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Problem Drinking among Married Men in India: Comparison between husband's and wife's reports

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Abstract

Introduction and Aims—This study compared the husband's report, and wife's report of her husband's problem drinking, among residents of an urban slum in Bangalore, India.

Design and Methods—The data come from a feasibility study to prevent HIV infection among at risk women in Bangalore. Household enumeration was carried out (N=509) to choose 100 married men between 18 and 50 years who reported problem drinking (scores 8 and above) on the Alcohol Use Disorder Identification Test (AUDIT). Wives of these married men, considered to be at risk for HIV because of their husband's hazardous drinking, were subsequently recruited for the study (N=100). Written informed consent was obtained; wives were asked about the drinking history of their husband's through the AUDIT-WR (Wife's Report) developed for the present study.

Results—Prevalence of problem drinking in the enumerated sample (N=509) was high (N=186; 37%). The husband's report and his wife's report of his problem drinking was concordant ($r=0.57-0.75$) on eight out of ten items, and the total AUDIT score.

Discussion and Conclusions—The AUDIT-WR is a reliable and culturally relevant measure of husband's problem drinking. In India, men with problem drinking are hard to reach. Therefore, proxy report of the wife may be useful when the husband is either unavailable or uncooperative for assessment.

Keywords

Alcohol; AUDIT; HIV; Community Based Prevention; India

Introduction

Alcohol use is a growing public health problem with immense ramifications to the individual and the society. The National Survey of Drug Use in India, which by far is the only systematic effort to document the nation-wide prevalence of substance use, recorded alcohol use in the past year in only 21% of adult males; the current use of alcohol ranged

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from 7% to 75% (1). These estimates are less likely to mirror reality, due to the wide variation present in a large and complex country like India (2). Although India was regarded as a 'dry' or 'abstaining' country (3), the impact of globalization appears to have resulted in a widespread attitudinal shift to greater normalization of alcohol use (2). Consequently, there has been a significant lowering of age of initiation of drinking from 28 years to 20 years (4).

Despite the growing prevalence of alcohol use, studies have found that people abusing alcohol often refrain from seeking help. In a recent study, (5) reported that although alcohol-related problems were experienced by approximately one-third of a sample of young adults, treatment contact for these problems was uncommon. Belief in the ability to handle alcohol related problems by oneself was a barrier to help seeking but this was often not matched by action. A community based study from North India found that men with problem drinking do not seek help although they live in close proximity to a community outreach clinic. The two most commonly cited reasons for not seeking treatment were feelings of shame and disbelief in the benefit of treatment (6). The reasons for not seeking treatment for alcohol problems in this sample of Indian men resemble those cited in Western literature (7–10).

Further, the relationship between problem drinking and high risk sexual behavior is well documented in the HIV literature. Community based studies in India have documented a strong association between problem drinking and subsequent high risk sexual behavior and risk for HIV (11–13). In India, heterosexual transmission accounts for approximately 80% of the spread of HIV (14,15) and married women's greatest risk of contracting HIV is through sexual intercourse with their husbands (16). While it seems obvious that community based preventive interventions in the areas of alcohol use and HIV ought to focus on reducing alcohol consumption among young adult males, there are very few studies on the same in India (17). This we speculate is because men with problem drinking are hard to reach and hard to recruit and retain in studies. Therefore, it seems useful to obtain reliable proxy information about the drinking behavior of these men.

Connors and Maisto (18) found that the greatest degree of agreement between subjects and proxies was likely when proxies are in frequent contact with the subject, or are spouses or partners who are confident about the reports they are providing. Sobell, Agrawal and Sobell (19) noted that proxies who are fairly sure of the information they provide are the preferred informants to corroborate alcohol abusers' reports of drinking and related behaviors. The best proxies were spouses who were fairly sure of the information they reported and their reports served as useful measures of outcome.

Proxy reports of significant others are a potential method to address concerns about the validity of the index person's self-reports, and can be substituted for reports from people who are unable to provide information about their drinking behavior. Donovan et al (20) examined proxy and self reports on the AUDIT. Proxy reports in this study were obtained from friends, coworkers, spouses and other immediate family members. The relative comparability of proxy-and patient-completed AUDIT scores suggested that patient and proxy reports were concordant.

