Short report

COVID-19 restrictions and changing sexual behaviours in HIV-negative MSM at high risk of HIV infection in London, UK

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ABSTRACT

Objectives The COVID-19 pandemic and its related restrictions have affected attendance to and delivery of UK sexual healthcare services (SHS). We surveyed the impact on sexual behaviour of men having sex with men (MSM) to inform future SHS provision.

Methods We conducted a cross-sectional, anonymous, web-based survey among HIV-negative MSM at high risk of HIV infection who attended 56 Dean Street, a sexual health and HIV clinic. The survey was conducted over a 7-day period in August 2020. Data on sociodemographic characteristics, sexual behaviour and related mental well-being experienced during lockdown (defined as 23 March–30 June 2020) were extracted. Categorical and non-categorical variables were compared according to HIV pre-exposure prophylaxis (PrEP) use.

Results 814 MSM completed the questionnaire: 75% were PrEP users; 76% reported they have been sexually active, of which 76% reported sex outside their household. 75% reported fewer partners than prior to lockdown. Isolation/loneliness (48%) and anxiety/stress (27%) triggered sexual activity, and 73% had discussed COVID-19 transmission risks with their sexual partners. While 46% reported no change to emotions ordinarily experienced following sex, 20% reported guilt for breaching COVID-19 restrictions. 76% implemented one or more changes to their sexual behaviour, while 58% applied one or more steps to reduce COVID-19 transmission during sex. 36% accessed SHS and 30% reported difficulties in accessing testing/treatment. Of those who accessed SHS, 28% reported an STI diagnosis. PrEP users reported higher partner number, engagement in 'chemsex' and use of SHS than non-PrEP users.

Conclusions COVID-19 restrictions had a considerable impact on sexual behaviour and mental well-being in our survey respondents. High rates of sexual activity and STI diagnoses were reported during lockdown. Changes to SHS provision for MSM must respond to high rates of psychological and STI-related morbidity and the challenges faced by this population in accessing services.

OBJECTIVES

The COVID-19 pandemic caused over 56 million confirmed infections worldwide (1.4 million in the UK alone) as of 20 November 2020.[1] Its spread generated lifestyle restrictions across the globe, and a so-called 'lockdown' was imposed in the UK on 23 March 2020 with gradual easing from 23 June 2020. Individuals were required to stay at home and were permitted to leave only in restricted circumstances. Meeting with individuals outside one's household was also not permitted and restrictions were enforceable by police.

The provision of healthcare has also been impacted by COVID-19 restrictions with sexual health services (SHS) in the UK seeing an 80% reduction in their activity and limitations imposed on non-essential face-to-face patient contact, highlighting the challenge of maintaining access to those most vulnerable.[2] At 56 Dean Street (56DS), a combined sexual health and HIV clinic in London, UK, face-to-face consultations continued in limited circumstances, including treatment of confirmed gonorrhoea and syphilis, postexposure prophylaxis following possible sexual exposure to HIV, initiation of HIV pre-exposure prophylaxis (PrEP) and for evaluation of genital symptoms suggestive of an STI assessed by prior telephone triage on a case-by-case basis. The UK government and BASHH released guidelines discouraging close contacts, including sex, with anyone outside the household and recommending sexual encounters through digital media,[3] as close physical proximity during sexual contact is an obvious potential transmission vector. However, there is little information on adherence to these recommendations by men who have sex with men (MSM) and their impact on sexual behaviour. There is evidence that pandemics cause psychological distress, with social restrictions leading to higher rates of anxiety, depression and changing sexual behaviours.[4–6] This can disproportionately affect members of the lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) community.[7] We developed an e-survey on HIV-negative MSM to assess how their sexual behaviours and mental well-being may have been affected by the COVID-19 lockdown and to inform HIV prevention and sexual healthcare provision in the event of future COVID-19-related restrictions.

METHODS

The e-survey was conducted at 56DS and was offered to individuals who previously consented to register to the Dean Street PRIME platform, a web-based package of information about HIV risk reduction offered to HIV-negative MSM evaluated as being at high-risk of HIV acquisition attending 56DS.

