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In this Issue

Alcohol, sexual victimization and partner aggression in Nigeria

Young heroin injectors in Dar es Salaam, Tanzania

Correlates of alcohol use disorders among HIV patients

Substance use and psychiatric morbidity among patients with HIV infection

Drinking, family type and youth HIV/AIDS risk behaviour

Harm reduction in Africa

Cannabis use and young people in Tanzania

PURPOSE AND SCOPE

The *African Journal of Drug & Alcohol Studies* is an international scientific peer-reviewed journal published by the African Centre for Research and Information on Substance Abuse (CRISA). The Journal publishes original research, evaluation studies, case reports, review articles and book reviews of high scholarly standards. Papers submitted for publication may address any aspect of alcohol and drug use and dependence in Africa and among people of African descent living anywhere in the world.

The term “drug” in the title of the journal refers to all psychoactive substances other than alcohol. These include tobacco, cannabis, inhalants, cocaine, heroin, prescription medicines, and traditional substances used in different parts of Africa (e.g., kola nuts and khat).

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HIV RISK BEHAVIOURS, PERCEIVED SEVERITY OF DRUG USE PROBLEMS, AND PRIOR TREATMENT EXPERIENCE IN A SAMPLE OF YOUNG HEROIN INJECTORS IN DAR ES SALAAM, TANZANIA

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ABSTRACT

Interviews were conducted with 203 male and 95 female heroin injectors aged 17 to 25 in Dar es Salaam, Tanzania. Nearly one-quarter of participants reported injecting with needles used by someone else. Few reported cleaning needles with bleach. Multiple sexual partnerships, unprotected sex, and trading sex for money were especially present among women, the majority (55%) of whom was HIV seropositive. Self reports suggest the presence of heroin dependence among users. While most participants expressed a desire to quit their use, only 14 (5%) had been in treatment. There appears to be a large unmet need for heroin use treatment. These findings need to be considered in light of a potential forthcoming wave of heroin injection in sub-Saharan Africa.

KEY WORDS: HIV, injection drug use, Africa, heroin, drug dependence treatment

INTRODUCTION

Young injectors, under the age of 30, are at greater risk of HIV infection than older IDUs. Studies conducted in the United States and Canada show young injectors are more likely to share needles, drug paraphernalia, and inject in groups more often than older injectors (Fennema, van Ameijden, van den Hoek, &

Coutinho, 1997; Montgomery, Hyde, Derosa, Rohrbach, Ennett, Harvey et al., 2002; Morse, Morse, Burchfiel, & Zeanah, 1998; Fuller, Vlahov, Latkin, Ompad, Celentano, & Strathdee, 2003; De, Cox, Boivin, Platt, & Jolly, 2007). The studies also found young injectors are more likely to be sexually active, have more sex partners, have sex more frequently and trade sex for money (Montgomery et al., 2002;

Fuller et al., 2003; Bacon, Lum, Hahn, Evans, Davidson, Moss et al., 2006; Gyarmathy & Neaigus, 2009; Rondinelli, Ouellet, Strathdee, Latka, Hudson, Hagan et al., 2009). While the reasons young IDUs are more likely to engage in some risk behaviors than older injectors are far from clear, they may stem from their youth and lack of experience. Young IDUs, new to injection drug use, are unlikely to be knowledgeable about needle-sharing risks or possess the skills needed to negotiate and practice safer injecting behaviours. Young injectors also lack the economic resources to provide a stable living environment, which may cause them to spend large amounts of time on the streets. Spending large amounts of time on the streets increases young IDUs' chances of interacting with others engaging in risky needle use and sexual behaviours, including older adults more likely to be infected with HIV (Fuller et al., 2003; Gyarmathy et al., 2009).

Until recently, injection drug use was considered to be rare in sub-Saharan Africa; however studies suggest it is becoming more common (Ross, McCurdy, Kilonzo, Williams, & Leshabari, 2008; Parry, Dewing, Peterson, Carney, Needle, Kroeger et al., 2009). Studies of injectors in sub-Saharan Africa have shown rates of HIV risk behaviours among IDUs are high (Williams, McCurdy, Atkinson, Kilonzo, Leshabari, & Ross, 2007; Parry, Peterson, Carney, Dewing, & Needle, 2008), as are rates of HIV infection (Williams, McCurdy, Bowen, Kilonzo, Atkinson, Ross et al., 2009). Newer high-risk injection practices, such as the use of "flashblood," have also emerged. This practice consists of injecting blood drawn from a previous user (McCurdy, Ross, Williams, Kilonzo, & Leshabari, 2010). However, little research on injection drug use in sub-Saharan Africa extends beyond basic epidemiological studies. While these are important and necessary studies, it is also important to ascertain the problems IDUs associate with their drug use, their desire for help, and their past treatment experiences. Studies conducted in the West have found many IDUs believe drug use causes severe problems in their lives and desire to stop using drugs, but that desire does not lead

to entry into treatment programs or cessation of drug use on their own (Siegal, Falck, Wang, & Carlson, 2002; Wechsberg, Zule, Riehmman, Luseno, & Lam, 2007).

A large proportion of drug users in sub-Saharan Africa may be 25 years of age or younger. This preliminary study presents results from a survey of risk behaviors, perceived problems of use, and treatment in a sample of. Unlike almost all other studies of IDUs in sub-Saharan Africa, data for this study are from a sample of heroin injectors aged 17 to 25.

METHODS

Procedures

Data for the study were collected between November 2009 and March 2010 in Dar es Salaam, Tanzania. Participants were recruited using aspects of targeted sampling, modified snowball sampling, and respondent driven sampling (Watters & Biernacki, 1989; Cunningham-Williams, Cottler, Compton, Desmond, Wechsberg, Zule et al., 1999; Heckathorn, Semaan, Broadhead, & Hughes, 2002; Sadler, Lee, Lim, & Fullerton, 2010). To begin sampling, six young IDUs eligible for the study were interviewed and asked to recruit others like themselves. Individuals referred to the study matching study criteria were interviewed and asked to refer others. Participants were paid a small fee (3,000 Tanzanian shillings, about \$1.50) for each person referred and interviewed. Referrals continued until the desired study size was reached. Participants were compensated (5,000 shillings, about \$3.35) for their time and travel expenses for completing an interview.

Eligibility for the study was assessed by responses to a brief questionnaire. To be eligible for the study, individuals had to: (1) be 16 to 25 years of age (16 and 17 year olds no longer living at home and considered emancipated in Tanzania were eligible); (2) have injected heroin at least once in the seven days before screening; (3) be able to show evidence of recent track marking; and (4) be willing to be tested for HIV infection. Eligible individuals

were given complete information about the study and asked to give informed consent. If consent was obtained, respondents were interviewed by a trained research assistant. Interviews were conducted in a small rented office located in a neighborhood near the city center. The interview took 90 to 120 minutes.

All procedures and data collection forms were reviewed and approved by university committees for the protection of human subjects in Tanzania and the United States. In addition, procedures and forms were reviewed by the Tanzanian National Institute for Medical Research and the Tanzania Commission for Science and Technology.

