



Qualitative Exploration of HIV Testing Intentions Among Jakarta MSM Using the Theory of Planned Behavior Approach

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Abstract

Background: HIV testing decisions among men who have sex with men (MSM) involve health concerns, social expectations, and confidence in service access. **Objective:** To explore voluntary counseling and testing (VCT) intentions among MSM at Taman Sari Subdistrict Health Center, West Jakarta, using the Theory of Planned Behavior (TPB). **Methods:** This descriptive qualitative study was conducted during October 2022–April 2023. Purposive sampling included nine MSM with differing testing histories and one HIV program coordinator. Semi-structured interviews were analyzed thematically using TPB. **Results:** Perceived benefits of knowing HIV status supported favorable attitudes, whereas feared positive results and stigma discouraged testing. Peer reassurance supported intention, while anticipated family rejection complicated disclosure. Free, nearby services facilitated access; privacy concerns and restricted service hours constrained perceived control. These accounts suggest that favorable attitudes and supportive norms facilitate intention when testing is perceived as socially safe and practically feasible. **Conclusion:** Testing intentions reflected attitudes, subjective norms, and perceived behavioral control within a stigmatizing context. Confidential counseling, peer navigation, and accessible services warrant evaluation.

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INTRODUCTION

HIV testing remains an essential entry point to prevention, diagnosis, and treatment. UNAIDS estimated that 40.8 million people were living with HIV worldwide and 1.3 million people acquired HIV in 2024.¹ The need for accessible testing is also evident locally. The DKI Jakarta Health Office reported 5,982 newly detected HIV cases in 2022.² Voluntary counseling and testing (VCT) offers an opportunity to learn one's HIV status and obtain appropriate counseling and referral. Current

World Health Organization guidance emphasizes differentiated testing options and linkage to prevention and care.³

For men who have sex with men (MSM), testing decisions can involve concerns about both HIV and the disclosure of same-sex behavior. In a cross-sectional study of 132 MSM in Jakarta, Widsono and Nurfadhilah identified associations between VCT utilization and perceived benefits, perceived barriers, and support from peers and health workers.⁴ Qualitative research across three Indonesian cities has also documented the role of social relationships and community organizations in engagement with HIV prevention.⁵ These findings indicate that decisions about testing are embedded in relationships with partners, peers, families, and services.

The existence of a testing service does not fully describe whether prospective clients feel able to use it. Research on outreach in urban Indonesia has identified challenges in connecting community engagement with health services and responding to the changing needs of MSM.⁶ Interviews with MSM and transgender women in five Indonesian cities similarly highlighted the value of trusted outreach relationships and concerns about the quality and confidentiality of services.⁷ Such evidence supports examining how individuals interpret service availability alongside the social consequences they anticipate from seeking care.

The Theory of Planned Behavior (TPB) provides a framework for interpreting these decisions. It proposes that intention is informed by attitudes toward the behavior, subjective norms, and perceived behavioral control. Attitudes concern whether undergoing a test is evaluated favorably or unfavorably. Subjective norms concern the approval or disapproval expected from significant others. Perceived behavioral control concerns the person's sense of capability and control over obtaining a test. The framework also recognizes that translating intention into behavior depends on the conditions under which behavior can be performed.⁸ In this study, stigma and service conditions are treated as contextual influences on beliefs, particularly control beliefs, rather than as additional TPB constructs.

Previous Indonesian qualitative studies have already explored social influences on HIV prevention and experiences of outreach.^{5,7} The contribution of the present study is a focused application of TPB to accounts from MSM with different testing histories in the context of one urban primary health center. A qualitative approach is useful because recognition of HIV risk may coexist with fear of diagnosis, and encouragement from peers may coexist with anticipated rejection at home. Exploring how participants describe these competing considerations can clarify the meaning of willingness, hesitation, and perceived control in their testing decisions.

