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Sero-risk neutral and sero-risk averse: Perceptions of risk and condom use among Black African heterosexual migrant couples in Serodiscordant Relationships in the UK.

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HIV Serodiscordant relationships, condom use, perceptions of risk, Black African heterosexual couples.

Abstract

This paper explores how perceptions of risk of infecting HIV-negative partners influence condom use among Black African heterosexual couples in stable relationships with one partner living with HIV (Serodiscordant Relationships). 25 in-depth couple and individual interviews were analysed through phenomenological reflection and writing. A major finding was that in attempts to preserving their relationships, couples debated condom use strategies based on their perceptions of risk of infecting HIV-negative partners. We recommend that HIV prevention information among Black African heterosexual couples with a partner living with HIV should be understood from the perceptions of risk from both partners.

Introduction

The objective of this paper is to show that condom use among Black African heterosexual couples in relationships with one partner living with HIV (LWH) (serodiscordant relationships) is influenced by personal and couple level perceptions of risk of infecting partners without HIV. People of African descent, who identify as heterosexuals, form the second largest identifiable group living with HIV in the UK following Men having Sex with Men (MSM) [1, 2]. However, although their needs and experiences in existing or previous serodiscordant relationships in the UK have been described [3], there is a dearth of literature examining the experiences of Black African couples in serodiscordant relationships as a unit even though some couples have participated in research [3, 4]. This paper explores the perspectives of risks within serodiscordant relationships from people LWH and their negative partners and aids the appreciation of the complexities of serodiscordant relationships, and inform planning and implementation of HIV management strategies for Black African heterosexual couples.

The phrase Undetectable equals Untransmittable (uninfectious)' (U=U) evolved from the relationship between undetectable viral load and reduced HIV transmission. U=U implies that people LWH and who are adherent to antiretroviral therapy with undetectable Viral Load (VL) are unlikely to infect partners through unprotected sexual intercourse [5-7]. However, the support for unprotected sex within serodiscordant relationships because of low serum VL is contested [8, 9, 7], and condom use remains central to sexual health promotion messages for heterosexual couples in serodiscordant relationships [10]. Also, sexual behaviour studies on patterns of condom use among heterosexual couples based on perceptions of risks of

infecting partners without HIV have not been identified among Black African serodiscordant couples. This paper therefore, seeks to explore perceptions of risk of infecting partners within serodiscordant relationships that either facilitate or act as barriers to using condoms.

Methods

Multi-centre ethical approval was obtained prior to conducting this research in three Genito-urinary Medicine (GUM) clinics located within the National Health Service (NHS) Hospitals in North East London. 23 participants in serodiscordant relationships were recruited into the wider study from which this article is written, comprising of four Caucasians and 19 Black Africans who identified as living in heterosexual relationships. Because most participants were Black Africans, a decision was made to analyse data for this specific group for the current paper. As a condition of the ethics approval, only the clinic staff were initially allowed to approach potential participants for the research. The clinic staff who had access to participants' clinic information including HIV serological test results, confirmed the HIV statuses of participants LWH and those not LWH and then approached potential participants. Participants agreements were either verbally recorded for the researcher to contact them or participants were given agree-to-participate form in a pre-paid self-addressed envelope to be posted to the researcher. Because participants LWH mostly attended clinic appointments alone, they were informed about the research first and then most partners without HIV contacted through them. Participants consented in person and the researcher could not ascertain the reasons for non-participation of partners who did not participate. HIV statuses were verbally confirmed when participants granted consent to the primary author for participation. Participants consented individually

and were interviewed as couple and as individuals in the sequence they preferred. For some couple-participants, couple-interviews were conducted prior to individual interviews. The individual interviews of couple participants had no particular sequence. For some couples, people LWH were interviewed first and for others, vice versa.

The 19 Black African heterosexual participants include six couple-participants (12 individuals) and seven participants who participated as individuals (table 1). The six couples (six male and six females), consisted four male and two female participants without HIV at time of interviews; and two male and four female participants LWH. Of the seven participants who participated as individuals, six were female, five of whom LWH and one male, LWH.

In total, 12 participants LWH (six couple-participants and six individual participants). Seven participants were without HIV.

