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HIV Sero-status Disclosure and Sexual Behaviour among HIV Positive Patients who are on Antiretroviral Treatment (ART) in Mpumalanga, South Africa

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KEYWORDS HIV/AIDS. Sero-concordant/Sero-discordant Partners. Partners With Unknown HIV Status. Partner Characteristics. HIV Risk Behaviour. Qualitative Study

ABSTRACT The aim of this study was to assess with a narrative interview HIV sero-status disclosure and sexual behaviour pattern among 90 purposeful selected antiretroviral treatment (ART) patients in a public hospital in Mpumalanga province, South Africa. Results indicate that participants were either in sero-concordant (21%), sero-discordant (13%) or in relationships with a partner of unknown HIV status (53%). A conceptual framework on HIV disclosure and sexual behaviour found that among sero-concordant and sero-discordant partners, the motivation for HIV disclosure included poor health, pregnancy, death and sero-sorting. Actions taken were categorized into (1) condom use, (2) partner testing or (3) abstinence. Challenges to HIV disclosing included (1) partner separation, (2) partner togetherness and (3) sero-sorting. As a conclusion, HIV disclosure was found to be complex and needing supportive counselling, and a great deal of HIV risk sexual behaviour was observed needing HIV risk reduction interventions.

INTRODUCTION

HIV pandemic continues to threaten the lives of people in South Africa. It is estimated that about 5.7 million people are living with HIV and AIDS in South Africa in 2009, more than in any other country (UNGASS 2010). It is believed that in 2008, over 250,000 South Africans died of AIDS (Statistics South Africa 2009). Recent studies show that HIV prevalence amongst those 2 years old and above in Mpumalanga, the current area of study, have increased from 14.1 percent in 2002, 15.2 percent in 2005 to 15.4 percent in 2008. This is of concern as prevalence is high and still on the increase (Shisana et al. 2008).

As the HIV pandemic continues to increase rapidly, HIV positive people face ongoing decisions regarding disclosure throughout their lives (Chaudoir et al. 2011). HIV disclosure is an essential aspect in the prevention, care, treatment and support for HIV infected people. Disclosure of HIV positive status is an important part of coping with the disease and understanding the circumstances surrounding it is critical in both the prevention of HIV and mitigation of its impact (Varga et al. 2005). Positive spin-outs of HIV disclosure have been noted in a number of studies. Sullivan (2009) highlighted that disclosure of one's HIV status provides an avenue for informed decision- making regarding safer sexual behaviour. From a prevention standpoint, HIV disclosure facilitates other behaviours that may improve the management of HIV (Deribe et al. 2008). Disclosing one's HIV status may decrease the risk of transmitting the disease to sexual partners and may alleviate the stressful burden of concealment, increase material and emotional support and facilitates both shared responsibility for safer sex practices as well as acceptance of one's condition (Bouillon et al. 2007). It has also been noted that from a public health perspective, HIV disclosure has been encouraged primarily because of its contribution towards HIV transmission reduction including condom use and HIV testing of the sexual partner (Miller and Rubin 2007; Deribe et al. 2008).

Even though positive effects of HIV disclosure have been identified, there are also potential consequences associated with disclosure such as domestic violence and abuse, abandonment and discrimination (Deribe et al. 2008; Greeff et al. 2008). For HIV positive people who are on antiretroviral treatment (ART), HIV dis-

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closure and sexual behaviour poses a great challenge in their relationship(s). A study conducted by Antelman et al. (2001) among HIV positive pregnant women in Tanzania found that women were less likely to disclose their HIV status to their partners if they were cohabiting, had low wage employment, had previously disclosed to a female relative, or reported using a modern contraceptive method. This study found that a substantial portion never disclosed their HIV status and this non-disclosure limited their ability to engage in preventive behaviours or to obtain the necessary emotional support for coping with their sero-status and illness. Unfortunately, disclosure of the positive HIV status has also been associated with stigma and discrimination. According to Temmerman et al. (1995), 6 percent of HIV-infected pregnant women in Nairobi reported a violent event after learning their HIV status. Similarly, Grinstead et al. (2001) report that positive sero-status is associated with the break-up of a marriage and being neglected or disowned by family.

It has been shown that sexual behaviour of people taking antiretrovirals (ARVs) might pose a challenge. It is assumed that sexual risk taking may increase with ART, especially in the long run once the health improves and people resume sexual activity. Studies show an increase of acquiring sexually transmitted infections (STIs) among heterosexual people receiving ART (Scheer et al. 2001). Research conducted in African settings suggests that although some risk behaviours actually decrease with ART, a substantial proportion continue to have unsafe sex, even with partners known to be HIV-negative (Moatti et al. 2003; Bunnell et al. 2006; Luchters et al. 2008; Sarna et al. 2008; Peltzer and Ramlagan 2010).

The aim of this study was to assess HIV serostatus disclosure and sexual behaviour among HIV positive patients who are on ART.

