

Identifying candidate instruments for measuring HIV-related anxiety in HIV PrEP users

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Abstract #243

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Background

- ▶ **HIV-related anxiety:** *"significant concern about being at risk of, testing for, and/or being diagnosed with HIV."*
- ▶ Preliminary studies have shown that HIV pre-exposure prophylaxis (PrEP) may reduce this concern, although majority of studies have been qualitative in nature.
- ▶ Further exploration of this relationship is relevant on three levels:
 - Clinical level – Are there clinically significant changes in levels of HIV-related anxiety when using PrEP?
 - Policy level – Should PrEP be prescribed to patients with solely HIV-related anxiety?
 - Economic level – Does prescribing PrEP for HIV-related anxiety save money?
- ▶ However, the optimal tools to measure HIV-related anxiety are unclear.
- ▶ The findings will inform the selection of measurement tools for a study on the association between PrEP use and HIV-related anxiety.

Methods

- ▶ The following electronic databases were searched between 1995-2021 to identify psychometric scales and/or questionnaire items that measure HIV-related anxiety:
 - ▶ PsycTests, Health and Psychosocial Instruments, and Mental Measurements Yearbook
- ▶ Candidate instruments were assessed based on four criteria:

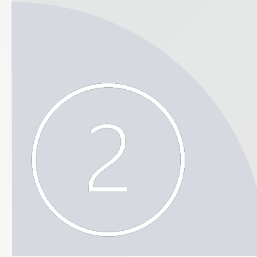
CONCEPTUAL FIT

The extent to which the scale matches the variable we aim to measure.



VALIDITY

Construct validity (*does the scale represent the construct we aim to measure*) and criterion validity (*how well does the scale predict an established outcome*).



Test-retest reliability (*is the scale consistent over time*) and Cronbach's alpha (*how closely related are the scale items*).

RELIABILITY



Number of items and rating system.

FEASIBILITY



Table 1. Identification and assessment of five candidate instruments associated with HIV-related anxiety.

Instrument	Instrument Type	Author (Year)	Sample in Whom Evaluated	Conceptual Fit	Construct Validity	Criterion Validity	Test-Retest Reliability	Cronbach's Alpha	Number of Items	Rating Scale
Multidimensional Sexual Self-Concept Questionnaire – Sexual Anxiety Subscale	Questionnaire	Snell, W. (1998)	U.S. university students (n=473)	X	The MSSCQ subscales were related in predictable ways to men's and women's contraceptive use.	X	X	0.84	5	5-point Likert scale
HIV Anxiety Items	Questionnaire	Keen et al. (2020)	Australian gay and bisexual men (n=1,547)	✓	X	X	X	0.82	3	6-point Likert scale
HIV Concern Scale	Questionnaire	Holt et al. (2019)	Australian gay and bisexual men (n=4,567)	✓	X	X	X	0.78	4	5-point Likert scale
Disengagement Coping with HIV Risk Scale	Psychometric Scale	Yi et al. (2010)	U.S. HIV-negative gay men (n=285)	X	Preliminary construct validity with the Rosenberg Self-Esteem Scale.	X	X	0.67	12	Unspecified
Optimism-Scepticism Scale	Psychometric Scale	Van de Ven et al. (2000)	Australian gay men (n=532)	X	Men who reported unprotected anal sex had significantly higher mean scores (i.e. greater optimism) than their counterparts in a separate sample.	X	X	0.79	12	4-point Likert scale

Conclusion

- ▶ A limited number of tools exist to quantitatively measure HIV-related anxiety.
- ▶ The current instruments lack sufficient evidence of their validity to ascertain their benefit for clinical, policy, or economic analyses.
- ▶ The *HIV Anxiety Items* and *HIV Concern Scale* instruments are potentially well-suited to measure PrEP-related changes in HIV-related anxiety; however, further evaluation of their measurement properties is warranted.

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