Measures

Data were collected using a computer assisted, face-to-face survey. Measures were derived from surveys previously used with drug injectors in Dar es Salaam and the United States (Williams et al., 2007; Williams et al., 2009; Williams, Ross, Atkinson, Bowen, Klov-dahl, & Timpson, 2006). The same or similar measures to those used in this study produce reliable and valid data when used with drug users in non-institutional settings (Needle, Fisher, Weatherby, Brown, Cesari, Chitwood et al., 1995; Dowling-Guyer, Johnson, Fisher, Needle, Watters, Andersen et al., 1994; Darke, 1998).

The sociodemographic characteristics of participants which were measured included gender, age, religious preference (Muslim, Christian), education (years of schooling), self-perceive homelessness, self-perceived sexual orientation (heterosexual, bisexual, homosexual), and marital status (single, married or living with a partner of the opposite sex, living with a partner of the same sex). Participants' economic circumstances were assessed by income and the number of days worked in the 30 days before they were interviewed.

Injection drug use was measured by asking participants how often they had injected in the previous 30 days and whether they had injected with needles previously used by someone else and the number of times they had used bleach to clean a needle. Participants were also

asked the number of times they had injected flashblood in the previous seven days. Sexual behaviors in the last 30 days were assessed by asking participants how many times they had engaged in oral, anal, and vaginal sex. The total number of sex partners (of any type) was ascertained. Sexually active participants were asked how many times a condom was used. Participants were deemed to have consistently used condoms if the number of times used condoms equaled the number of times had sex. Sexual risk was also measured by asking participants how many times in the previous 30 days they had traded sex for money and sex for drugs.

HIV status was established using the Capillus (Trinity Biotech, Bray, Ireland) and the Determine (Abbot Japan Co. Ltd, Tokyo, Japan) tests. Quality control was performed by the African Medical Research and Education Foundation reference laboratory in Dar es Salaam.

Problems related to participants' drug use were assessed by asking them to respond "no" or "yes" to the following questions. "Do you neglect other pleasures or interests in favor of using heroin?" "Are you interested in quitting drug use?" "Do you have a strong desire or sense of compulsion to use heroin?" "Do you find it difficult or impossible to control your use of heroin?" "Do you experience withdrawal symptoms after going without heroin for a while?" "Do you use heroin to relieve or avoid withdrawal symptoms?" "Do you notice that you required more heroin to achieve the same physical or mental effects?" "Do you experience psychological or physical harm from heroin?"

Participants were also asked, "Do you want to stop using drugs?" "Have you ever tried to quit using drugs on your own?" Those stating they had tried to quit were then asked, "How long were you able to quit using drugs?" Responses were recorded in weeks. Additionally, participants were asked, "Have you ever been in drug treatment?" Those responding "yes" were then asked what kind of treatment they had been in. Lastly, participants were asked if they knew what methadone treatment and buprenorphine treatment were.

Analyses

Differences in these variables by gender were assessed with independent-samples *t*-tests (with equal variances assumed) and chi-square tests as appropriate. The level of significance was $p < .05$, 2-tailed.

RESULTS

Sample Characteristics

A total of 298 interviews were available for analysis. The sample consisted of 203 males (68%) and 95 females (32%). In accordance with eligibility criteria, participants' ages ranged from 17 to 25 with a mean age of 23.2 ($sd = 2.0$). Participants had a mean of 6.3 years of schooling ($sd = 2.6$). A total of 203 participants (68%) were Muslim and 95 (32%) were Christian. Participants had worked an average of 15.9 ($sd = 14.4$) days in the 30 days prior to their interview and had a mean income in that time of 235,823.05 shillings (approximately \$160) ($sd = 122,615.50$, approximately \$80). There were 109 participants (37%) who considered themselves homeless. All males and 94 females (99%) described themselves as heterosexual. One female (1%) described herself as bisexual. Of the males, 194 (96%) were single and 9 (4%) were married or living with a partner of the opposite sex. Of the females, 81 (85%) were single and 14 (15%) were married or living with a partner of the opposite sex ($\chi^2 = 9.65$; $df = 1$; $p < .002$).

Injection Behaviors

Participants had injected heroin on average 88.4 ($sd = 18.9$) times in the prior 30 days. Sixty-six participants (22%) had injected in the previous 30 days with needles which had been used by someone else. Three males (1%) and no females had used bleach at least once to clean their needles in the previous 30 days. One male (< 1%) and one female (1%) had injected with flashblood in the previous seven days. These injection behaviours did not differ by gender.

Sexual Behaviors

Overall, 106 males (52%) and 88 females (93%) had at least one sex partner in the previous 30 days ($\chi^2 = 46.53$; $df = 1$; $p < .001$). Sexually active males had a mean of 1.7 partners ($SD = 1.0$) and females had a mean of 54.6 ($sd = 73.6$) partners ($t = -7.40$; $df = 192$; $p < .001$). Forty-three males (21%) had more than one partner compared to 77 females (81%) ($\chi^2 = 96.44$; $df = 1$; $p < .001$). Four males (2%) and 17 females (18%) had engaged in anal sex in the 30 days preceding their interview ($\chi^2 = 25.05$; $df = 1$; $p < .001$). Eight males (4%) and 10 females (11%) had engaged in oral sex ($\chi^2 = 4.95$; $df = 1$; $p = .03$). One-hundred-five males (52%) and 88 females (93%) reported vaginal sex ($\chi^2 = 47.46$; $df = 1$; $p < .001$). Males reported having vaginal sex an average of 2.9 times ($sd = 2.0$) while females had sex 87.5 times on average ($SD = 95.1$) ($t = -9.11$; $df = 191$; $p < .001$).

Four males (2%) had traded sex for money in the previous 30 days compared to 78 (82%) of the females ($\chi^2 = 208.36$; $df = 1$; $p < .001$). Three males (2%) had traded sex for drugs as had 16 females (17%) ($\chi^2 = 25.59$; $df = 1$; $p < .001$). No males and 1 female (10%) stated they had used condoms every time they had oral sex in the previous 30 days, with data missing for one male. Gender differences for condom use for oral and anal sex were not significant. No males and 5 females (29%) had consistently used condoms for anal sex. Sixteen males (15%) and 24 females (27%) stated they had used condoms every time they had vaginal sex ($\chi^2 = 4.09$; $df = 1$; $p = .04$), with data missing for one male.

HIV Serostatus

Forty-one males (20%) and 52 females (55%) had previously been tested for HIV ($\chi^2 = 35.96$; $df = 1$; $p < .001$). Of these, 36 males (88%) and 50 females (96%) had gotten their test results, a nonsignificant difference. Of these, one male (3%) and five females (10%) reported they had tested positive; reported serostatus did not vary by gender. For this study, HIV test results were available for 198 males (98%) and 91 females (96%). Among these participants, 24 males

(12%) and 50 females (55%) were seropositive ($\chi^2 = 60.02$; $df = 1$; $p < .001$).

