

HIV testing self-efficacy is associated with higher HIV testing frequency and perceived likelihood to self-test among gay and bisexual men

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Background

Regular testing of individuals at high risk of HIV is central to current prevention strategies.

Little research has been conducted on 'self-efficacy': the perceived ability to undertake HIV testing among gay and bisexual men (GBM).

We examined self-efficacy in relation to HIV testing frequency and the likelihood to self-test among GBM.

Results

Of 355 GBM, 35% reported ≥ 3 HIV tests in the past year, and 65% reported being 'very likely' to self-test in the future.

Factors associated with ≥ 3 HIV tests in the past year are shown in Table 2.

Only a higher self-efficacy score was associated with reporting 'very likely' to self-test for HIV in the future (odds ratio:1.08 per unit increase, 95%CI: 1.03-1.13, $p=0.001$).

Table 1: HIV testing self-efficacy scale items* (n=355)

Items	Not at all/ not very confident n(%)	Somewhat/ very confident n(%)	Completely confident n(%)	Mean score (SD)
Getting tested for HIV at least once per year	8 (2.3)	125 (35.2)	222 (62.5)	3.5 (0.80)
Getting an HIV test after unsafe sex	24 (6.8)	158 (44.5)	173 (48.7)	3.2 (0.98)
Asking my doctor or nurse for an HIV test	21 (5.9)	152 (42.8)	182 (51.3)	3.2 (0.95)
Discussing unsafe sex with a doctor or nurse	42 (11.8)	168 (47.3)	145 (40.9)	3.0 (1.07)
Buying a home HIV test from a chemist	20 (5.6)	170 (47.9)	165 (46.5)	3.2 (0.97)
Using a home HIV test myself	4 (1.1)	163 (45.9)	188 (53.0)	3.4 (0.71)
Understanding the results of a home HIV test	6 (1.7)	207 (58.3)	142 (40.0)	3.2 (0.81)
Knowing how long to wait after unsafe sex before getting tested for HIV	27 (7.6)	203 (57.2)	125 (35.2)	3.0 (0.97)

*Participants were asked how confident were they that they could do each of the following (if they had never done any of these things, they were asked to answer thinking whether they could do them). Cronbach's alpha=0.81.

Scores: Not at all confident=0; not very confident=1; somewhat confident=2; very confident=3; completely confident=4

Table 2: Factors associated with ≥ 3 HIV tests in the past year*

Category	Univariate ¹ OR (95%CI)	Multivariate AOR (95%CI)
Ethnicity		
Anglo-Australian	0.68 (0.43-1.06)	0.67 (0.40-1.12)
Other	1	
Area of residence²		
Non-metropolitan	1	
Metropolitan	2.47 (0.99-6.17)	1.54 (0.58-4.06)
Highest level of education		
High school or college	1	
Undergraduate degree	1.13 (0.67-1.90)	0.99 (0.57-1.73)
Postgraduate degree	1.88 (1.08-3.27)	1.52 (0.82-2.82)
Gay social engagement score³	1.15 (0.99-1.34)	1.10 (0.94-1.30)
Male partners in the past 6 months		
≤ 10	1	
>10	2.54 (1.61-4.00)	1.81 (1.07-3.06)⁶
Sex with casual partner(s) in the past 6 months		
No casual partner/ no AI	1	
Consistent condom use	4.48 (1.47-13.64)	3.21 (1.01-10.26)⁶
Any condomless anal intercourse	4.18 (1.42-12.36)	3.32 (1.06-10.34)⁶
Group sex⁴ in the past 6 months		
No	1	
Yes	1.98 (1.24-3.16)	1.24 (0.72-2.13)
Self-efficacy score⁵	1.08 (1.03-1.14)	1.07 (1.02-1.13)⁶

AI, anal intercourse; AOR: adjusted odds ratio; CI, confidence interval; OR: odds ratio.

* n=349, missing excluded

¹ Variables with $p<0.1$ reported. Other variables include: age, country of birth, employment status, and sex with regular partner(s) in past 6 months; ² metropolitan: urban/major cities, non-metropolitan: regional/rural areas; ³ Sum of scores for two questions: how many friends are gay men (none=0 to all=4), and free time spent with gay men (none=0 to a lot=3); ⁴ Sex involving at least two other men; ⁵ Sum of scores for HIV testing self-efficacy scale items; ⁶ $p<0.05$

Methods

Participants were HIV-negative GBM at increased risk of HIV (>5 partners or any condomless anal intercourse in the previous 3 months) in a randomised controlled trial of HIV self-testing (FORTH trial).

An 8-item question block was used to measure self-efficacy, and a scale was constructed by adding the scores of all items (Table 1).

Using logistic regression, we determined the factors associated with: i) ≥ 3 HIV tests in the past year; ii) perceived likelihood to self-test in future.

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Conclusions

HIV testing self-efficacy was found to be associated with past testing frequency and the future likelihood to self-test.

Improving self-efficacy by enhancing GBM's knowledge and experience may lead to higher testing frequency.

Our self-efficacy scale could be useful in identifying GBM who anticipate difficulties with HIV testing and self-testing.

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