A Note on Alcohol Consumption and Sexual Behaviour of Youths in Botswana

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Introduction

The global incidence of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) has led to a flood of research into their causes, processes and effects. Theoretical and empirical dimensions that link alcohol with sexual intercourse, sexually transmitted infections (STI), HIV and AIDS relate largely to youths in the United States of America (Cooper, 1992; McEwan et al., 1992; Dermen et al., 1998; Murphy et al., 1998; Santelli et al., 1998; Anonymous, 1999; Chapko et al., 1999; Fromme et al., 1999; Mott, 1999; Anonymous, 2002). But few studies in southern Africa (and none in Botswana) have focused on this subject. African ideology about alcohol and sexual intercourse are strongly based on folklore, mythology and symbolic manifestations; and it is ironic that both are capable of producing joy, through sustained lifespan within a community, and misery through premature death. While moderate alcohol consumption may have positive health effects (Dufour, 1999), large quantities of alcohol could result in physical trauma, falls, malnutrition, poor intellectual and work performance and death (Kinney and Leaton, 1983; Gossop, 1989; Milgram, 1990; Van der Gaar et. al., 2000; Rehm and Rossow, 2001). Indeed, alcohol plays an important role in fostering poverty – a factor that is crucial to the quality of human immune system and exposure to HIV infection. It is also known that alcohol-induced intoxication lowers inhibitions, and increases the likelihood of men fumbling over condom application, having sex without condoms and having multiple sexual partners (Gordon et al., 1997; Ford and Norris, 1998; Poulson et al., 1998; Estrin, 1999). Risky sexual behaviour in this era of HIV/AIDS could lead to contraction of STI, HIV infection and, eventually, death.

This paper seeks to examine alcohol consumption and its effect on sexual behaviour of youths. It also examines the possible relationship between alcohol use and other social factors. In this paper, alcohol use and alcohol consumption are employed interchangeably. Consistent condom use refers to use of condom always. While alcohol is probably the most abused substance in Botswana,

Batswana (citizens of Botswana) are not among the highest of the world's alcohol consumers. In 1996, Botswana ranked eighty-third among 153 developed and developing countries for which data on alcohol consumption exist (United Nations, 1998). Indeed, per capita consumption of alcohol in South Africa, Gabon, Liberia, Zimbabwe, etc. exceeds that in Botswana. Its level of alcohol consumption is by far lower than the case in the United Kingdom, United States of America, Germany, France, Ireland and Switzerland, among others, all of which have far lower HIV prevalence rates than Botswana. The indications are that while alcohol consumption is declining in developed countries, it is increasing in developing countries (United Nations 2001). But whereas per capita alcohol consumption increased in about 43 percent globally between 1970/72 and 1994/96, it declined by 1.4 percent in Botswana during the same period (Anonymous, 1998). This begs the question, what then justifies investigating a link between alcohol and sex in Botswana?

This study is partly justified by uncertainty about the completeness of data on alcohol consumption in Botswana and other southern African countries. Home-brewed alcoholic beverages are commonly and illicitly sold and consumed in Botswana's rural and urban areas by especially the poor and those aged 18-34 years (Molamu and Manyeneng, 1988; MacDonald, 1996b; Campbell and Ntsabane, 1997; Molamu and MacDonald, 1996). While traditional beverages, such as *bojalwa*, were initially designed to contain small amounts of alcohol, their increasing economic value has influenced the inclusion of solvents and sulphuric acid from motor vehicle batteries to enhance their capacity to intoxicate (MacDonald, 1996b). So, although statistics indicate that black people drink less alcohol than their white counterparts, it appears that alcohol intake is much higher among blacks that drink than statistics reveal. Given relatively high levels of unemployment and poverty among Batswana, nutritional levels are generally low among the poor due to inadequate food intake. Thus, home-brewed alcoholic beverages that were previously perceived to have nutritional value are now contributing towards compromising nutritional levels of the poor that abuse alcohol to the extent of exposing them to easy access by physically and mentally debilitating diseases. A further rationale for this study is the argument in much of the existing literature that Batswana women are perceived as objects of sexual pleasure, certainty that heterosexual sexual intercourse is the primary mode of HIV transmission in sub-Saharan Africa, observations about a probable link between alcohol and sexual intercourse and Campbell et al.'s (2002) observation in South Africa of an association between alcohol consumption and increased rates of HIV infection.

