NIHR Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections

An Examination of Factors Associated with STI Testing in Primary Care: An Online Questionnaire Study Employing a Behavioural Science Theoretical Model

Lorraine K. McDonagh^{1,2}, Liam Robson³, John Saunders^{1,4}, Jackie Cassell^{1,5}, Todd Morrison⁶, Victoria Vickerstaff², Julia Bailey² & Greta Rait^{1,2}

¹National Institute for Health Research Health Protection Research Unit in Blood Borne and Sexually Transmitted Infections at University College London, ²Research Department of Primary Care and Population Health, University College London, ³University of York, ⁴National Chlamydia Screening Programme, Public Health England, ⁵Brighton and Sussex Medical School, University of Brighton, ⁶Department of Psychology, University of Saskatchewan

BACKGROUND

In 2017, 422,147 diagnoses of STIs were made in England, with the highest prevalence rates found among people under 25 (e.g., 62.4% of chlamydia diagnoses). General practice is an ideal setting for testing for a variety of reasons. For example, regular testing is easier to maintain due to patients attending for other reasons. Despite the central role of primary care in STI control, only 19.8% of chlamydia tests conducted in 15-24 year olds were performed in general practice in the UK in 2017 (PHE, 2018). There is a growing understanding that in order to maximise intervention effectiveness, such as increasing STI testing, the factors that influence behaviour must be identified through theoretical models. The Capability, Opportunity, Motivation, Behaviour Model (COM-B; Michie et al., 2011; see figure 1.) proposes that behaviour is the result of an interaction between three components: capability, opportunity, and motivation. Behaviour change (e.g., patient seeks an STI test, or health care provider offers an STI test), therefore, requires a change in one or more of these components. Capability can be psychological (e.g., knowledge) or physical (e.g., skills).

Study aim: To examine which theoretically based factors are associated with STI testing behaviour and intention among young people in primary care.

Figure 1. The COM-B Model (Michie et al., 2011)

METHOD

An online questionnaire was developed based on a comprehensive literature review, and expert and lay consultation. Participants were 602 people aged 16-24 years ($M = 18.80$ years old, $SD = 2.59$) living in the UK, recruited via Facebook, Twitter, youth organisations, groups, communities, job centres.

In addition to demographics, sexual experience, STI testing history, and testing preferences, measures deemed to be representative of COM-B subcomponents were used: STI knowledge, self-identity, self-efficacy, perceived susceptibility and severity, testing intention, motivation for testing, shame, embarrassment, fear, norms and morals, and stigma. All measures were deemed to be reliable (α 's=.70-.96) and valid.

RESULTS

Preliminary data analyses reveal that 44% reported having had an STI test in their lifetime; of those who had tested, 16.4% were diagnosed with an STI. 71% reported that they would accept a test if offered in general practice.

Past testing behaviour: Those who had previously tested for STIs were compared to those who have never tested on each theoretical construct. Those who have never tested scored significantly lower on self-efficacy ($t_{(509)} = -7.73, p < .001$), self-identity ($t_{(508)} = -13.35, p < .001$), fear ($t_{(515)} = -2.02, p = .04$), injunctive norms ($t_{(495)} = -5.94, p = < .001$), moral norms ($t_{(512)} = -5.84, p = < .001$), STI knowledge ($t_{(515)} = -3.11, p = .002$), and scored higher on bodily embarrassment ($t_{(496)} = 4.91, p = < .001$), stigma ($t_{(509)} = 2.96, p = .003$). Means and standard deviations are displayed in Table 1.

Intention to test: STI testing intention correlated most strongly with self-identity, followed by injunctive norms, perceived susceptibility to infection, moral norms and fear. The correlation between intention and stigma, while significant, was found to be relatively weak. All correlations with intention are presented in Table 2.

Variables that significantly correlated with STI testing intention were entered into a stepwise multiple regression model. The regression model with predictors self-identity, susceptibility, injunctive norms and fear were significantly related to intention ($F_{(4,266)} = 50.67, p < .001, R^2 = .43, \text{Adj}R^2 = .42$). The individual contributions of each predictor towards the model are displayed in Table 3.

CONCLUSIONS

The majority of participants indicated that they would accept an STI test if offered in general practice, reinforcing the importance of testing in this setting. Preliminary results indicate that multiple theoretically based constructs are important in STI testing behaviour. Specifically, greater injunctive norms (i.e., perception of social approval), greater perceived susceptibility to infection, and fear of test results also significantly predicted greater STI testing intention.

Results thus far suggest that in order to increase STI testing in this setting, future interventions should focus on motivational factors (self-identity, perceived susceptibility and fear associated with testing) in addition to social factors (e.g., the social approval one expects from others for engaging in a responsible sexual health action – STI testing).

Table 1. Means & standard deviations for past testing behaviour

	Never Tested		Tested Previously	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
STI knowledge	8.84	1.60	9.29	1.33
Self-efficacy	10.72	3.22	13.00	2.46
Self-identity	4.27	2.77	7.72	3.04
Susceptibility	2.81	4.02	3.95	3.82
Fear	4.40	3.71	5.08	3.85
Body embarrassment	47.12	18.76	38.61	19.76
Shame	9.44	4.93	8.18	4.58
Stigma	6.56	5.47	5.42	5.05
Injunctive norms	46.36	12.10	52.65	11.22
Moral norms	4.45	1.87	5.42	1.85

Table 2. Constructs correlated with intention to test for STIs

	<i>n</i>	<i>r</i>
STI knowledge	512	.08
Self-efficacy in testing	508	.17***
Self-identification as a tester	507	.58***
Perceived susceptibility to infection	350	.36***
Perceived severity of infection	488	-.07
Fear of testing	512	.34**
Embarrassment about being judged	507	-.01
Bodily embarrassment	493	-.13**
Shame	427	-.10*
Stigma	506	-.14**
Injunctive norms (social approval)	492	.44***
Moral norms	509	.35***

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3. Predictors of intention to test for STIs

	β	R^2	R^2 change
Self-identity	.39**	.32	.32
Perceived susceptibility	.21**	.39	.07
Injunctive norms	.19*	.41	.03
Fear of testing	.15*	.43	.02

* $p < .01$, ** $p < .001$

Correspondence should be addressed to: Dr Lorraine McDonagh, University College London. Email: l.mcdonagh@ucl.ac.uk Twitter: @[Dr L McDonagh](https://twitter.com/Dr_L_McDonagh)

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