In India, as in other collectivistic cultures, immediate family members cohabit and are likely to be more involved and aware of each other. In the clinical setting, particularly, family members almost always accompany the index patient and routinely provide proxy information about the patient's substance use behavior. Despite this, there are no known empirical studies that have examined the reliability of proxy reports. Further, the AUDIT has been used extensively both in clinical practice and research worldwide. In the Indian context, the AUDIT has demonstrated adequate reliability and validity in a hospital setting

(21) and the community (22). The present study therefore used AUDIT to assess problem drinking and compared self reports and proxy reports of men and their wives' respectively.

Methods

Participants

Data for these analyses come from the World AIDS Foundation (WAF) funded Community based HIV prevention study for at risk women in Bangalore, India. 'At risk women' was defined as wives' of heavy drinking men (16,23). The primary aim of this study was to evaluate the comparative effectiveness of two types of HIV preventive interventions on risk behaviors among wives' of heavy drinking men. The study was approved by the Institutional Review Boards of Washington University School of Medicine, St. Louis, the National Institute of Mental Health and Neuro Sciences (NIMHANS), India and the Indian Council of Medical Research (ICMR).

To identify heavy drinking men in the slum, 509 households were enumerated. First, a complete listing of residents of a household was obtained; the youngest married male in the household was screened for problem drinking using the AUDIT. Only the youngest married male was included for two reasons: One, to ensure that the sample was socio demographically homogeneous. Two, to recruit young wives of these men, who are likely to be sexually active and therefore at a higher risk for contracting HIV.

Problem drinking (Score of 8+ on AUDIT) was present in 186 men. Permission was obtained from the first 100 men to contact their wives and seek their consent for participation in an HIV preventive intervention. The men were also briefed about the survey instruments that would be administered and the free voluntary counseling and testing services that would be offered to their wives. After obtaining consent from these 100 men, the field staff went to their homes and solicited their wives participation in this study. All the 100 wives agreed to participate.

Participation in the study included face-to-face interviews conducted in private at the Public Health Centre (PHC) within the community. Women were interviewed with several standard assessments including the AUDIT-WR. A time lag of approximately one month was present between administering AUDIT to the husband and his wife, as it took 30 days to screen the households, choose the eligible male and to send the team back to interview the wife.

After the baseline assessments were completed, women were randomized either to a modified standard HIV pre and post test counseling based on NIDA and National AIDS Control Organization (NACO) guidelines or to an enhanced intervention group (standard + one educational group intervention session on health, nutrition, stress and coping). All the 100 women were followed up after 2 months to test the effectiveness of the intervention (100% completion). All participants received remuneration, in the form of refreshments, for their participation in the study. Only the AUDIT-WR baseline data is being utilized for this paper.

Measures

The AUDIT (24) was developed by the World Health Organization, as a simple method of screening for excessive drinking, and to assist in brief assessment. It also provides a framework for intervention to help hazardous and harmful drinkers reduce or cease alcohol consumption. The AUDIT was validated on primary health care patients in six countries. It was developed and evaluated over a period of two decades, and it has been found to provide an accurate measure of risk across gender, age, and cultures. It consists of 10 questions; 3 pertain to hazardous alcohol use, 3 to dependence symptoms and 4 to harmful use. Most of

the questions focus on recent use. Scores greater than or equal to 8 indicate hazardous/problem drinking. Scores range from 0 to 40. AUDIT has enjoyed widespread use by both health workers and alcohol researchers across the world.

AUDIT-WR was developed in this study to understand what the wives knew about their husband's drinking behavior and to establish concordance between husband's report and their wife's report, as previous reports (5) have indicated that men tend to under-report their drinking behavior. A proxy report of the husband's drinking behavior was obtained in each case from his wife. While self report is important, proxy reports may be used when the respondent is unavailable, uncooperative or is likely to provide unreliable information. Proxy reports are also useful to obtain corroboratory evidence and to understand the significant other's knowledge about the index person's problem. In practice and research, it may be used to obtain information about concordance, and/or as an outcome measure in intervention studies.

The items used in AUDIT-WR were exactly similar to the AUDIT, except that all items referred to their husband. For example, on AUDIT the question read, "In the past 30 days, how often have you had a drink containing alcohol?" In the AUDIT-WR, the question read, "In the past 30 days, how often did *your husband* have a drink containing alcohol?"

Both the AUDIT and AUDIT-WR were translated to Kannada using the standard procedure for translation.

