



## Fear of sexually transmitted infections among women with male migrant partners – relationship to oscillatory migration pattern and risk-avoidance behaviour

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**Background.** In South Africa, former apartheid laws encouraged rural males seeking employment to migrate to urban areas, moving weekly, monthly or annually between their rural families and urban workplaces. The combination of the migrant labour system and long family separations caused an explosion of serious health consequences, among others sexually transmitted infections (STIs) in the migrant population.

**Objective.** To describe some correlates of male migration patterns for the rural women left behind, especially the fear of STIs that this engendered in them and their risk-avoidance behaviour.

**Setting and subjects.** In KwaZulu-Natal, 208 prenatal patients who were partners of oscillating male migrant workers were interviewed to determine their demographic and behavioural characteristics, and their fear of STIs.

**Results.** Thirty-six per cent of the rural women said that they were afraid of contracting STIs from their returning migrant partners. Women who saw their partners infrequently were more fearful of STI transmission, and were less able to have sexual communication. However, almost none of the women protected themselves, while only 8% used condoms, primarily for contraceptive purposes.

**Conclusions.** These results reflect the gender-based power relationships of South African male migrants and their rural partners, the social and economic dependency of the women on their migrant partners, and the women's social responsibility to bear children. The results point to the need to go beyond interventions that simply seek to modify behaviour without altering the forces that promote risk taking and discourage risk reduction, and the need to develop appropriate interventions to curb STIs and decrease HIV.

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South Africa is the site of one of the fastest growing HIV epidemics in the world.<sup>1</sup> For example, a hospital in the Hlabisa health district of KwaZulu-Natal experienced a 43-fold increase in the number of non-tuberculosis clinical AIDS cases seen from 1991 to 1997.<sup>2</sup> Another study<sup>3</sup> of antenatal patients at clinics in this district found an overall HIV infection prevalence of 26% in 1997. KwaZulu-Natal has consistently had the highest rate of antenatal HIV of all 9 provinces.<sup>4</sup> A major reason for this high disease rate is the elevated prevalence of other sexually transmitted infections (STIs),<sup>5</sup> which facilitates the transmission of HIV, coupled with poor diagnostic capacity leading to lower rates of STI diagnosis and treatment, exacerbated by low condom use.<sup>6-8</sup>

In South Africa it is common for men to migrate from rural to urban areas in search of employment. This reflects job distribution and the residue of apartheid laws. Generally, this migration is circular or 'oscillating', involving departure from a rural area followed by a period of work in an urban area, and

subsequent return. Male migration has been associated with high-risk sexual behaviour and elevated risk of infection.<sup>8,9</sup> There is evidence that transmission is not only from the migrant man to the rural woman, but in the opposite direction too.<sup>10</sup> The role of migration in the spread of STIs and HIV is complex and not yet well understood.<sup>1</sup> Certainly the disruptive effects of enforced mobility *per se* contribute to vulnerability, while the social conditions associated with male migration pose a further risk.<sup>10</sup>

Studies are more often done on male migrants than their female partners who stay behind. To obtain more information on the correlates of male migration affecting rural women we conducted a cross-sectional study of women attending an antenatal clinic at Hlabisa, whose partners were oscillating migrant workers. STIs were singled out because of their critical role in increasing vulnerability to HIV, and because HIV prevalence had already been studied. This study focused on rural women's fear of contracting STIs from migrant worker partners, a fear that could encourage condom use or use of other protective measures, urgently needed in this population. Because poor sexual communication has been associated with increased fear of STIs, the degree of communication between the women and their partners was also explored.<sup>11</sup> We hypothesised that fear of contracting an STI and communication would vary with partners' migration patterns. Finally, the study addressed the role of past STIs in relation to increasing fear and time spent away from home.

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## Methods

### Setting

Data were collected in the rural health ward of Hlabisa Hospital, in the KwaZulu-Natal region. In 1995 the population was estimated at 205 463.<sup>12</sup> Most residents are Zulu-speaking South Africans who live in widely scattered kraals, relying on pension remittances, migrant labour jobs, and subsistence farming. The annual per capita income in KwaZulu-Natal at that time was R5 189, the literacy rate was 69%, and average life expectancy was 63 years.<sup>12</sup>

### Recruitment strategy

Seven village clinics, 2 mobile clinic teams, and a local 450-bed district hospital provide antenatal care in the Hlabisa health district. Approximately 95% of the pregnant women in the district receive care at these facilities. For the purpose of this study, 208 women aged 16 - 45 years who visited these facilities between November 1994 and September 1995 were screened consecutively using a structured questionnaire. Eligibility to participate in this study has been published elsewhere.<sup>1</sup> Antenatal clinic and hospital logs were checked daily for newly available participants, who were approached while waiting for their appointment. Ninety-five per cent of the women approached agreed to participate in the study. A private interview was conducted after the appointment.