METHOD

Sample and Procedure

A purposeful sampling was used to select 90 ART-experienced patients from a public hospital site in Mpumalanga province, South Africa. The study took place in Dr JS Moroka sub-district which falls under the jurisdiction of Nkangala District of Mpumalanga Province (see Fig. 1). Overall, 100 patients were recruited but only 90 patients agreed to participate in the study. Reasons for refusal by the other ten

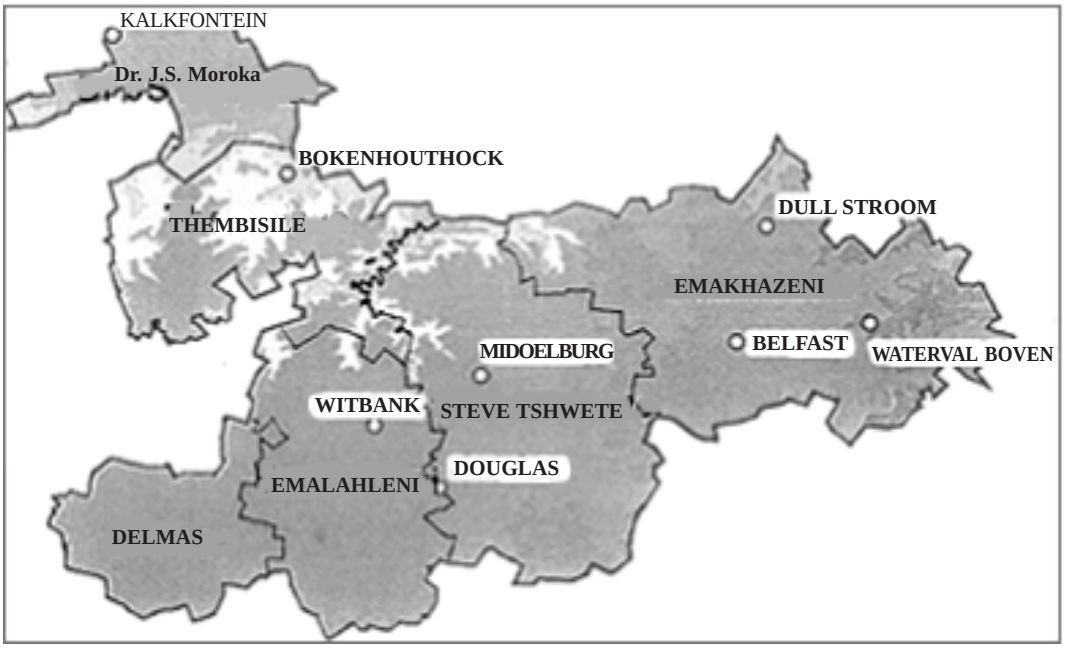

Fig. 1. Nkangala district in Mpumalanga province, South Africa

patients were due to time constraints as patients still had to travel long distances going back to their homes and the fact that patients were feeling too hungry to talk as they had to wait long hours before they were seen by the doctor. Patients were recruited on the day of the interview while waiting in the wellness centre's waiting room for their routine check-up. Health care workers (nurses and lay counsellors) were asked to refer patients who had been on ART for at least two months and more at the time of the interview.

The interviews were conducted by two trained researchers with the knowledge of qualitative data collection. Informed consent was obtained from participants. The interviews were conducted in Tswana and English (for the participants who could speak English). The interviews were conducted in one of the counselling rooms in the wellness centre, for privacy purposes. The interview lasted for an hour, at most one and half hours. The study protocol was approved by the Human Sciences Research Council ethics committee and the Mpumalanga Department of Health.

Measure

The qualitative narrative interviews were conducted to elicit information on the effects of HIV sero-status disclosure and sexual behaviour among HIV positive people who are on ART. The major two guiding questions were on HIV disclosure and sexual behaviour.

Data Analysis

For the quantitative data descriptive statistics were calculated using SPSS (version 17.0).

The interviews were tape recorded and later transcribed. Qualitative data were analysed using grounded theory techniques. Grounded theory is based on a process that helps the researcher to systematically "discover" categories, themes and patterns that emerge from the data through coding and categorizing the data into manageable units of analysis (Strauss and Corbin 1998). Initial categories for analysis were drawn from the interview guiding questions (Carey 1994), and themes and patterns emerged after reviewing the data within and across respondent groups (Charmaz 1990). Transcripts were reviewed by the co-investigators and a preliminary list of codes was developed and subsequently refined. Data were collaboratively coded and reviewed. Major trends and crosscutting themes were identified and issues for further exploration were prioritized for final analysis. Coding discrepancies were resolved through co-investigator discussion and consensus (Strauss and Corbin 1998).