Drug Use Severity and Treatment

Table 1 shows the number and percentage of respondents answering in the affirmative to the substance use severity and treatment questions. As seen, substantial majorities endorsed the severity items and had a desire to quit.

With regard to ceasing drug use, approximately one-fifth of participants had tried to quit on their own. Of the 63 participants who had tried to quit using drugs on their own, the mean length of time they had been able to quit was 22.2 (SD = 36.5) weeks. Of the 14 participants who had been in drug treatment, five had been in day treatment; four had been in inpatient rehabilitation; three had been in outpatient treatment; and two had been in inpatient detoxification. One male stated knowing what methadone and buprenorphine treatment were. Responses to the severity and treatment items did not vary by gender.

DISCUSSION

Injection heroin use is an increasingly important risk factor for the transmission of HIV

in sub-Saharan Africa. In addition to being a risk factor for HIV transmission, use may result in lost opportunity and decreased productivity. Users are engaging in an illegal activity and may turn to other illegal activities such as exchanging sex for money or drugs which carry their own risk of transmission. These risks may be especially prevalent among young injectors. Users are often those who are marginalized in terms of resources or status, and those who are HIV seropositive may perceive additional stigmatization. Cases resulting from injection drug use may present increasing demands on treatment systems. However, it may also be early enough in the injection epidemic that effective plans can be developed and implemented. Part of this process will be understanding users' perception of the severity of their drug use problems as well as their treatment needs and experiences.

Results of our surveys conducted with young injectors show marginalization as reflected in the mean levels of education and income and in the proportion of participants who thought of themselves as homeless. As noted, such marginalization may lead to exposure to riskier drug use and sexual settings. On average, participants were injecting three times a day, one-fifth had injected with previously

Table 1: Addiction Severity and Treatment Experience (N = 298)

	N	%
Do you neglect other pleasures or interests in favor of using heroin?	280	94%
Are you interested in quitting drug use?	295	99%
Do you have a strong desire or sense of compulsion to use heroin?	291	98%
Do you find it difficult or impossible to control your use of heroin?	261	90%
Do you experience withdrawal symptoms after going without heroin for a while?	286	96%
Do you use heroin to relieve or avoid withdrawal symptoms?	289	97%
Do you notice that you required more heroin to achieve the same physical or mental effects?	283	95%
Do you experience psychological or physical harm from heroin?	289	97%
Do you want help to stop using drugs?	296	99%
Have you ever tried to quit using drugs on your own?	63	21%
Have you ever been in drug treatment?	14	5%
Do you know what methadone treatment is?	1	< 1%
Do you know what buprenorphine treatment is?	1	< 1%

used needles, and few had used bleach to clean their needles. However, in this sample, injectors were not engaged in using flashblood. Among women, an interaction of injection drug use and sex was present. The majority of women in this sample was sexually active, had multiple partners, and had recently traded sex for money. Most had engaged in unprotected sex. The majority of women were HIV seropositive, and many infected participants do not appear to have been previously aware of their serostatus. Also of note is the percentage of males who were sexually inactive. While drug use may often decrease inhibitions, heroin use may also suppress libido.

The findings of this study regarding gender and sexual behavior support those of Williams et al. (2007). A greater proportion of women than men in Dar es Salaam were then found to be sexually active. Women were more likely to have traded sex for money or drugs, engaged in vaginal sex more frequently and had more partners. As in the current study, many males were sexually inactive. Unlike the present study, men were more likely to have injected with used needles.

Responses to the severity and treatment items show participants perceived serious problems related to their drug use. These were manifested in terms of a compulsion to use heroin and an inability to control usage. Participants reported needing to use more of the drug to maintain effects and withdrawal when usage stopped. Participants experienced physical and psychological problems resulting from use and expressed a desire for help in quitting. Despite this desire, relatively few had tried to quit on their own. Among those trying, the average participant was able to quit for about four months. Fewer participants had actually been in treatment. Results also showed a lack of knowledge of pharmacological treatments. While not diagnostic, the findings suggest a level of problems indicative of substance dependence.

There were limitations to this study. The sample of injection drug users was not selected randomly. However, this is true of most studies involving drug users as random sampling

techniques often do not apply to such a hidden population. The study was conducted in one city among a sample of young adult heroin users which was predominantly heterosexual, and thus the generalizability of the findings to other settings and individuals may be limited. Measures of drug use and sexual behaviors were based on self-report. However, as noted, such measures have been found to be valid and reliable in previous studies of drug users (Needle, Fisher, Weatherby, Brown, Cesari, Chitwood et al., 1995; Dowling-Guyer, Johnson, Fisher, Needle, Watters, Andersen et al., 1994; Darke, 1998). Due to the maximum age requirement for eligibility, it is suspected that some participants over the age of 25 may have lied about their age. Measures of severity consisted of dichotomous response items and were not intended as clinical assessments. With regard to participants who reported previous treatment, it was not known whether these individuals completed treatment or how long they were able to maintain abstinence following treatment. Barriers to treatment were not assessed. Nor did this study consider psychological factors such as depression which may affect risk taking. While participants were shown to be marginalized, stigma related to drug use, sexual behavior, or HIV infection was not assessed.

A strength of this study is that it was conducted with a sample of young injectors. Responses to the study items indicate that participants perceived serious problems related to their use, want to quit drug use, and desire help in quitting. Results show the need for increasing injectors' awareness of the risks related to needle use and sex. As detailed by McCurdy et al., government sponsored harm reduction efforts include outreach; information and communication; risk reduction counseling; HIV testing and counseling; and detoxification programs. In 2005, over 200,000 previously untested individuals sought VCT services. Over 100,000 HIV patients were enrolled in care and treatment sites at the end of 2006 (McCurdy et al., 2010).

There may be limits to a harm reduction approach with injectors. As noted, there are

currently no needle exchange or opiate substitution programs in Tanzania, and awareness of methadone and buprenorphine was virtually nonexistent. Heroin injection is an illegal activity. Providers may not want to appear to be condoning such behaviour. Efforts to address this concern and pilot studies to assess the feasibility and effectiveness of such programs might be called for. The fact that participants expressed a desire to quit drug use suggests users may be amenable to abstinence based interventions. On the other hand, with regard to sexual behaviors, it may be unrealistic to expect sexual abstinence among young adults. Harm reduction measures which emphasize consistent condom use and monogamous relationships may be appropriate (Hilton, Thompson, Moore-Dempsey, & Janzen, 2001). Bowser and colleagues found a California based harm reduction focused drug treatment program for female users engaged in trading to be an effective preparation for achieving full recovery (Bowser, Ryan, Smith, & Lockett, 2008).

