No differences in knowledge of key HIV test concepts between users of an online STI testing service and in-clinic testers in Vancouver, Canada

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BACKGROUND:

- Online HIV/STI testing offers a low-barrier alternative to in-clinic testing but may lead to missed opportunities for education due to lack of provider-delivered pre-test counseling.
- *GetCheckedOnline* (GCO, getcheckedonline.com) is an online testing service offered through an urban STI clinic, launched in 2014.
- GCO web content was developed in consultation with clinicians and experts responsible for provincial and national HIV testing guidelines, to ensure key pre-test counseling information is clearly conveyed.[1]

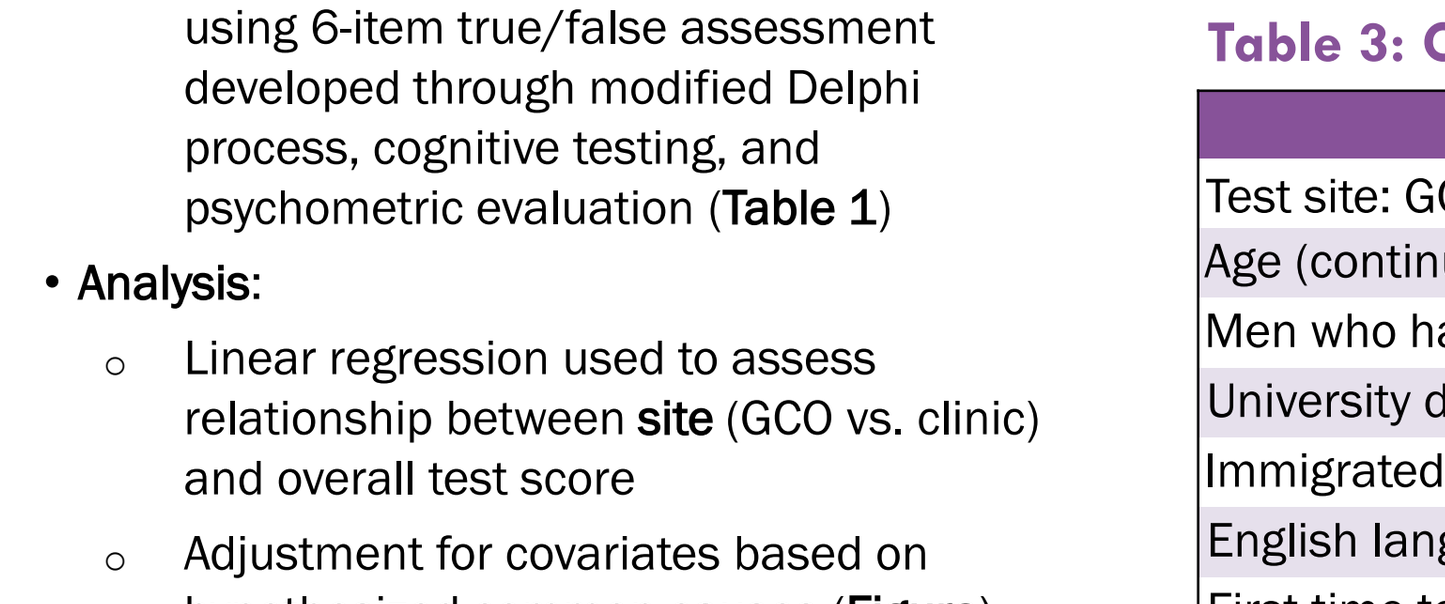
OBJECTIVE:

- To compare knowledge of key HIV test concepts between clients testing through GCO and those testing in-clinic

SURVEY METHODS:

- **Eligibility:** HIV-negative; received HIV test in previous 2 weeks, either via GCO or in-clinic
- **Recruitment** (2015-2016) :
  - Email invitation at 2 weeks post-results, to those consenting to be contacted for research (24% of GCO testers, 20% of clinic testers)
- **Survey:**
  - Online and anonymous
  - Knowledge of HIV test concepts measured using 6-item true/false assessment developed through modified Delphi process, cognitive testing, and psychometric evaluation (**Table 1**)
- **Analysis:**
  - Linear regression used to assess relationship between **site** (GCO vs. clinic) and overall test score
  - Adjustment for covariates based on hypothesized common causes (**Figure**)
  - * $p<0.05$ (two-sided) statistically significant

Figure: Causal assumptions for model



RESULTS:

Table 1: HIV test knowledge, correct responses

Statement (correct response)	GCO n=73	Clinic n=297
If a person has a negative HIV test, then they do not have HIV. (F)	63%	68%
Six weeks after getting HIV most people will have a positive HIV test. (T)	63%	60%
There is an HIV test that takes a few minutes to give you a result. (T)	75%	60%*
When blood is drawn for HIV testing, it is always tested for other infections. (F)	89%	76%*
Any health care professional like a doctor, nurse, or pharmacist can view your HIV test result (positive or negative). (F)	79%	70%
All positive test results are reported to the public health department. (T)	84%	78%

Table 2: Mean HIV test knowledge score (scale: 0-6)

	GCO n=73	Clinic n=297
Overall, unadjusted	4.5	4.1*
Overall, adjusted (see Table 3)	4.4	4.2
Among first-time testers (n=50), unadjusted	3.7	3.6

Table 3: Correlates of HIV test knowledge

Variable	Adjusted β
Test site: GCO (ref: clinic)	0.21
Age (continuous), per year	0.01
Men who have sex with men	0.66*
University degree	0.25*
Immigrated to Canada last 10 years	-0.48*
English language spoken at home	0.54*
First-time testing for HIV/STI	-0.46*

*** $p<0.05$**

CONCLUSIONS:

- Post-HIV test knowledge of concepts addressed in pre-test counseling was high in both GCO and clinic testers, and not significantly different after adjustment for covariates.
- Equivalent education about core HIV test concepts can be achieved through online HIV/STI testing with intentional design & development.
- Non-English speakers and first-time testers demonstrated lower knowledge of HIV test concepts, suggesting the need to specifically adapt/translate information for these clients.

1. Gilbert et al. *International Journal of Medical Informatics* 2017.

ACKNOWLEDGEMENTS:
The authors would like to thank the individuals who participated in this study. This study was funded in part by the Canadian Institutes of Health Research. The authors have no conflict of interest to disclose.

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