Analysis

Husbands' self reports (N=100) and their wives' reports (N=100) were analyzed. Descriptive statistics and Intraclass Correlations (ICC) were computed using SAS version 9.1. ICCs were interpreted according to recommended guidelines (25).

Results

1. Demographics

The husbands' (N=100) mean age was 35 years (SD=6.40) and their wives' (N=100) were an average 30 years of age (SD=6.46). Twenty seven percent of the sample was illiterate, 12%, 37% and 24% received primary (1–4 years), middle (5–7 years) and high school education, respectively. Over one third (37%) of the sample was employed either full time or part time. The annual income of two thirds of the sample ranged from Rs. 2000 to 6000 (approximately USD \$53 to \$158). A majority (93%) of women was residing in rented Government Housing and nearly all (99%) women were in a monogamous marriage.

II. Prevalence of problem drinking

The prevalence of problem drinking in the enumerated sample of married men (N=509) was 37% (N=186). Women were assessed on the Substance Abuse Module adapted for the Indian context. Only two women reported using alcohol. Neither reported any alcohol related problem.

III. Concordance between husbands and wives' reports on AUDIT

Interclass correlations (ICC) were computed for each of the 10 questions of AUDIT, to determine concordance between husband's and wife's reports. The ICC's were significant for all the 10 questions, indicating concordance between the two reports. While most ICCs were good (between $r=0.57$ and $r=0.75$), the ICCs for question 10 was fair ($r=0.44$) and question 4 was poor ($r=0.32$) (Table 1).

IV. Classification of problem drinkers based on wives' reports

Self reported problem drinking was an eligibility criteria of the present study, so all 100 men were classified as having problem drinking. Based on the wives' reports, however, 89% were classified as having problem drinking.

Discussion

The findings of the present study indicate that husbands' reports and their wives' reports of husbands problem drinking are comparable. The findings are corroborated by the only other study comparing self and proxy reports on the AUDIT (20). Problem drinking was assessed on the AUDIT which comprises ten questions that tap dependence, hazardous use, and harmful use. ICC's computed for eight questions were good. While most ICCs were good (between $r=0.57$ and $r=0.75$), the ICCs for question 10 was fair ($r=0.44$) and question 4 was poor ($r=0.32$). Question 10 on the AUDIT reads, '*Has a relative, friend doctor or another health worker ever been concerned about your drinking or suggested you cut down?*'. Wives' tended to acknowledge that their husbands were told by significant others to cut down drinking more than their husband's were. Poor concordance on this question may be explained by the finding often cited in literature that men with problem drinking deny the severity of their problem, tend not to seek help and believe that they can overcome their problem on their own (5,6). However, an alternative explanation may simply be that the wives are more likely to recall making a statement to their husbands, or at least believing that they have. Question 4 on the AUDIT reads, '*How often in the past 12 months have you found that you were not able to stop drinking once you started?*'. The husbands reported loss of control 'everyday or almost every day' while the wives' reported 'mostly less than monthly'. This question taps a more subjective feeling of loss of control and therefore, may have yielded a relatively poor concordance between the self and proxy reports ($r=0.32$). Studies comparing self and proxy reports on drinking behaviour have shown that items that are more subjective have a relatively poor concordance (19).

Individual item scores and the total score on the AUDIT indicate that overall, husbands' scores are higher than their wives' scores. Since the eligibility criteria for the present study was married men with problem drinking, all 100 men were classified as having problem drinking (8+ on AUDIT). Based on the wives' reports however, 11% were misclassified as non-problem drinkers. A review of the current literature on the reliability and accuracy of alcohol abusers' self-reports of alcohol consumption in relation to similar reports provided by proxy informants', supports the assertion that subjects provide accurate reports about their drinking. When discrepancies have been observed between reports provided by subjects and proxies, the subjects' data in almost all cases have painted a picture of poorer functioning. The greatest degree of agreement between subjects and proxies is likely when proxies are in frequent contact with the subject, are spouse/partners and are confident about the reports they are providing (18).

Some studies have obtained proxy information from different sources (20). However, since the present study recruited only married men, proxy information was obtained only from their spouses. The findings highlight that the wives' reports provided reliable and useful information about their husband's problem drinking.