The Social Profile of Botswana

Botswana's population, 1.7 million, is one of the smallest in Africa. With current HIV infection rate of 36 percent among the population aged 15-49 years, the global demographic effects of HIV/AIDS are highest among Batswana (cit-

izens of Botswana). Some 34 percent of females and 16 percent of males aged 15-24 years are infected with HIV. The life expectancy of Batswana fell from 65 to 46 years between 1991 and 2000. By 2005 it would be 36 years, when it could have been 70 years if AIDS did not exist (United Nations, 2000). For over a decade, the government has maintained a massive campaign to sensitise people about HIV/AIDS and how to minimise the risk of infection. Consistent condom use, delayed age at first sexual intercourse and sexual abstinence are among intervention strategies recognised by national government and non-governmental organisations. Alcohol use and abuse, on the other hand, have hardly featured among HIV-related policies. Several social scientists have investigated the determinants of high HIV infection rates in Botswana, with sexual intercourse among youths being the prime focus. These studies examined factors influencing sexual behaviour from several perspectives, including modernisation effect, poverty, multiple sexual partners, poor parental guidance and non-institutionalised prostitution (Seboni, 1993; Ball, 1996; Macdonald, 1996a; Letamo and Bainame, 1996; Selolwane et al., 1999; Meekers and Ahmed, 2000). But none of these studies focused on the role of alcohol, thereby eliminating from the policy equations one of the most important determinants of risky sexual behaviour among youths. Seboni noted that taking alcohol before sexual intercourse was rare while Ball's sample population did not consider alcohol an important motivator of sexual intercourse. Apart from fleeting references by Selolwane et al. to alcohol and other drug use where forced sex was initiated by male youths, other researchers apparently ignored the effect of alcohol.

Up to the late 1980s commercial sex workers (CSWs) were mostly found within spaces occupied by hotels and other amusement places where alcohol was sold. Since the 1990s CSWs have increasingly been motivated by poverty and increased demand for luxury goods to operate on the street in major towns at night, mostly sheltered by the shadows of nearby trees and wall fences. Commercial sex work (or prostitution) has been linked with heavy alcohol (and other drug) use amongst CSWs and their clients particularly where sex workers operate in or near drinking places (Plant *et al.*, 1989; De Graaf, 1995). Though little is known about prostitution in Botswana, evidence from South Africa, Kenya, Zaire and Rwanda indicate that up to 80 percent of black sex workers in parts of the region have HIV (Plant *et al.*, 1989; Rees *et al.*, 2000). Given the dependence of CSWs and their clients on alcohol to reduce social inhibitions, its ability to intoxicate and reduce mental coherence and enhance risky sexual behaviour (including the characteristic multiple sexual partnership and poor or non-use of condoms), it is easy to perceive that a combination of alcohol and sex through prostitution contributes to the spread of HIV and AIDS in Botswana. Though recent studies suggest awareness of HIV/AIDS and preventive measures amongst most CSWs in southern and eastern Africa, very few use the condom consistently. Indeed, most would proceed to have unprotected sex

where clients are prepared to pay extra to do so (Rees *et al.*, 2000; Gysels, 2001; Varga, 2001; United Nations, 2002).

In Botswana women are often exposed to rape, the incidence of which increased by 7 percent between 1995 and 1997 and increased further by 11 percent during the next twelve months. A considerable number of such cases involved alcohol consumption by the assailant, victim or both (Botswana 1999). Violent sexual abuse of women persists, and this is steeped in traditional belief that women are inferior enough to be referred to as children (Macdonald 1996a). Studies elsewhere in the region reveal a presence of alcohol in rape incidence and fear of rape serving to deter women from using alcohol (Mamman *et al.* 2002). In South Africa, most rapes occur during weekends – the period when exposure to alcohol consumption leisure activities is highest (Swart *et al.* 2000). Alcohol abuse in Botswana's cities is easily visible on weekends by the heaps of empty cans of alcohol beverages that lie near drinking places awaiting collection for recycling. Several studies have attested to rape victims' exposure to risk of HIV infection from the assailant. But unlike South Africa, where the spread of HIV is as alarming as in Botswana, HIV intervention policies in Botswana have not yet incorporated assistance to rape victims.