Twenty-five interviews were conducted involving eighteen interviews from couples (six joint interviews and, 12 individual interviews) and seven further interviews (with participants who participated as individuals). Interviews were digitally recorded and transcribed verbatim. Participants' ages ranged from 30 to 58 years (female 30-45, male 31-58) with a mean age of 39 years for all participants. The 19 participants represented thirteen serodiscordant relationships (six participated as couple and seven as individual participants) (Table 1).

Table 1. Sample participants; *indicates PLWH in serodiscordant relationships, 'C' denotes participation as couple

Data analysis

The emphasis in this paper is on deeper understanding of the lived experiences of participants and this involves description, interpretation and reflective analysis. Interpretive phenomenological perspective is a particularly appropriate research approach to guide data analysis and interpretations. The qualitative data analyses software MaxQDA facilitated coding schemes, data storage and retrieval. Data analysis by the primary author was guided by reflection and writing as two interpretive phenomenological research activities [11, 12, 13]. Through phenomenological reflections, texts were treated as sources of meaning at the level of the sentence, phrase, expressions or single words (detailed reading); at the level of separate paragraphs (selective reading); and at the level of the whole story (wholistic or holistic reading) [11, 12, 13].

In phenomenological writing, themes emerging from the data were abstract but related to serodiscordant relationships in Black African heterosexual couples. Annotations at the end of each quotation indicate a letter and number for couple participants and number only for individual participants (assigned by the authors to ensure anonymity of participants), HIV status at the time of the interview, gender and age.

Findings

Risk construction embodies serodiscordant relationships and reasons for engaging in sexual intercourse with or without condoms based on perceptions of risks of infecting partners without HIV is a central consideration in this paper. Because participants in the research were sexually active at time of interviews, their narratives highlighted

that the risks of HIV transmission to partners without HIV were perceived as real. Decisions about condom use within serodiscordant relationships in the study from which this article is written are influenced by perceptions of risk and strategy for configuring love, romance and mutually satisfying interpersonal sexual relationships. These are presented within two conceptual constructs adopted by the authors referred to as sero-risk neutral serodiscordant relationships and sero-risk averse serodiscordant relationships. Sero-risk neutral serodiscordant relationships and sero-risk averse serodiscordant relationships are important considerations with potential to inform HIV management strategies for Black African heterosexual couples.

The central tenet that differentiates sero-risk averse from sero-risk neutral serodiscordant relationships is the perceptions that blood (sero) and body fluids from partners LWH are potential sources of infection or not. From this, couples consider sexual intercourse that they deem could result in infection of partners without HIV and make conscious decisions about whether or not to use condoms. Below, the perception of couples in sero-risk-neutral serodiscordant relationships are presented first, and sero-risk averse serodiscordant relationships is then explored.

Sero-risk neutral serodiscordant relationships

Sero-risk neutral serodiscordant relationships explores the experiences of couples who treat risk in pragmatic terms as they adopt mechanisms to enhance their relationships, even though some might involve elements of risk [14]. Alluding to this, sero-risk neutrality contributed meaning to the lived experiences by couples engaging in a mixture of sexual intercourse with or without condoms. From interviews, it emerged that most couples in established relationships before serodiscordance was confirmed

[15], inferred that risk of infection of partners without HIV was low, in view of previous occasions where they remained negative, even after multiple episodes of sexual intercourse without condoms.

Reasons sero-risk neutral serodiscordant couples provided for engaging in sex without condoms include preserving sexual pleasure and intimacy, preference for natural conception and reliance on the will of God. For most couples, a combination of these factors influenced their decisions to engage in unprotected sex.

Preserving love, sexual pleasure and intimacy

It emerged from narratives of couples in sero-risk neutral serodiscordant relationships that preserving love and intimate relationships took precedence over infection risks for both partners LWH and those without HIV. This sero-risk neutral behaviour could be understood in terms of couples engaging in regular sex without condoms.

Some couples, who were already in pseudo "non HIV relationships" for many years [15], started using condoms following establishment of serodiscordance. However, because of trust, love and in keeping with mainstream understandings regarding conjugal partnering, these couples gradually reverted to regular sex without condoms as they did before knowing about HIV within their relationships.