Taman Sari Subdistrict Health Center provides the primary care setting for this inquiry in West Jakarta. The study aimed to explore how MSM described their intentions to seek HIV VCT in relation

to attitudes, subjective norms, and perceived behavioral control. The purpose was to develop a contextual understanding of testing decisions and their implications for service delivery.

METHODS

Study Design

This descriptive qualitative study used TPB-informed thematic analysis to explore accounts of HIV testing intentions in the context of Taman Sari Subdistrict Health Center, West Jakarta. The overall study period was October 2022–April 2023. Research data collection was conducted in February 2023. TPB guided the interview topics and organization of themes. It was used as an interpretive framework rather than a model for statistical hypothesis testing. The qualitative descriptive designation reflects the focus on participants' accounts and the use of predefined theoretical domains.

Participants and Sampling

Purposive sampling included nine MSM participants and one HIV program coordinator. The MSM participants were patients residing within the catchment area of Taman Sari Subdistrict Health Center, West Jakarta. The MSM participants were patients residing within the catchment area of Taman Sari Subdistrict Health Center, West Jakarta. The researchers protected confidentiality by excluding identifying information from the reported interview data and maintaining the confidentiality of the in-depth interviews. Participation was voluntary, and informants could decline to answer any question or withdraw at any time without consequences.

The MSM participants represented three testing histories. The MSM participants represented three testing histories: three had never undergone VCT, three had undergone VCT once, and three had undergone VCT more than once. The coordinator was included as a key informant to provide a service perspective and was not counted as an MSM participant. Eligibility criteria for the MSM participants were self-identification as MSM, age of at least 18 years, residence within the health center's catchment area, and willingness to participate.

The sampling strategy sought variation in prior testing experience. These categories described the composition of the sample and were not designed as groups for statistical comparison. The researcher assessed saturation during data collection by noting recurring patterns in informants' responses. The decision to stop recruitment and interviewing was based on representation of the participant categories and the one-month data collection limit set by the researcher for February 2023. With three MSM participants in each testing-history category, the accounts were interpreted as contextual descriptions of differing experiences.

Data Collection

Data were collected through in-depth, semi-structured interviews lasting 45–90 minutes. The interview guide was based on attitudes toward HIV testing, perceived expectations of significant others, and perceived ease or difficulty of accessing VCT. Interviews were audio-recorded with participants' consent and transcribed verbatim. The findings are presented using the participant identifiers attached to the interview extracts.

Data Analysis

Thematic analysis drew on the qualitative analytic framework of Miles, Huberman, and Saldaña.⁹ One researcher used NVivo for the analysis, coded the transcripts iteratively, and organized the themes around the three TPB constructs. No data outside these constructs were identified. Material concerning stigma, confidentiality, and service access was interpreted in relation to these constructs. Participants' accounts of health concerns and testing benefits informed the interpretation of attitudes; accounts of anticipated approval or rejection informed subjective norms; and accounts of access and privacy informed perceived behavioral control.

Data condensation/reduction involved selecting and summarizing interview material. The findings are presented as thematic narratives supported by illustrative quotations. Conclusions were re-examined in relation to each TPB construct. Source triangulation involved comparing MSM participants' accounts with information from the HIV program coordinator. Contrasting accounts were retained in the presentation. Member checking was not conducted.

Ethical considerations

Ethical approval was obtained from the Health Research Ethics Committee of Universitas Muhammadiyah Prof. Dr. HAMKA, approval number 03/23.01/02260, dated 30 January 2023. All informants provided written informed consent after receiving an explanation of the study's purpose, procedures, benefits, and risks. The researchers protected confidentiality by excluding identifying information from the reported interview data and maintaining the confidentiality of the in-depth interviews. Participant codes or pseudonyms were used, and research data were stored securely. Participation was voluntary, and informants could decline to answer any question or withdraw at any time without consequences.

