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Awareness of and attitudes to sexually transmissible infections among gay men and other men who have sex with men in England: a qualitative study

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Abstract. *Background:* Rates of sexually transmissible infections (STIs) have increased over recent years among gay men and other men who have sex with men (MSM) in England and Wales. HIV diagnoses remain high in this group and men with diagnosed HIV are disproportionately affected by STIs. MSM are therefore a priority for health promotion efforts to reduce STIs. Understanding awareness of and attitudes towards STIs is essential in developing health promotion interventions to reduce prevalence. *Methods:* Eight focus group discussions (FGDs) with a total of 61 MSM in four English cities included a ranking exercise to gauge how ‘scary’ participants thought 11 STIs are. The exercise sought insights into participants’ awareness of, knowledge about and attitudes towards STIs and blood-borne viruses (BBVs). FGDs were audio-recorded, transcribed and data analysed thematically. *Results:* All groups ranked HIV and Hepatitis C virus (HCV) as the scariest infections, and the majority ranked syphilis and herpes as highly scary. Scabies was ranked as the least scary by most groups. Rankings were dependent on how well informed participants felt about an infection, its transmission mechanisms, health affect and the availability of vaccines and treatment. Personal experience or that of friends influenced perceptions of particular infections, as did their prevalence, treatment options, visibility of symptoms and whether an STI could be cleared from the body. *Conclusions:* The study findings suggest that, although some MSM are well informed, there is widespread lack of knowledge about the prevalence, modes of transmission, health implications and treatment regimens of particular STIs.

Additional keywords: bacterial infections, Europe, health promotion, prevention, viral infections.

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Introduction

There has been an increase in the number of diagnoses of sexually transmissible infections (STIs) in the past decade in England and Wales,¹ with a total of ~420 000 diagnoses in 2016.² Increases in STI diagnoses, particularly of syphilis and gonorrhoea, have been seen among men who have sex with men (MSM),² and there have been recent reports of outbreaks of sexually transmitted enteric infections including Shigella and hepatitis A among MSM.^{3,4} Rates of HIV diagnosis remain high in this group^{2,5} and HIV-positive men are disproportionately affected by STIs.⁶ Recent concern has focussed on the potential

for chemsex – the use of recreational drugs during sexual activity – to increase the risk of infection with blood-borne viruses (BBVs), STIs and other diseases.⁷

Consequently, MSM are a priority group for STI prevention and health promotion interventions to increase condom use, support regular testing, offer harm-reduction advice and provide, where necessary, treatment and onward referral.⁸ Understanding men’s awareness of and attitudes towards STIs is valuable in informing prevention efforts to reduce incidence and overcome any potential barriers to testing and treatment uptake. While there has been considerable research

on men's awareness of and attitudes towards HIV, less attention has been given to other STIs and BBVs which, as a result, are likely to be less well-known or understood by gay men and other MSM.^{9–11} Social and cultural (mis)representations may influence individuals' understanding of the pathology of particular infections^{12–14} and so affect testing behaviour.

For this qualitative study, we conducted eight focus group discussions (FGDs) with MSM in four English cities to gain insights into participants' awareness of, knowledge about and attitudes towards a range of STIs and BBVs, and to consider their implications for developing effective STI prevention interventions. In doing this, we aimed to inform the development of a survey instrument to gather comprehensive quantitative data on knowledge of and attitudes towards STIs and BBVs among MSM attending sexual health clinics.^{15,16}

Methods

Sampling and recruitment

Men who have sex with men were recruited via gay community organisations, which included study information in their newsletters and/or Facebook pages, and via a geo-spatial socio-sexual networking application. Interested men were invited to complete a short online eligibility survey. Eligibility criteria were: aged 16 years or older, identify as male or trans-male, ever had sex with a man and/or sexually attracted to men. The study was approved by the Ethics Committee of the London School of Hygiene and Tropical Medicine (LSHTM) (ref: 9060) and by the NHS National Research Ethics Service Committee South Central - Oxford C (ref: 15/SC/0223).

A purposive sample was recruited to reflect diversity of personal characteristics and experience of sexual health services. Selection criteria were: age, ethnicity, sexual orientation, STI testing history, previous STI diagnosis and HIV status at most recent test. Cities selected have relatively sizeable numbers of MSM accessing local sexual health clinics and large, well-established gay community infrastructures.