From the narratives of some couples, there were complaints that condoms produced minimal sexual pleasure and satisfaction;

> *I did my research and I was looking out for the best (expression of satisfaction) condoms, you know the best lubricants, you know. You know it kind of, it lifted up our relationship slightly higher but to me it was not*

> *enough. […] I think I had a problem. The fact that we were using condoms. I just didn't like it (C4, LWH, F, 30).*

Some participants without HIV believed that the risk of infection from unprotected sex was no greater than before serodiscordance was confirmed. The perceptions might have been unrealistically optimistic, but couples related previous exposures through sexual intercourse without condoms from which partners without HIV remained uninfected. C2, 34 years old female without HIV in a couple interview reiterated; 'so whatever happened then that didn't make me get it (HIV), I think that thing should be around for me not to have it now'.

What appeared to prompt engagement in sex without condoms and hence sero-risk neutral behaviour, was that couples in long-term relationships, before serodiscordance was established [15], enjoyed sex without condoms. Whether some participants LWH or not were sero-risk neutral could not be determined because some were worried about infecting their partners;

> *He has no problem with it because in most cases he wants to have unprotected sex. In most cases but I do not want him in case, in case he is infected. He no longer think about infection anymore (10, LWH, F, 32).*

It could be inferred from the above narrative that some female partners, although concerned for partners without HIV, simply complied with demands from male partners to engage in sex without condoms, even when the female partner LWH was unhappy about sex without condoms. This contrasts with a suggestion by [16] that the women LWH in serodiscordant relationships showed little concern about infecting their male partners. In the study, more than 50% of couples used condoms irregularly or did not use any at all.

It emerged from interviews that for some couples, decisions for a sero-risk neutral stance was sometimes underscored by the presence or absence of condoms. Some couples said, in the heat of the moment when condoms were unavailable, they swung towards a sero-risk-neutral stance;

> *I've lived with him before when we didn't know that he had contracted anything. And we lived together and we were so free. We did so many things together that, we had sex, but then I didn't have it (HIV) so why now that it was just a little bit of accident (C2, without HIV, F, 34).*

It appeared that couples who experienced 'pseudo non-HIV' relationships before serodiscordance was confirmed, behaved in similar ways to couples in non-HIV relationships, with no preference for condoms. PLWH and negative partners alike indicated preferences for sex without condoms. They recognised the risk inherent in their decisions, but relied on the fact that in the years before HIV was known about in their relationships, they had unprotected sex without the HIV negative partner getting infected. Couples believed the likelihood of infection was small and for the sake of preserving relationships, love and intimacy, unsafe sexual behaviour was re-introduced.

Preference for natural conception

Preference for natural conception formed a significant cluster in the data and enabled an insight into sero-risk neutral behaviour within some serodiscordant relationships. All couples with one child and some with two or more children wanted to have at least one more child. Some female partners previously conceived naturally without being infected or infecting their male partners. The experience influenced decisions among sero-risk neutral serodiscordant couples to seek further natural conceptions as described by 32-year-old female (10) LWH; 'I would prefer getting pregnant in the

natural way. Get pregnant as a man and woman can; like having …unprotected sex, like the way I had my child before'.

Some participants reported that the first time of unprotected sex, following establishment of serodiscordant relationships, was when a joint decision was made to have a child;

> *Well we decided. We discussed about it for a long time and then we decided ok, we want to have another child. Maybe we will have another child without condom you know. And then that's the first time we started, yeah (having unprotected sexual intercourse) (C4, LWH, F, 30).*

Participants who knew that a partner was LWH at the beginning of relationships or where only one partner knew that he or she was LWH [15], reported having sex without condoms (sero-risk neutral) because of preferences for natural conception. Example of this is illustrated by (C6), a 45-year-old male partner without HIV who participated with his female partner LWH; 'Oh, when we are trying for a child, we thought it was a risk we can take'.

The excerpts above indicate that natural conception provided a major reason for Black African couples in serodiscordant couples being sero-risk neutral. It emerged that as some couples became confident about negative partners not being infected, the reason for condom use shifted from prevention of HIV infection to family planning purposes;

> *And luckily for us we got a baby. She is, the baby is negative. Like myself, since two years now I have done five tests and have been diagnosed as negative, although we are having unprotected sex (C1, Without HIV, M, 34).*

Sometimes, preference for sero-risk neutral serodiscordant relationships occurred for other reasons. One particular couple who never used condoms knew about their serodiscordant status through mandatory HIV testing at a fertility clinic. The fertility clinic advised condom use but after several cycles of unsuccessful fertility treatments, the couple reverted to sex without condoms.

