex work were mainly Lebanese MSMs. Condom use was limited, with only two participants out of 21 (10%) declaring consistent use. Recreational drug use was common (n=14; 67%).

No differences between nationalities were observed in condom use or engagement in sex work. Drug use was slightly more prevalent among Lebanese participants, while sexual violence was more frequent among Syrians. Community beliefs were perceived as a barrier to testing by most Syrian participants (63%), whereas most Lebanese participants (76%) did not report this barrier.

DISCUSSION

This study explores access to HIV/STI testing and care among gay men in Lebanon, highlighting the value of peer support and community-based testing in settings affected by HIV stigma. Peer-led outreach clinics and the use of STI POCT improve testing acceptability, while clear referral and linkage-to-care pathways remain crucial.

In our cohort, diagnoses were based on clinical assessment supported by POCT. Individuals with reactive HIV tests were referred to the NAP for confirmatory testing and subsequent management, while those with reactive syphilis tests were referred to partner institutions, including Rafik Hariri University Hospital in Beirut, for confirmatory Venereal Disease Research Laboratory testing and treatment. Due to the limited duration of this pilot study, no follow-up data on confirmatory laboratory-based testing are available.

Our patients were highly educated, lived in private accommodations and had regular employment. This correlates with good STI/HIV knowledge and access to PrEP for HIV prevention. Notably, 19% of respondents reported experiences of non-consensual sex, indicating a high prevalence of sexual violence requiring urgent attention.

Nearly one-quarter of the sample consisted of PLWH attending the clinic for ART and routine follow-up. A recent study from Iran reported that although 62% of PLWH were on ART, only 35% had achieved viral suppression, underscoring the need to evaluate treatment outcomes alongside service uptake.[8] Treatment adherence was not assessed in the present study and should be included in future research.

Patients presenting with urethral discharge and genital ulcer could not be properly investigated and were either treated using the WHO syndromic management algorithms[9] or referred to public hospitals. Syndromic management has limitations related to overtreatment, increasing antimicrobial resistance and missing asymptomatic infections.[10]

Sexually acquired fungal infections were also common, highlighting the emergence of this sexually transmissible infection, not previously reported in MSM in Lebanon.

Societal norms, restrictive laws and suboptimal STI services exacerbate disease burden and health disparities. Syndromic theory applied to the MSM population emphasises intersections between HIV, substance abuse, mental health issues and stigma. The study highlights the need for integrated care models providing mental health services, substance use and sexual health services in stigma-free environments. Incorporating STI POCT into peer-led community clinics can broaden access by reaching marginalised groups with limited contact with formal health services and people in remote or rural areas. Expanded POCT use and sustained laboratory capacity remain necessary to build equitable STI testing programmes. Policies reducing stigma and discrimination, improving healthcare access and supporting mental health may mitigate syndemic impacts.

Our study has relevant limitations, including the small sample size, exacerbated by a dramatic decrease in LGBTQ+ individuals seeking services at Proud following escalating anti-LGBTQ+ moves post-September 2023. Site selection limits generalisability. The over-representation of PLWH should be considered when interpreting behaviours and risk profiles, as it may represent an important source of bias. POCT use in this subgroup also had limitations since many patients had previous syphilis diagnoses and treatments, and reinfection could not be assessed using the POCT.

In conclusion, although highly educated MSM in Lebanon demonstrate a solid understanding of STI/HIV and preventive methods, they still engage in risk-taking behaviours.

Societal norms, restrictive laws and inadequate STI services exacerbate disease burden and health disparities in this population. Incorporating POCT into community-based, peer-led clinics could facilitate service scale-up and improve access. Nevertheless, centralised laboratory testing remains critical for confirmatory diagnoses, surveillance and quality assurance. Policies addressing stigmas and discrimination and providing mental health support are essential to mitigate syndemic effects and reduce healthcare inequities.

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Competing interests VP is a member of the Editorial Board. All other authors declare no competing interests.

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