Though the proportion of Batswana males and females who become sexually active by their twentieth birthday is lower than in other Southern African countries, relatively more Batswana than Zimbabweans and Tanzanians commence sexual intercourse by age 15 (McCauley and Salter, 1995; Singh, *et. al.* 2000). Sexual intercourse is understood by Batswana youths as a critical expression of love, so much so that having boyfriends or girlfriends is considered to be more or less synonymous with having sexual intercourse (Ball, 1996). Unprotected sexual intercourse contributed to high and increasing levels of teenage pregnancy and sexually transmitted infection (STI) among Batswana youths between the 1980s and 1990s (Botswana 1994). While premarital sex and pregnancy were frowned upon prior to the 20th Century, an effect of modernisation has been increasing tolerance of pre- and extra-marital sexual relationships and premarital pregnancy. Migration of Batswana men to South African mines and poverty are also assumed to be among factors that have contributed to risky sexual behaviour and spread of HIV among Batswana (Macdonald 1996a).

Methodology

Primary quantitative data were obtained from a sample survey of 1124 males and females aged 14 to 24 years between November 1997 and January 1998. A stratified sample design, structured questionnaires and canvassers (or 'face-to-face') methods were used to collect the data. In Gaborone, the selection of an appropriate sample size for this study was based on an assumed proportion (p) of sexually active youths in the city. From the variation in the

proportion of sexually active teenagers in Botswana, it was assumed that the true level of sexually active youths (14-24 years) in Botswana is between 60.0 percent and 80.0 percent. The sample size was therefore predetermined at three levels of precision where the percentage random standard error (prse) corresponding to 60.0 percent, 70.0 percent, and 80.0 percent sexual activity were computed. In order to obtain populations that were not affected much by social and economic conditions in Gaborone, rural areas were selected purposively from the northern part of the country. Selection of sample population in each sample locality was done randomly. Though the initial sample size in Gaborone was 1000, 891 youths were enumerated. The additional 233 were enumerated in the villages, namely Masunga, Sebina, Shashe/Semotswane, Tawana, Tsamaya and Zwenshambe. To ensure confidentiality and, thus, reliability of responses, each responded was enumerated, with permission, out of earshot of a third person. Qualitative information was collected through in-depth interviews.

Quantitative Analytical framework

Chi square, analysis of variance (ANOVA) and multiple regression analysis were used. Chi square was applied to examine bi-variate interactions between alcohol use and selected factors. ANOVA was applied to examine the effects of a single factor on frequency of sexual intercourse. In each case, a third variable (age of youth) was used as a control. Multiple regression analysis was used to isolate the determinants of alcohol consumption and sexual intercourse. Because the data lacked additivity, logarithmic transformation was done to induce normality. Consequently, the means in Table 1 are actually antilogarithms of the initial means obtained from transformed data. Stepwise method was used to select the predictors because of its ability to correct for effects of multicolinearity (Draper and Smith, 1981; Neter *et al*, 1985; Mukherjee *et al*, 1998).

In applying multiple regression analysis, the response variables are (1) number of (alcoholic) drinks consumed per day and (2) frequency of sexual intercourse per month (i.e. 'number of times youth had sex in the past month'). The first response reflects quantity of alcohol consumed. It is a better indicator of alcohol consumption than the number of times youth drink alcohol. The second response reflects current sexual activity. Initially the predictors included in the development of the equations are age of youth, education of youth, education of youth's father, education of youth's mother, proportion of surviving brothers, proportion of surviving sisters, age when youth first knew about sex, number of sexual partners youth had simultaneously, number of boyfriend or girlfriend had in the past 12 months, current number of boyfriend/girlfriend, age at first sexual intercourse, number of children ever born or fathered, number of times youth went to nightclub, bar or party, number of times youth drank alcohol and number of drinks youth consumed per day. While number of times youth had

sex in the past month was initially included as a predictor when the response variable was *number of drinks consumed per day*, it was excluded where the response was *frequency of sexual intercourse per month.*