Ethical approval was obtained from the institutional review boards at the University of California at Berkeley and the Medical Research Council in Durban. Participants in the research project signed a statement of informed consent.

### Data collection

Trained female Zulu health workers with previous relevant research experience conducted interviews. The data collection instrument included standardised questions covering socio-demographics, reproductive history, contraception, partner's migration history and behaviour, and the woman's general health, STI and HIV history and risk profile.

To assess whether the phrasing and literacy level of items on the questionnaire were appropriate for the targeted study population, the instruments were pre-tested on 35 female patients receiving care for reasons other than prenatal care and psychiatric services. The questionnaire was developed in English, translated into Zulu, and then back-translated to ensure accuracy. Minor revisions were necessary to address culturally sensitive items such as sexual behaviour adequately, and to clarify exactly what was being asked. The literacy level and length of the instrument were determined to be appropriate.

### Statistical analyses

Analysis was carried out using SAS version 6.12 (SAS Institute Inc., Cary, NC, USA). The major dependent variable of the

study was fear of contracting an STI, with self-reported history of STIs and communication with partner on sexual matters being secondary. (While HIV is an STI, in this study we focused on the totality of STIs unless otherwise specified.) All STI variables were self-reported and coded as binary variables based on participant report. The main exposure variable was the partner's migration pattern, estimated by how often he returned home, categorised into 3 levels of frequency. Typical values for these categories were weekly visits for the 'high' category, monthly visits for the 'medium' category, and visits every 3 - 6 months or less frequently for the 'low' category.

Covariates that were taken into account included participant's marital status, age, education level, income, parity, contraception use and type, condom use, having been tested for HIV, age at first sexual intercourse, and lifetime number of sexual partners. Covariates for the male partner included age, marital status, alcohol use, and participant's belief that he had other sexual partners.

The associations between the major outcome variable and remaining variables representing the other STI outcomes or selected characteristics of the participants were examined using bivariate analyses. Variables with less than 5% of participants in one category were usually re-categorised, or if that was impossible, discarded. Unadjusted odds ratios (ORs) and chi-square tests were calculated to determine the strength of associations between variables.

Logistical regression was used to calculate ORs for the association between partner migration pattern and fear of contracting an STI outcome, adjusted for potential confounders and any interactions. Secondary variables were considered confounders if they changed the estimated OR of the full model by more than 10%. Factors considered on the causal pathway were stratified and entered into the model separately.

## Results

Table I shows the distribution of the characteristics of the female participants. Eighty per cent of the women were younger than their male partners. In 47% of couples, men were up to 30 years older than their female partners. Less than 25% of men and women were legally married, although all the study participants considered themselves married. Half of the women had an income of less than R200 (US \$33) per month, reflecting the low employment rate of 4%. Approximately half the women had not completed 6 years of formal schooling.

The women typically had a single sexual partner (81%), and used no contraception of any kind (88%). Twelve per cent of participants, and their partners, reported a history of STI, and 25% of the women believed their partners were involved with other women (data not shown). Although more than 30% of the participants were afraid they might contract an STI from their partner, most did not discuss sexual matters with their partners, and only 8% used condoms to protect themselves, primarily against falling pregnant.

**Table I. Selected characteristics of Zulu women whose partners are migrant labourers (N = 208)\***

	N	%
<b>Demographic factors</b>		
Age in years		
≤ 19	6	31
20 - 29	1	49
30 - 39	3	17
40 +	8	4
Marital status		
Single	1	77
Married/cohabitating	4	23
Education		
Illiterate/no education	2	14
Grades 1 - 5	7	37
Grades 6 - 10	1	49
Income per month		
Low (< R200)	1	50
High (≥ R200)	1	50
Employment status		
Employed	9	4
Unemployed	1	96
<b>Reproductive factors</b>		
Contraception use		
Hormonal <sup>†</sup>	51	24
Condom	17	8
Other	9	4
Sexual partners ≥ 2	39	19
<b>Behaviour and other factors</b>		
Reported a history of STI	2	12
Discussed STI with partner	6	31
Fearful contracting STI	7	36
Was tested for HIV	1	5
Frequency of seeing partner		
High (weekly)	53	26
Medium (monthly)	122	58
Low (3 - 6 months/longer)	33	16

\* Variables where numbers do not add to 208 reflect missing data

<sup>†</sup> Hormonal contraceptives include injection or birth control pills.