> *Am, because we were trying to have a baby and she has been having miscarriages and we were trying to do it through the IVF way without success, we were then trying naturally (C6, LWH, M, 45).*

As indicated above, preference for natural conception determined none condom use irrespective of whether the HIV positive partner was male or female. Interviews revealed that most Black Africans in sero-risk neutral serodiscordant relationships in this study, when not trying to conceive naturally, engaged in sexual intercourse that alternated condom use with unprotected sex. No particular reason was provided for this type of sexual behaviour as described by (10) LWH, F, 32; 'in most cases we have it (sex) with condoms. It's once in a while. Like it can happen one in two months (sex) without condom'.

Trusting God to remain HIV negative

Trusting God to remain HIV negative contributed to perception of maintaining an HIV-positive/negative status relationship even when couples did not use condoms for penetrative sexual intercourse. Some couples engaged in sex without condoms and were neutral about subsequent risks of HIV infection, as exemplified in narrative by C2 in an individual interview; 'if it happens then that's the way God wants it. Maybe that's the way God wants it'. C2 is female, 34 and without HIV in the relationship for

five years before her husband's HIV positive diagnosis. She participated in the study with her husband LWH, C2, Male 45 years old.

Some HIV positive partners expressed levels of guilt about the likelihood of negative partners getting infected and relied on prayers to preserve their serodiscordant relationships during sex without condoms;

> *Having to keep in your head for the infected person you are like, oh my God, help me that nothing goes wrong because I don't want to infect him (13, LWH, F, 33).*

This "Godly" perspective for engaging in sexual intercourse without condoms to prevent HIV infection was predominant in narratives of couples who had been in relationships prior to knowledge about serodiscordance. Some perceived HIV discordant relationship itself, as outcome of divine intervention.

Sero-risk averse serodiscordant relationships

Sero-risk averse serodiscordant relationships captures the perception of couples who are demotivated to engage in unprotected sexual intercourse, once serodiscordance is established. Couples in Sero-risk averse serodiscordant relationships believed that further unprotected sexual intercourse would result in partners without HIV being infected. Unlike sero-risk neutral serodiscordant relationships, narratives of couples in sero-risk averse serodiscordant relationships propose a strong belief in using condoms for all penetrative sexual intercourse after serodiscordant relationships have been known. These couples proposed that unprotected sex following confirmation of serodiscordance could result in infection of HIV negative partners. Knowing about HIV within their relationships, couples in sero-risk averse serodiscordant relationships no

longer trust sex without condoms as safe for partners without HIV. These couples therefore developed strict behavioural guidelines to always use condoms for sex. Hence, knowledge about HIV within their relationship changed their perceptions that non-condom sex would lead to HIV infection. It is inferred that when sero-risk averse couples experience HIV in their relationships, the blood (sero) and body fluids of partners LWH come into acute consciousness.

It has emerged from this study that motivation for sero-risk neutral serodiscordant relationships are related to sero-risk averse serodiscordant relationships but in completely the opposite ways. For example, in sero-risk neutral serodiscordant relationships, sex without condoms was believed to preserve love, sexual pleasure and intimacy. On the contrary, couples in sero-risk averse serodiscordant relationships perceived sex with condoms to produce similar effects. Therefore, knowledge of HIV in the relationships as well as possibilities of infecting partners without HIV influenced perceptions of condom use for couples in sero-risk averse serodiscordant relationships.

Knowing about HIV changed our life

It is evident that condom use for sexual intercourse in sero-risk averse serodiscordant relationships to prevent infection of partners without HIV was influenced by the knowledge of potential danger of blood and body fluids. Before this knowledge, couples only had sex without condoms;

> *Well the condom, we started using condom when we got to know. For me, something you don't know […] cannot kill you but when you know, when you*

know about it oh, then the fear of all, how am I, I hope am not going to get it, or contract it (C3, without HIV, F, 37).