RESULTS

Participant composition and overview of themes

Ten informants contributed to the study: nine MSM participants and one HIV program coordinator. Table 1 shows the distribution of testing histories. The findings below focus on the

MSM participants' accounts. Three themes were organized according to TPB: attitudes toward HIV testing, subjective norms concerning testing, and perceived behavioral control over accessing VCT.

Table 1. Composition of the purposive sample

Participant category	Number
MSM who had never undergone VCT	3
MSM who had undergone VCT once	3
MSM who had undergone VCT more than once	3
HIV program coordinator	1
Total informants	10

MSM, men who have sex with men; VCT, voluntary counseling and testing. The MSM participant denominator is nine.

Attitudes toward HIV testing

Participants described reasons to value testing, including learning their HIV status, identifying infection early, and obtaining treatment if needed. Perceived exposure to HIV gave testing personal relevance. Participants also described seeking testing after symptoms they associated with HIV or learning that a sexual partner had received an HIV diagnosis. Informant 7, who had undergone VCT more than once, connected his testing practice with the anticipated benefits of treatment and protecting others:

"I am aware that my behavior is high-risk, so I get checked regularly every six months. It's better to know early if I'm positive, so I can be treated immediately, my viral load can go down, and I won't transmit it to others." (Informant 7, MSM, 28 years old)

Positive attitudes also appeared in descriptions of friendly, professional, and nonjudgmental health workers at Taman Sari Subdistrict Health Center. Participants valued reassurance about confidentiality and the experience of being treated respectfully.

Fear of receiving a positive result complicated these favorable evaluations. The concerns described extended beyond illness to anticipated emotional distress, family disappointment, rejection by friends, and perceived future treatment costs. Informant 2, who had never undergone VCT, described these worries:

"I'm afraid that the result is positive. What will happen to my life? My family will definitely be disappointed, and my friends will surely stay away. Not to mention the cost of treatment, which is expensive." (Informant 2, MSM, 25 years old)

Anticipated treatment costs added to the feared consequences of a positive result. Accounts also described community judgments associating HIV with shame and disapproval of same-sex behavior. Taken together, the narratives showed that acknowledging the value of testing could coexist with fear of what learning or disclosing a result might mean.

Subjective norms concerning testing

Peer relationships provided information, encouragement, and reassurance about VCT. Participants described advice from MSM friends and community organizations as relevant to their decisions. In Informant 5's account, encouragement was accompanied by information about how the service would treat him:

"My friends in the community often share about the importance of HIV testing. They said that the service at the Taman Sari Community Health Center is good and confidential. That's what made me finally dare to get tested." (Informant 5, MSM, 30 years old)

Participants also described testing at a regular partner's request or attending together as a shared responsibility for sexual health. Such accounts linked encouragement from trusted people with willingness to engage with services. They showed that support could include practical reassurance as well as approval of testing.

Family expectations could have a different meaning. Participants who had not disclosed their same-sex behavior feared that HIV testing or a positive result might reveal information they wished to keep private. Informant 3 described the anticipated connection between testing, disclosure, and rejection:

"My family doesn't know that I am MSM. If I get tested for HIV and the result is positive, they will definitely find out. I am afraid of being ostracized." (Informant 3, MSM, 23 years old)

The accounts reflected contrasting normative expectations across social relationships, with peer encouragement and anticipated family disapproval present in the same social environment.

Perceived behavioral control over accessing VCT

Participants described proximity, transport access, and the absence of a testing fee as conditions that made attending VCT appear manageable. Informant 8 linked the health center's location and cost directly to his sense that testing was accessible:

"The Taman Sari Community Health Center is close to where I live, and the test is free. So there's no reason not to get checked." (Informant 8, MSM, 27 years old)

Physical accessibility did not resolve all concerns. Participants also considered whether they could attend without unwanted recognition or questions from people they knew. Informant 4 described this aspect of seeking care:

"I'm worried about meeting neighbors or friends at the health center. They will definitely wonder why I went to the VCT clinic. Privacy is essential to me." (Informant 4, MSM, 26 years old)

Concerns about being recognized were accompanied by apprehension about possible discrimination from health workers. These worries sometimes drew on stories about other people's experiences, rather than a negative encounter at the study site. Participants with regular working hours also described restricted service hours as an obstacle. The accounts distinguished the practical ability to reach a clinic from the perceived ability to obtain a test privately and at a suitable time.