There were several significant relationships between fear of contracting an STI and participant characteristics. Fearful women were more likely to be 30 years or older, with a higher income (OR 0.3, 95% confidence interval (CI): 0.16 - 0.62) and more children (OR 2.8, 95% CI: 1.2 - 6.7). They were also more likely to have had more than 2 partners (OR 2.2, 95% CI: 1.1 - 4.4), to have used hormonal contraception (OR 3.2, 95% CI: 1.7 - 6.1, and to have had an STI (OR 4.5, 95% CI: 1.9 - 10.7). The odds were higher that their partner was older, married, had had an STI (OR 4.8, 95% CI: 2.1 - 10.8), and might have had other sexual involvements (OR 4.0, 95% CI: 2.0 - 7.7). The relationships among the 3 STI-related variables varied. There was a strong association between having had an STI and fearing another infection (OR 4.5, 95% CI: 1.9 - 10.7), but an unremarkable association between fearing STIs and discussing STIs with the partner (OR 1.2, 95% CI: 0.65 - 2.2) (data not shown).

The association between the fear of acquiring an STI and pattern of the partner's migration was examined in the light of participants' demographic, reproductive and partner characteristics (Table I). The crude ORs indicated that long migration intervals, with only occasional visits home, were associated not only with fear, but with the other STI outcomes too. That is, a woman whose partner was absent for long periods between visits was significantly more likely to fear contracting an STI than a woman who saw her partner frequently (OR 2.69, 95% CI: 1.09 - 6.67). She had significantly lower odds of entering into discussion of sexual matters with her partner (OR 0.27, 95% CI: 0.08 - 0.88), including her concern about getting an STI. She also had higher odds of 1.74 (95% CI: 0.51 - 5.94) of reporting that she had an STI, although numbers in the categories were small and statistical significance was not achieved. Adjustment somewhat attenuated these ORs but without change in inference, so the negative effect of long partner absences was still apparent.

## Discussion

This sample of antenatal patients is similar in many ways to other samples from the Hlabisa district, except that all participants were committed partners of male migrant workers who returned home occasionally.<sup>13</sup> Like other groups of women studied, they were generally poor, lacking in education, unemployed, and younger than their male partners. They typically reported having had a single partner. In the case of those who reported having an STI, the condition was not verified, nor was there firm evidence that the migrating partner was the only sexual contact.

In this study fear of contracting an STI from the migrant partner was significantly greater when the migration interval was long – approximately 1 - 4 visits home annually. The length of migration and frequency of home visits has been investigated in 2 previous investigations.<sup>8,9</sup> In a community-based study of 4 531 subjects living in a rural area, Jochelson *et al.*<sup>9</sup> showed that in men, migration was associated with an age-adjusted 7.3-fold higher risk of HIV infection. A study in rural South Africa used a community-based sample of 232 subjects; 25 of the 183 persons who had spent 10 or fewer nights per month with their regular partners were HIV infected, whereas none of the 24 individuals who saw their partners more than 10 times a month were infected.<sup>8</sup> These studies support the idea that the man's length of absence from home does have implications for the spread of STI and HIV among rural women. Furthermore, women in this study who saw their partners infrequently were less likely to communicate with them about sexual matters including STI, HIV and contraception. Previous reports indicate that discussion of sexual matters is difficult for women, especially in developing countries.<sup>13,14</sup> This poor communication is exacerbated in women who do not see their male partners regularly.



Behavioural theory suggests that perceived possibility of risk is a powerful predictor of risk-reducing behaviour.<sup>15</sup> Many women in this study recognised that they could be exposed to STIs in their primary relationship, as they knew of their partner's past or current risk behaviour, especially when he was away from home. However, the behaviour of these women was not consistent with their concern. Although more than one-third said that they were concerned about getting STIs/HIV from their partners, almost none of them used condoms or any other means of protection; in fact, those who did so relied on them for contraception, not to prevent STIs.