Only a few couples were in strict sero-risk averse serodiscordant relationships where no further sexual intercourse without condoms occurred once serodiscordant relationships were established. Most other couples alternated sero-risk aversion with sero-risk neutrality, but in no identified sequence. (9), a 34-year-old female without HIV eloquently articulated a further strict sero-risk averse narrative: 'I didn't know so we did not use condom because I didn't know anything'.

Couples in sero-risk averse serodiscordant relationships highlighted that once one partner was LWH, the possibility remained that the other partner could be infected during sex without condoms.

Sex lost its meaning

Feelings about sex and fear of HIV infection are complex and often conflicted, leading to possible physiological effects on sexual intercourse. Couples in sero-risk averse serodiscordant relationships said their sex lives had diminished drastically. A decision never to have sex again, following HIV diagnosis of one partner has been observed in a serodiscordant study by (16) but drastic decisions of this sort was not evident in our study. However, couples in sero-risk averse serodiscordant relationships believed that HIV contributed to loss of their sexual desire, and experienced difficulties in regular sex, even with condoms; as articulated by C3, a 37 year old female partner without HIV: We use it. We use the condom […]. I have sexual intercourse. It is difficult.

Further interviews with C3 and her husband revealed that their main desire for sex was to have children. When they thought this was no longer feasible because of strict use of

condoms, sex was regarded as a burden and said to have lost meaning. Narratives of both the HIV positive and negative partners in a couple interview elucidated this point:

> *Because we use the condom so it's definitely it's just for, just for pleasure, that's it. But we can't do like some people who are really concentrating thinking like the next time there will probably be a baby (C3, without HIV, F, 37).*

> *It has, it has really changed because at the beginning when we had sex at the end of the day you expect your wife might be pregnant and probably will have a baby but now, we don't expect that anymore. The sex is just for pure pleasure, that's it (C3, LWH, M, 45).*

In addition to the burden of having sex without condom, the loss of what some couples termed, as 'innocent and carefree' attitude to sex was vivid in narratives from couples in predominantly sero-risk averse serodiscordant relationships.

Some female partners LWH struggled with the complex interaction between preserving sexual intimacy and the threat of HIV transmission. They viewed sex as fulfilling a duty to the husband rather than a pleasure activity;

> *So that, for almost three years, I did not enjoy sex at all. I was just doing it as a duty. […]. I wasn't doing it like for myself (13, LWH, F, 33).*

A further narrative revealed that part of her reason for insisting on condom use for sexual intercourse was that sex brought HIV to the fore:

> *And the thing that I, is that I found, I didn't enjoy sex more as I use to because I have to, HIV is at the end of it. It comes every time sex comes in. it's like we*

are three in bed; there is me, there is my partner and then the virus (13, LWH, F, 33)..

Similar to 13, other couples in strict sero-risk averse serodiscordant relationships noted the incessant restrictions HIV imposed on their sexual activities;

Before it was like freely. No use of condom. So you can express yourself as normal. But after really, we are using condoms. So there is a threat. You don't want the condom to break so you are really being really careful when you are doing. It's not free like before (C3, without HIV, F, 37).

Discussion

The findings presented in this paper suggest that perceptions of risk of HIV infection, influenced Black African heterosexual couples' decisions to use or not to use condoms for sexual intercourse. Two categories of risk perception; sero-risk neutral and sero-risk averse serodiscordant relationships have been explored. The engagement in sexual intercourse with or without condoms following establishment of serodiscordant relationships could indicate strategies couples adopt to cope with HIV within relationships. Sero-risk neutral and sero-risk averse within serodiscordant relationships could be perceived as patterns of sexual risk behaviour in which risk is perceived as both real and socially constructed, [17]. These perceptions of risk do not emphasise statistics relating to the probability of HIV transmission to HIV negative partners within relationship contexts [18, 19].

The HIV epidemic might have changed the discourse about how sex and love are conducted within relationships. For some couples in this research, pursuit of love through unprotected sex, even though this involves elements of risk, becomes a

logical strategy for configuring true romance and mutually satisfying interpersonal sexual relationships. Research efforts focusing on risks associated with sex behaviours have identified high-risk activities in specific groups such as the young, ethnic minorities, alcohol and drug users, low self-efficacy, and those with negative attitudes towards condom use [20-23].

