Fear, hope and social desirability bias among women at high risk for HIV in West Africa

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Abstract

Background Self-reports are widely used for measuring behaviour in HIV research and prevention, yet the accuracy of these measures has been shown to be questionable in many cases. Social desirability bias (SDB) is one of the key factors identified as affecting self-report accuracy.

Methods Using in-depth interviews, we examined SDB from the perspective of 60 women at high risk for HIV in two West African countries: Ghana and Nigeria. We solicited suggestions for reducing SDB in the context of HIV research and prevention, and asked for feedback regarding methods currently being employed to reduce SDB.

Results Themes pertaining to fear and a desire to have a better life were pervasive throughout the data. Thematic structure was similar between sites and age groups, although younger women tended to be more concerned about the interview context.

Conclusions Vulnerability of a population should be considered when asking sensitive questions. Audio-computer-assisted self-interviews may not be appropriate for vulnerable populations in developing countries, particularly for older respondents.

J Fam Plann Reprod Health Care 2005; **31**(4): 285–287
(Accepted 6 June 2005)

Key message points

- **Distrust and fear of persecution can effect self-reporting of sensitive behaviors among stigmatised populations.**
- **Interviewer characteristics and interviewing techniques should be carefully considered and appropriately matched for the study population.**

Introduction

Assessments of HIV intervention programmes often rely on self-reported measures of sexual behaviour. Concern has been raised about the accuracy of these measures,[1–3] prompting calls for more studies on self-report accuracy.[4–6] Social desirability bias (SDB) – a participant's concern with providing socially desirable answers – has been identified as a key factor affecting report accuracy.[7,8] The potential for SDB in HIV prevention studies is amplified by the types of questions asked and the design of the studies. Such studies typically require participants to divulge highly personal information about their sexual behaviour. They simultaneously promote safe sex practices, creating pressure for participants to provide socially desirable answers.[8]

Researchers have developed methods to reduce SDB. These techniques include distancing the interviewer from the interviewee, such as audio-computer-assisted self-interviews (ACASI).[9–12] Other SDB reduction methods manipulate interviewer characteristics, since participant responses have been shown to vary with interviewer traits.[13–16]

We examined SDB from the perspective of 60 women at high risk for HIV in Ghana and Nigeria. We interviewed women about social norms pertaining to discussing sex, and solicited suggestions for reducing SDB in the context of HIV prevention. We also asked for feedback regarding methods used to reduce SDB.

Methods

The study was approved by ethics committees in the USA and both host countries. All participants provided oral consent to be interviewed, which was documented on audiotape. No personal identifiers were collected from participants.

A purposive sampling approach was used. We interviewed women at high risk for acquisition of HIV and who would be appropriate candidates for HIV prevention programmes in the study sites. We used the following initial selection criteria: 18 to 35 years of age, more than one male partner in the last 3 months with whom the woman has had vaginal sex, and vaginal sex three or more times in an average week.

Women at the highest risk for HIV in Nigeria and Ghana tend to be engaged in some form of sex work, although not all self-identify as sex workers. In Nigeria, 30 women were recruited from three areas of Ibadan: brothels, a college campus and known pick-up points for sex workers. Many younger women approached in brothels and pick-up points were sceptical of the research and opted not to participate, so the age criterion was loosened for this site. In Ghana, 30 women were recruited from a red-light area, a hotel and a hostel in the city of Accra. Participants were paid the local equivalent of US$5 for their time. Sample characteristics are presented in Table 1.