Two of the alcohol-related predictors (i.e. number of times youth drank alcohol and number of drinks consumed per day) were excluded when developing the first model. The second model includes the effect of number of alcoholic drinks youth consumed per day while the third model includes the effect of number of times youth drank alcohol. The contributions of individual variables to total coefficient of determination (R^2) are excluded from Table 2 due to its presentation. Where appropriate, they are included in the text. It is worth noting that education of respondent' parents was included among the predictors because it is better for explaining respondent's attitudes and behaviour than the respondent's education (Campbell 1993, Campbell and Campbell 1997).

Results

Out of 1,124 youths interviewed, 59 percent were females and 41 percent were males. Only 1 percent of the youths never went to school. 34 percent of those that attended school attained senior secondary and post-secondary education. 96 percent were never married and more than three-quarters (76 percent) had no income. Among those that were sexually active, 61 percent were females and 55 percent were males. There were relatively more alcohol consumers among males (41 percent) than among females (23 percent). Chi square revealed that youths' age and education are significantly associated with alcohol use. Alcohol use is significantly higher among out-of-school youths than those that are in school. Most of those in school live with their parents while those not attending school live with relatives, other guardians or spouses. The family that males live with influences their use of alcohol. Sexually active youths consume significantly more alcohol than their virgin counterparts. Though consistent condom use is relatively higher among non-alcohol users, there is no significant association between condom and alcohol use.

Perceptions about Alcohol and Sex

It is not always clear what is meant when people make statements that associate sexual intercourse with alcohol consumption. Do they perceive that the relationship (if there is one) is an outcome of biological, social or psychosocial factors? The in-depth survey revealed that people generally believe that alcohol does affect adolescents' sexual behaviour. Indeed, most respondents' views were consistent with the environmentalist theory. Some of the responses are cited here; but, for purposes of confidentiality, the names are not the real. Pontsho, a 25 year old insurance agent, felt that 'youth nowadays drink alcohol excessively. After drinking, they become reckless by having sex all over the place. Alcohol lowers the mind's alertness, and despite the fact that they know

about AIDS/HIV, they engage in behaviour that leads them to contract it'. While Pontsho correctly refers to the inhibiting effect of alcohol, her association of alcohol consumption with reckless sexual behaviour by youth is too general and appears to have been influenced by the tendency to stigmatise HIV infection as a product of irresponsible sexual behaviour. Still, the statement draws attention to a realisation that there is a strong element of social intervention in the behaviour of people after taking alcoholic drinks. According to 17 years old Thabo, 'there is a definite connection between alcohol consumption and reckless sexual behaviour. Sometimes people have sex when they are drunk, and it is not something they planned. They just do it under the influence of alcohol. There are cases where drunken individuals rape or are raped. Also, when people are drunk, they may forget or be unable to protect themselves by using a condom'. This remark includes the effect of alcohol-induced intoxication on rape and concurs with observations elsewhere about the effect of alcohol on crime (Gossip 1989, Chapko 1999). Where rape occurred due to the perpetrator being intoxicated, it may be surmised that most of such acts were implemented due to sexual arousal following alcohol consumption. Thabo's remark captures much of the social and health factors associated with alcohol use and abuse. It is consistent with remarks by Namibians on this subject (LeBeau et al. 2001).

What seems to be missing in the statements by Pontsho and Thabo is a tendency by others to associate alcohol with sexual intercourse as if there was intervention from biological factors. For instance, 35 year old civil engineer Mpho stated that:

> I have never taken alcohol. But my friends who drink alcohol tell me that after drinking, the alcohol drops below the waist (*bo a tsheta*), meaning that it causes them sexual arousal and desire. In that sense, I would say that alcohol is a factor in adolescent sexual practice. After drinking, I don't know if you understand me, one becomes more excited and sociable. So, like my friends tell me, when they want a girl, and they are scared to approach them, they go drinking to gain the bravado to approach the girl.

