# "Testing machines can lie and be faulty": Perceptions of sero-discordance and ART by Ugandan serodiscordant couples and their communities

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## **Background**

The primary driver of the HIV epidemic in sub-Saharan Africa remains heterosexual transmission. Serodiscordant couples in long term relationships represent a significant source of new HIV infections in this region. However, sero-discordance is often poorly understood in those affected. This study investigated perceptions and attitudes of serodiscordant couples regarding their status, and some of the social and sexual factors driving sero-discordance or seroconversion.

## Results

#### Participant characteristics:

- Participant ages ranged from 27-71 years
- Average age was 42 years
- 57 individuals (28 male and 29 female); 28 couples initially enrolled
- 273 interviews were conducted
- \* Of 28 couples, 22 had male initially seropositive
- \* 16 couples (57%) were involved in polygamous relationships.

Four themes were explored: 1) relationships and discordance, 2) HIV risk reduction, specifically condom use, 3) individual and community beliefs about discordance and 4)beliefs and practices surrounding ART use.

#### 1) Relationships and Extramarital Affairs

Most of the couples in our study were involved in polygamous relationships. A majority of HIV-positive men cited that they stopped extramarital affairs with their diagnosis. An interesting reason cited for this was the possibility of HIV "mixing".

"If you have sex outside marriage you can get another kind of HIV [...] when they mix, the one that you have wakes up" (woman, seroconverted; 26 years)

#### 2) HIV risk reduction

Condoms were the most frequently used method of HIV prevention used by couples. Almost all couples had adequate access to condoms, but adherence to-and use of condoms varied widely. Inconsistent condom-use was felt to have contributed to seroconversion in some cases.

"[...]we knew or believed that we were both infected and so did not see any importance of using [condoms]" (man, HIV positive,;52 years)

## **Methods**

In-depth, gender-matched interviews were conducted from June 2013 to December 2014 with 28 heterosexual, initially serodiscordant couples (57 individuals) attending The AIDS Support Organization (TASO) in Jinja, Uganda as part of an ongoing study of serodiscordant couples and treatment as prevention. 14 of the HIV negative participants in these couples seroconverted by the qualitative interview. Thematic analysis of the baseline interview transcripts resulted in dominant themes regarding regular prevention methods, attitudes and knowledge about sero-discordance and antiretroviral treatment (ART).

#### 3) Individual and community beliefs about discordance

When asked of their own opinions about serodiscordant status, many individuals cited confusion and disbelief. Participants' understanding of serodiscordance was varied, and many cited extensive education and multiple tests as factors that have helped their understanding. However, there were misconceptions about whether serodiscordance is possible, exemplified by the belief in "strong" or "heavy" blood which can resist HIV infection. Individuals cited that their communities' understanding of discordance was limited, and many community members dismissed the concept of discordance entirely.

"The blood is different. You might have strong blood yet your spouse has weak blood. There is blood type A and O [...] the strong one is the one of O. The one of A is lighter." (woman, positive; 30 years)

#### 4) Beliefs and practices surrounding ART use

ART is perceived negatively by many community members stating it comes with "shovels and axes" (burial tools), although individuals on ART do acknowledge benefits as well. Beliefs were varied as to whether ART could prevent HIV infection.

"[...] people think that when you start taking ART, you just be nearing your grave and they are given to people so that they die slowly" (woman, seroconverted; 50 years)

### Conclusion

Understanding of serodiscordance and ART remain limited among some rural Ugandan populations despite continued counselling and fear of stigma influences disclosure and health seeking behavior. A focus on further education about serodiscordance and the benefits of ART should be considered in efforts to minimize heterosexual transmission, and accelerate the de-stigmatization of HIV and serodiscordance.









