Risky sexual behaviour in context: qualitative results from an investigation into risk factors for seroconversion among gay men who test for HIV

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ABSTRACT

Objectives: The INSIGHT case-control study confirmed that HIV serodiscordant unprotected anal intercourse (SdUAI) remains the primary risk factor for HIV infection in gay men in England. This paper uses qualitative follow-up data to examine the contexts of SdUAI and other risk factors among the case-control study participants.

Methods: In-depth interviews were conducted with 26 recent HIV seroconverters and 22 non-converters. Purposive selection was used to provide diversity in demographics and sexual behaviour and to facilitate exploration of risk factors identified in the case-control study.

Results: Condoms were perceived as barriers to intimacy, trust and spontaneity. The potential consequences of the loss of these were traded off against the consequences of HIV infection. Previous negative HIV tests and the adoption of risk reduction strategies diminished the perceived threat of HIV infection, supporting beliefs that HIV was something that happened to others. Depression and low self-esteem, often combined with use of alcohol or other drugs, led to further risk taking and loss of control over risk reduction strategies.

Conclusions: A range of psychosocial reasons led some men to engage in UAI with serodiscordant or unknown partners, despite high levels of risk awareness. Men in their mid-life, those in serodiscordant relationships and men that had experienced bereavement or other significant, negative, life events revealed factors related to these circumstances that contributed to increases in risky UAI. A diverse portfolio of interventions is required to build confidence and control over safer sex practices that are responsive to gay men's wider emotional needs.

Men who have sex with men (MSM) continue to be disproportionately affected by the HIV epidemic in the UK: accounting for nearly two-thirds of infections acquired in the UK.[1] Evidence of ongoing transmission of HIV and of recent infections[2–5] suggests the need for continued HIV prevention initiatives. Studies of sexual behaviours and their contexts seek to identify factors associated with acquisition of HIV. Knowledge of these risk factors can inform the development of prevention initiatives that are responsive to the types of risks that MSM encounter. Behavioural surveillance data have shown increases over recent years in the rates of unprotected anal intercourse (UAI) with casual partners and with partners of HIV discordant or unknown status,[6–8] indicating a need to better understand how these behaviours arise and the different ways in which they contribute to acquisition of HIV. INSIGHT (Investigation of New Seroconversions in Gay men who HIV Test) is the first national, multidisciplinary study in England to investigate risk factors and explanations for recent HIV seroconversion among gay men.

Building on earlier work,[9] INSIGHT combined a case-control study and qualitative follow-up to investigate risk factors for new seroconversions in gay men seeking HIV tests at sexual health clinics in England. The case-control study compared features of gay men that had tested negative up to 2 years ago and then went on to have a recent HIV positive test result (seroconverters—cases) with the characteristics of men that remained HIV negative (non-seroconverter—controls). The comparisons focussed on demographics, sexual behaviour and lifestyles during the interval between the two HIV tests.

The results of the case-control study confirmed that HIV serodiscordant UAI remains the primary context for HIV transmission among gay men, with increased risk associated with being the receptive partner and receiving ejaculate. Risk factors identified from the case-control study included unprotected receptive anal intercourse (URAI) with partners who were HIV positive or of unknown HIV status (based on respondents' assessment), where increased risk was associated with concomitant use of nitrite inhalants (poppers), receiving ejaculate and increasing numbers of such partners. Independent risk was also detected for unprotected insertive anal intercourse (UIAI) with more than one man. While the HIV transmission risk of URAI is widely acknowledged, the INSIGHT case-control study findings highlighted the risk of UIAI and that nitrite inhalants may be an important facilitator of transmission when HIV exposure occurs.[10]

This paper uses data from the qualitative follow-up to the case-control study. Men's accounts of their experiences between their two HIV tests were collected with the aim of exploring in more depth the risk factors identified in the case-control study[10] and discovering potential factors that were not measured. The analysis presented here focuses on the context of UAI among the recent seroconverters.

METHODS

Participants in the qualitative study were recruited from the case-control study conducted at seven

sexual health clinics in London (5), Manchester (1) and Brighton (1) between September 2002 and October 2004. The South West Multi-Centre Research Ethics Committee approved the study. Gay men aged over 16 years, who had a recent HIV positive test result at one of the participating clinics having had an HIV negative test result at that clinic within the previous two years, were recruited by clinic staff. Controls were drawn from the same population but had a HIV negative test result on both occasions. Written informed consent was obtained from all participants. Details of the case-control study methods have been reported previously.[10]

Men were invited to the qualitative study by clinic staff on completion of the Computer Assisted Self Interview (CASI). Altogether, 60% (140/232) provided contact details. Purposive selection from these volunteers was guided by quota controls derived from sociodemographic and behavioural features and emerging risk factors identified during preliminary analysis of the case-control study data. This approach ensured diversity in the characteristics of men taking part in the qualitative study, provided a comprehensive range of sexual lifestyles and facilitated exploration of emerging risk factors. Forty-eight in-depth interviews were conducted among this subset of respondents (26 who seroconverted and 22 who did not).

