

HIV testing self-efficacy is associated with HIV testing frequency and perceived likelihood to self-test for HIV

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HIV testing self-efficacy



HIV testing in GBM

- More than 70% of new HIV diagnoses in Australia occur in gay and bisexual men (GBM) (Kirby Institute 2014)
- Regular testing of higher-risk GBM:
 - central to current prevention strategies
 - crucial to decrease the time-to-diagnosis
- Higher-risk GBM do not test at the recommended frequency (3-6 monthly) (Templeton 2014, Sex Health)
 - ~50% re-test in 6 months at sexual health clinics (Jamil, World STI & HIV Congress 2015)
- Barriers to testing: need to see a doctor, need to return for results, time constraints, inconvenience (Prestage 2012, Sex Health; McKellar 2011, STD)

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HIV self-testing

- Increase testing frequency
- Improve awareness of personal HIV status
- Regulations changed in 2014 to allow self-testing
 - no kits approved for sale
- To maximise benefits:
 - be able to perform self-testing properly
 - understand limitations (lower sensitivity, window period)
- Successful implementation depends on confidence in the ability to test, and particularly, self-test ('self-efficacy')

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Role of self-efficacy/confidence

- Widely studied in relation to other aspects of HIV in GBM, for example:
 - ART adherence (Mills 2006, PLoS Med)
 - Condom use (Schutz 2011, Int J STD AIDS)
- Role in relation to HIV testing has not been previously studied among GBM

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Objectives

- If confidence in the perceived ability to undertake HIV testing and self-testing (self-efficacy) is associated with:
 - Frequent HIV testing in the past 12 months
 - Likelihood of self-testing in the future

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HIV testing self-efficacy



Methods

- Participants: HIV-negative GBM at increased risk of HIV in a randomised controlled trial of HIV self-testing (FORTH trial)
 - >5 partners, or
 - any condomless anal intercourse in previous 3 months
- Baseline survey at enrolment:
 - Demographics
 - Risk behaviour
 - HIV testing
 - Self-efficacy scale (measuring confidence in the perceived ability to undertake HIV testing and self-testing)


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Methods

- Cross-sectional analysis
- Multivariate logistic regression: 2 models
 - ≥ 3 HIV tests (clinic) in the past 12 months
 - 'Very likely' to self-test in the future

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Self-efficacy scale items

	Mean score (SD)
Getting tested for HIV at least once per year	3.5 (0.80)
Getting an HIV test after unsafe sex	3.2 (0.98)
Asking my doctor or nurse for an HIV test	3.2 (0.95)
Discussing unsafe sex with a doctor or nurse	3.0 (1.07)
Buying a home HIV test from a chemist	3.2 (0.97)
Using a home HIV test myself	3.4 (0.71)
Understanding the results of a home HIV test	3.2 (0.81)
Knowing how long to wait after unsafe sex before getting tested for HIV	3.0 (0.97)

How confident are you that they could do each of the following? (if you have never done some of these things, answer whether you think you could do them)

Scores for responses: Not at all confident=0; not very confident=1; somewhat confident=2; very confident=3; completely confident=4
Cronbach's alpha=0.81

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Participant characteristics

	FORTH (%) (n=355)	GCPS (%) (n=4670)
Mean age in years (SD)	35 (10.9)	35 (11.8)
Anglo-Australian	61	59
Born in Australia	63	68
University degree	56	56
Employed full-time	66	67
>10 male partners in past 6 months	49	22
Any Condomless anal intercourse (AI) with casual partners in past 6 months	59	21
Any group sex in past 6 months	59	33
Mean gay social engagement score* (SD, range)	4.2 (1.5, 0-7)	4.3 (1.5, 0-7)
Mean self-efficacy score (SD, range)	25.5 (4.8, 8-32)	-
≥ 3 HIV tests in past 12 months	35	22
Very likely to self-test in the future	65	-

*Sum of scores for 'gay friends' and 'time spent with gay men' questions

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Model 1: ≥ 3 clinic HIV tests in past 12 m

Category	Univariate		Multivariate	
	OR (95% CI)	p	AOR (95% CI)	p
Ethnicity				
Anglo-Australian	0.68 (0.43-1.06)	0.090	0.67 (0.40-1.12)	0.125
Other	1			
Area of residence				
Non-metropolitan	1			
Metropolitan	2.47 (0.99-6.17)	0.054	1.54 (0.58-4.06)	0.382
Highest level of education				
High school or college	1			
Undergraduate degree	1.13 (0.67-1.90)	0.654	0.99 (0.57-1.73)	0.980
Postgraduate degree	1.88 (1.08-3.27)	0.027	1.52 (0.82-2.82)	0.189

Other co-variables: age, country of birth, employment status, and sex with regular partner(s) in past 6 months

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Model 1 – contd.

Category	Univariate		Multivariate	
	OR (95% CI)	p	AOR (95% CI)	p
Male partners in past 6m				
≤ 10	1			
>10	2.54 (1.61-4.00)	<0.001	1.81 (1.07-3.06)	0.026
Sex with casual partner(s) in past 6m				
No casual partner / no AI	1			
AI - consistent condom use	4.48 (1.47-13.64)	0.008	3.21 (1.01-10.26)	0.049
AI - any condomless	4.18 (1.42-12.36)	0.010	3.32 (1.06-10.34)	0.039
Any group sex in past 6m				
No	1			
Yes	1.98 (1.24-3.16)	0.004		
Gay social engagement score	1.15 (0.99-1.34)	0.069		
Self-efficacy score	1.08 (1.03-1.14)	0.002	1.07 (1.02-1.13)	0.007

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Model 2: 'very likely' to self-test in future

Category	Univariate	
	OR (95% CI)	p
Self-efficacy score	1.08 (0.03-1.13)	0.001

- Other demographic and risk behaviour variables were not associated
- No multivariate analysis performed

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Conclusions

- First study to design and evaluate self-efficacy in relation to HIV testing among GBM
- Self-efficacy and some risk factors were associated with past testing frequency
- Only self-efficacy was associated with future likelihood to self-test
- Improving confidence and skills in HIV testing may lead to a higher HIV testing frequency and the ability to self-test
 - Enhancing knowledge
 - Experience with testing

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Recommendations

- Identify GBM who anticipate difficulties with HIV testing and self-testing
- Further longitudinal studies: evaluate the relationship and causal pathway direction between self-efficacy, HIV testing, and self-testing

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