How the accounts related to testing intention

Across these themes, willingness to test was connected with seeing a health benefit, receiving reassurance from trusted people, and feeling able to attend safely. Hesitation was connected with feared results, expected rejection, and uncertainty about privacy. The contrast between Informants 7 and 2 illustrates how testing could be evaluated as beneficial or threatening; Informant 5's account links peer reassurance to a past decision to attend; and Informants 8 and 4 illustrate different meanings of service access. Together, these accounts provide an interpretive explanation of how the three domains were relevant to testing decisions.

DISCUSSION

The central finding is that participants' accounts of HIV testing intention connected perceived health benefits with the social acceptability and practical feasibility of seeking care. Testing could be regarded as useful while still being feared because of a possible diagnosis or unwanted disclosure. Peer reassurance supported willingness, but a nearby and free service could remain difficult to use when attendance seemed socially exposing. Interpreted through TPB, these narratives suggest that attitudes, subjective norms, and perceived behavioral control help explain different aspects of willingness and hesitation. Figure 1 summarizes this interpretation.

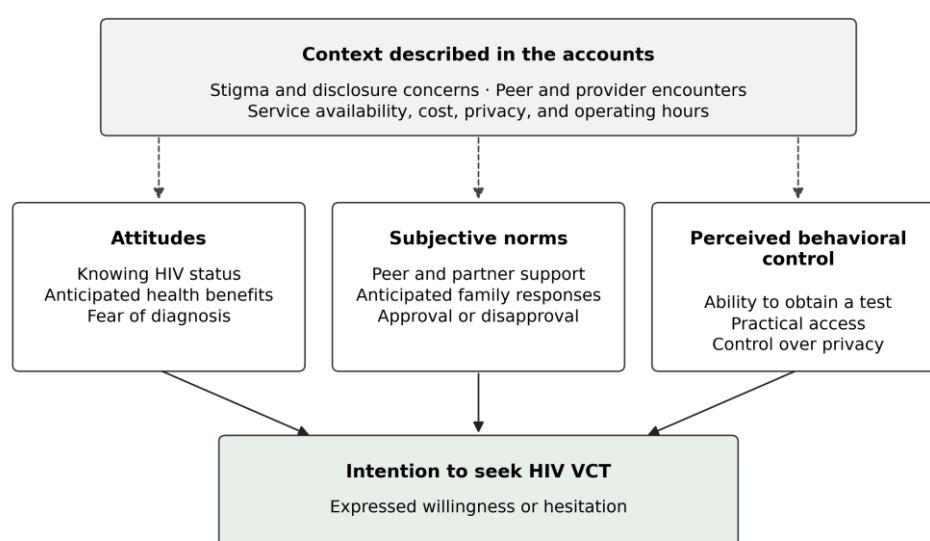


Figure 1. TPB-informed interpretation of HIV testing intention.

Dashed arrows indicate contextual influences on beliefs; solid arrows indicate proposed TPB relationships. The figure summarizes an interpretive framework, not tested causal effects. Subsequent testing behavior was not assessed.

