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Male alcohol use and unprotected sex with non-regular partners: Evidence from wine shops in Chennai, India

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Abstract

Background: In India, heterosexual transmission accounts for approximately 80% of the spread of HIV, the virus that causes AIDS. Male alcohol use and its putative association with sexual risk are explored to inform HIV prevention interventions.
Methods: A survey of 1196 male patrons of wine shops or bars was conducted from August 2002–January 2003 as part of an ongoing HIV prevention trial in Chennai city in south India. In the analysis, we explored associations between covariates related to sexual behavior and alcohol use and our outcome of unprotected sexual intercourse with non-regular partners among men.
Results: Nearly half (43%) of the respondents reported any unprotected sex with non-regular partners and 24% had four or more recent sexual partners. Over 85% reported using alcohol at least 10 days a month (17% reported drinking everyday). During a typical drinking day, 49% reported consuming five or more drinks. Alcohol use before sex was reported by 89% of respondents. Unprotected sex with non-regular partners was significantly higher among unmarried men (OR =3.25), those who reported irregular income (OR = 1.38), who used alcohol before sex (OR = 1.75) and who had higher numbers of sexual partners (OR = 14.5).
Conclusions: Our findings suggest that future HIV prevention interventions in India might consider discussing responsible alcohol use and its possible role in sexual risk. These interventions should particularly consider involving unmarried men and weigh the role of structural factors such as access to income in developing prevention messages.

Keywords: Alcohol use; Sexual risk behavior; HIV/AIDS; India

1. Introduction

International studies exploring the association of alcohol use and sexual risk have reported mixed findings. While randomized study designs have provided some support for this association, cross-sectional survey research has not. Randomized designs have shown that under controlled conditions those exposed to alcohol and a sexual vignette report increased intentions to engage in unsafe sex, but have low sexual risk perceptions (Weinhardt and Carey, 2000). Studies also show that individual differences in impulsivity, cognitive responses and differential reaction to alcohol may account for risky sexual outcomes (Stoner et al., 2006; Hendershot and George, 2006). Studies that have explored alcohol use related factors and their associations with sexual risk have not been widely reported from India where there are now over 5 million individuals infected with HIV (National AIDS Control Organization, 2006a,b) since the first case of HIV was reported in 1986 (Simoes

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et al., 1987). However, research on alcohol use and its health effects suggests that alcohol abuse is widely prevalent and its effects need more study and discussion in the public health arena.

In India, two effects of alcohol use are of particular concern. First, the possible effect of alcohol use on individual health and second is the likely social and economic impact of alcohol use and abuse. There are 31 states in the Indian union and alcohol use prevalence estimates vary from state to state, ranging from 6% (in a state under prohibition) to 75%. Studies investigating dependence consistently report that approximately half of those who drink alcohol show signs of dependence (Benegal, 2005). Using self-reports, a survey in New Delhi found that 43.4% of respondents met the DSM III alcohol dependence criteria that consider both pathological use patterns and the presence of tolerance or withdrawal symptoms in the individual (Mohan et al., 2001). The data on hazardous drinking further suggests need for interventions on responsible alcohol use. Hazardous drinking has been defined in the literature as a score of 8 or greater in the 10-point assessment of the Alcohol Use Disorders Identification Test (Saunders et al., 1993). AUDIT scores from studies of male alcohol users in West and North India report 21% and 48% of surveyed respondents, respectively, met the definition of hazardous drinking (Chagas Silva et al., 2003). Hazardous drinking in Indian settings is associated with health and economic concerns and tends to be characterized by short periods of heavy consumption (D'Costa et al., 2007). While the impact of alcohol abuse on human health is remarkable, the social and economic consequences of alcohol use are particularly relevant to public health in India. Alcohol use in India has long been associated with intimate partner violence, sexual coercion and other violent acts towards family members (Go et al., 2003). Alcohol users in a household, particularly poor households, spend a large proportion of their disposable income on alcohol thereby depleting resources that might otherwise be spent on health or education (Saxena et al., 2003). There is a marked male-female difference in alcohol use – men drink more than women and lower education and socio economic status are also correlated with higher alcohol use (D'Costa et al., 2007). While this evidence can influence alcohol abuse policy formulation, there are other factors that policy makers and interventionists need to consider. Except for the few of the 28 states in India that are officially under prohibition, taxes from alcohol sales constitute a large proportion of state income – in some states as high as 25% of revenue (Benegal, 2005). Since the globalization of the Indian economy, alcohol sales have increased, access to alcohol is high, and alcohol use among men and women is becoming more acceptable (Basu, 1998). The introduction of alcohol use and intoxication as population-based concerns then has both political and policy implications.