Table 1 Overall results of the online survey displayed as total and according to PrEP use reported

	Total sample (n=814)	PrEP users (n=612)	No PrEP users (n=202)	P value
Median, years (IQR)	40 (33–48)	41 (34–49)	38 (30–46)	<0.001
White ethnicity, n (%)	678 (83.3)	520 (85.0)	158 (78.2)	0.03
Reported PrEP use, n (%)	612 (75.2)	–	–	–
Individuals reporting to have been sexually active, n (%)	621/814 (76.3)	475/612 (77.6)	146/202 (72.3)	0.12
Individuals reporting to have been sexually active only within household, n (%)	146/621 (23.5)	98/475 (20.6)	48/146 (32.9)	<0.001
Median number sex partners, n (IQR)	3 (1–5)	3 (1–6)	2 (1–4)	<0.001
Number of sex partners reported during lockdown and compared with a period long 3 months prior lockdown was				
Fewer, n (%)	465/621 (74.9)	363/475 (76.4)	91/146 (62.3)	<0.001
Same number, n (%)	82/621 (13.2)	50/475 (10.5)	32/146 (21.9)	–
More, n (%)	67/621 (10.8)	54/475 (11.4)	13/146 (8.9)	–
Individuals who reported having done more 'sextin' during lockdown, n (%)	321/814 (39.4)	205/612 (33.5)	73/202 (36.1)	0.49
Individuals who reported having done more 'videosex' during lockdown, n (%)	158/814 (19.4)	97/612 (15.8)	41/202 (20.3)	0.14
Individuals feeling their sex drive increased during lockdown, n (%)	307/814 (37.7)	233/612 (38.1)	74/202 (36.6)	0.71
Individuals feeling their sex drive decreased during lockdown, n (%)	214/814 (26.3)	166/612 (27.1)	48/202 (23.8)	0.35
Individuals feeling they had less sex than they would have liked due to fear of being judged by others, n (%)	344/814 (42.3)	277/612 (45.3)	67/202 (33.2)	0.002
Individuals who engaged in chemsex during lockdown, n (%) (total)	157/814 (19.3)	132/612 (21.6)	25/202 (12.4)	0.004
Individuals reporting more chemsex than usual during lockdown, n (%)	42/157 (26.8)	38/132 (28.8)	4/25 (16.0)	0.24
Individuals reporting less chemsex than usual during lockdown, n (%)	105/157 (66.9)	87/132 (65.9)	18/25 (72.0)	–
Individuals reporting to have tried chemsex for the first-time during lockdown, n (%)	10/157 (6.4)	7/132 (5.3)	3/25 (12.0)	–
Of those who had sex with someone outside their households, the reasons contributing to have sex were				
Chemsex use, n (%)	67/475 (14.1)	61/377 (16.2)	6/98 (6.1)	0.01
Feeling bored, n (%)	136/475 (28.6)	119/377 (31.6)	17/98 (17.3)	0.10
Feeling stressed and/or anxious, n (%)	128/475 (26.9)	106/377 (28.1)	22/98 (22.4)	0.26
Feeling isolated and/or lonely, n (%)	229/475 (48.2)	192/377 (50.9)	37/98 (37.8)	0.01
Being a sex worker, n (%)	5/475 (1.1)	5/377 (1.3)	–	–
Having started sex work as a result of financial hardship, n (%)	8/475 (1.7)	6/377 (1.6)	2/98 (2.0)	0.78
Having a high desire for sex (feeling 'horny'), n (%)	33/475 (6.9)	23/377 (6.1)	10/98 (10.2)	0.16
Individuals who discussed the risk of COVID-19 transmission with a sexual partner outside their household, n (%)	345/475 (72.6)	276/377 (73.2)	69/98 (70.4)	0.58
Measures taken to limit COVID-19 transmission during sex, among those who have been sexually active				
Having sex with only people living in the household, n (%)	121/621 (19.5)	83/475 (17.5)	38/146 (26.0)	0.01
Having sex with only one person not part of the household, n (%)	131/621 (21.1)	94/475 (19.8)	37/146 (25.3)	0.07
Meeting sex partners who are close geographically (ie, a neighbour), n (%)	174/621 (28.0)	145/475 (30.5)	29/146 (19.9)	0.006
'Hosting' instead of travelling to another persons' home to have sex, n (%)	111/621 (17.9)	90/475 (18.9)	21/146 (14.4)	0.1
Moving in with someone in order to have sex with them (ie, forming a 'bubble'), n (%)	38/621 (6.1)	28/475 (5.9)	10/146 (6.8)	0.34
Steps taken during sex to try and reduce the transmission of COVID-19				
Wearing PPE (face masks and gloves), n (%)	34/621 (5.5)	27/475 (5.7)	7/146 (4.8)	0.68
Using condoms (where previously their use was inconsistent), n (%)	47/621 (7.6)	30/475 (6.3)	17/146 (11.6)	0.03
Washing hands before sex, n (%)	298/621 (48.0)	233/475 (49.1)	65/146 (44.5)	0.34
Washing hands after sex, n (%)	280/621 (45.1)	216/475 (45.5)	64/146 (43.8)	0.73
Having sex in positions which reduce face-to-face contact, n (%)	86/621 (13.8)	69/475 (14.5)	17/146 (11.6)	0.38
Using cruising spots or other outdoor areas, n (%)	72/621 (11.6)	60/475 (12.6)	12/146 (8.2)	0.14
Attempting physical distancing measures (ie, using 'glory holes'), n (%)	13/621 (2.1)	11/475 (2.3)	2/146 (1.4)	0.48
Avoiding contact with bodily fluids such as spit or semen, n (%)	44/621 (7.1)	32/475 (6.7)	11/146 (7.5)	0.74
Avoiding kissing, n (%)	86/621 (13.8)	69/475 (14.5)	17/146 (11.6)	0.38
Not taking any steps, n (%)	12/621 (1.9)	10/475 (2.1)	2/146 (1.4)	0.58
Individuals intending to adapt their sexual practice to minimise the risk of COVID-19 transmission as lockdown eases, n (%)	420/814 (51.6)	312/610 (51.1)	108/202 (53.5)	0.57
Feelings triggered after having had sex during lockdown				
Guilt, n (%)	120/621 (19.3)	93/475 (19.6)	27/146 (18.5)	0.77
Regret, n (%)	87/621 (14.0)	65/475 (13.7)	22/146 (15.1)	0.67
Worry of having been exposed to COVID-19, n (%)	199/621 (32.0)	162/475 (34.1)	37/146 (25.3)	0.05