The relationships between perceptions of risk and condom use within serodiscordant relationships explored in this paper is reflected in certain definitions of risk. For example, [24] defines risk as 'the probability that a particular adverse event occurs during a stated period of time, or results from a particular challenge' [24, p.1]. Couples in both sero-risk neutral and sero-risk averse serodiscordant relationships accept that risk of infecting partners without HIV is a possibility. However, depending on how couples incorporate risk within their relationships, sero-risk averse or sero-risk neutral serodiscordant relationships; they respond in different ways to possibilities of infecting partners and this response was reflected in their condom use. A further definition of risk by [25] and [26] is that risk constitutes the probability of adverse or negative events occurring and risk therefore, should be avoided. Similarly, conceptualisation of risk [27], portrays the human actor as being anxious and fearful of risk, and eager to acquire knowledge to avoid becoming the victim of risk. We argue that perceptions of risk within sero-risk averse serodiscordant relationships could be understood in the context of couples being anxious and fearful of risk. Fear was evident in strict use of condoms for sexual intercourse after the establishment of serodiscordant statuses. On the other hand, how perception of risk of infecting partners determines condom use within sero-risk neutral serodiscordant relationships is arguably different and aligns more closely with [28] portrayal of risk. They argue against risk being construed as an adverse event because risk is not an externally

observable and measurable entity. If risk could be observed and measured, it could then be understood as a phenomenon. However, as in serodiscordant relationships, risk is better portrayed as 'thought' rather than a phenomenon [29]. It could be deduced from suggestion by [29] that it is this 'thought' about risk that could motivate or demotivate couples engagement in sexual intercourse with or without condoms.

Limitations

It is ascertained that risk perceptions presented in this paper preceded full knowledge about 'Undetectable equals untransmittable' (U=U) in serodiscordant relationships [30]. However, the "undetectable equals untransmittable" phenomenon has multiple conditionalities. First, HIV positive partners should be adherent to the anti HIV medications [31; 32]. They should become virologically suppressed within six months after starting antiretroviral medications [33]. Regular blood tests are done to check the level of HIV virus [34]. PLWH and the negative partner should remain monogamous and have no other sexually transmitted infections [35]. It is known that current HIV treatment cannot eliminate HIV virus from the body because the virus remains active inside dormant immune cells in lymph nodes and other tissues. Hence because of these conditionalities, some of which need to be clarified further, undetectable might not quite mean uninfectious among Black African heterosexual couples in serodiscordant relationships. Although they represent a high HIV prevalent group, Black and black African men and women are more likely to have late HIV diagnoses [36; 37; 38; 39], are less likely than MSMs to participate in research or accept research findings [40] Also, as shown in this paper, some Black Africans are extremely fearful of infecting or being infected with HIV and might not consider unprotected sexual intercourse with a known HIV positive partner based on derived

evidence. Nevertheless, there could be compelling motivation among Black African heterosexual couples in serodiscordant relationships to embrace U=U, for instance, for natural conception and as suggested by [3], African migrant men in serodiscordant relationships view sex with condoms as problematic.

Conclusion

In this paper, we argue that Black African migrant heterosexual couples in stable serodiscordant relationships tend to debate and adopt condom use for sexual intercourse based on their perceptions of risk of infecting their partners without HIV. Perceptions of risk were presented within two conceptual frameworks of sero-risk neutral serodiscordant relationships and sero-risk averse serodiscordant relationships. Couples in sero-risk neutral serodiscordant relationships attribute meaning to their relationships by engaging in a mixture of sex with or without condoms in order to preserve love, sexual pleasure and intimacy. On the other hand, sero-risk averse serodiscordant relationships captures the perception of couples who are demotivated to engage in sexual intercourse without condoms, once serodiscordance was established. We therefore, argue that the complexities and patterns of condom use within Black African heterosexual serodiscordant relationships need to be researched further. This is attributed to suggestion that some men and women LWH in Black African communities might not allude to the U=U arguments. Therefore, promotion of U=U messages among Black heterosexual couples has implications for public health and the NHS and should be preceded by appropriate support for both the HIV positive and negative partners in serodiscordant relationships.

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