Why perceived benefit could coexist with hesitation

The attitudinal accounts indicate that the anticipated consequences of testing extended beyond the biomedical result. Informant 7 described knowing his status as a means of obtaining care, whereas Informant 2 anticipated disruption to family relationships, friendships, and finances. The contrast suggests that knowledge of risk alone may be insufficient to make testing feel worthwhile. A person can recognize a health benefit and simultaneously attach considerable weight to anticipated social costs. This interpretation is consistent with the Jakarta study linking perceived benefits and barriers with VCT utilization.⁴

Indonesian qualitative research on MSM living with HIV has also described responses to diagnosis, self-perceptions, and the role of peer accompaniment.^{10,11} That study concerns experiences after diagnosis, so it provides contextual support for discussing diagnosis-related concerns rather than direct evidence about intention among untested MSM. The practical implication is to make pretest counseling responsive to the specific consequences a client fears. Explaining the testing process, confidentiality arrangements, and available referral pathways may help clients evaluate those concerns more concretely. These counseling functions are consistent with current HIV testing guidance.³

Why different social relationships carried different expectations

The normative findings are better understood by considering the source of approval or disapproval. MSM peers could validate the decision to test and share credible accounts of how services operate. Families could be imagined as a source of rejection when same-sex behavior had not been disclosed. These accounts suggest that the meaning of a subjective norm depends on the relationship in which it is experienced. They do not indicate that all families oppose testing or that peer support has a uniform effect.

The relevance of trusted networks is consistent with qualitative work in Indonesian cities showing how social relationships shape engagement with HIV prevention.⁷ Outreach research likewise emphasizes accessible information and the role of outreach workers in encouraging engagement with testing and care. In the present study, the peer account combined approval of testing with reassurance about confidentiality. This suggests that peer support may inform both normative beliefs and perceptions of control. The constructs remain conceptually distinct even when a single experience informs more than one type of belief. Peer navigation should therefore be offered in ways that protect clients' choice about whom to involve and what to disclose.

Why geographic access did not ensure perceived control

The accounts of proximity and feared recognition reveal a tension within local service access. A nearby clinic reduced the effort required to attend, but it could also be a place where a participant expected to meet acquaintances. A plausible interpretation is that service accessibility included control over the visibility of attendance. Under these circumstances, a service that was easy to reach could still be difficult to use privately. This explanation is grounded in the contrasting accounts of Informants 8 and 4 and should not be generalized to all urban MSM.

Research on community outreach in urban Indonesia describes challenges at the interface between MSM communities and health services.³ The present findings add a specific service implication: confidentiality should be considered throughout the client journey, including arrival, registration, waiting, counseling, and communication of results. Perceived control may also depend on whether service hours can be reconciled with employment. Conditions such as clinic location, operating hours, and privacy arrangements are contextual influences on control beliefs, not a fourth TPB construct. The study explored participants' perceptions of these conditions and did not independently audit service quality.

A survey of 803 MSM in Metro Manila similarly found that anticipated testing stigma and mistrust of providers were associated with a preference for HIV self-testing.¹² However, most respondents in that study preferred facility-based testing. This comparison supports offering confidential choices rather than assuming that one testing setting suits everyone. It also suggests that changing the location or mode of a test may address some concerns while leaving the need for a trustworthy provider relationship intact.

A study among people living with HIV in Bogor reported an association between health-worker support and self-efficacy.¹¹ This is relevant to the broader role of supportive care, but self-efficacy in that population should not be equated with perceived control over obtaining an HIV test. The comparison supports attention to supportive provider relationships while preserving the different populations, behaviors, and constructs under study.

Implications for theory and primary care

Using TPB helped distinguish evaluations of testing, expectations from significant others, and perceptions of access. The framework also made it possible to interpret why favorable views of testing might not resolve hesitation when disclosure remained threatening. Stigma was relevant across the domains: it could shape feared consequences, anticipated social responses, and confidence in obtaining confidential care. This is an interpretation of contextual influences on TPB beliefs, not evidence that an additional causal pathway has been validated.⁸

The distinction between intention and behavior remains essential. Prior testing histories helped provide contrasting accounts, but they did not establish whether intentions expressed in the interviews predicted later attendance. Recommendations should therefore be evaluated as service improvements suggested by these accounts. Staff training, private counseling, clear information about confidentiality, flexible appointments, and voluntary peer navigation are reasonable candidates. The WHO's differentiated testing guidance supports considering testing options that respond to different needs and connect clients to appropriate prevention and care.³ The present study did not assess the effects of these strategies on uptake, treatment outcomes, or HIV transmission.