Continued

Table 1 Continued

	Total sample (n=814)	PrEP users (n=612)	No PrEP users (n=202)	P value
Worry of having transmitted COVID-19, n (%)	149/621 (24.0)	125/475 (26.3)	24/146 (16.4)	0.01
Nothing different than usual, n (%)	285/621 (45.9)	214/475 (45.1)	71/146 (48.6)	0.45
Accessing SHS during lockdown				
Individuals who accessed SHS (either online testing or sexual health clinics), n (%)	293/814 (36.0)	248/612 (40.5)	45/202 (22.3)	<0.001
Individuals who were seen in a SHS and felt able to honestly discuss details about their sex experiences while in lockdown, n (%)	273/293 (93.2)	230/248 (92.7)	43/45 (95.6)	0.49
Individuals who experienced difficulties in access testing and/or treatment in an SHS during lockdown, n (%)	81/268 (30.2)	59/226 (26.1)	22/42 (52.4)	<0.001
Individuals who received a STI diagnosis during lockdown (among those who accessed SHS), n (%)	225/293 (76.8)	191/248 (77.0)	34/45 (75.6)	0.42

PrEP, pre-exposure prophylaxis; SHS, sexual healthcare service.

This e-survey was conducted as a quality improvement project, and its results have been reported according to the Checklist for Reporting Results of Internet E-Surveys checklist.[8] We surveyed the perceived changes in sexual behaviours during the period 23 March–30 June 2020. Data collection was conducted via a cross-sectional, web-based anonymous survey using a structured questionnaire offered on a voluntary basis to 56DS PRIME members over a 7-hour period (3–9 August 2020). A link to the online survey tool was sent by SMS to 15 000 individual mobile devices. Participants were informed of the survey rationale, the topics covered, how data would be used and the expected completion time for the survey (circa 5 min). The survey was developed and tested using specialised online software (SurveyPlanet). A total of 21 single or multiple-choice questions that could be visualised on any digital device were created, and multiple survey entries from the same individual were prevented using a dedicated software tool. Completion of all questions was mandatory for submission, although respondents could review their answers and enter free text where applicable. Answers were automatically inputted into a password-protected database accessible only by the authors of the manuscript and stored in the Trust's electronic drive. Information regarding sociodemographic characteristics, gender, sexual orientation, sexual activity, perceived changes to sexual practice and engagement in 'chemsex' (sexualised recreational drug use) compared with a period of 3 months prior to lockdown was collected. Emotions relating to sexual activity and access to SHS were also surveyed. Responses were compared according to reported PrEP use for continuous and categorical variables by Mann-Whitney U and χ^2 tests, respectively.