The men ranged in age from 20–66 years at the time of their most recent HIV test, the majority aged 25–44 years. Over half had qualifications at A-level grade or above and nearly three-quarters were employed. At least a quarter lived with their partner. The majority were Caucasian (46/48), but a third were born outside the UK in Western and Eastern Europe, Australia, Canada, South America, South East Asia and Africa. These characteristics were similar to the overall case-control study sample.[10] Respondents reported between 1 and 200 sexual partners during the interval between their two HIV tests. All seroconverters reported UAI since their previous HIV negative test, as did nearly two-thirds of those that tested HIV negative. Twelve reported UAI with a partner they knew to be HIV positive. The number of lifetime HIV tests ranged from 2–20 (table 1).

The in-depth interviews were conducted with the aid of a topic guide and focused on the period between the respondent's most recent HIV test and their previous negative test. All interviews were tape recorded and transcribed verbatim.

Analysis was informed by the principles of grounded theory,[11] in particular the close relationship between data collection and analysis, and the sample size being informed by the principle of information saturation. The analysis was guided by Framework:[12] a manual method of data reduction. The themes used to organise the data are summarised in table 2 of the supplementary material. These themes were in part derived from the topic guide and supplemented with additional themes identified from content analysis of a subset of transcripts. This framework was tested to ensure that data was organised consistently within it. The final framework and definitions were discussed with the INSIGHT steering group members and applied by GE to the entire dataset. Relevant segments of responses to open-ended questions were summarised under appropriate thematic headings. Discussion with NM during this stage contributed to consistent application of the thematic framework. The resulting framework resembles an Excel matrix such that all of the data pertinent to a specific theme are summarised case by case and cross-referenced with the original transcripts.

Within each of these thematic summaries the data are further interrogated at descriptive and explanatory levels to identify further themes, develop categories within them and make comparisons. All of the analysis presented here is grounded in the verbatim data, examples from which are quoted throughout this paper. The quotes provided are not exhaustive and are used to illustrate some of the points being made and convey the way in which men narrate their experiences; they are not intended as summaries of all of the findings. We have presented data that have been interrogated and analysed according to the themes and topics pertinent to this paper; other themes will be covered in future articles.

RESULTS

The results focus on providing explanations for risk factors for HIV seroconversion identified in the case-control study—namely, UAI with partners of unknown or serodiscordant status (SdUAI) and use of nitrite inhalants, which emerged as an unrecognised factor in the case-control study. Additional potential risk factors revealed during the qualitative stage that were not measured during the case-control study include the impact of repeat HIV negative test results in men reporting UAI, seeking intimacy and the impact of poor mental health.

Low perceptions of risk from UAI

Among participants in the qualitative study, vulnerability to HIV infection was regarded as low when UAI was insertive. This strategy was used in otherwise high risk situations—for example, with multiple partners of unknown status or to engage in UAI in a serodiscordant relationship. Low risk UAI was also described as infrequent, well lubricated, brief or gentle. Partners who were regarded as clean, fit, healthy, young, selective and on the periphery of the gay scene influenced perceptions of vulnerability to, and proximity of, infection.

Table 1 Selected characteristics of participants in the INSIGHT follow-up qualitative study

Characteristics	Total (n)
Age at most recent HIV test	
18–24 y	3
25–34 y	26
35–44 y	13
⩾45 y	6
Economic status	
Employed	35
Unemployed	8
Student	2
Retired	1
Missing	2
Number of lifetime HIV tests	
2	5
3–5	20
6–10	14
10 +	5
Missing	4
Number of sexual partners during interval period	
1–5	12
6–10	5
11–20	6
21+	21
Missing	4
Total number of qualitative study participants (n)	48

> "Some people can look a bit sort of, I don't know, desperate and might have sex with anybody sort of thing and you can watch them as well so, you know, you tend to pick the ones you think are sort of clean or a bit, you know, a bit more restrained in their behaviour." (Seroconverter, age 35–44 years.)

HIV transmission was associated with promiscuity and "wild" sex lives. Consequently, respondents engaging in UAI that did not regard themselves as promiscuous, drug users or part of the gay scene saw their UAI as presenting little risk of infection.