A noteworthy national agency that is beginning to bring alcohol use into the national consciousness is the National AIDS Control Organization (NACO). Behavioral surveillance conducted by NACO shows that 75% of a nationwide sample of female sex workers consumed an alcoholic drink occasionally before sex; among their male clients, 23% reported drinking on a daily basis (National AIDS Control Organization, 2001). Other studies evaluating behavioral factors associated with sexual risk in India report that alcohol use is associated with heterosexual risk markers such as prevalent sexually transmitted diseases and sex with female sex workers (Madhivanan et al., 2005), extra-marital sex (Schensul et al., 2006) and non-use of condoms (Gupta et al., 2005).

These associations between alcohol use and sexual risk are noteworthy since heterosexual intercourse accounts for 80% of all reported HIV infections in India (National AIDS Control Organization, 2006a,b). Heterosexual risk in India arises from both lack of condom use and having multiple sexual partners (Solomon et al., 2004). Reports on reasons for condom non-use in India include male reports of reduction in pleasure and condom unavailability (Sivaram et al., 2004); social norms expecting married women to trust their spouse's sexual fidelity (Chatterjee and Hosain, 2006); and fear of violence against among women (International Council for Research on Women and Center for Development and Population Activities, 2000) if condom use is requested or even suggested. Having multiple sexual partners is a suspected behavioral determinant for increased risk of HIV infection. Studies have shown that between 15 and 19% of Indian married men (Bhattacharjee et al., 2000) and over 45% of unmarried men have multiple partners (Bhatia et al., 2005). Male extra-marital relationships lead to married women becoming infected by their spouses and it is now evident that being married to a man who has multiple partners is one of the single most important risk factors for a monogamous woman with respect to HIV acquisition (Newmann et al., 2000). Understanding the role that male heterosexual behavior plays in fuelling the further spread of HIV in India is key to developing interventions that will meaningfully involve men in prevention efforts.

In this paper, our aim is to explore the determinants of risky sexual behavior among male alcohol users in Chennai in southern India. We defined our outcome as any unprotected sex with a non-regular partner. In choosing our outcome variable, we sought to represent the majority of risky heterosexual encounters reported from India and seek to contribute to the understanding of possible associations between alcohol use and sexual risk in the Indian context.

2. Methods

2.1. Study background

We conducted this study as part of the NIMH Collaborative HIV/STD Prevention Trial. This is a five-Country community randomized controlled trial (with sites in China, India, Peru, Russia and Zimbabwe) that seeks to test the efficacy of HIV prevention messages delivered by community popular opinion leaders, or CPOLs (NIMH, 2007 National Institute of Mental Health Collaborative HIV/STD Trial Group, 2007). CPOLs are individuals whose friends and close associates look to for advice, affirmation and counsel on a wide variety of issues particularly sexual behavior (Kelly, 2004). In India, our study is located in the south–eastern coastal city of Chennai where we select and train CPOLs from among patrons of wine shops, community-based retail alcohol outlets.

Wine shops in India are similar to bars in western countries. Unlike in restaurants where one has to purchase food to purchase alcohol and where one is expected to dine-in, wine shops sell alcohol both on a drink-in or a take-out basis. Attached to wine shops is an area called a 'bar' which may have seat-