Focus group organisation

Up to 10 men were invited to participate in each group. Two FGDs were held at the LSHTM and two each at the premises of gay organisations in Birmingham, Leeds and Manchester. We hypothesised that HIV-positive men might have particular perspectives on STIs and so recruited one group comprising only men with diagnosed HIV. Refreshments were provided and participants were each given £40 for their contribution. Participants were provided with information about the study. All gave written consent to take part. FGDs lasted for approximately 90 min.

Topic guide

A topic guide was developed by the research team covering four topic areas: (i) experience of attending sexual health services, (ii) perceptions of norms of attendance among MSM, (iii) knowledge of, and attitudes towards, STIs and (iv) views on 'being researched' in sexual health clinics. In this paper, we report on participants' knowledge of and attitudes towards STIs.

Ranking exercise

The names of 11 infections included in the exercise were printed in large font on separate sheets. The infections were: HIV, syphilis, gonorrhoea, chlamydia, genital warts (human papilloma virus: HPV), genital herpes, Shigella, scabies and hepatitis A (HAV), B (HBV) and C (HCV). Sheets were placed in random order on the floor or table top and participants asked whether they had heard of and, if they had, what they knew about the infections. If participants knew little or nothing about an infection, facilitators provided brief information. Participants were then invited, as a group, to rank infections in order of how 'scary' they considered them while sharing their reasons for placing them in a particular order. Group members arranged infections into top, middle and bottom positions rather than ranking them from 1 to 11, attempting to achieve a broad consensus of opinion. One of the facilitators recorded the final ranking order at each FGD. The aim of the exercise was to generate discussion rather than to develop an index of infections by their 'scariness'.

Data analysis

Focus group discussions were audio-recorded and transcribed verbatim by transcribers who, as far as possible, identified individuals by voice and assigned each a code number. We analysed the data on the ranking of STIs and the reasons given for ranking each infection, identifying sub-themes that emerged from the data. D Reid initially open coded the data from the ranking exercise and D Reid and J Datta categorised the codes and identified themes. J Datta, D Reid and P Weatherburn read the transcripts and cross-checked the coding frame with themes. Quotes were selected for illustration only.

Results

In all, 330 individuals accessed the webpage for more details about the study and 133 completed the eligibility survey. Three were excluded as they did not meet the eligibility criteria. We attempted to contact 130 by telephone or email and 70 were recruited to attend a group. Others were uncontactable or were excluded because groups had reached capacity. In total, 61 men participated in a FGD (Table 1) and nine more agreed to participate but did not attend. FGDs were held in July and August 2015.

Results of ranking exercise

None of the focus groups came to a unanimous agreement about all rankings, and ranking patterns were not identical between groups. However, all groups ranked HIV and HCV as the two most scary infections and seven out of eight groups ranked syphilis among the three most scary. These three infections were described as 'the unholy trinity' by one participant. Herpes was also ranked as highly scary by six out of eight groups, while scabies was ranked as the least scary by seven groups. Other infections were ranked between high and low, with no clear patterning between groups. All individual group members did not necessarily agree with all the final rankings of their group.

During discussion, participants attempted to balance the scary and less scary attributes of the infections depending on

Table 1. Characteristics of participants (n)

STI, sexually transmissible infection; FGD, focus group discussion	
Age (years)	
20–29	22
30–39	21
40–49	11
≥50	7
Ethnic group	
White	40
Black	7
Asian	12
Mixed heritage	2
Sexual identity	
Gay/Queer	55
Bisexual	3
Doesn't use term	3
Recency of STI clinic attendance	
In the last year	46
In the last 5 years	10
Never	5
Ever diagnosed with an STI	
Yes	33
No	28
Self-reported HIV status	
Positive	11
Negative	50
Number of participants in each FGD	
London 1	7
London 2	10
Leeds 1	7
Leeds 2	9
Manchester 1	6
Manchester 2	5
Birmingham 1	9
Birmingham 2	8

the extent of their knowledge about and experience of them, perceptions of their prevalence among MSM, contagiousness, transmission mechanisms, symptoms, severity and the availability and effectiveness of vaccines, treatment and/or cure.

Discourse reflected the social stigma associated with STIs among both gay men and the wider population. Participants argued that, even though some were common among MSM, all STIs were stigmatised because of their connotations with promiscuity, unsafe sex and lack of cleanliness with the result that being diagnosed with an infection could harm one's reputation.