In addition to social effects on the interrelationship between alcohol and sex, Mpho also includes intervention from biological factors that interact with alcohol to directly affect sexual arousal in humans. This is consistent with hereditarianism and empirical observations about the biological effect of alcohol on sexual behaviour.

Alcohol Consumption and Frequency of Sex: A Behavioural Perspective

The number of sexual intercourse youths had during the past month increased according to the number of times that they drank alcohol (see Table 1). Males who drank at least once a week had 2 times more sex than their non-drinking counterparts. The quantity of alcohol consumed is implicit in the number of alcoholic drinks consumed at a single drinking session. The drinking status of youths' partners does not seem to have significant effect on the sexual behav-

iour of youths. The frequency of sexual intercourse among males who have had sex with a casual acquaintance when under the influence of alcohol is significantly higher than it is among those who have never had such a sexual encounter.

Table 1: Mean Frequency of Sexual Intercourse in a Month, by Selected Predictors and Sex

No. of times drink alcohol	Mean Sexual Intercourse in a Month	
	Male	Female
Do not drink	0.02 (332)	0.07 (582)
Once every four weeks	0.12 (40)	0.83 (34)
One or more times a week	1.10 (69)	0.95 (17)
Total	0.06 (441)	0.08 (633)
	$F = 37.925$, $p < .001$	$F = 10.205$, $p < .001$
No. of drinks taken at a time		
Do not drink	0.02 (278)	0.06 (528)
One to four drinks	0.08 (53)	0.32 (63)
Five or more drinks	1.06 (95)	1.86 (28)
Total	0.05 (426)	0.08 (619)
	$F = 41.481$, $p < .001$	$F = 15.589$, $p < .001$
Partner drinks*		
Yes	0.82 (20)	1.01 (177)
No	0.85 (192)	0.62 (197)
Total	0.84 (121)	0.78 (374)
	$F = 0.001$, $p > .05$	$F = 2.597$, $p > .05$
Ever had sex with casual acquaintance when drunk		
Never	0.24 (164)	—
One or more times	2.08 (24)	—
Total	0.31 (188)	—
	$F = 8.276$, $p < .01$	—

Note: Values in parenthesis are number of cases. * Don't know category excluded.

— Result not applicable due to very low cases (3) of females. Differences in totals are due to invalid cases (non-response and not applicable).

Table 2: Standardised B Coefficients from Multiple Regression Analysis of Number of Drinks per Day, by Sex

	Model 1			Model 2		
Predictors	Total	Male	Female	Total	Male	Female
Age of adolescent	0.040	0.134	0.094	0.074	0.117	0.136
Education of adolescent	-0.019	-0.010	-0.059	-0.038	-0.033	-0.050
Education of adolescent's father	-0.168*	-0.098	-0.203	-0.143*	-0.094	-0.191
Education of adolescent's mother	0.103	0.070	-0.051	0.078	-0.007	-0.057
Proportion of brothers	-0.051	-0.011	-0.106	-0.061	-0.019	-0.155
Proportion of sisters	0.033	0.056	0.043	0.045	0.056	0.080
Age when adolescent first knew about sex	-0.056	-0.018	0.128	-0.051	-0.056	0.127
Number of sexual partners had at a time	0.167*	0.142	0.116	0.172*	0.124	0.115
Number of boy/girlfriend in past 12 months	-0.056	0.191	-0.247	-0.049	0.078	-0.351*
Current number of boy/girlfriend	-0.246**	0.039	-0.347**	-0.218*	-0.075	-0.206
Age at first sexual intercourse	0.009	0.053	0.008	0.007	0.077	0.017
Number of times had sex in past month	0.441***	0.400***	0.560***	0.498***	0.485***	0.703***
Number of children ever born/fathered	-0.109	-0.085	-0.029	-0.105	-0.086	-0.090
Number of times goes to nightclub/bar	0.389***	0.058	0.518***	0.414***	0.219*	0.435***
Number of times drinks alcohol	0.153***	0.275***	0.047	–	–	–
Constant	1.326	1.403	1.120	1.302	1.339	1.074
Adjusted R^2	0.39	0.29	0.41	0.44	0.37	0.44
Number of cases	1098	448	650	1098	448	650