Table 1 *Sample characteristics*

Characteristic	Ghana (n = 30)	Nigeria (n = 30)	Combined (n = 60)
Age (mean ± SD)	26 ± 4.2	32 ± 8.5	29 ± 7.2
Education (years) [median (range)]	7 (0–12)	12 (0–17)	8 (0–17)
Ethnic groups (n)	12	3	15
Marital status [n (%)]			
Single	20 (66.7)	13 (43.3)	33 (55.0)
Married	0	1 (3.3)	1 (1.7)
Divorced/separated	10 (33.3)	14 (46.7)	24 (40.0)
Widowed	0	2 (6.7)	2 (3.3)
Previous research experience [n (%)]	13 (43.3)	6 (20.0)	19 (31.7)

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A semi-structured, open-ended instrument was used. Respondents were asked identical questions in the same sequence, but interviewers inductively probed key responses. All the interviewers were women aged between 20 and 30 years. Interviews were conducted in English, Twi and Ga in Ghana and in English, Pidgin English and Yoruba in Nigeria. Interviews were tape-recorded. Responses were translated and transcribed verbatim by local researchers using a standardised protocol.[17] Two analysts developed a team codebook[18] and independently applied codes to the data. Inter-coder agreement was assessed by calculating Kappa scores for double-coded transcripts.[19] The overall Kappa score was 0.82. To identify key themes, we ran code frequency reports in AnSWR (Analysis Software for Word-based Records).[20]

Results

Two overarching themes – which we called 'fear' and 'life improvement' – were prevalent throughout the interviews. Both themes were expressed by 97% of participants and appeared across all domains of inquiry.

Fear

When asked how they would feel talking about their sexual practices within a (general) research context, participants repeatedly expressed concerns that their reputations and those of their families might be compromised. Women particularly feared that their responses during interviews, and their involvement in sex work, would not be kept confidential. Nearly all of the women in our study expressed concern that their research responses might be publicly exposed, with negative consequences to their lives.

Another important component of the 'fear' theme concerned HIV-related stigma. Women feared either being labelled HIV-positive or being blamed for the AIDS epidemic if they admitted to having non-monogamous sex or not using condoms.

Participants indicated that fear of exposure and persecution would typically translate into reporting fewer sexual partners. They also reported that women in general are not honest about their (non-)use of condoms because of strong public pressure to follow 'proper' HIV prevention guidelines.

The theme of 'fear' also frequently emerged within the context of the interview environment and interview techniques. Some participants said they would fear being taken to an unknown place or area for an interview. A few women also expressed a general distrust of remote interviewing techniques (e.g. ACASI, phone interviews), reasoning that they would not be able to see the interviewer's face and assess his/her credibility and intent. Such distrust was often associated with fear of being exposed through images that might hypothetically be captured by a computer: "*… as for the computer issue, I am afraid. What if you reveal my face with this computer? You show my face to the whole world. I might have even come here to hide to do this despicable job*".

Life improvement

The theme of 'life improvement' refers to a participant's stated desire to leave sex work and seek a healthier and safer way of life. Participants expressed hope for a mutually beneficial reciprocity: in exchange for speaking frankly about their personal lives they would receive help in some form, such as job opportunities, advice or moral guidance. Some of the participants, for example, wanted help leaving the sex trade through financial aid, training or job opportunities. A few participants directly linked honesty with external help. As one woman from Ghana explained: "*… this job is not what God ordained me to do …maybe by being honest someone will come and help me*".

The 'life improvement' theme also carried over into desired interviewer traits. About half of the women indicated that they would be more honest in their answers with a health care worker, reasoning that being truthful would lead to better health care and/or more accurate dissemination of health information. Participants expected education on staying healthy, particularly with respect to HIV/AIDS, in return for participation in research.

Site and age differences

We ran theme frequency reports individually for each site. Surprisingly, data between the two sites showed very few differences. Although frequency of code application varied slightly, all major themes identified were found in multiple transcripts from both sites. Notwithstanding, Ghanaian participants talked more in general about problems associated with sex work, including a fear of arrest or police harassment. Transcripts from our Ghana sample, however, were substantially longer than those from Nigeria, which might partially account for these differences.

To assess how age might affect thematic expression we conducted a subgroup analysis (under 30 years, $n = 36$ and 30+ years, $n = 24$). The main observed difference between these two groups concerned the interview context. Younger participants appeared to be more accepting of remote interviewing techniques, and tended to place more importance on contextual factors associated with an interview. These factors include: a private setting, interviewer age (older preferred), interviewer sex (women preferred) and whether or not the interviewer is a health care worker (health care worker preferred). Of note, although younger women cited these factors more often, a good percentage of older women did as well. And, as can be seen in Figure 1, relative frequency of expression among codes was the same for both groups.

