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SEXUAL RISK BEHAVIOUR AMONG MEN WITH MULTIPLE, CONCURRENT FEMALE SEXUAL PARTNERS IN AN INFORMAL SETTLEMENT ON THE OUTSKIRTS OF CAPE TOWN

INTRODUCTION

South Africa has the largest number of people living with HIV in the world with over 5.5 million people infected with the virus (Shisana et al., 2005). However, heterogeneity in HIV prevalence among sub-groups within the South African population (Shaikh et al., 2006) indicates that certain groups of people are more vulnerable to HIV infection than others.

People living in urban, informal settings are particularly at risk of infection (Shisana et al., 2005). In particular, people who have high levels of sexual partner turnover and concurrency (i.e. more than one sexual partner during the same period of time) are seen as important drivers of the epidemic, especially in situations where males are five or more years older than their female sexual partners, (Jewkes et al., 2006; WCDOH, 2001). Shebeens and taverns, where alcohol consumption is high (Morojele et al., 2006), have been identified as common venues for new sexual partner acquisitions (Weir et al., 2002; 2003). Some of the key points are highlighted below:

KEY POINTS

- Identifying and understanding sub-groups of people who are more vulnerable to and more likely to transmit HIV is essential for improving the effectiveness of HIV prevention efforts.
- This study set out to develop a robust surveillance system to measure key risk behaviours; and HIV prevalence among adult men who have multiple, concurrent female sexual partners; men who live in an urban, informal community on the outskirts of Cape Town.
- Using respondent-driven sampling (RDS) to recruit men, our findings provide evidence that men living in urban, informal communities and who have multiple concurrent female sexual partners:
 - use condoms inconsistently,
 - have high levels of transactional sex and intimate partner violence (IPV), and
 - visit shebeens or taverns (where alcohol consumption is high) to acquire new sexual partners.
- The RDS methodology was a successful way of accessing the hard-to-reach, high-risk male population through their social networks.
- Improving the effectiveness of HIV prevention efforts may be appropriate for this population. Such improvements can be achieved through individually-targeted and small, peer-group interventions. The latter should aim to shift social norms and address partner concurrence, inconsistent condom use, excessive alcohol abuse and intimate partner violence.

Men with more than one, usually younger, female, sexual partners make up a hard-to-reach, high-risk sub-population. This is largely due to them not being captured through conventional HIV surveillance methods. Traditionally-used surveillance systems, such as Household surveys are designed to track HIV infection in the general population and are unable to capture high-risk groups in sufficient quantities to make accurate conclusions about them (UNAIDS, 2000).

THE STUDY'S AIM

Project *ooPeto* (buddies), set out to develop a robust surveillance system to measure key risk behaviours, and HIV prevalence in a population of men who have multiple, concurrent female sexual partners – who live in an urban informal settlement on the outskirts of Cape Town.

Project oo peto

METHOD

Men were recruited using the RDS method. RDS had been extensively and successfully used globally among other hard-to-reach populations (Salganik & Heckathorn, 2004). They include injecting drug users (Abdul-Quedar et al, 2006); men who have sex with men (Ramirez-Valles et al, 2005); and commercial sex workers (Johnston et al, 2006). Twenty “seeds” (initial participants) who met the criteria for the study were selected. While some seeds and recruits did not use all their recruitment coupons, the study generated up to 13 successive recruitment waves, comprising a sample of 421 men. Every participant was interviewed: a blood sample taken for anonymous HIV testing (linked to every participant’s recruitment coupon number); and VCT offered.

WHAT IS RESPONDENT DRIVEN SAMPLING (RDS)?

RDS is a form of *snowball sampling* which allows us to obtain a *probability sample* from a hard-to-reach population. By *keeping track of the linkages* between recruiters and recruits, *selection probabilities* can be calculated and adjusted for the analysis.

HOW DOES RDS WORK?

RDS starts with initial contacts or “seeds” who meet the criteria for the study. After the “seeds” have participated in the survey, they become “recruiters”. Every “recruiter” is given *recruitment coupons* to *invite a maximum of 3 people* from his or her network of friends and acquaintances (who meet the criteria) to participate in the study. Both recruiters and recruits receive *incentives* to encourage participation – this is an integral part of the RDS process.