* $p < .05$ ** $p < .01$ *** $p < .001$ – not included

Multiple Regression Analysis

Both models in Table 2 indicate that alcohol consumption by youths is influenced by attendance of nightclubs, bars and parties; and this is especially so for females. This presents an impression that a link exists between sexual intercourse and alcohol consumption of youths in Botswana. Considering that Batswana youths tend to associate having a boyfriend or girlfriend with sex, it may seem that the negative signs of the regression coefficients corresponding to number of boyfriends that females had currently (b = -0.347) and in the past 12 months (b = -0.351) are inconsistent with expectation. Meanwhile, Models 1 and 2 indicate positive relationship between multiple sexual partners among all youths (total) and quantity of drinks consumed per day (b = 0.167 and 0.172, respectively).

While the educational attainment of youths is mutually independent of the number of drinks consumed in a day, both models indicate a significant effect of their father's education on alcohol consumption. The negative signs of the regression coefficients for all adolescents in Models 1 and 2 (-0.168 and -0.143, respectively) are consistent with expectations, and they indicate that offspring of less educated fathers have a greater tendency toward alcohol consumption than their counterparts with more educated fathers.

Models 2 and 3 in Table 3 indicate that alcohol consumption has a significant influence on frequency of sexual intercourse among Batswana youths. Additional results to those presented in Model 2 (not shown in Table) revealed that alcohol consumption contributed 11.3 percent and 26 percent to variations in sexual behaviour of males and females, respectively. With regard to Model 3, the corresponding contributions are 2.1 percent and 24.1 percent, respectively. These R^2 values point towards a greater effect of alcohol on sexual behaviour of females than among males. Models 2 and 3 in the table indicate that attendance of nightclubs, bars and parties tends to influence sexual intercourse among youths. While the effect of nightclub, bars and parties on sexual frequency among youths seems to be stronger among females than males, the models indicate that activities associated with these places tend to reduce the frequency of sexual intercourse among such females (b = -0.301 and -0.304, respectively).

Although alcohol appears to have significant effects on the sexual behaviour of youths, other social factors also play important roles in determining frequency of sexual intercourse. Table 3 shows that for males and females the number of boy/girlfriends youths had over the past 12 months or currently influences the frequency of sexual intercourse. Additional statistics (not shown in the Table) revealed that the number of boyfriends a females had over the past 12 months and the number of girlfriends a male had currently have the greatest influence on frequency of sexual intercourse among female and male youths. From Models 1, 2 and 3 results, it was revealed that number of boyfriends over the past 12 months contributed 67.6 percent, 29.9 percent, and 24.1 percent,

Table 3: Standardisd B Coefficients from Multiple Regression Analysis of Frequency of Sexual Intercourse, by Sex