'I guess [there's] perhaps a very unfair implication that if you got one of these diseases, you've somehow brought it on yourself, that they're somehow difficult to get but you've gone out and got them.' (age 27 years, Leeds, tested HIV negative)

Knowledge and experience of STIs

Overall, participants demonstrated a spectrum of awareness of STIs from wide and detailed knowledge among a few men, to

relative ignorance depending on the individuals involved and the particular infection. Knowledge was said to come from personal experience or that of friends, information provided by sexual health services and, for a few, volunteering with LGBT organisations. Participants shared anecdotes about experiences of infections, their health implications and treatments.

HIV was the infection with which the majority of men were most familiar because of its historically devastating effect on gay communities; it having long been the focus of health promotion campaigns and clinicians' historic emphasis on HIV prevention. As one man said, HIV (and HCV) have *'been drilled into me as something to be anxious about'* (age 22 years, Leeds, tested HIV negative), while syphilis did not feature on his 'radar'. Approximately one in six participants had been diagnosed with HIV, and others reported having friends with diagnosed HIV. Most participants were aware that HIV treatment improved health and viral load suppression reduced HIV infectiousness.

Fear of HIV was said to be more marked among older than younger men, and gaining knowledge was seen as a way to manage anxiety or dispel fear.

'One reason why I decided to volunteer at [named HIV charity] was because my experiences and knowledge [of HIV] were still stuck in the 90s, 80s. I can still remember as a kid, that advert scared the shit out of me. And so one reason I joined the charity was to educate myself. So because I'm a bit more educated about how it works, I'm not as scared of it.' (age 39 years, Birmingham, tested HIV negative)

Participants debated whether HIV or HCV should be ranked as the scariest infection. Men with diagnosed HIV said that living with it had reduced their fear and that they were now more concerned about less well-known infections, particularly HCV, and their potential health effects. Since treatment has been available, HIV may no longer be *'the big scary one'*, but a condition that is *'not curable but something you can live with'* (age 22 years, Birmingham, tested HIV negative). A participant in one group suggested that HIV might rank lower in future as a result of the availability of pre-exposure prophylaxis (PrEP), which would reduce the likelihood of HIV acquisition.

Fear of a particular infection may be influenced by an anecdote about the experience of a friend or acquaintance or by a one-off incident or encounter. Examples included: a man whose friend had been hospitalised for a long period as a result of HCV; another related how, when he was first tested for syphilis, the clinician described the infection in detail and talked about its prevalence *'so that kind of stuck with me'* (age 36 years, Leeds, tested HIV negative).

Participants demonstrated their knowledge of STIs and their health implications. There was discussion among groups about the potential for antibiotic resistance to have an effect on the treatment of bacterial infections, the risk of STI transmission even if practising 'safe sex', the different stages of syphilis, the prospect of untreated warts causing cancer and the existence of, what one man referred to as 'gonorrhoea's

ugly sister', lymphogranuloma venereum (LGV) (in fact, LGV is a type of chlamydia).

As with HIV, experience of having a particular infection and its treatment coloured participants' views on how it should be ranked. The familiarity of being diagnosed and treated for gonorrhoea, chlamydia or genital warts, for example, was a reason for participants to rank these conditions as less scary, although there was awareness voiced that these infections could have serious health consequences if untreated. In some groups, having chlamydia and gonorrhoea infections were described as so common as to be 'a rite of passage' for gay men and other MSM.

'It's [chlamydia] kind of the runt of the pack of STIs and everyone's had it at some point, and it's very easy to cure at the moment.' (age 37 years, Birmingham, tested HIV negative)

'I don't actually think about it [gonorrhoea] because it's one of the things that people get that they don't freak out about. It's the clap, isn't it?' (age 49 years, Manchester, diagnosed HIV)

Similarly, the widespread prevalence of herpes was seen as a reason for accepting possible infection as a socio-sexual norm, even though herpes was commonly ranked as highly scary because it is not curable. The exchange below comes from a group in which herpes was ranked relatively low in terms of its scariness.

