

Behaviours and Perceptions of risk in MSM taking PrEP in Edinburgh

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Background

- Daily oral emtricitabine/tenofovir disoproxil (TD/FTC) has been available as Pre-exposure prophylaxis (PrEP) for HIV prevention since July 2017 in Scotland to individuals fulfilling a set eligibility criteria.
- There is a lack of existing studies exploring experiences and behaviours of PrEP users in a real world setting. Current research focuses on anticipated behaviour change in individuals who may consider PrEP (1), and sexual behaviours within a clinical trial setting (2,3). Results of these studies has been mixed (4,5)
- There is concern that if there are changes in sexual behaviour in individuals taking PrEP, this may increase the incidence of other STIs (6). Although high rates of STIs have been reported in PrEP users, this may reflect increased STI testing when on PrEP, or a higher risk of STIs in this population (22). Two major clinical trials found no significant difference in STI diagnosis between those taking PrEP and the control arms (2,3).
- Little is known about PrEP disclosure and stigma, however it has been reported that perceived social stigma may limit the uptake of PrEP (7).

Aims

- To determine the demographics, use of PrEP and sexual behaviours in individuals attending a single centre in Edinburgh.
- To determine the influence of PrEP on sexual behaviours and perceptions of HIV risk among users in Edinburgh.
- To increase understanding of the experiences of PrEP users in Edinburgh; including disclosure of PrEP use.
- To determine the prevalence of sexually transmitted infections (STIs) within PrEP users in Edinburgh.

Methodology

- An anonymous and self-completed questionnaire was administered to clinic attendees at a single centre in Edinburgh between 28/08/18-05/10/18.
- This followed piloting of the questionnaire to 16 clinic attendees, with changes made based on written feedback forms.
- Questions were mostly quantitative and related to demographics, use of PrEP and sexual health, including condom use, with Likert scale questions used to determine perceptions of behaviour and experiences of stigma.
- Medical electronic records were used to determine diagnoses of chlamydia, gonorrhoea and syphilis in those prescribed PrEP between 31/07/17-31/07/18, to compare self-reported to diagnosed STI incidence.

Results

- 114 participants were recruited from clinics by convenience sampling
- The response rate was 79.2%, calculated from the total attendees at PrEP review clinics during the same period (144).

Demographics

- The majority of respondents identified as gay or homosexual (105, 91.3%), were white (109, 94.8%), educated to a degree or higher (77, 68.1%) and employed (78, 67.8%). Individuals aged 25-35 were the largest group by age (42, 36.5%).

Use of PrEP

- 100% of respondents were taking PrEP supplied by the NHS, rather than self-sourced PrEP.
- 78.3% (92) reported taking PrEP regularly, of those 78.3% (72) reported taking PrEP 7 days a week.
- 20.7% (24) reported taking PrEP on demand, with the largest proportion (41.0%,9) taking PrEP 7-10 days a month.

Disclosure of PrEP use and experiences of stigma

- Results showed high rates of disclosure of PrEP use, with 93.7% (89) and 91.5% (97) disclosing PrEP use to regular and casual partners respectively.

Figure 1: disclosure of PrEP to friends by age group

Age	Disclosure of PrEP to friends			
	Yes		No	
	No.	%	No.	%
Under 25	11	91.7%	1	8.3%
25-35	37	88.1%	5	11.9%
36-45	26	86.7%	4	13.3%
46-55	11	47.8%	12	52.2%
Over 55	5	62.5%	3	37.5%
Total	90 (78.3%)		25 (21.7%)	

- Low levels of stigma were reported, with only 9.8% (11) agreeing/strongly agreeing that MSM taking PrEP are stigmatised, and 62.8% (71) reporting only positive reactions from others about their PrEP use.
- However, there was a statistically significant association between age and disclosure of PrEP use to friends, with 88.1% (74) of those under 45 disclosing PrEP use to friends, compared with 51.6% (16) of those over 45 ($\chi^2=18.591$, $p=0.01$) (Figure 1).

- Where stigma was reported by respondents, it related to presumptions of HIV status and expectations of sex without a condom from sexual partners, suggesting that condom negotiation may be more difficult in the context of PrEP use (Figure 2).

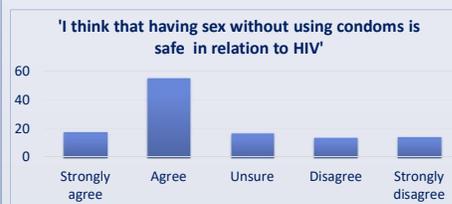


Figure 2: a selection of responses relating to the reactions of others to respondents taking PrEP

Sexual behaviours

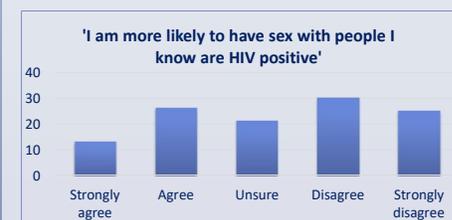
- 69.3% (79) of respondents agreed/strongly agreed that taking PrEP made them more likely to have sex without a condom, which was associated with having 4 or more condomless sex partners ($p=0.003$).
- However, only 25.7% (17) agreed/strongly agreed that they had increased their number of sexual partners since starting PrEP.

Perceptions of HIV



62.6% agree/strongly agree Figure 3

- 86.9% (98) considered that PrEP makes HIV either impossible or very unlikely, and 76.5% (88) agreed/strongly agreed that they knew more about HIV risk due to taking PrEP.
- Whilst 63.2% (72) agreed/strongly agreed that they had removed the risk of HIV from condomless sex, only 33.9% (39) agree/strongly agree that they are more likely to have sex with people they know are HIV positive, suggesting stigma towards people living with HIV by individuals using PrEP. (Figure 3, Figure 4).



33.9% agree/strongly agree Figure 4

Sexually Transmitted Infections

- 25.4% (29) reported diagnosis with gonorrhoea, chlamydia or syphilis, similar to the data from medical electronic records where 25.2% (122) of individuals prescribed PrEP from 29/07/17-29/08/18 had at least one diagnosis. Of those 122, 9.1%(44), were diagnosed with >1 STI, which accounted for 65.6% of all diagnoses.
- 16.7% (81) had positive syphilis serology prior to initiating PrEP.

Conclusions

- The high levels of disclosure and majority reporting positive responses suggest that PrEP stigma does exist but at relatively low levels.
- Further qualitative work is required to examine age-related patterns of PrEP disclosure.
- Despite the majority of participants reporting reduced fears around HIV, a far smaller proportion report they would be more likely to have sex with someone who is HIV positive, countering previous findings of reduced HIV stigma in individuals using PrEP on hook up apps (8).
- The results suggest STIs and changes in condom use are concentrated in a small proportion of participants, which may have implications for behavioural counselling. However, further data is required to assess changes in STI diagnoses in PrEP users due to a lack of baseline data.

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