	Model 1			Model 2			Model 3		
Predictors	Total	Male	Female	Total	Male	Female	Total	Male	Female
Age of adolescent	0.127***	0.149***	0.107**	0.093	0.060	0.040	0.118	0.124	0.030
Education of adolescent	0.002	0.011	0.008	0.053	0.038	0.048	0.058	0.037	0.049
Education of adolescent's father	0.002	0.024	-0.011	0.017	0.091	-0.022	0.032	0.095	-0.039
Education of adolescent's mother	-0.029	0.010	-0.047	-0.029	0.085	0.019	-0.010	0.068	0.027
Proportion of brothers	0.002	0.028	0.006	0.100	0.146*	0.124	0.100	0.146*	0.137
Proportion of sisters	-0.001	-0.020	-0.006	-0.100	-0.057	0.100	-0.099	-0.015	-0.109
Number of sexual partners had at a time	0.048*	0.050	0.059*	0.034	-0.050	0.132	0.032	-0.056	0.143
Number of boy/girlfriend in past 12 months	0.396***	0.328***	0.434***	0.304***	0.197*	0.541***	0.326***	0.243*	0.537***
Current number of boy/girlfriend	0.370***	0.489***	0.304***	0.375***	0.422***	0.226	0.400***	0.498***	0.215
Age when first knew about sex	0.039	-0.012	0.073*	0.103	0.038	-0.017	0.100	0.069	-0.021
Age at first sexual intercourse	-0.017	-0.026	-0.019	0.007	0.077	0.058	-0.019	0.040	-0.066
Number of children ever born/fathered	0.089***	-0.021	0.115***	0.075	0.001	0.170	0.103	0.044	0.182
Number of times goes to nightclub/bar	0.011	0.044	0.017	-0.157*	0.143*	-0.301**	-0.192**	0.083	-0.304*
Number of alcoholic drinks per day	–	–	–	0.392***	0.239**	0.553***	0.343***	0.175*	0.547***
Number of times drink alcohol	–	–	–	–	–	–	0.011	0.118	-0.087
Constant	-8.185	-10.431	-11.019	-1.955	-3.587	-2.157	-1.532	-2.704	-1.966
Adjusted R^2	0.76	0.80	0.75	0.58	0.70	0.56	0.56	0.68	0.48
Number of cases	1080	443	637	1080	443	637	1080	443	637

* $p < .05$ ** $p < .01$ *** $p < .001$ – not included

respectively, to variance in frequency of sexual intercourse among females. The corresponding contributions of current number of girlfriends among males are 74.4 percent, 54.3 percent, and 58.3 percent, respectively.

The table further indicates that older youths have more sex than their younger counterparts (see Model 1). The model also suggests the existence of a relationship between number of children ever born to females and the frequency of sexual intercourse by females. Likewise, having multiple sexual partners tends to influence the frequency of sexual intercourse among females. While the absence of a significant relationship between multiple sexual partners and sexual intercourse in Models 2 and 3 suggests caution about drawing conclusions from these observations, they should not be overlooked entirely. Model 3 indicates that having brothers contributes towards males' participation in sexual intercourse.

Conclusion

Batswana entertain beliefs (and myths) about alcohol's ability to influence sexual behaviour; and the qualitative part of this study reveals that in general, Batswana youths perceive that alcohol consumption influences people's sexual behaviour. With opinions as strong as this, it is probable that the absence of scientific analysis on alcohol and sex interrelationship in previous studies in Botswana is partly due to a general conclusion that the two variables are highly related. But conclusions should be based on evidence; and the evidence from this study points to the need for further investigation in order to strengthen conclusions about the subject.

This study reveals strong effects of social factors on sexual behaviour of youths in Botswana. They include alcohol consumption, having a boyfriend or girlfriend, entertaining multiple sexual partners and sibling's behavioural effects. In effect, the sexual behaviour of youths is not determined by alcohol alone (see Harvey and Beckman, 1986; Hines et al., 1998). Alcohol-induced intoxication influences non-use of condoms, and inconsistent condom use by alcohol users partly explains why the incidence of sexually transmitted infections is significantly higher among alcohol users than non-alcohol users. Implicitly, attention is called to the contribution of alcohol to HIV/AIDS infection among youths in Botswana. This serves to reinforce the need for HIV-related policies in Botswana to address every risk factor. In effect, the results point towards adopting an alcohol policy that is designed to control consumption of alcohol in Botswana. But the symbolism of alcohol consumption within cultures that are still steeped in traditional beliefs could pose serious challenges to governmental interventions.

Apparently, alcohol consumption by youths influences sexual behaviour just as much as their sexual behaviour influences consumption of alcohol. Given the interaction between testosterone level and youths' sexual behaviour (Udry and Billy, 1987; Halpern et al., 1994), it is reasonable to expect linearity

between alcohol consumption and sexual behaviour of youths. Mindful of the health effects of previous practice of consanguinity in the country, future studies should address biosocial contributions to sexual behaviour, HIV and other sexually transmitted infections.

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