RESULTS

Sample Characteristics

The sample consisted of 90 ART patients, mainly women (79%), with a mean age of 38 years among women and 43 years among men. Most of the participants in the study were single (69%). In terms of schooling, most of the participants had secondary school education: women 73.2% and men 63.2%. Relatively few women (14%) stated that they were employed whereas all men in our study sample were unemployed at the time of the interview. The percentage of women getting social grants (17.1%) was low as compared to men (36.8%) (see Table 1).

Table 1: Characteristics of client participants

Variables	*Women (n=71)*		*Men (n=19)*	
	N	*Percent or mean*	*N*	*Percent or mean*
Mean Age in Years		38		43
Marital Status				
Single	50	70.4	12	63.2
Married	13	18.3	5	26.3
Separated/ divorced	3	4.2	1	5.3
Widowed	5	7	1	5.3
Educational Level				
No schooling	2	2.8	3	16
Primary	14	19.7	4	21.1
Secondary	52	73.2	12	63.2
Tertiary	3	4.2	-	-
Employment Status				
Unemployed	59	83.1	19	100
Employed	10	14.1	-	-
Volunteer	2	2.8	-	-
Social grant	12	17.1	7	36.8

HIV Disclosure and Sexual Behaviour among HIV Positive Patients Who are on ART

Participants were asked about their partner's HIV status and it was found that they were either in sero-concordant relationships (21%), sero-discordant relationships (13%) or in a re-

lationship where the HIV status of the other partner is unknown (53%). Therefore, the analysis for HIV disclosure and sexual behaviour was done by each of the above categories.

Figure 2 presents a conceptual framework of the HIV sero-status disclosure among sero-concordant partners, sero-discordant partners and partners with unknown HIV status. Among sero-concordant and sero-discordant partners the motivation for HIV disclosure included poor health, pregnancy, death and sero-sorting, and among partners with unknown HIV status of one partner, there was non-disclosure of HIV status. Actions taken can be categorized into three: (1) condom use, (2) partner testing or (3) abstinence. Challenges to HIV disclosing included for sero-concordant and sero-discordant partners (1) partner separation, (2) partner togetherness and (3) sero-sorting (see Fig. 2).

HIV Disclosure Patterns among Sero-concordant Partners

The sample for the participants in sero-concordant relationships was 21% and of this num-