Given these efforts to reduce risks and to improve testing and treatment services, considerations to address remain. Stigma is associated with drug use, HIV, and prostitution which may prevent injectors from seeking services. While services are becoming more available, users may not have knowledge of, or access, to them. Some users may not believe in the efficacy of treatment. Services will be limited by the resources and technologies available to providers. There may be a need for collaboration among the different actors involved in HIV and drug use prevention and treatment. For example, Rothman et al. considered the "co-location" of HIV prevention and primary care services within drug treatment programs in New York State (Rothman, Rudnick, Slifer, Agins, Heiner, & Birkhead, 2007). The extent to which programs such as those described by Bowser and Rothman can be feasible in other settings needs to be evaluated.

Several additional avenues for future research and intervention are suggested. These include administering diagnostic measures of drug use severity in order to address the question of how self-reported responses would

compare to diagnostic criteria of substance abuse or dependence. Studies should include the use of theoretical models of behaviour such as Fishbein's Integrative Model to examine injectors' intention to enter treatment and subsequent treatment behavior as a function of attitudes, self-efficacy, and norms regarding entering treatment (Fishbein, 2008). Such a model could be applied to other relevant behaviors such as safe injection practices and condom use. A stages of change model may be useful in distinguishing those who have actually entered treatment from those who have not. Injectors should be asked about barriers they face to entering treatment or trying to quit on their own. The present findings will be enhanced by analysis of qualitative interviews conducted in the summer of 2010.

Many infected participants were not aware of their positive serostatus before being tested for this study or, alternatively, may not have wanted to disclose their status. Efforts appear warranted to help women transition from survival sex. Several males reported no recent sexual activity. While this may be desirable from a disease transmission perspective, it may be less so from a quality of life one since, as noted, heroin has been associated with decreased libido. Efforts to address these issues may be warranted. Injectors may be aided by interventions such as twelve-step programs and other group therapy approaches as presented by Flores (1997).

Injection drug use appears poised to challenge the healthcare and drug treatment services of sub-Saharan Africa. At the same time, an understanding of injectors' risk behaviors, their perceptions about drug use and drug treatment would make a contribution to developing workable public health solutions to the emerging epidemic.

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**PREVALENCE AND SPECIFIC PSYCHOSOCIAL FACTORS ASSOCIATED WITH
SUBSTANCE USE AND PSYCHIATRIC MORBIDITY AMONG PATIENTS WITH
HIV INFECTION AT USMANU DANFODIYO UNIVERSITY TEACHING HOSPITAL,
SOKOTO STATE, NIGERIA**

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ABSTRACT

In this study we set out to determine the prevalence of depression and anxiety disorders among HIV infected persons, prevalence of substance use among these patients, effect of active and inactive use of substance on drug compliance and clinic attendance, and psychosocial correlates of substance use among these patients. This cross sectional study was conducted among patients who had been diagnosed with HIV disease in a teaching hospital in Sokoto, Nigeria. A questionnaire relating to socio-demographic variables, substance use and psychiatric morbidity was administered to the patients. Information obtained were analyzed using SPSS version 11 with the test of significance set at $p < 0.05$. Our study showed that more male patients used substance than the female patients. In addition, the presence of psychiatric morbidity and substance use had implications for clinic attendance and drug compliance. In the overall management of HIV infected patients, regular screening for substance use and psychiatric morbidity should be carried out and referrals made appropriately.

INTRODUCTION

There is no gainsaying that HIV infection has assumed a pandemic nature the world over. In addition to its contribution to morbidity and mortality, possible relationship of outcome of treatment with psychiatric morbidity and substance use presents another dimension to the disease. In one study, about 50% of patients with HIV infection had substance use problems; 18.5% were frequent users of alcohol while half of the patients had psychiatric

morbidity (Bing et al., 2001). Earlier studies however reported a smaller percentage (Maj et al., 1994; Ferrando, Evans, Goggin, Sewell, Fishman, & Rabkin 1998). In yet other studies prevalence of 22% to 32% (Evans, Ferrando, Sewell, Goggin, Fishman, & Rabkin, 1998; Rabkin, Goetz, Remien, Williams, Tordak, & Gorman, 1997) was reported which is 2 to 3 times higher than the prevalence of psychiatric disorders in the general community population (Blazer, Kessler, McGonagle, & Swartz, 1994). A lower prevalence of 9%

of major depression and 2% of anxiety disorder were reported among the patients after 6-months follow up (Perkins, Stern, Golden, Murphy, Naftolowitz, & Evans 1994.). It was observed that while depression had substantial impact on quality of life, anxiety has negative impact on social role and mental functioning. In addition, where substance use problem is present but not treated, there is non-adherence to antiretroviral drugs (Ironson et al., 2005). The overall consequence of substance use and psychiatric morbidity among patients with HIV infection is poor physical health, rapid progression to AIDS and death, particularly non AIDS related death (Ironson et al., 2005). In addition, Ironson et al. (2005) reported that psychosocial factors contribute significantly to the variance in disease progression.

Most studies on the prevalence of psychiatric morbidity and substance use are mainly from western society. In south western Nigeria, Adewuya et al. (2007) reported that the prevalence of depression was 59.1%. To our knowledge there is no study in the North western Nigeria which reports on the prevalence of psychiatric morbidity and substance use among such patients. This study is therefore aimed at investigating the prevalence of psychiatric morbidity and substance use among patients with HIV infection in Sokoto. In addition, it seeks to determine the risk factors for the prevalence.

In this study we sought to provide answers for the following questions: 1. What is the prevalence of psychiatric morbidity and substance use among patients with HIV infection in Sokoto? What variables are associated with psychiatric morbidity and substance use among the patients?

METHOD

Study design and location

This cross sectional study was carried out among patients who were diagnosed with HIV infection at the VCT (voluntary counseling and testing) centre of Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto,

North-Western Nigeria. The study included 167 consecutive adult patients who were attending their routine clinic. Both symptomatic and non symptomatic patients were included. Ethical clearance was obtained from the hospital to carry out the study. In addition, the consent of individual patients was obtained. Exclusion criteria were refusal to participate in the study, patients with cognitive impairment or positive history of debilitating or overt psychiatric illness.

Variables relating to socio-demographic profile and substance use were collected by resident doctor in the department of community Health. The questionnaire to extract socio-demographic information and assess substance use was designed by one of the authors. Psychosocial factors that were assessed in relation to substance use and psychiatric morbidity include marital status and educational attainment. Educational attainment was defined as the maximum education acquired by the individual patients, which in Nigeria education system include Primary, secondary and the tertiary (University, Polytechnic, Technical school and so on). The CAGE questionnaire was used to assess the harmful use of or dependence on alcohol (Ewing, 1984). If any of the four questions was positive, it suggested harmful use of alcohol and if all the 4 questions were positive, it suggested a state of dependence.