Evidence from other settings illustrates both the potential and the limits of alternative testing options. A randomized trial in China found that providing free HIV self-testing kits increased testing frequency among MSM.¹³ In a Thai cohort, online supervised self-testing reached MSM and transgender women, but linkage to confirmatory testing and treatment remained a challenge.¹⁴ These findings support evaluating additional confidential testing options with reliable referral pathways. They do not establish that self-testing would resolve the barriers identified at Taman Sari, where acceptability and implementation would require local assessment.

Strengths and limitations

Including MSM with no, single, and repeated testing experiences allowed the study to consider contrasting accounts within one primary care context. The program coordinator provided an additional service perspective, although the quotations presented here reflect MSM participants' experiences. The small purposive sample and single site limit transferability to other populations and service settings. The inclusion of patients may have underrepresented MSM who do not access health services. Saturation was judged through recurring response patterns, while recruitment was also constrained by a one-month data collection period. These conditions may have limited opportunities to explore less common experiences, particularly within testing-history categories represented by only three MSM participants. Saturation is therefore not claimed separately for each testing-history category. Methodological research indicates that sample adequacy depends on the study's aims and the depth and diversity of the material, rather than a universal numerical threshold.¹⁵

Social desirability and recall bias may have affected interview accounts. Single-researcher coding and the absence of member checking limited opportunities for independent coding comparison and participant feedback on the interpretations. Expectations of discrimination also need to be distinguished from discriminatory events directly experienced at the study site. Prior testing histories were not prospective measures of subsequent behavior, and the study did not follow participants to verify later testing. Theme-specific frequencies were not quantified in this report, so the findings should not be read as estimates of the proportion of MSM holding particular beliefs. These limitations support cautious interpretation of the proposed connections among TPB constructs.

CONCLUSION

Among MSM interviewed in the context of Taman Sari Subdistrict Health Center, HIV testing intentions were described in relation to attitudes, subjective norms, and perceived behavioral control. Perceived health benefits and peer reassurance supported willingness to test, while feared diagnosis, anticipated rejection, and privacy concerns contributed to hesitation. Service conditions and stigma provided context for these beliefs. The findings suggest that making testing feel confidential, acceptable, and feasible is relevant alongside communicating its health benefits. Taman Sari Subdistrict Health Center should consider strengthening confidential and nonjudgmental counseling, reviewing privacy during registration and waiting, and offering appointment arrangements compatible with clients' working hours. Collaboration with trusted peer organizations could support voluntary navigation and clear information about services. Clients should retain control over disclosure and the involvement of peers, partners, or family members. Implementation should be accompanied by assessment of acceptability, privacy, and actual service uptake.

Future research should include a wider range of MSM and health facilities and document recruitment and sample-adequacy decisions transparently. Longitudinal and mixed-methods studies could examine how intentions develop and whether they translate into testing. Evaluation of specific service changes is needed before conclusions can be drawn about their effectiveness or downstream health outcomes.

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AI DISCLOSURE

AI and AI-Assisted Technologies: During the preparation of this manuscript, the authors used SciSpace to assist with literature searching and Grammarly to support English-language grammar, clarity, and sentence-structure revision. These tools were used solely to support literature identification and language editing. The authors critically reviewed and verified the relevant literature and all AI-assisted language revisions and take full responsibility for the accuracy, integrity, and final content of the manuscript.

Declarations

- Author contribution : All authors contributed substantially to the development of this study and manuscript. Arrasyid contributed to the conceptualization, study design, methodology, data collection, data analysis and interpretation, and preparation of the original manuscript. Sarah and Retno contributed to the methodology, data interpretation, and critical review of the manuscript.
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