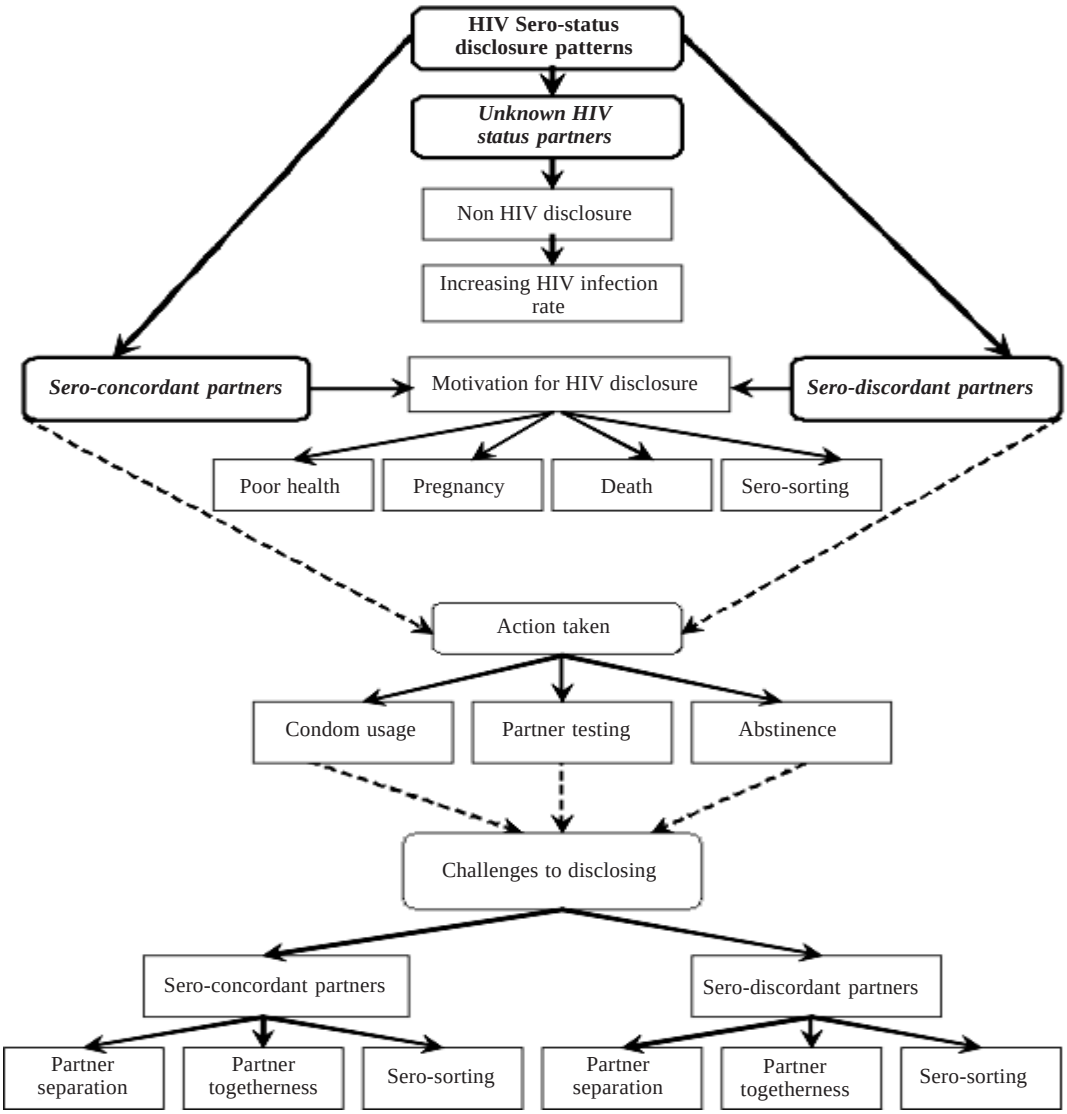

Fig. 2. Conceptual framework of HIV Sero status disclosure among sero-concordant partners, sero-discordant partners and partners with unknown HIV status

ber 10% were married and 11% were single. Most of the participants in this category were females (12%) with few males (9%). The current study results revealed that for participants who are in sero-concordant relationships, HIV disclosure was mostly influenced by the following factors namely: poor health (being sick); pregnancy; death and sero-sorting. Due to the above-mentioned factors, the other partner would feel obliged to also do HIV testing and they would often find that they were also HIV positive.

Poor Health Factor

- *"I was coughing, I lost energy and I lost weight. My mother took me to hospital and asked to test me. The results came back positive. I then told my partner that I am positive and he also tested and found that he is HIV positive." (female; 35 years; single; case 7)*
- *"My partner got sick in January 2009. He had TB and he came to the hospital and they examined him. He was then told that he is HIV positive. I tested after finding out that my partner is HIV positive. We just decided to stay away from each other. We never said a word about separating." (female; 23 years; single; case 18)*

Death Factor

Other partners were forced by circumstances like child's death to test together for HIV. For these partners, disclosure was not difficult since they were advised by the doctors together about the importance of HIV testing.

- *"My wife and I tested after our son passed away and the results were positive. Then my wife started taking the treatment and I couldn't because I was still working. So she left me and said she does not want me to re-infect her." (male; 49years; married; case 1)*

Pregnancy Factor

Some women found out during pregnancy that they were HIV positive. They then shared their status with the partner and when the partner tested, the results came out positive.

- *"In 2005, I was pregnant and my baby passed away then they told me that I am HIV positive. I then told my partner and we came together to the hospital and he tested. They then gave us tablets." (female; 35years; married; case 87)*

Sero-sorting Factor

The other reason for known HIV status between partners was that they met each other at the ARV site when they went to collect the ARVs. They therefore did not have any difficulties of disclosing their HIV status.

- *"I met my partner here, he is also taking ARVs, and I did not have a problem of disclosing." (female; 36 years; single; case 90)*

The results also show varying behaviour patterns of post HIV disclosure by participants in sero-concordant relationships. These include partner togetherness; partner separation and sero-sorting (see Table 2).

HIV Disclosure Patterns among Sero-discordant Partners

The sample for participants in sero-discordant relationships was 13% and of this 12% were single and 1% single due to being a widow. Most of the participants in this category were females (12%) with just one male (1%). The results for this category reveal varying patterns of post- HIV disclosure by participants who are in sero-discordant relationships. The patterns are as follows: separation with partner after HIV positive diagnosis; partners living together with non- HIV disclosure and partners living together after HIV disclosure.

Separation with Partner after HIV Positive Diagnosis

In terms of the HIV disclosure among sero-discordant partners, most of the female participants reported being left by their male partners after disclosing their HIV positive status. They would then start new relationships and when they disclose their HIV status to the new men in their lives, they were often accepted. In most instances, the new partner tested HIV negative.