'Should it [herpes] be higher up? Isn't it highly contagious though?' (age 33 years, Birmingham, diagnosed HIV)

'It is. But it's kinda like drinking really. It's been in society for so long that we're just used to it.' (age 23 years, Birmingham, tested HIV negative)

Having been successfully treated without excessive inconvenience or discomfort could reduce concern about a particular pathogen, but experience of infection and treatment could also reinforce fear. One man, for example, described his distress when he was given injections to treat syphilis:

'I fell off the bed and cried and I've got a really high pain threshold. It was the most painful thing I've ever felt. I'll never forget that.' (age 35 years, Manchester, tested HIV negative)

Responding to a participant who said he would hate to have gonorrhoea, another man described HAV treatment as a much worse experience:

'...hepatitis A is a really big kick up the backside for a very long period of time. And versus being able to go to the clinic and get some antibiotics for gonorrhoea, I think I'd rather have swapped those two experiences, you know.' (age 48 years, London, tested HIV negative)

A majority of men in all eight groups reported never having heard of Shigella or not knowing anything about its

symptoms, transmission or treatment. With the exception of one man who had been infected with it, those who were aware of Shigella were relatively uninformed – one participant, for example, confused it with shingles. Most men had heard of the other infections, although some reported not knowing about genital and anal warts. Many were ill-informed about the symptoms, prognosis, treatment and availability of immunisation for the three hepatitis viruses. One participant reported not previously knowing that syphilis could be cured and another thought gonorrhoea was uncommon among gay men.

Transmission and severity

Infectiousness and mode of transmission were seen as having an effect on the scariness of a condition. Although HIV was ranked highly by every group, it was seen as less infectious than other STIs, so participants weighed up whether it should be ranked lower. However, increased susceptibility to HIV when carrying another infection was referred to in one group.

'...if you've got gonorrhoea or chlamydia and you have unprotected sex, HIV will get a ride on the gonorrhoea.' (age 37 years, London, tested HIV negative)

The effect of an infection on one's body was accounted for during the ranking process. Participants discussed the negative health consequences – pain, disfigurement, long-term effects, disability, even death – associated with particular infections, especially if asymptomatic and left untreated. One man, for example, shared horror stories about strains of gonorrhoea which 'get into your bones' and of chlamydia, which cause 'all your lymph nodes to swell up' (age 37 years, London, tested HIV negative).

The visibility of some conditions such as herpes, warts and gonorrhoea made them seem repugnant, causing some to see them as scarier than less discernible infections. The external signs of infection were seen as stigmatising because they could not be hidden from a partner.

'I think if I was a single gay man and I got warts, my world would probably collapse.' (age 30 years, Birmingham, tested HIV negative)

Anal warts, despite being common and highly infectious, could be missed by clinicians if hidden in the anal canal, and so were described as a 'sneaky' STI by one man. An infection that manifests outside the body was thought by some to be less invasive than one that 'gets into the deepest parts of your marrow' (age 26 years, Leeds, tested HIV negative) and, despite not being obvious, presents more potential danger because of its invisibility.

Testing, immunisation and treatment

Participants expressed awareness of the potentially serious consequences of infections such as HCV and syphilis if they were not identified and treated promptly, and many reported attending sexual health services regularly for STI testing to safeguard their health. Attending a clinic for testing could be seen as a panacea for dealing with all potential infections.

'When they tell you what they're taking the bloods for, I never remember. As soon as I've left, I'm just assuming I've got tested for everything.' (age 24 years, Leeds, tested HIV negative)

The availability of a vaccine and/or of treatment for an infection was taken into consideration by participants when conducting the ranking exercise. In three FDGs, for example, it was thought that HAV and HBV should be ranked lower than some other infections because one could be vaccinated against them. An infection like gonorrhoea, which can be eradicated with treatment, was compared favourably with HIV or herpes, which can be treated but not cleared, meaning that one was 'stuck with it'. However, there was debate about how scary herpes was given that, in most cases, it can be fairly easily managed. Again, personal or friends' experience influenced individuals' views on whether an infection was ranked as more or less scary.

'It [herpes] is really, really treatable, though. I'm on Acyclovir as well because I have the herpes around my mouth and stuff like that. I get really, really bad outbreaks. So, it's sort of, I would rather have herpes, than syphilis.' (age 37 years, London, tested HIV negative)

'A friend of mine had Hep C and he was hospitalised for months and months and months. It was a horrendous thing. I wouldn't fancy that.' (age 36 years, Leeds, tested HIV negative)

As these examples illustrate, some treatments were seen as more tolerable than others depending on their invasiveness, the pain involved and length of time needed to complete treatment. Not being able to drink alcohol for a long period when being treated for hepatitis was mentioned as being particularly burdensome by some.

Although participants in all groups engaged in the ranking exercise, some were vocal about their fear of STIs in general and their wish to avoid being infected by any of them.