Eligible men had to be 18 years or older and live, work or socialise in the settlement in which the study took place. They needed to have more than one female sexual partner during the three months prior to the study. One of these partners needed to be younger than 24 and at least three years younger than the participant.

During face-to-face interviews, men who participated were asked about:

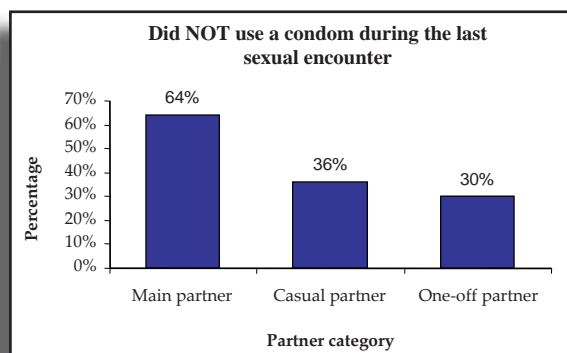
- their current socio-economic status,
- their sexually transmitted infections (STI) history,
- current and past sexual risk behaviours with different types of recent female sexual partners,
- sexual activities involving any payment of money or goods,
- whether they committed any IPV defined as slapping or hitting their female partners or threatening to or using a knife or gun against them,
- the perpetration of sexual IPV defined as coercive or forced sex,
- their social networks and
- their patterns of socialising and meeting new sexual partners.

Participants received cell phone vouchers for their participation in the study and for each person they successfully recruited into the study. The median age of the participants was 28 years (ranging between 18 and 62). Almost 95% were not and had never been married. Thirty-five percent had completed Grade 12, 59.7% were employed full-time, and 26.5% were unemployed.

Definitions of the different categories of female sexual partners		
Main partners: steady partners or wives	Casual partners: clandestine, regular partners outside of steady partner or marital relationships	Once-off partners: partners with whom men had sex just once and never again

FINDINGS

- HIV prevalence was 12.3%. More than one third of men reported symptoms of STIs in the year prior to the study.
- Men reported a range of 2-39 sexual partners in the three months prior to the survey, with an average of six and a median of five.
- 98% reported having concurrent sexual relationships during the same period.
- Most men (83.3%) indicated that their friends would approve if they had sex with woman who were not their steady partners or wives and 86.1% indicated that their friends would approve if they changed girlfriends often.
- 46% of participants thought that their main partners had sex with them because they expected or had received any form of material goods; 82% thought this was the case for their casual partners; and 90.6% thought it of their once-off partners.
- Just over 50% of men reported physical or sexual IPV with their main partners in the year prior to the study and 41% reported physical or sexual IPV with their casual or once-off partners during this time



- Shebeens or taverns were most commonly cited as places where men met with friends for recreation (31.2% and 54.4% respectively). Most men (81.8%) reported drinking more than five beers, ciders or tots of alcohol during these visits. About 74% indicated that they had met a new sexual partner at shebeens or taverns over the past 30 days.
- 95% of participants indicated that they would attend if they were given the opportunity to talk about relationships and sexual behaviour with a male facilitator once a week (for 10 weeks) with a group of other men.

CONCLUSIONS

Our findings provide evidence of high levels of sexual risk behaviour among a certain sub-group of men. These men have multiple, concurrent female sexual partners: a practice strongly endorsed by their peers. They also use condoms inconsistently, particularly with main partners; have high levels of transactional sex and IPV; frequent shebeens and taverns to access new sexual partners; and consume large amounts of alcohol. The success of the RDS methodology demonstrated that men in high-risk categories could be successfully accessed through their social networks. Because these men were willing to participate in sexual health programmes, RDS may also be employed as a valid entry point into this high-risk sub-population for planning, designing, implementing and evaluating targeted HIV preventive methods.