- *"I used to live with my boyfriend and he is the reason I got this disease. I used to rent a room with him but now I no longer live*

Table 2: Post HIV disclosure effects

Partner separation	*Partner togetherness*	*Sero-sorting*
○ *"……I tested after finding out that my partner is HIV positive. We just decided to stay away from each other. We never said a word about separating (female; 23; single; case 18)".* ○ *"…After I told him he just left and never worried about us (female; 38years; single; case 19)."* ○ *"She left me immediately after I tested. I called her and told her that I'm at the clinic and I'm doing the tests. When I told her about my status she told me that she is not positive and I told her that I didn't say that she is positive but I was only telling her what my status is. She was angry and I told her that it would be better if we part ways peacefully rather that fighting over my status and I will take care of my children (male; 38years; single; case 28).*	○ *"I was coughing, I lost energy and I lost weight. My mother took me to hospital and asked to test me. The results came back positive. I then told my partner that I am positive and he also tested and found that he is HIV positive. After knowing about our status we started using condoms. (female; 35 years; single; case 7)".* ○ *"…I thank God because he never left me and he supports me. He even goes with me to the hospital and he does not say I'm positive and he is negative. We live better than before and he loves me more (female;26years; single; case 11).* ○ *"After finding that he is positive, he came to me and apologized. We forgave each other and continued with the relationship (female; 23years; single; case 24)".*	○ *"My partner left me after I disclosed my HIV status, I then found another partner who is also taking treatment (female; 28 years; single; case 80)."* ○ *I have other partners, it is impossible not to have other partners. I want to put it right; I had them and even today I still have them. Yes. I have a wife at home but still have other women who have husbands. They are also HIV positive and they get treatment here (male; 56years; married; case 33)"..*

with him. After I got sick he left me." (Female; 39 years; single; case 43)

Partners Living Together With Non- HIV Disclosure

In some instances, the discordant status is only known by the person who has tested. They opt not to disclose their HIV status for fear of being rejected by their partners. However, as a way of establishing the other partner's status the partner who knows his/ her status would encourage the other partner to go for testing.

- *"My partner tested HIV negative. We were together before I even discovered I am HIV positive. But I do not know how it happened I am HIV positive because I did not have another partner except him. I do not want to lie; I did not tell him about my HIV status because we are not married and he might treat me somehow. I just told him that at the hospital they said I must always use condoms because I am taking the tablets. He did not ask me what was going on." (female; 59 years; single; case 55)*

Partners Living Together After HIV Disclosure

There are only a few cases whereby partners test together and find that the other one is negative and the other one is positive and still stay together. This includes when the partner found that she is positive when she is pregnant.

- *"My boyfriend tested negative. We use a condom and I thank God because he never left me and he supports me. He even goes with me to the hospital and he does not say I'm positive and he is negative. We live better than before and he loves me more." (female; 26 years; single; case 11)*

HIV Disclosure Patterns among Partners with Unknown HIV Status

For this category, 53% of participants were in relationships where they did not know the status of the other partner, even though they knew their own status and these were predominantly females (43%) with only a few males (10%). Most of the participants in this category were single (41%), followed by married (8%), divorced (2%) and widowed (2%). There are a number of factors that lead to the unknown status of the other partner. Reasons for non- disclosure among partners included: finding new partner, relationship ending; male refusal to share results, males postpone to go for testing, no steady partner, do not want to be blamed, partner violence, not ready to disclose, afraid of losing relationship and not knowing how to disclose.

Partner Separation

- *"I do not know my partner's status since I left her in January 2009. I never saw her since I was diagnosed with HIV." (male; 43 years; single; case 4)*
- *" …. I don't think my partner knows his status because I last saw him when I told him that I was pregnant and he told me he can't impregnate me in one day." (female; 33 years ; single; case5)*

New Partner

- *"Now I have met a new boyfriend and I haven't told him about my status. Every time we have sex he complains about the condom and that makes me lose interest in sex. I don't feel ready to tell him about my status." (female; 23 years; single; case 24)*

Refusal to Share Results

- *"My partner refused to tell me his results, so I left him because he likes ladies and he never listens to me." (female; 39 years; single; case 6)*
- *"He told me he will test but when I ask him about the results he just keep quiet. We do have sex but I suspect that he knows his status because now he agrees to use condoms but before I knew my status he used to refuse to use a condom." (Female; 39 years; married; case 10)*

No Steady Partner

- *"I used to stay at the hostel; I didn't have a steady partner." (male; 40 years; single; case 13)*

Postponement of HIV Testing

- *"He refused to test because he said he does not want to worry." (female; 38 years; single; case 15)*

Indirect Approach

- *"I have not disclosed my status to my husband. He just sees me taking the medication. As you know men are not quick to accept so I feel like it will be a burden to him. I don't hide my medication and I tell him every time I go to the hospital. When I came from the clinic I told him that I have a problem because I'm always tired and I can't do my house chores any more. So, I have to take the treatment until I feel better." (female; 44 years; married, case 34)*

Partner Violence

- *"I did not disclose my HIV status to my husband because I'm afraid he will kill me. I know he is a killer, he killed his grandmother. …At the clinic they told me not to tell him since I was diagnosed first because he will kill me." (female; 52 years; married; case 35)*

Reasons for Unknown Partner Status after Disclosing

There were, however, instances whereby the partner disclosed their status to the other partner but still they were not motivated to test. Varying reasons were provided by the participants for such behaviour including: assumption of one's status by seeing results of the other partner, male circumcision, male partners lying about testing, partner threatening to do incest when asked to test; postpone testing, male partner determining his status by the child's and lack of trust about the other partner's status.