'To me, looking at all of them, they're all bad things. I would put them all on the top. The thing is, if you asked me: 'What's the difference between HIV, hepatitis C, syphilis and gonorrhoea?' I have no idea because I am not medically minded. So as far as I am concerned they are all things that you don't want to have.' (age 30 years, Birmingham, tested HIV negative)

'Personally it would frighten the hell out of me to have any of them.' (age 48 years, Manchester, tested HIV negative)

Discussion

We present novel findings from qualitative research about how knowledgeable and concerned gay men and other MSM are about STIs and BBVs, which could be used to inform

approaches to developing STI prevention interventions. Our findings suggest that, although some men are well informed, there is a widespread lack of knowledge about the prevalence, transmission mechanisms, health effects and treatment regimens of particular STIs. Although participants demonstrated awareness of HIV, their understanding of the aetiology of other STIs and the distinctions between them was variable and, in many cases, inadequate.

During the ranking process, participants balanced several factors associated with each STI in order to determine its position in relation to other STIs. Reasons for ranking positions included how well informed participants felt about a particular infection and whether they or others in their social networks had experience of it. Transmission mechanisms and the severity of an infection's effect on health were also considered, as was the availability of vaccines and treatment. The two infections ranked most 'scary' among all groups were HIV and HCV, with syphilis and herpes also ranked highly by the majority of groups.

The study's methodology is original in using a ranking exercise to assess participants' knowledge and attitudes towards STIs and was useful for informing the development of a survey instrument for gathering data from gay men and other MSM attending sexual health services. However, participants were self-selected and findings may not be generalisable to all MSM.

There is limited evidence about the extent of understanding and of fear of STIs among MSM. Much of the existing literature has focussed on the effect of attitudes and levels of awareness on testing behaviour^{9,17-19} and, in studies of HPV, on uptake of screening and vaccination among different populations.^{20,21} Responses to an online survey of MSM in Finland showed high levels of awareness of HIV and other STIs,²² and respondents to an online survey of young adults in the US, Canada and the UK on the role of attitudes on screening attendance scored reasonably highly on a STI knowledge quiz (mean = 12.77 (s.d. 1.93) out of 16 questions).¹⁹

Much of what our participants knew about STIs was gained from personal experience or anecdotally via their friends and social networks. A study conducted in Brazil¹⁰ found that MSM were better informed than heterosexual participants about STIs as they received information from their peers, although this information and advice was described as 'not always accurate or effective'. These results suggest that MSM, among whom there is greater prevalence of HIV, syphilis and gonorrhoea, may be more likely than other groups to share knowledge via their social and sexual networks.

Conclusions

In a UK context, recommendations for feasible and relatively inexpensive action to reduce STI prevalence are not obvious. STI services remain free to use, but are routinely running at or beyond capacity in many areas.²³ In this environment, many services focus on the diagnosis and treatment of STIs and struggle to provide partner notification and the educational discussions that clients value.²⁴ Some are even moving towards self-sampling in an attempt to manage demand.

There is a need to increase understanding among MSM of the range of STIs that they may be at risk from and what steps they might take to manage and minimise risk. Enhancing men's knowledge about groups of STIs (based on whether they are bacterial or viral, for example) may be more effective than interventions focusing on individual infections. These might be justified where there are particular reasons to address individual STIs (e.g. HPV vaccination) but, in a resource-constrained environment, general education about the range of infections, their diagnosis and treatment may be more efficient. Given demand-management is problematic in many STI clinics, interventions that seek to increase fear of STIs outside any educational context are likely to be counter-productive.

In the UK, we have seen a sharp decline in investment in HIV education and prevention at national, regional and local levels in recent years.²⁵ STI education has historically seen less investment than HIV education though it has received some, mainly via national initiatives. In the current economic climate, increased investment in STI (or HIV) education may be difficult to achieve, but greater promotion of effective educational interventions is needed to help reduce widespread ignorance and contribute to the control of sexually transmissible infections.

Author Contributions

P Weatherburn designed and led the study. D Reid and J Datta and another member of Sigma staff (T. Charles Witzel) conducted the FGDs. D Reid, J Datta and P Weatherburn contributed to data analysis. J Datta prepared the first draft of the manuscript. J Datta and P Weatherburn revised the manuscript. All authors contributed to and approved the final version of the paper.

Conflicts of interest

The authors declare no conflicts of interest.

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