A limitation to obtaining a higher concordance may be the time lag between the husbands' and wives' reports. There was an interval of one month between the two assessments. Three questions on the AUDIT pertain to a time frame of the past 30 days and therefore, the husbands and wives' may have used a different time of reference. We do not think that this affected the reliability of the data since drinking patterns are unlikely to change in a span of a month. Further, the present study obtained proxy information only on men with problem

drinking. Future studies may compare self and proxy reports on a random sample of men and their wives' to obtain information both on problem drinkers and non-problem drinkers.

The prevalence of problem drinking is high among men in India. However, men with problem drinking are hard to reach, recruit and retain in community based surveys and intervention research. The findings of the present study showed that wives' of men with problem drinking were relatively more accessible and provided reliable and useful information about their husband's problem drinking. Wife's reports can be substituted when the husband is unavailable or uncooperative for assessment and when corroboratory evidence is required. The AUDIT-WR may therefore be useful as a screener, or as an outcome measure in community based research.

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Table 1

Prevalence and concordance data of the husband's and wife's reports

Item No	Description	Response Option	Prevalence				Agreement ICC (95% CI)
			Husband's Report (N=100)	Wife's Report (N=100)	Husband's Report (N=100)	Wife's Report (N=100)	
			Freq of most severe code (4)	Freq of most severe code (4)	Mean (SD)	Mean (SD)	
1	In the past 30 days, how often have you had a drink containing alcohol?	0=Not at all 1=Once 2=2-4 times 3=2-3 times/week 4=Daily	55	53	3.24 (0.99)	3.17 (1.04)	0.65 (0.76, 0.48)
2	In the past 30 days, how many drinks containing alcohol have you had on a typical day when you were drinking?	0=Not at all 1=1 or 2 2=3 or 4 3=5 or 6 4=7 or more	3	2	1.92 (0.79)	1.69 (0.69)	0.57 (0.69, 0.31)
3	In the past 30 days, how many times did you have six or more drinks on one occasion?	0=Not at all 1=Once 2=2-4 times 3=weekly 4=Daily	6	3	1.26 (1.24)	1.36 (1.14)	0.57 (0.71, 0.37)
4	How often during the past 12 months have you found that you were not able to stop drinking once you had started?	0=Not at all 1=<monthly 2=monthly 3=weekly 4=Daily	18	4	1.83 (1.39)	1.35 (1.21)	0.32 (0.51, -0.09)
5	How often during the last 12 months have you failed to do what was expected of you because of drinking?	0=Not at all 1=<monthly 2=monthly 3=weekly 4=Daily	14	8	1.38 (1.46)	1.21 (1.30)	0.64 (0.75, 0.46)
6	How often during the last 12 months have you needed a drink in the morning to get yourself going?	0=Not at all 1=<monthly 2=monthly 3=weekly 4=Daily	10	9	1.17 (1.33)	1.20 (1.33)	0.75 (0.83, 0.63)
7	How often during the last 12 months have you had a feeling of guilt or remorse about your drinking?	0=Not at all 1=<monthly 2=monthly 3=weekly 4=Daily	27	7	1.94 (1.54)	1.25 (1.22)	0.62 (0.69, 0.31)

Item No	Description	Response Option	Prevalence				Agreement ICC (95% CI)
			Husband's Report (N=100)	Wife's Report (N=100)	Husband's Report (N=100)	Wife's Report (N=100)	
			Freq of most severe code (4)	Freq of most severe code (4)	Mean (SD)	Mean (SD)	
8	How often during the last 12 months have you been unable to remember what happened the night before because you had been drinking?	0=Not at all 1=<monthly 2=monthly 3=weekly 4=Daily	16	8	1.24 (1.52)	1.08 (1.34)	0.71 (0.80, 0.56)
9	Have you or someone else you were with ever been injured as a result of your drinking?	0=No 2=Yes, not last year 4=Yes, last year	12	13	0.72 (1.38)	0.68 (1.40)	0.68 (0.79, 0.53)
10	Has a relative, friend, doctor or another health worker ever been concerned about your drinking or suggested you cut down?	0=No 2=Yes, not last year 4=Yes, last year	69	72	3.22 (1.27)	3.28 (1.26)	0.44 (0.62, 0.17)
	Total Score	Problem Drinking=8+ Range=0-40	100	89	17.92 (6.84)	16.27 (7.04)	0.69 (0.78, 0.52)