Denial

- *"I told him and he knows that I am taking the medication. He has not tested. I told him to go for testing or he can come with me but he refused. I think they told him to test at the clinic. He told me that he can't have HIV because he has been to the initiation school[1]. I told him that there is no such thing because our blood has already contacted. He denied and I told him that he will believe it when he sees something happening. I told him that I will not worry about him because he hears me." (female; 34 years; single; case 38)*
- *"My partner refuses to test because he says our child tested negative when they were doing PCR test. So he is also negative." (female; 31 years; single; case 76)*

Sexual Behaviour Patterns among Sero-concordant Partners; Sero-discordant Partners and Partners with Unknown HIV Status

The sexual behaviour patterns amongst the three couple categories were also assessed. The variations on sexual behaviour of the participants were in terms of the condom usage, challenges with condom usage and abstaining from sexual intercourse. To further explore the sexual behaviour patterns, we also assessed the sexual desire and children desire from the participants. The results on sexual behaviour patterns are also interpreted by each of the three (3) categories: sero-concordance partners, sero-discordant partners and partners with partners of unknown HIV status

Sexual Behaviour Patterns among Sero-concordant Partners

Condom Use

In terms of the sexual behaviour, the results reflect that most participants in sero-concordant relationships (21%) try to use or are using condoms since they have learned about their HIV status. In instances where the other partner does not agree to using condom when having sex, the other partner opts to leave the relationship.

- *"I know we should use condoms even though I did not want to use them before. That is the reason why my wife left me." (male; 49 years; married; case 1)*
- *"We always use condoms because sometimes you'll find that one of us has developed rash and it can affect the other one and worsen the disease." (female; 31 years; single; case 2)*
- *"Sometimes my husband develops sores on his penis and they could last for a month, so we always use condoms." (female; 39 years; married; case 53)*

Challenges with Condom Usage

However, even though they are trying to use condoms, partners are faced with challenges of condom use.

- *"We used the condoms but sometimes my husband would refuse saying it is impossible for us to use a condom. He also said we rather go to the hospital the next day. I never agreed to unprotected sex because I saw what happened to me before." (female; 52 years; married; case 27)*

Abstinence

There are a number of participants who also mentioned that they decided to just abstain from sexual activities due to their status.

- *"I do not have sex since I found out about my HIV status." (female; 23years; single; case 18)*
- *"It's a problem because if you meet someone and you do not know their status, it becomes difficult to have sex with them. Now I am just abstaining." (female; 23 years; single; case 24)*
- *"Since my husband started sleeping around, we ended up sleeping in separate rooms and I started losing interest in sex." (female; 46 years; married; case 42)*

Sexual Desire among Sero-concordant Partners

In terms of sexual desire, most participants in sero-concordant relationships have indicated that their sexual desire has changed.

- *"I do have sexual desire in the mornings especially but since I started taking treatment, I do not want sex." (male; 49 years; married; case 1)*
- *"I do not enjoy sex as I used to, I just have sex to satisfy my husband." (female; 52years; married; case 27)*

Children Desire among Sero-concordant Partners

Some of the participants in sero-concordant relationships indicated high desire to have children.

- *"After knowing about our status we started using condoms. So early this year we decided to have another child. We checked our CD4 count and it was over 700 and we thought it was the right time to conceive. After I got pregnant we went back to using condoms." (female; 35 years; case 7)*
- *"I still want to have children one day so that when I am gone, he/she can remind them of me." (female; 23 years; single; case 18)*

There were also few participants who indicated their lack of interest in having children. For example:

"I think that because I am HIV positive, the children will suffer if they are also positive."(male; 49 years; married; case 1)

Sexual Behaviour Pattern among Sero-discordant Partners

The results showed that most of the participants in sero-discordant relationships use condoms when having sex.

Condom Usage

- *"We use a condom and I thank God because he never left me and he supports me. He even goes with me to the hospital and he does not say I'm positive and he is negative. We live better than before and he loves me more." (female; 26 years; single; case 11)*

Condom Usage Challenges

There are also challenges with regard to condom use for some of the partners.

- *"We use condoms with my new partner, but sometimes it bursts, so every 3 months I take him to the clinic to test." (female; 43years; single; case 54)*
- *"We condomise sometimes because when my partner is drunk, he does not want to use a condom." (female; 29 years; single; case 63)*

Abstinence

The results showed that only a few sero-discordant participants had decided to abstain since their HIV diagnosis.

Sexual Desire amongst Sero-discordant Partners

For most of the partners in sero-discordant relationships, they had indicated that their sexual desire had changed.

- *"Sometimes I wish to have sex but I just don't feel the way I did when I was not using condoms." (Male; 40 years; single; case 20)*

Children Desire amongst Sero-discordant Partners

In terms of the children desire, some participants indicated their interest in having more children. The reasons given are as follows: in-laws expect children and they never had children before.