Psychiatric morbidity was assessed using Hospital Anxiety and Depression Scale (HADS). This 14-item questionnaire was developed by Zigmond and Snaith (1983) to determine the presence of anxiety and depression among patients with medical conditions. Using Likert scoring scale, score range was 0-21 for each of the condition. Patients with score of 0-7 were considered as non- cases, those that scored 8-10 as borderline and 11 and above as definite cases for anxiety or depression. It has been validated and used in previous studies in Nigeria. Fatoye, Mosaku, Komolafe, & Adewuya (2006) used HADS in the study of prevalence of anxiety and depression in patients with epilepsy in a Nigerian community. Abiodun (1994) reported from a Nigerian community that the sensitivity

for the anxiety subscale ranged from 85.0% in the medical ward and surgical wards to 92.9% in the antenatal clinic while sensitivity for the depression sub- scale ranged from 89.5% in the community sample, while specificity for the depression subscale ranged from 86.6% in the medical and surgical wards to 91.1% in the antenatal and community sample. Misclassification rates ranged from 9.9% in the community sample to 13.2% in the medical and surgical wards. Relative operating characteristics (ROC) analyses showed the HADS and the GHQ 12 to be quite similar in ability to discriminate between cases and non cases.

RESULTS

A total of 167 consecutive adult patients who attended VCT clinic in the month of May 2010 were recruited for the study. All the patients successfully filled the socio-demographic section of the questionnaire while one hundred and sixty one of the questionnaires were valid for analysis for psychiatric morbidity. From Table 1, the age of the patients ranged between 20-66 years with a mean age of 37.21 ± 9.38 . Female patients constituted 66% while majority of them (62%) were of Islamic faith and mainly of Hausa ethnic group. Over two-thirds of the patients were married while 16% were widowed.

About half of the patients used psychoactive substances such as tobacco (9; 5.7%), coffee (18; 11.3%), kola nuts (43; 27.0%) and solvents (2; 1.3%), and 14 (8.8%) reported harmful alcohol use. Also, the prevalence of depressive disorder was 7.6% while that of anxiety disorder was 8.8%. Table 2 showed that substance use was frequently found among patients who were divorced (62.5%) and who had attained tertiary education (63.9%).

From Table 3, anxiety and depression were found to be more frequent among the divorced; however the difference was not statistically significant. Table 4 shows that persons who did not have more than primary education appeared to suffer from anxiety and depression than those with higher levels of education.

Table 1. Demographic characteristics of the sample, n (%)

AGE, mean (SD)	34.9 (8.9)
Sex, n (%)	
Male	47 (28.1)
Female	117 (70.1)
Religion, n (%)	
Islam	106 (63.5)
Christianity	61 (36.5)
Marital status, n (%)	
Never Married	12 (7.2)
Married	119 (71.3)
Separated	2 (1.2)
Divorced	7 (4.2)
Widow	27 (16.2)
Education, n (%)	
None	45 (26.9)
Primary	16 (9.6)
Secondary	48 (28.7)
Post Secondary.	53 (31.7)
Ethnic Group, n (%)	
Hausa	86 (51.5)
Others	81 (48.5)

DISCUSSION

This study explored the prevalence of psychiatric morbidity and substance use among patients with HIV infection. In addition, the effect of psychosocial variables such as marital status and educational attainment on the prevalence of psychiatric morbidity and substance use were explored.

This study suggested that the prevalence of depressive and anxiety disorder is high. Factors associated with high prevalence of anxiety and depression across marital status and education attainment include being divorced and education attainment not higher than primary education. With regards to substance use, prevalence of substance use was high among individuals with tertiary education and those who were divorced.

Table 2: Relationship between marital status, education and substance use

	Yes (%)	No (%)	χ^2	DF	p -value
Marital Status					
Single	4 (36.4)	7 (63.6)	2.440	4	0.656
Married	58 (51.3)	55 (48.7)			
Separated	0 (0)	1 (100)			
Divorced	5 (62.5)	3 (37.5)			
Widowed	12 (48)	13 (52.8)			
Education					
No formal education	27 (62.8)	16 (37.2)	13.650	4	0.008
Primary	10 (52.6)	9 (47.4)			
Secondary	14 (29.8)	33 (70.2)			
Tertiary	23 (63.9)	13 (36.1)			
Post graduate	5 (41.7)	7 (58.3)			

Table 3: Relationship between marital status and psychiatric morbidity

Variables Anxiety and marital status						
	Normal (%)	Borderline (%)	Definite (%)	χ^2	DF	<i>p</i> -value
Not married	7 (63.6)	4 (36.4)	0 (-)	18.94	8	0.01
Married	96 (84.2)	5 (4.4)	11 (9.6)			
Separated	1 (100)	0 (-)	0 (-)			
Divorced	7 (87.5)	0 (-)	1 (12.5)			
Widow	22 (88.0)	1 (4.0)	2 (8.0)			
Depression and marital status						
Not married	7 (63.6)	3 (27.3)	1 (9.6)	17.44	8	0.03
Married	95 (84.8)	7 (6.2)	9 (8.0)			
Separated	0 (-)	1 (100)	0 (-)			
Divorced	7 (87.5)	0 (-)	1(12.5)			
Widow	20 (80)	4 (16)	1 (4.0)			

The prevalence of mood disorder in this study was consistent with previous work among HIV infected patients in the western society. Grant et al (2004) reported the prevalence of mood disorders in the US population to be 9.21% while that of anxiety disorder was 11.08%. However, other subsequent studies have reported a higher prevalence. For example, Chandra, Ravi, Desai and Subbakrishna (1998) reported the prevalence rate

of 40% for depression and 36% for anxiety among patients who attended tertiary centre in India using HADS. Although our study was similar to their study with respect to pre-test and post-test counseling, their patients were recruited within 4-6 weeks of revelation of HIV status while in our study the period of revelation and this investigation varied between a few weeks to 10 years, hence our patients may have had enough time to adjust to

Table 4: Relationship between education and psychiatric morbidity

Anxiety and education						
	Normal (%)	Borderline (%)	Definite (%)	χ^2	DF	p-value
No formal education	37 (84.1)	3 (6.8)	3 (6.8)	11.33	8	0.18
Primary	16 (84.2)	0 (-)	3 (15.8)			
secondary	42 (89.4)	2 (4.3)	2 (4.3)			
Tertiary	30 (83.3)	2 (5.6)	4 (11.1)			
Post graduate	8 (66.7)	3 (25)	1 (8.3)			
Depression and education						
No formal education	35 (81.4)	5 (11.6)	3 (7.0)	4.996	8	0.758
Primary	13 (68.4)	3 (15.8)	3 (15.8)			
secondary	41 (87.2)	2 (4.3)	3 (6.4)			
Tertiary	29 (82.9)	4 (11.4)	2 (5.7)			
Post graduate	10 (83.3)	1 (8.3)	1 (8.3)			

the illness when compared with their patients. Lower prevalence of substance use disorders of 9.35% in a similar cohort has been reported by Grant et al. (2004). However another study by Bing et al (2001) reported that the prevalence of substance use among HIV infected patients was 40%. This difference may not be unrelated to lower use of alcohol among the predominantly Muslim community where the study was carried out.