RECOMMENDATIONS FOR POLICY

Men who live in urban, informal settings who have concurrent, female sexual partners constitute a high-risk population. Thus they would benefit from specifically-targeted HIV prevention interventions which address partner concurrency, inconsistent condom use, excessive alcohol consumption, and intimate partner violence. Individually-targeted and small, peer group interventions aiming to support self-defined behavioural change and shift social norms may be appropriate for this population. Venues other than formal education and health care institutions must be utilised for HIV preventive messaging. An example would be venues used for recreation, like shebeens and taverns. RDS constitutes a robust method by which to obtain surveillance information which can be used among other hard-to-reach, high-risk populations in South Africa, such as men who have sex with men, commercial sex workers, and injecting drug users.

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References:

- Abdul-Quader, A.S., Heckathorn, D.D., McKnight, C., Bramson, H., Nemeth, C., Sabin, K., Gallagher, K., & Des Jarlais, D.C. (2006). Effectiveness of Respondent-Driven Sampling for Recruiting Drug Users in New York City: Findings from a Pilot Study. *Journal of Urban Health*, 83(3), 459-476.
- Boule, A., Hilderbrand, K., Menten, J., Boelaert, M., Coetzee, D., Ford, N., & Mattys F. (in press). Exploring HIV risk perception and behaviour in the context of antiretroviral treatment: Results from a township household survey. *AIDS Care*.
- Jewkes, R., Dunkle, K., Nduna, M., Levin, J., Jama, N., Khuzwayo, N., Koss, M., Puren, A & Duvvury, N. (2006). Factors associated with HIV sero-status in young rural South African women: connections between intimate partner violence and HIV. *International Journal of Epidemiology*, 35:1461-1468.
- Johnston, L.G., Sabin, K., Hien, M.T., & Huong, P.T. (2006). Effectiveness of respondent-driven sampling to recruit female sex workers in two cities in Vietnam. *Journal of Urban Health*, 83(Suppl 7):16-28.
- Morojele, N.K., Kachieng'a, M.A., Mokoko, E., Nkoko, M.A., Parry, C.D.H., Nkwane, A.M., Moshia, K.M. & Saxena, S. (2006). Alcohol use and sexual behaviour among risky drinkers and bar and shebeen patrons in Gauteng province, South Africa. *Social Science and Medicine*, 62, 217-227.
- Ramirez-Valles, J., Heckathorn, D.D., Vasquez, R., Diaz, R.M. & Campbell, R.T. (2005). Respondent Driven Sampling among gay men: Lessons from a two-city field study with Latino gay men. *AIDS and Behavior*. DOI: 10.1007/s10461-005-9012-3.
- Salganik, M.J. & Heckathorn, D.D. (2004). Sampling and estimation in hidden populations using respondent-driven sampling. *Sociological Methodology*, 34, 193-239.
- Shaikh, N., Abdullah, F., Lombard, C.J., Smit, L., Bradshaw, D. & Makubalo, L. (2006). Masking through averages – intrapopulation heterogeneity in HIV prevalence within the Western Cape. *South African Medical Journal*, 96, 538-543.
- Shisana, O., Rehle, T., Simbayi, L.C., Parker, W., Zuma, K., Bhana, A., Connolly, C., Jooste, S., Pillay, V. et al. (2005). *South African national HIV prevalence, behaviour and communication survey*. Cape Town: Human Sciences Research Council UNAIDS (2000). *Guidelines for second generation HIV surveillance*. Geneva: UNAIDS/WHO.
- Weir, S.S., Morrioni, C., Coetzee, N., Spencer, J. & Boerma, J.T. (2002). A pilot study of a rapid assessment method to identify places for AIDS prevention in Cape Town, South Africa. *Sexually Transmitted Infections*, 78 (Suppl 1), 106-113.
- Weir, S., Pallman, C., Mahlalela, X., Coetzee, N., Meidant, F. & Boerma, J.T. (2003). From people to places: focusing AIDS prevention efforts where it matters most. *AIDS*, 17, 895-903.
- Western Cape Department of Health (2001). *The Provincial and District HIV Antenatal Survey*. Cape Town: WCDOH.

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