- *"I still want more children; I even spoke to the doctor about this because when I get married, my in laws would expect me to have more children. I can't just have one child; I need 2 or 3 at least. The doctor told me that I should wait until my CD4 count is 800." (Female; 26 years; single; case 11).*

Those who did not want children were due to the fact that they already had them, too scared because of their status or they were too old to have more children.

Sexual Behaviour Pattern among Partners with Unknown Status

Condom Use

Sexual behaviour among partners with unknown status was also assessed. The results reflected that some participants who had partners with unknown status were using protection and since most of them did not disclose their status to their partners, they would give different reasons for wanting to start using condoms. These include: being weak, sick, not trusting the partner and fear.

- *"We use condoms with my partner; I told him that at the clinic they said because I am weak, I must use condoms until they tell me what the problem is." (female; 44 years; married; case 34)*
- *"I do not agree to have sex without a condom and I tell him that if he feels that the condom has burst, he must pull out." (female; 30 years; single; case 12)*

Lack of Interest in Condoms

There are also a few cases whereby participants continued to have unprotected sex even though they knew their status very well. The reasons they gave are that partners do not want to use condoms or they do like it and fear of losing marriage.

- *"Since I'm afraid of been killed by my husband, I just have sex with him without using any protection. I once tried to use a condom with him and he refused saying he does not use those things." (female; 52 years; married; case 35)*
- *"No I do not use condoms because it bothers me." (female; 28years; single; case51)*
- *"I could not use a condom because when I told him we should, he said he will send me back to my parent's home." (female; 58 years; married; case 49)*

Abstinence

The results also showed that few participants who did not know the status of their partners decided to abstain from sexual interactions. This was mainly due to lack of trust between partners and fear of having sex with someone who has not tested.

- *"No I do not have sex with him because he does not tell me the truth about his HIV status. He was here the other day and he wanted to have sex with me and I refused." (female; 39 years; single; case 6)*
- *"I have never had sex since HIV diagnosis." (male; 43 years; single; case 4)*
- *"I am afraid of having sex with someone who has not tested." (male; 41 years; single; case 77)*

Few challenges have also been noted on condom use:

- *"We use a condom but I found that my partner cuts it before we have sex. He told me that he can't have HIV because he has been circumcised." (female; 34 years; single; case 38)*
- *"I found out that he cuts the condom before we have sex. I stopped visiting him and we never had sex since last year February. I told him that I can't go on with someone who thinks he is clever. I also told him that he is drinking alcohol and likes sex." (female; 34 years; single; case 38)*

Sexual Desire among Partners with Unknown HIV Status

In terms of the sexual desire among partners with unknown HIV status, the results showed that quite a large number had indicated that their sexual desire had changed since HIV diagnosis.

- *"My sexual desire has changed, I'm not like before. I no longer have lust for women at all." (Male; 40 years; single; case 13)*
- *"I just lost interest to have sex and I no longer ejaculate like before." (male; 39 years; single; case 14)*

Children Desire among Partners with Unknown HIV Status

In terms of the desire to have children, quite a large of the participants who have partners with unknown status still wants to have children.

- *"At least if I can have one child so that I can be able to show off." (female; 32 years; divorced; case 3)*
- *"I still want children but now I'm positive, I'm confused. I don't even know that I can still have them." (female; 39 years; single; case 6)*
- *"I still want children because I'm alone, who will bury me when I die? Should my mother die before me, who is going to look after me?" (male; 39 years; single; case 14)*

The few who do not want to have children indicated reasons like they already have enough children and afraid of being sick.

- ***"****I told myself that since I have four (4) children I do not want kids anymore. It is useless to have sex when you are like this." (male; 43 years; single; case 4)*
- *"I wanted to have one more child but realized that I might be sick because of losing too much blood. I thought I might even die or lose the baby and if I die, then my baby will suffer, so I have decided not to have a child." (female; 38 years; single; case 15)*

DISCUSSION

This study provides insight into HIV disclosure patterns and sexual behaviour among sero-concordant, sero-discordant and unknown HIV status partners who are on ART treatment in South Africa. The results of the study raise several critical public health concerns that have key implications for interventions aimed at reducing HIV. This study supports the findings of other studies that HIV disclosure is complex, occurring in the context of risk reduction strategies (Klitzman and Bayer 2003). The results

reflect that HIV disclosure varies according to the type of relationship that one is involved in. If involved in a sero-concordant relationship or sero-discordant relationship or having a relationship whereby the partners' HIV status is not known, the disclosure patterns always vary. The current study supports findings by Klitzman and Bayer (2003) that those ART patients who disclosed their HIV status was due to a sense of responsibility to their partners and concern for partners' health. The results show that HIV disclosure among sero-concordant and sero-discordant partners was mainly influenced by individual level factors such as poor health condition, pregnancy, death and sero-sorting. Sero sharing is considered to be therapeutic, however, in the current study it has led to the loss of relationships. A big disclosure challenge is that upon HIV status discovery, sero-concordant partners and sero-discordant partners would either decide to take treatment together or end the relationship.