With regards to educational attainment and substance use, our findings were in contrast to those of Gfroerer, Greenblatt and Wright (1997) who reported that low educational attainment were associated with high prevalence of substance use. This difference may relate to methodological differences. While these studies reported mainly on illicit drugs, our subjects reported mainly on licit substances which are culturally acceptable. For example, kolanut is frequently used in most parts of Nigeria under several social circumstances including marriage, burial and baby christening among others. In addition, tertiary education is frequently associated with prolonged hours of academic activities and some of these substances are used to keep the students awake. Hence a student may subsequently form the habit of using the drug.

We acknowledge several limitations to this study. The present study describes psychiatric morbidity among a selected group of patients referred to a tertiary care centre. It is not possible to generalize these findings to the entire population of the catchment area of the study, especially those without access to counseling services. Also, the psychological instrument we used could not categorize the patients into ICD or DSM classification hence may be difficult to describe the severity of the psychiatric morbidity. The absence of control group was also a limitation as adequate comparison was not possible.

In conclusion, this study suggests the need for routine assessment of psychological distress by simple screening methods. Psychological distress appeared to be highly correlated with being single. Hence, adequate attention to the social circumstance of the patients is necessary.

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**SEXUAL VICTIMIZATION, PARTNER AGGRESSION
AND ALCOHOL CONSUMPTION**

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ABSTRACT

This paper examines the relationship sexual victimization (both childhood sexual victimization and adult sexual victimization), aggression and alcohol consumption. The data for this research is from the Gender, Alcohol and Culture: an International Study (GENACIS). A random sample of 2070 adults (53.8% males and 64.2% females), 18 years and above, drawn from two geo-political regions in Nigeria were interviewed. The interest here is to examine the prevalence of childhood- and adult- sexual victimization among males and females, who is reported as the perpetrators of victimization. Results obtained did not show any gender difference in prevalence of childhood sexual victimization or adult sexual victimization. It was also found that childhood sexual victimization was predictive of adult victimization. This paper further explores the relationship of sexual victimization with the experience of partner aggression as well as individual alcohol drinking pattern. There are indications of a link between childhood sexual victimization and subsequent partner aggression. There was however no relationship in regards to alcohol consumption patterns. Implications of these findings are discussed.

KEY WORDS: Gender and alcohol, sexual victimization, partner aggression, GENACIS

INTRODUCTION

In recent history there has been considerable attention focused on issues of childhood sexual abuse, and adult sexual victimization. This may in part be due to the efforts to address related issues of sexually transmitted infections, HIV/AIDS, commercial sexual exploitation of women, and child/ human trafficking. Issue of this nature have at one level increased the need for a clearer understanding of sexual activities and behaviours particularly as it relates to individuals that may be in a vulnerable position.

The new understanding that has emerged has played a central role in dispelling previously held beliefs that the sexually abused victims were to blame for their experience (Messam & Long, 1996). This shift from previously held beliefs along with the interest raised in regards to these issues has made it easier for people to disclose their own victimization. With this also is the desire to unearth the extent and nature of victimization in varied populations.

Many of the studies seeking to establish the prevalence of sexual victimization often adopt cross-sectional retrospective methods

where respondents are required to report from memory any history of sexual victimization. The validity of self-reporting of sexual victimization has been drawn into question as people have been known to under-report their own experience (Fergusson, Horwood, & Woodward, 2000; Widom & Morris, 1997). It is thought that factors such as individuals responding in what is considered socially appropriate, unwillingness to disclose information, misinterpretation of the questions or sheer errors in their ability to recall the incident, could lead to this under reporting of incidents. Rohsenov et al, (1988) report that asking the question more than once aids disclosure of difficult material of this nature. In a more recent work which improves on methods used in previous research, Barnes et. al., (2009) present evidence contrary to this, they found that individuals can accurately report retrospectively substantiated sexual victimization (SV), and at this with remarkably high test re-test assessment over a two year period. Whether this is a result of the changing culture in recent times or purely as a result of the method adopted may however be in question.

The reported rates of child sexual abuse (CSA) in literature range from 4% to 62% for women (Salter 1992), these rates are said to be lower for men (Ackard & Neumark-Stainzer, 2003; Dube et al., 2005; Edgardh & Ormstad 2000; Sundaram, Laursen & Helweg-Larsen, 2008). The variations in prevalence of CSA obtained in different studies have been attributed to inconsistencies in the definition and method of study used. For one, this field is plagued by inconsistencies in definition of sexual abuse and victimization (Mayall & Gold, 1995; Simpson & Miller, 2002). Some studies use restrictive definitions which limit it to activities involving intercourse or penetrative contact (i.e rape) while some others use varying degrees of a broadened definition encompassing any unwanted experience of a sexual nature that may involve but are not limited to penetrative contact. Responses to the questions are also affected by how these questions are phrased as well as the context in which these questions are presented. The range of response

obtained in these surveys often highlight the fact that SV in children and adults are more prevalent than previously thought.

Child sexual abuse has been associated with a number of negative consequences. It has for instance been found to contribute to risky sexual behaviour and lack of self-protection in sexual situations among the women (Cohen et al., 2000, 2009; Heiman et. al., 2004; Koenig & Clark, 2004; McNair & Seals, 2001). As noted by Arriola et al. (2005) this relationship between CSA and risky sexual behaviour is upheld despite varying definitions of CSA. Other negative outcomes associated with the experience of CSA includes; self-harm (Messman-Moore & Long, 2003; Noll, Horowitz, et al., 2003), suicidal ideation (Bendixen et al. 1994; Garnefski & Diekstra, 1997), depressive disorders (Kendler et. al., 2000) pervasive sexual problems (Leonard & Follette 2002); emotional and somatic symptoms of morbidity (Sundaram et al., 2008), and other forms of psychological distress. (Carter, et al., 2006; Hilden et al., 2004; Kendler, et. al., 2000; Murphy et al., 1988).

The negative consequences of particular concern in this paper are the association of CSA and SV and intimate partner aggression, and subsequent alcohol use in adulthood. Women who for instance have experienced CSA have been found to be at a greater risk of being sexually victimized in adolescence and adulthood, than women who otherwise did not experience childhood sexual abuse (Classen, et. al., 2005; Coid et al., 2001; Desai et al., 2002; Maker, Kemmelmeier, & Peterson, 2001; Siegel & Williams, 2003). A few researchers postulate CSA as the strongest predictor of subsequent SV at an older age (Casey & Nurius, 2005; Merrill et al., 1999; Wolfe et al., 2004). Revictimization is commonly reported among women who have experienced CSA; sexual aggression is reported for their male counterparts (Witchel, 1991; Burgess et al., 1988). It has been linked to the tendency for these women to be physically revictimized with a much greater tendency for them to experience domestic and intimate partner violence ((Banyard et al., 2000; Coid et al., 2001;

Daigneault, Hébert & McDuff, 2009; West, Williams & Segal, 2000; White & Widom, 2003; Whitfield et al., 2003).

Revictimization just as CSA has long term effects; this has been examined in a number of studies. A couple of studies that have examined this in great detail gathering data from women who have experienced multiple SV (either as children who were repeatedly sexually victimized by the same person or victimized by different assailants, or had been sexually victimized both before and after the age of 18, or multiple sexual assault as an adult). This group showed greater levels of distress and psychiatric difficulties than other victim groups and non-victims (Murphy et al., 1988).

