

## Sexual behaviour, pregnancy intention and sexually transmitted infection risk varies extensively among transgender and non-binary patients in the UK

There is a dearth of evidence regarding the sexual and reproductive health (SRH) needs and experiences of transgender and non-binary (TNB) people (those whose current gender identity differs from the sex they were assigned at birth).<sup>1</sup> However, the TNB community remain underrepresented in medical research.<sup>2</sup> This is important, as a key part of gender affirmation treatments include cross-sex hormones and surgery that may limit TNB people's future reproductive capabilities.

We sought to explore pregnancy intention, HIV and sexually transmitted infection (STI) risk, and contraception use of TNB patients, with the intention that the results may guide healthcare provision.

TNB individuals attending a National Health Service (NHS) gender identity clinic in Edinburgh over a 4-month period completed an anonymous self-administered questionnaire. The questionnaire asked about demographic characteristics, pregnancy intention, sexual behaviour, STI/HIV risk and pre-exposure prophylaxis (PrEP) use. Data were recorded and analysed using Microsoft Excel (2007).

Some 65 questionnaires were disseminated between September 2019 and January 2020. A total of 43 questionnaires were returned partially or fully completed (a 66.2% return rate). Thirty-six respondents completed the questionnaire sufficiently to be included in the analysis, giving a completion rate of 55.6%.

Twelve (33.3%) respondents identified as trans men and 18 (50%) identified as trans women. Six (16.6%) identified as non-binary assigned female at birth (NBAFAB). Further data are framed in the context of gender identity. Table 1 displays information regarding the demographics and sexual behaviours of respondents in relation to gender identity.

Ten (27.8%) respondents wanted a baby now or in the future. Eight (22.2%)

**Table 1** Respondents' demographics and sexual behaviour

Division	Subdivision	Respondents (n)	Percentage of total respondents (n=36)
<b>Gender</b>	Transgender man	12	33.3
	Transgender woman	18	50.0
	Non-binary (AFAB)	6	16.6
<b>Ethnicity</b>	White-British	35	97.2
	Mixed White-British/Arabic	1	2.8
<b>Relationship status</b>	Single	23	63.9
	Partnered/married	13	36.1
<b>Accommodation</b>	Temporary rented	19	52.8
	Homeowner	17	47.2
<b>Occupation</b>	Employed	17	47.2
	Unemployed	4	11.1
	Student	13	36.1
	Not fit for work	2	5.6
<b>Education</b>	Standard grade level or higher	36	100
<b>Smoking status</b>	Smoker	9	25.0
	Non-smoker	27	75.0
<b>Alcohol intake</b>	≥2 times per week	8	22.2
	<2 times per week	28	77.8
<b>Fertility</b>	Fertile	28	77.8
	Infertile	8	22.2
			Percentage of each variable
<b>Sexual intercourse among trans men</b>	In the last year	9	75.0
	Not in the last year	3	25.0
<b>Type of sexual intercourse among trans men</b>	Oral	5	55.6
	Penis-vaginal	2	22.2
	Mixed (penis-vaginal, penis-anal)	2	22.2
<b>Sexual intercourse among trans women</b>	In the last year	8	44.4
	Not in the last year	10	55.6
<b>Type of sexual intercourse among trans women</b>	Oral	1	12.5
	Penis-vaginal	4	50.0
	Penis-anal	1	12.5
	Mixed (penis-vaginal, penis-anal)	2	25.0
<b>Sexual intercourse among NBAFAB individuals</b>	In the last year	3	50.0
	Not in the last year	3	50.0
<b>Type of sexual intercourse among NBAFAB individuals</b>	Penis-vaginal	2	66.7
	Oral	1	33.3

NBAFAB, non-binary assigned female at birth.

were identified as being in pregnancy-possible couplings (PPCs), based on fertility status, sexual behaviours and the sex assigned at birth of each partner. However, most of these (n=7, 87.5%) were not using any form of contraception. Of the seven respondents in PPCs

and also not using contraception, five (71.4%) expressed that they were trying to avoid pregnancy.

Sixteen (44.4%) respondents were at risk of STIs/HIV based on self-reported sexual behaviours, with most having no sexual health check-up (n=10, 62.5%)

or HIV test (n=13, 81.3%) in the last year.

Twenty-one (58.3%) respondents had heard of PrEP for the prevention of HIV. Only 5/21 (13.9%) respondents would consider taking it.

The reproductive desires of TNB individuals vary widely and are comparable to those of cisgender individuals.<sup>2</sup> The majority of our respondents in PPCs were not using contraception, reflecting an incorrect belief among many TNB individuals that gender-affirming hormones act as contraception.<sup>3</sup> Those who were identified as being at risk of STIs/HIV were unlikely to have been tested for HIV/STIs in the last year. Disengagement from sexual health services, potentially due to stigma, discrimination and past negative healthcare encounters, may limit the potential to identify and address STI/HIV risk among TNB individuals. As the TNB community are disproportionately affected by STIs/HIV, it is of paramount importance to design sexual health services with this population in mind. PrEP awareness is low among the TNB population, despite a higher prevalence of HIV among this group. Globally, studies have shown that willingness to use PrEP is high among TNB patients.<sup>4</sup> It is crucial that information regarding PrEP is disseminated effectively throughout the TNB community by sexual healthcare providers.

Even in this small sample, we identified several TNB patients who had unmet SRH needs. Recent UK guidelines provide a framework for the redesign of sexual health services with the TNB population in mind.<sup>5</sup> Further research is needed to identify how best to engage and support the TNB community.

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