As found in other studies (Stempel et al. 1995; Simbayi et al. 2007), we also found that a high proportion of ART patients have relationships with partners of unknown HIV status. Reasons for non- disclosure were finding new partner, relationship ending, male refusal to share results, males postpone to go for HIV testing, no steady partner, not wanting to be blamed, violent partner, not ready to disclose , afraid of losing the relationship and not knowing how to disclose. This finding concurs with the previous research which highlights fears of verbal and physical abuse, fear of rejection and other forms of negative responses from the disclosure target as deterrents of disclosure (Greeff et al. 2008). Also, women in Burkina Faso gave reasons for not disclosing to their partners as fear of rejection and negative financial consequences (Issiaka et al. 2001). Some women might even fear physical violence consequences as Temmerman et al. (1995) found that violence by partners against women who has tested positive was more common than those who tested negative. The current study reveals the same finding that the prominent factor about non- disclosure to partner by most of the females was fear of partner's reaction. The same has been found in other studies (Simon et al.1995; Klitzman and Bayer 2003), that is, that non- disclosure may occur due to fears of rejection, feelings of shame, desires to maintain secrecy, feelings that safer sex obviates the need for disclosure. Other studies in Kenya and Zambia reported that mothers have improved relationships with their partners after disclosure and disclosers appeared to have stronger partner relationships than non-disclosers (USAID/Synergy 2003). For this study, very few participants in either sero-concordant or sero-discordant relationships had actually admitted that disclosing their HIV status had strengthened their relationship. A study conducted by Twehaze (2009) amongst people living with HIV revealed how hard it is to disclose to sexual partners. He points out that some important people will know, many others will not and still others may guess but will not be told.

On the other hand, the results reflect that the sexual behaviour for sero-concordant and sero-discordant partners who are on ART does not vary that much. After diagnosis with HIV, many participants reported that their sexual behaviour had changed in some way. Changes reported included abstaining from sex, and using condoms consistently. For the two categories, there seemed to be increased condom use following the diagnosis of HIV and then been further reinforced by the experience of receiving ART and associated services. It was evident that participants in these two categories had made concerted and conscious efforts to change sexual behaviour after initiating ART. For the participants with partners with unknown status, the sexual behaviour was different from the above two categories. It appeared that they also tried to use condoms although their fellow partners did not understand why. The results show that some ART patients continued having unprotected sexual intercourse without disclosing even though they knew their HIV status. This shows how imperative disclosure strategies are needed. Similar results were also found in the study conducted by Simbayi et al. (2007) that participants who had not disclosed were significantly more likely to have multiple partners, HIV negative partners, partners with unknown HIV status and unprotected sex with non-concordant sex partners. As found in Maman et al.'s study (2001) in Tanzania, the HIV testing and disclosure experiences by this sample have relevant implications to HIV testing, partner notification policies and post test support services.

In terms of the children's desire, there seems to be very common feeling amongst the three categories of study that children are still needed regardless of the HIV status and whether partners have disclosed to each other or not. Rea-

sons given for wanting children were mostly because some did not have children at all and some wanted to increase the number of children they had. For those who did not want children it was either they had children already or they did not want their children to suffer when they are gone due to AIDS.

CONCLUSION

In conclusion, the study suggests that the HIV disclosure and sexual behaviour among sero-concordant partners, sero-discordant partners and partners with unknown HIV status varies. Therefore, interventions on disclosure need to take this into consideration. To date much debate has focused on whether disclosure increased or decreased the occurrence of unsafe sex. The current study found a decrease of unsafe sex among sero-concordant and sero-discordant partners. For the partners with unknown status, there was no relationship between disclosure and safer sex. Effects of sero-status disclosure have relevant implications for partner notification policies and post-test support services. Also, careful consideration needs to be paid to women living with abusive partners. There should be ongoing post-test counselling support for the people who are HIV positive. In order to aid disclosure between partners, there is a need to improve intimate dialogues between sexual partners. There is also a need for wider initiatives to challenge the prevailing gender stereotypes. For interventions that seek to promote safe disclosure decisions, positive disclosure outcomes and secondary prevention of HIV, there is a need to identify why HIV positive people may or may not decide to disclose their HIV status (Ssali et al. 2010). Furthermore, understanding the disclosure patterns among the sero-concordant partners, sero-discordant partners and partners with unknown status may be essential for tailoring intervention strategies. The current study on HIV disclosure by sero-concordant, sero-discordant and partners with unknown status may help HIV/AIDS service providers to develop more effective counselling protocols.

STUDY LIMITATIONS

This study has potential limitations. We mainly relied on self-reporting of whether ART patients self-disclosed and how they engage in sexual activities.

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