With regards to the association of CSA with subsequent drug or alcohol use, it has been speculated that the individuals reporting sexual abuse in childhood use drugs and alcohol to self-medicate (Miranda et al., 2002; Wilsnack et al., 1991; Young, 1992). A number of studies have shown CSA to significantly correlate with subsequent alcohol or drug use (Cohen et al., 2009; Dong, et al., 2003; Dube et al., 2002; Fargo, 2008; Johnson et al., 2005; Nelson et al., 2002; Wilsnack et al., 1997). One study (Widom et al., 1999) present contrary findings where CSA does not lead to increased risk for lifetime usage of drugs. In the literature that shows an association of CSA or SV with alcohol consumption, the direction of the relationship has not been too clear. The direction of the relationship at times presents alcohol or drug use as a precursor to SV, increasingly associated with unwanted sexual advances and sexual victimization (Amos et al., 2008; Fisher et al., 2000; Krieter et al., 1999; Martin et al., 2005; Messman-Moore, et al., 2009), and at other times that SV increases the risk of alcohol consumption (Foshee, 1996; Kilpatrick et al. 1997; Wilsnack et al., 1997). Alcohol or drugs thus present as a consequence of, and at other times as a precursor to SV.

Previously the research on CSA has largely been focused on women with fewer studies that are inclusive of males (Miller and Mancuso, 2004). Studies that have included male respondents suggest that males may be affected dif-

ferently. Hoffman and Su (1998) have in their research found significant gender differences in response to stressful life events, where adolescent females showed a greater likelihood of abusing substance than their male counterparts. These findings in relation to gender differences in CSA and alcohol relationship has been confirmed in other studies (Miller and Mancuso, 2004; Simpson and Miller, 2002; Widom and Hiller-Sturmhöfel, 2001).

Urquiza and Goodline-Jones (1994) have likewise reported prevalence rates for different types of victimization among college students of different ethnic groups. They found that black women reported significantly higher rates of rape and revictimization than white and Hispanic women. Later findings of Miller et al (1999) contradicts this as they found lowest rates of rape and revictimization reported by black women. Possible explanations given for this disparity has been in the population used. Miller et al used respondents recruited from the Navy as opposed to college students. Irrespective of where the sample was drawn from, the evidence points to ethnic differences being reported in the rates of experience of SV by women. Despite this observed ethnic difference however, the predictors for SV remain the same.

In this paper we will in using a uniform questionnaire be able to examine prevalence rates for different types of SV in Nigeria. As responses will be received from both male and female respondents, it will allow for us to examine gender differences as well as identify patterns of association between sexual victimization (CSV or ASV), partner aggression, and alcohol consumption

METHOD

Data used in this study were collected in 2002 from the North-Central and the South-South regions of the country. In the North-Central region, three states (Benue, Nasarawa, and Plateau), and the Federal capital Territory were selected. In the South-South two states were included (Akwa Ibom, Rivers).

Sampling frame was obtained from the Federal Office of Statistics. The sampling process involved a number of stages:

- i. sampling the enumeration area to be included,
- ii. sampling household units from households listed in the each of the enumeration areas selected,
- iii. sampling of housing units where there was more than one housing unit in a household (address), and lastly
- iv. sampling the individuals within the housing unit.

Representativeness was achieved through the selection of respondents based on other variables like sex, and age. Because of the need to sample relatively equal number of males and females each interviewer alternated from house-to-house between the males and females in the choice of the adult member to interview.

Procedure

Interviewers were recruited from the Federal Office of Statistics, and trained for the purpose of this study. The interviewers were trained in two separate locations for the separate regions of the country. This training was done by members of the research planning team and consultants. Most of the refusals that would have come from community heads in these situations were averted as the interviewers were known for their data collecting roles for the Federal Office of Statistics in the past.

Measures

The data used in this study is part of the Gender Alcohol and Culture: An International Study (GENACIS). The questionnaire used in this study was designed by the International Research Group on Gender and Alcohol (IRGGA). It was a highly structured questionnaire with defined response codes. The respondents were asked questions which related to experience of CSV (before age 16) by family members as well as by non-family members. They were also required to respond

to questions of adult sexual victimization (i.e age 16 or older). In most countries the response categories for these questions included: “very often”, “often”, “sometimes”, “rarely”, or “never”. For the purpose of analysis the responses very often, often, sometimes, rarely and never were recorded as “Yes”, or “No” to allow for comparison with those other countries that had limited themselves to yes or no responses.

Other measures of interest were questions regarding the experience of aggression and alcohol consumption. It was possible from these measures to identify if the individual had been a victim or perpetrator of intimate partner aggression within the past two years. Two measures of drinking were taken; the individuals current drinking status, (either a current drinker or abstainer depending on his or her consumption of an alcoholic beverage within the past 12 months). A second drinking measure used was the usual quantity of alcohol consumed during a typical drinking session.

RESULTS

A total of 2070 adults were interviewed. This was made up of 1114 (53.8%) males and 956 (46.2%) females (see Table 1). The mean age of this sample was 37.71 (SD=12.4). Measures of consumption of alcoholic beverage within the past 12 months showed 42.1% for males and 22.3% for females.

Prevalence of Childhood and Adult Sexual Victimization

One of the primary aims was to examine the prevalence of child and adult sexual victimization as it occurs among both male and female respondents, within Nigeria. Results show there was no gender difference in the reported occurrence of childhood sexual victimization 175 (21.3%) for males and 148 (21.4% for females. In regards to sexual victimization in adulthood ASV, results showed 163 (15%) for males and 154 (16.5%) for females.

It was also possible to examine who was reported to be the perpetrators of CSV. Table

2 shows obtained results. A larger percent of CSV was reported by both males and females to be perpetrated by non-family members as compared to family members

Frequency of Occurrence of CSV

As some countries required respondents to provide information regarding the frequency with which they had experienced victimiza-

tion. It was then possible to tabulate this according to the reported perpetrators. Table 3 shows the frequency with which family and non family members were reported to have perpetuated victimization.

The tendency was to report occurrence of CSV from non family members as occurring rarely, though in some cases it was reported as relatively the same. It was also possible to exam-

Table 1: Demographic characteristics of the sample

Variable	N (%)
Gender	
Male	1114 (53.8)
Female	956 (46.2)
Age	Mean = 37.71 (SD=12.4)
Marital Status	
Married	1463 (71.1)
Living with a lover, boy-or girlfriend	45 (2.2)
Widowed	120 (5.8)
Divorced	24 (1.2)
Married but separated	35 (1.7)
Never married	372 (18.1)
Current Drinkers	
Males	467 (42.1)
Females	213 (22.3)

Table 2: Gender differences in reported perpetrators of

Gender	CSV	
	Family Members	Non Family Members
Male	70 (8.5%)	170 (15.4%)
Female	58 (8.4%)	147 (15.5%)

Table 3: Reported perpetration of CSV by family and non-family members

Gender	Family Member		Non-Family Members	
	Rarely	Often	Rarely	Often
Male	42 (5.1%)	28 (3.4%)	92 (8.3%)	78 (7.1%)
Female	30 (4.3%)	28 (4.0%)	81 (8.6%)	66 (7.0%)

ining the degree to which CSV by family member may be associated with later victimization by non-family members. Chi-square analysis showed that being abused by Family members was significantly associated with the likelihood of being abused by non-family members.