> "It shouldn't have really been me. My friends go out on the scene a lot, they're quite frivolous sexually, have lots of sexual partners, lots of proper anal sex and different partners and take drugs … I'm the most reserved out of the people I know." (Seroconverter, age 25–34 years.)
> "I couldn't think how I'd got it because I don't fuck [just] anybody." (Seroconverter, 18–24 years.)

The consequences of HIV infection were regarded as less serious by older men who presumed that HIV-related reductions in life expectancy would be less significant in later life when longevity was more likely to be affected by chronic illnesses associated with old age.

> "If I were to be diagnosed and the drugs were successful I'm told that one should live another good 10–20 years and I don't think my life expectancy is much greater than that at any rate." (Seroconverter, 44+ years.)

Use of nitrite inhalants (poppers)

Men reported use of poppers when being the receptive partner during anal intercourse in order to relax, reduce pain and increase enjoyment. Use of poppers was a factor in having receptive UAI for the first time and continuing to do so.

> "When I first started having anal sex it obviously hurt a lot and this person told me that it [poppers] would help." (Seroconverter, age 25–34 years.)

Poppers were not perceived as a drug, so the additional precautions men might put in place when using other drugs were absent with poppers.

> "Well, I really don't regard them as drugs. I know technically they are but… you go and buy them in a shop… I regard poppers more in the same vein as alcohol than as a drug. To me taking drugs is something that's illegal." (Seroconverter, age 35–44 years.)

However, poppers were associated with losing control during sexual encounters, particularly by men reporting anxiety about UAI or HIV transmission, who were unconfident or men seeking enhanced pleasure.

> "It does take that sort of the care part of it away, like I could be alright, you know, it makes you feel like you're having a good time." (Seroconverter, age 25–34 years.)
> "I blame it on the poppers, I blame it on bending over and once you sniff the poppers you're all, 'ooh, yes', and once he'd gone inside me it just felt so good." (Seroconverter, age 35–44 years.)

The pursuit of intimacy

Condoms were regarded as a barrier to intimacy with long-term partners: "It just feels like a long way from each other" and to the development of casual encounters into more emotionally satisfying relationships: "We've got this thing in the way." Maintaining intimacy was regarded as particularly problematic in serodiscordant relationships, especially when condoms had not been used prior to diagnosis of the partner. This respondent describes why the couple reverted to UAI:

> "Certainly I'd say there was no 'fuck me without a condom, I want to be positive sort of thing'. It wasn't like that at all. It is the intimacy thing I think really again, which is nice to have, nice to do again because we hadn't done it for quite a while." (Seroconverter, age 35–44 years.)

Worry about using condoms correctly intruded on enjoyment of sex and condom use did not remove anxiety about the risk of HIV infection. Condom-based risk reduction strategies were regarded as a hindrance to sexual pleasure, adventurism ("Makes it feel like a process"), experimentation and spontaneity ("It's good fun and all of a sudden you've got to stop").

Decisions to cease using condoms for the foreseeable future or during a specific encounter were made as a result of trade-offs between the perceived impact of HIV infection compared with the effect of not having intimacy on the quality of men's emotional and sexual life. Such decisions were made in the context of men's understanding of the efficacy of personal individual risk reduction strategies. These men had taken steps that they felt reduced the likelihood of infection—for example, by being the insertive partner—and they generally regarded HIV infection as an undesirable outcome despite awareness of current treatment options.

Poor mental health

Men's narratives of their sexual experiences included accounts of being "out of control" in sexual situations, rape, condoms being tampered with by casual partners and inability to recall whether UAI had taken place or not. This UAI was described during spells of depression, bereavement and anxiety, periods of unemployment, sex addiction and increased use of drugs and alcohol. Case-control study participants were asked if they had been diagnosed as being clinically depressed or sought treatment because of feeling depressed during the interval period,[7] but few of the men participating in the qualitative study describing themselves as depressed had sought diagnosis or treatment. However, poor mental health, for example during bereavement, unemployment or following relationship breakdown, was described as a major factor in increasing sexual risk taking.

> "It [depression] really influenced my sexual behaviour…You go out, you want to be abused almost… you might as well let anybody do what they want to do to you." (Seroconverter, age 35–44 years.)

HIV negative test results

All of the study participants, by virtue of the study selection criteria, had previous HIV negative test results, with an average of six lifetime tests.[10] Among men engaging in high-risk sexual behaviour, negative HIV tests contributed to reduced risk perceptions and continued or increased risk taking.

> "There's just that little feeling, you think why have I not caught it when there's so many occasions when I should have done." (Non-seroconverter, age 45+ years.)

HIV negative results imbued men with a sense of immunity from HIV and reassurance that the UAI they were engaging in was not as risky for HIV infection as they had thought.

