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Original Research

Sexual risk behaviour of rural-to-urban migrant taxi drivers in Dhaka, Bangladesh: A cross-sectional behavioural survey

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SUMMARY

Objectives: Human immunodeficiency virus (HIV) research in Bangladesh has mainly focused on key vulnerable groups (e.g. sex workers, drug users). In order to develop appropriate HIV prevention strategies in an evolving epidemic, there is a need for evidence on sexual practices in other population groups. This research aims to describe the prevalence of risky behaviours and factors affecting sexual behaviour/practices among rural-to-urban migrant taxi drivers in Dhaka.

Study design: Cross-sectional study.

Methods: This paper reports on the cross-sectional survey component of a mixed methods research study amongst migrant workers in Bangladesh. The sample ($n = 437$) comprised rural-to-urban migrant taxi drivers in Dhaka (aged 18–35 years). The survey data were analysed statistically using Statistical Package for the Social Sciences.

Results: Very high levels of pre- and extramarital sexual behaviour were found (84% and 51%, respectively) amongst the sample ($n = 437$). The reported sexual activity included high levels of risky/unsafe sex in the past year: 64% of the sample reported sex with multiple commercial sex partners (mean = 13.21), and 21.7% reported sex with other males/transgenders (mean = 2.53). Protection against risk was low: 78.2% reported that their last commercial sexual encounter was unprotected, and only 5.6% used condoms consistently. Multivariate analysis revealed that the odds of risky sexual behaviour were higher in migrant men who were not married (odds ratio 35.3, $P < 0.001$) and married men who were living apart from their spouses (odds ratio 41.7, $P < 0.001$). Additionally, reported risk behaviours were significantly associated with frequency of home visits, duration of separation from spouse and alcohol consumption. Thus, male migration without family or spouse appears to be a key driver of risky sexual practices.

Conclusions: This study provides important new information for understanding the dynamics of sexual behaviour in Bangladesh, and suggests that migrant men should be a key population for HIV prevention efforts. Nonetheless, the fact that most men were having unprotected sex with sex workers reinforces the importance of continuing to target interventions towards commercial sex contexts.

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Introduction

This paper describes the prevalence of risky behaviours and factors affecting sexual practices among rural-to-urban male migrant taxi drivers in Dhaka, Bangladesh.

Bangladesh is currently moving towards a 'concentrated human immunodeficiency virus (HIV) epidemic', whereby overall prevalence is less than 1% in most key population groups, but an increasing incidence of HIV (7%) among injecting drug users in Dhaka has recently been documented.[1–3] A number of studies have documented high levels of unsafe sexual practices and treatable sexually transmitted infections (STIs) in other high-risk populations (e.g. sex workers, men who have sex with men, mobile male populations).[2–7] Thus, despite current low HIV prevalence estimates in different high-risk groups in Bangladesh, the possibility of developing a widespread epidemic still persists.[3] Defining and measuring the extent of risk in key vulnerable populations is necessary in order to design effective interventions.[8] However, relatively little evidence is available within Bangladesh to provide a clear understanding of the transmission dynamics of HIV or other STIs.

In many countries, geographic mobility, particularly male rural-to-urban economic migration, is a key driver associated with increased STI and HIV transmission.[9] Migrant workers have often been represented as an epidemiological 'bridge' between groups where HIV is concentrated (e.g. sex workers) and the general population (e.g. wives and children of migrant workers).[9,10] The potential epidemiological significance of geographic mobility in Bangladesh is illustrated by existing sex ratios: 121 males per 100 females in urban cities compared with 104 males per 100 females in rural areas in the age group 20–49 years.[11] With such large numbers of migrant men living alone in cities, it is important to investigate the nature of their sexual behaviour in order to protect their own health and that of the wider population.[12,13]

Although the association between migration, mobility and spread of HIV and STIs is well documented globally,[7,14–17] the social and behavioural mechanisms that are associated with male rural-to-urban migration and potential vulnerability to HIV/STIs are poorly understood in Bangladesh. Apart from one study that reported significantly higher levels of non-marital sex among migrant workers who had lived away from their rural families,[13] very little information is available on the sexual behaviour of migrant workers in Bangladesh. Given that Dhaka city, in particular, continues to experience high rates of population growth, with rural-to-urban migration of young men representing the major component of this growth, the lack of information on male migrants' sexual behaviour is an impediment to effective policy and programme development in Bangladesh.

Methods

Aim

This study aimed to describe the extent of sexual risk behaviour and factors driving risky sexual practices among rural-to-urban male migrant taxi drivers in Dhaka. This group was chosen as it is a potentially significant 'bridging population' within sexual networks, linking commercial sex networks to ordinary households and communities.[18,19] Taxi drivers in particular are known to have close links to the sex industry as they often act as informal middle men/brokers for sex workers, and may themselves develop intimate relationships with sex workers.[19]

Study design and setting

The results reported here were part of a mixed methods study that was conducted among a sample of rural-to-urban male migrant taxi drivers in Dhaka from March 2007 to December 2007. The main study consisted of four components: (i) a preliminary field study to map the operational structure of the taxi industry and to gather background data; (ii) a questionnaire survey amongst a sample of taxi drivers (aged 18–35 years, median age 28 years, $n = 437$); (iii) in-depth interviews with 33 sexually experienced drivers; and (iv) a focus group study of drivers ($n = 56$ in six groups). This paper reports specifically on the findings from the cross-sectional survey.

Development of the survey instruments

The survey questionnaire was developed based on the Family Health International questionnaire,[20] and built upon the findings of preliminary qualitative research. The questionnaire covered six areas of questions: sociodemographic factors, context of migration and associated behaviours, drug/alcohol related, recent and past sexual behaviour including condom use, perception of acquired immunodeficiency syndrome (AIDS) risk, and knowledge of HIV/STIs including exposure to AIDS awareness campaigns. The questionnaire employed a mixture of precoded (mostly yes or no) and open questions (e.g. age, number of partners), and a five-point Likert scale (for attitudes to condom use, perception of risk and AIDS knowledge). The draft questionnaire was piloted among 24 taxi drivers in Dhaka, which resulted in a number of modifications. The final version was written in English and then translated into Bengali.

Sampling strategy and data collection

The sample size was calculated for an unknown prevalence of risk behaviour with a 5% margin of error and at 95% confidence level. That yielded a required total sample size of 384. Taking into consideration the effect of the study design, the expected 85% participation rate among the vulnerable groups as found in previous studies,[2,6,13] and the need to adjust for possible confounders, it was determined that a sample size of 440 was required for the study. The eligibility criteria were sexually active men aged between 18 and 35 years who had moved from their rural place of origin into urban Dhaka for work purposes, who had lived in Dhaka (for short or long periods) for over 1-year and who maintained their permanent residence in the rural village. The exclusion criteria included age less than 18 years and incapable of giving consent.

Survey participants were recruited using a two-stage sampling design.[20] As described in Fig. 1, the primary