Discussion

Stigma surrounding both HIV and sex work are pervasive in Ghana and Nigeria.[21–23] Public perception links sex work with HIV/AIDS, and sex workers live in fear of being

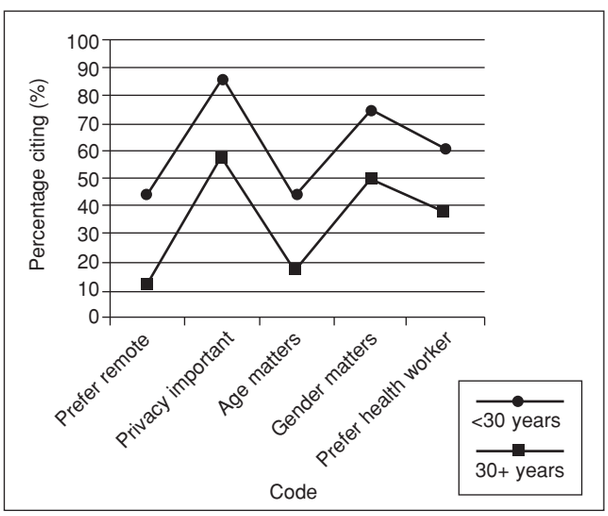

Figure 1 *Thematic expression by age*

exposed to the public, the police or family members. As a result, they harbour a lot of distrust towards those outside of their occupational community. Such distrust impedes free and honest discussion about sexual behaviour with strangers. Employing interviewers with similar backgrounds and work experience – perhaps peers – to conduct interviews may enhance trust and minimise participant concerns. Our data further indicate that remote interviewing techniques may not work well among stigmatised populations, and that researchers need to be sensitive to the interview location when interviewing vulnerable groups.

Another key finding is that women from both countries share common concerns regarding discussion of sexual practices. Similar cultural and economic pressures may explain why differences in the data structure between the two sites is minimal. Stigma surrounding sex work and HIV/AIDS is prevalent in both countries[21,22] Data from other studies further suggest that sex workers in both countries share similar backgrounds and have common motives for entering sex work.[23–25] In both countries, women tend to view their participation in sex work as transitory and as a means of supporting their children or procuring the necessary resources to start a small business. Younger women additionally hope to eventually get married upon leaving sex work.

Notwithstanding the overwhelming similarity of responses between sites, women in Ghana did express more general concern regarding hardships associated with sex work. This may be related to prostitution laws in each country: prostitution is illegal in Ghana but legal in Nigeria. Site differences may also be a methodological artifact: despite a semi-structured instrument and similar training of interviewers, Nigerian interviewers did not probe responses as readily, rendering significantly shorter responses. Had Nigerian interviewers probed more often, similar expressions of job-related persecution may also have emerged in the data from Nigeria as well. One thing is certain: the two overarching themes of fear/distrust and hope for a better life are highly salient for women in our study from both countries.

Our findings demonstrate the need to consider the vulnerability of a given target population when conducting interviews. Fear and distrust need to be assuaged. As in other parts of the world, sex workers in Nigeria and Ghana endure many hardships. Women in our sample expressed hope for a safer, healthier and more secure life. Health care workers, and those associated with research programmes, are often perceived as having the capacity to improve participants' lives. As interviewers, they may facilitate more honest reporting. However, participants may feel more obliged to 'please' interviewers if they are perceived as empowered to offer assistance. Individuals should therefore not have a dual role as both counsellor/educator and interviewer in the same study. Our data further suggest that successful interview techniques might be age-variable, and that the interview context should be manipulated accordingly.

Statements on funding and competing interests

Funding. This study was funded by the United States Agency for International Development through Family Health International.

Competing interests. None identified.

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