Reasons why fear of infection was not accompanied by risk avoidance are unclear, although we postulate the following. The dominant discourse in this population implies that normal sex with a stable partner is safe; what is risky is sex outside the primary relationship with occasional and therefore promiscuous partners.<sup>15</sup> Most women in this study may have felt that their own sexual behaviour did not place them at risk because they were monogamous; their fear reflected concern about their partner's sexual behaviour. They had few acceptable solutions for protection. Abstinence was an unlikely option, particularly for the rural women where sexual intercourse is considered a conjugal right and a man's prerogative. Even occasional refusal of sex may lead to problems; if prolonged, it could be grounds for desertion or divorce.<sup>15</sup> Another compelling problem with abstinence, non-penetrative sex or barrier methods for protection against STI/HIV infection is the effect on fertility, a key concern especially in rural South Africa. At present, couples wishing to have children cannot avoid transmission if one partner is infected. Yet sexual relations and procreation are intimately linked to their ability to have children, and such sexual relations are central to the self-worth of men and women and the continuation of the union. The prospect of childlessness may easily outweigh the risk of acquiring or transmitting STIs or HIV.<sup>16</sup>

A profile of the women who feared getting STIs and HIV indicated they were older than those who expressed no fear. Younger women may have been less concerned because of being more knowledgeable about STI prevention and information, and having some control in their non-married conjugal relationship. The women who reported using condoms consistently were younger. In addition, their youthful naïveté and recent experience in sexual relations may have been influencing factors. Women with high parity were more likely to be concerned about getting STIs from their partners, reflecting their membership in the older group of women. The additional responsibilities of the homestead, children, economic dependence and lack of power and sexual negotiations contributed to the women's self-acknowledged vulnerability to STIs. Older women have had more experience in encountering the instability that accompanies oscillating

migration, namely infrequent visits, extramarital affairs, STIs, and varying remittance patterns. The young, unmarried women lived at home with their parents and were the primary responsibility of their fathers, therefore their experiences are not comparable to those of the older married women. Finally, the women's marriages or stable relationships were built on the premise of trust, which requires partners to accept safety, or assume that the relationship has failed.<sup>13</sup> Acknowledging their partner's risk behaviour for prevention purposes may be too painful or threatening, as it raises other concerns perceived to be more immediate and menacing than the risk of STI or HIV. Assumption of safety as indicated by the younger women in this study may outweigh suspicions of danger.

The apparent inconsistency between attitudes and behaviours could be related to power and sexual negotiation. Salgado de Snyder *et al.*<sup>17</sup> reported that women left behind felt incapable of refusing or negotiating any sexual favours requested by their husbands, especially since their spouses had been away for such long periods, had been working hard, and had been sending money for the survival of the family. Typical prevention messages strongly encourage women to take the initiative and protect themselves against STIs and HIV. However, success in doing so occurs primarily among commercial sex workers.<sup>18</sup> Given the social disruption of oscillating migration, and the eroding traditions of rural Zulu society, sexual communication has become even more difficult to address. Poor communication between men and women on sexual and reproductive health matters severely constrains the adoption of risk-reducing behaviours.<sup>14</sup> In the context of long-term and stable relationships, opportunities for such communication may be even more remote, since partners believe that they know each other and sexual activity is routine. Raising such an issue could be a breach of the norms of trust, silence and discretion and interpreted as an accusation or a confession of infidelity.<sup>13</sup>

Challenging men's control over sexuality may be even harder in the context of marriage, as most women, especially in rural communities, are socially and economically dependent on their spouses.<sup>19</sup> Legal and customary practices regarding child custody, property ownership and inheritance deny women assets that would enable them to negotiate effectively.<sup>13</sup> Where women's sexuality is very restricted, both their risk of contracting HIV and STIs from their partners and their need to negotiate safer sex are greater, yet bargaining power is weaker.<sup>13</sup>

Although these data were collected in 1995, we believe that these issues still prevail among rural women in South Africa. Female partners of male migrant workers are vulnerable because of gender-based power relationships, their social and economic dependency on men, and their social responsibility to bear children. They cannot be expected to shoulder the responsibility for reducing STI or HIV infection, but must





## ORIGINAL ARTICLES

be empowered and given the appropriate skills and tools to take on this task. There is a need to go beyond interventions that simply seek to modify the behaviour of women and men without altering the forces that promote risk taking and discourage risk reduction, particularly oscillatory migration patterns.

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