RESULTS

Of 15 000 MSM, 814 responded to the questionnaire (5.4% of those invited). The median age of respondents was 40 years (IQR 33–48); 83% were of white ethnicity and 75% reported PrEP use while COVID-19 restrictions were in place (full results detailed in table 1). Overall, 76% (621/814) of those surveyed reported sexual activity during lockdown, with a median of three sex partners (IQR 1–5) for the period considered and 19% (175/814) engaged in chemsex. Of sexually active individuals, 76% (475/621) had sex with partners outside their household. Motivations for sex with partners outside their household during lockdown were explored: 48% (229/475) reported feeling isolated/lonely, 29% (136/475) feeling bored and 27% (128/475) feeling stressed and/or anxious as triggers. Notable changes in sexual practices during lockdown were reported; 39% (321/814) said they used 'sexting' (sending of sexually explicit text messages and/or digital images) more often than usual; 28% (174/621) met only with individuals who were close geographically and 21% (131/621) chose to have sex with one person only for the whole duration of restrictions. Seventy-three per cent (345/475) had discussed risks of COVID-19 transmission with sexual partners outside their household before or after engaging in sex, with many adopting steps to reduce the risk of COVID-19 transmission during sex: washing hands before sex (48%), adopting sexual positions that reduce face-to-face contact (14%), avoiding kissing (14%) and switching to cruising sites/outdoor venues (12%).

The impact on mental well-being of having had sex outside one's household was also examined and about one in four individuals expressed concerns on having been exposed to or transmitted COVID-19 during sex; 19% (120/621) experienced guilt; and 14% (87/621) felt regret after sex. Thirty-six per cent (293/814) of those surveyed accessed a sexual health clinic at least once during lockdown. However, 30% (81/268) also reported difficulties accessing to test and/or treatment during lockdown, and 9% (25/293) were unable to access SHS when needed. Twenty-eight per cent (225/812) reported an STI diagnosis during lockdown, either following an SHS attendance or through home testing services. PrEP users had a higher median number of sex partners and were more likely to have sex outside their household than non-PrEP users during lockdown. They were also more likely to engage in chemsex and were more likely to have accessed SHS (all p<0 .01), but there was no significant difference in reported STI diagnoses between the two groups.

CONCLUSIONS

These are the first data exploring how COVID-19 restrictions modified perceived sexual behaviours and mental well-being of HIV-negative MSM at high risk of HIV in an urban context in the UK. We found that over half of those surveyed have been sexually active with partners outside their households during lockdown, although many reported fewer sexual partners compared with a period prerestriction, as also shown in a survey conducted among MSM in Australia.[6] High rates of anxiety, isolation and loneliness were disclosed as reasons prompting sexual contact in contravention of restrictions. This is in analogy to the results reported by a UK-based survey highlighting a 69% of LGBTQI respondents having experienced depressive symptoms during lockdown.[6] As many respondents were PrEP users, there was a considerable ongoing demand for SHS access while COVID-19 restrictions were in place, as shown by the 36% who reported accessing SHS during this time. Similarly to what reported by BASHH,[2] we witnessed a marked reduction in overall attendances to our services compared with the same period in 2019,[9] and confirming the alarm raised by BASHH[10] we report some respondents expressing difficulties in accessing SHS.

We report a high number of PrEP users among the surveyed individuals. We reported that PrEP users continued to have sex with a higher number of sex partners than those not on PrEP, although their reported number of partners was lower than the prerestriction period. PrEP users accessed SHS more and found the process of doing so less difficult than those not on PrEP, suggesting that they are probably more experienced in navigating services or services were selectively maintained for this group. Our conclusions rely on participants' self-perceived changes in sexual behaviour and are limited by the absence of comparable pre-COVID-19 data. The findings are also self-reported by respondents and thus are subject to social desirability and recall bias, particularly as the survey was sent out several weeks after the period considered. Only a minority of those contacted completed the e-survey, which may introduce sampling bias. The survey was cross-sectional and cannot explore trajectories of sexual activity during the current pandemic. While individuals surveyed may not be representative of MSM as a whole, we focused the survey on this group because the changes in sexual behaviours and the stigma associated with disclosure of sexual activity to SHS while COVID-19 restrictions are in place may increase HIV transmission risk. Our finding that 75% of those surveyed used PrEP during the lockdown period highlights the necessity of ongoing PrEP provision and associated monitoring. We feel that this report could help promote a discussion on unmet needs for MSM accessing SHS, to be addressed in case of further restrictions arising in the future.

We identify the need for ongoing sexual health and PrEP service provision, to be carried with a non-judgemental approach, ensuring that patients do not feel disinclined to attend these services. The use of novel approaches in promoting alternative methods to access testing and treatments (ie, the upscale of home-testing kits, the provision of medications via home-delivery, easier availability of phone and video consultations) would contribute mitigating the detrimental impact of the limitations imposed on individuals' sexual well-being. However, changes in the way sexual healthcare is promoted will need to consider the high rates of psychological and STI-related morbidity and the challenges faced by this population in accessing services.

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