> "I thought … it's bound to be positive this time because of the amount of drug fucks and experiences I'd had with not remembering what had gone on … and it wasn't. And I was just like OK, well, I seem to have done lots of probably quite risky things and I seem to not be getting it so it's obviously OK.... I went on holiday and went off kind of feeling quite, you know, sort of happy and carefree and sort of a bit hedonistic." (Seroconverter, age 25–34 years.)

Key messages

- The INSIGHT case-control study identified serodiscordant unprotected anal intercourse as the primary risk factor for HIV infection in gay men in England.
- The qualitative study findings indicate a relationship between sexual and emotional needs and risk perceptions.
- The risk of unfilled sexual or emotional needs is evaluated against the potential seriousness of HIV.
- Perceived vulnerability to HIV infection is lessened by repeat HIV negative test results.

DISCUSSION

Behavioural surveillance among MSM in the UK and elsewhere consistently reports high proportions of men engaging in UAI with casual partners and partners of a HIV discordant or unknown status.[13–15] INSIGHT results suggest that such behaviour can be intentional or unintentional and that gay men are not naive about the HIV risks associated with UAI.

When UAI is an intentional event, the study findings indicate a relationship between sexual and emotional needs and risk perceptions. When risk assessments are made, HIV infection is not the only risk under scrutiny. The risk of unfilled sexual or emotional needs is also evaluated. All of these risks are assessed alongside perceptions of the efficacy of risk reduction measures (for example, insertive UAI) and perceived vulnerability to and seriousness of HIV infection (often reinforced by HIV negative test results) and inform the uptake of precautionary actions or not.

Other studies have found increased UAI, Viagra and poly-drug uptake alongside use of poppers[16 17] and suggest poppers are a factor in HIV transmission.[18] The narratives of popper use demonstrate how poppers are used to facilitate receptive UAI, but also to feel "out of control", particularly when anxiety about anal sex is present. These aspects of nitrite use may contribute to increased vulnerability in situations when HIV infection may occur.

Comparatively high levels of poor mental health have been reported among gay men[19] and their impact on sexual risk.[20] The poor mental health described by INSIGHT participants was not reported in terms of clinical depression or undergoing treatment. Some talked of their mental health in terms of low self-esteem, loneliness and bereavement. More work is required to understand the different types of mental health experienced by gay men and their interactions with sexual risk.

As a clinic-based study, the findings are more salient to gay men that attend sexual health clinics for regular HIV tests rather than others. Given the sample composition, the study findings are relevant to the population of Caucasian (UK and non-UK born), mature, gay men from a range of socio-economic circumstances attending urban sexual health clinics for HIV testing rather than, for example, young and ethnic minority gay men who HIV test, and men who attend sexual health clinics outside conurbations with large gay communities. Further work is required among these sub-groups.

A diverse portfolio of interventions is required to meet the needs of gay men engaging in sdUAI. Many of these men are aware of the risks they are taking and may not be receptive to interventions that deliver familiar safe sex messages. Interventions are required to build confidence and control over safer sex practices that are responsive to men's wider needs, but also maintain existing protective behaviours. For example, more frequent HIV testing, selecting partners of the same HIV status (serosorting) and adopting less risky sexual behaviours (strategic positioning) may be valid strategies for some. Among high-risk takers, these strategies can increase vulnerability to HIV[21] and are difficult to implement when men are unable to exert control over sexual encounters and relationships if they are feeling lonely, depressed or unconfident.

The impact of depression on sexual behaviour needs to be recognised in health services provided to gay men—for example, increased awareness about, and access to, different mental health interventions available; education to help men better recognise when they are at risk and greater awareness among general practitioners of specific needs of gay men. Advice to use condoms is not sufficient if anxiety about transmission persists. Interventions need to tackle the source of the anxiety and ways of overcoming it. Increased awareness of the risks associated with insertive UAI is required, as well as challenges to the perceptions that HIV infection only happens to promiscuous men and that prior HIV negative tests imply reduced vulnerability to HIV infection.

The qualitative study findings confirm the complexity of the task in decreasing risky sexual behaviour, including the relationship between sexual and emotional needs and risk perceptions. Qualitative techniques can assist in understanding why risky sexual behaviour continues, which is of relevance to all those seeking to prevent ongoing transmission of HIV in the 21st century.

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Contributors: GE conducted the qualitative component of INSIGHT, including fieldwork, analysis and reporting. NM was the study co-ordinator and conducted the case-control study. FH, JI, RP, CM, KF and VG were co-investigators and on the study steering group. HW was on the steering group. BE was the principal investigator.

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