Child Sexual Abuse, Sexual Victimization and Revictimization

We compared rates of CSA and SV calculating rates of revictimization.

Sexual Victimization and Intimate Partner Aggression

Using binary logistic regression we also examine the relationship between CSA, SV and aggression experienced by respondent, first as a victim of aggression and then as a perpetrator of intimate partner aggression. It was found that CSV alone was predictive of intimate partner violence perpetrated by female respondents.

Sexual Victimization and Alcohol Consumption

Data collected also allowed for the examination of the relationship between CSV, ASV and two variables measuring alcohol consumption. Alcohol measures showed whether the individual was a current drinker or abstainer as well as the usual quantity of alcohol consumed during a regular drinking session. Results of regression showed that CSV and ASV were not predictive of drinking status or consumption of larger quantities of alcohol in a typical drinking session.

DISCUSSION

This work provided the opportunity to examine the prevalence of reported childhood and adult sexual victimization in both male and female respondent; this provided the rare opportunity to examine gender difference on a variety of levels. As well as the extent to which CSV or ASV was predictive of subsequent experience of intimate partner aggression and substance misuse.

The results obtained in this study are in line with previous studies which reported that CSV is evident in both male and female respondents. Though female children are reported to have a higher prevalence of reported abuse in previous studies (Ackard & Neumark-Stainzer, 2003; Dube et al., 2005; Edgardh & Ormstad 2000), this finding was not upheld in this study, and as reported elsewhere (Ibanga et al 2010) these differences are not evident in some countries. As some have shown findings that are similar to these; It would be interesting to investigate whether this non significant gender difference is due more to a change in the culture of reporting that may have made it easier for males to disclose information on sexual abuse and therefore giving us rates that are similar to those of females, or that females in this study were less willing to report abuse. It is research that would tap into the underlying stigma, shame and the cultural beliefs and responses to CSV or ASV that is missed out in this study that would through more light on the factors that may affect the individual's willingness to report the abuse. Are the rates observed here related to the working situations in various homes where there are several maids, security men and other low skilled workers in households or is the high incidence of males reporting ASV related to this working arrangement?

This study further examined who the reported perpetrators were; whether it was a family member or a non-family member. Results show that non-family members were reported as perpetrators in higher rates than family members. There is a need for further investigations into cultural and other factors that may account for the observed differences; whether the perpetrators as mentioned were workers in the homes that have access to the children or employers who are in a position of power and therefore using this power in relation to sexually victimizing those under them?

Though our measure was imperfect as responses included never, rarely, sometimes, often and very often; there was no way of knowing whether those that indicated that it occurred rarely meant once or twice or if they

meant a frequency slightly greater than this even though to them it is reported as rare. The concept of rare with regards to CSV or ASV does have dire consequences. Taking this into consideration the results does point to the fact that when CSV does occur it is likely to be one of multiple victimization, not just by the same perpetrator but also possibly by different people (family and non-family members for instance). With the issues of sexual victimization in adulthood it is assumed that at this age the rates drop for males as they are stronger and more able to defend themselves from perpetrators. This drop was not significant for the male respondents in this study. There may be a need for more specific information in regards to who in reality is the perpetrator of the reported sexual victimization.

We also were able to examine if CSA was predictive of partner aggression or subsequent alcohol use in later life. Evidence from previous research predicts that men are more likely than women to engage in overt behaviour such as interpersonal violence, and heavy drinking which are more overt while women would engage in activities that are internalized such as depression and anxiety (Coid et al., 2001; West, Williams & Segal, 2000; White & Widom, 2003). Results obtained did not support the gender pattern of behaviour. The predictive pattern of previous research where it leads to female drinking and being victims of partner aggression in adulthood and males perpetrating aggression. The data here shows that CSV was predictive of respondents perpetuation of aggressive act towards partner. It appears the questions of the relationship of victimization and intimate partner aggression could be better addressed using qualitative research methods which would help understand the experience of CSV and/or ASV and how this may be related to aggressive episodes experienced by some.

Again victimization as a predictor of subsequent alcohol consumption was also examined the results showed that CSV and ASV were not predictive of drinking status, neither were they individually or jointly predictors for later consumption of larger amounts of alco-

hol than individuals who had not experience victimization. These findings are somewhat different from earlier surveys which were consistent in finding a relationship between CSA and later alcohol consumption, in some cases reflecting more of Widom (1999) result, as no relationship was found between CSA and substance misuse. It could be that the relationship between substance misuse and CSA refers more to situation of multiple victimization rather than single incidents of abuse. Or it could be that as Nigeria is considered more as a nation with high levels of abstention that alcohol consumption may not be the route via which those who have experience sexual victimization use in coping with this experience. Additionally, the lack of difference may have been due to the measure of alcohol consumption being used. As we measured last year abstainers along with taking self-report measures of usual quantity consumed at a normal drinking session These results highlight a need for more in-depth study at country levels to ascertain gender differences in the negative consequences of CSV and ASV that people experience.

Though this work had several strengths as it included both males and females, allowing for comparison across a number of issues, there were however several limitations to this work. It was cross sectional and the information gathered was retrospective, and not confirmed. Being quantitative did not allow for gathering information to the meaning of the concepts and the persons understanding or interpretation of the questions asked. This could have provided insights to the meanings and associations of CSV and ASV and possibly provide greater insight to the pattern of results that was obtained.

Further limitation of this work was that specific questions regarding abuse were not included in this survey. For instance the severity of the victimization was not assessed, neither was the respondent's age at the time of the abuse, gender of the abuser, and whether or not it was accompanied by physical violence or threat of violence. If at all the individual had reported the abuse at that

time to any other person. Furthermore we did not inquire as to the nature of the abuse that would have allowed for us to make a distinction between abuse that was penetrative as opposed to non-penetrative forms of abuse. These questions would have better enabled us to search for other consequences of abuse to see if they differ (Classen, Palesh, & Rashi, 2005).

CONCLUSION

Despite the limitations, this work for the first time allowed for the examination of childhood sexual abuse, adult sexual victimization and revictimization across a large sample. The results presented showed that males and females reported equally high rates of victimization. In planning any prevention or intervention programme there will be a need to understanding of the specific factors that are associated with CSV/ ASV in this country.

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**CANNABIS USE AMONG YOUNG PEOPLE IN DAR ES SALAAM,
TANZANIA: A QUALITATIVE STUDY**

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ABSTRACT

The aim of this study was to explore the factors associated with initiation and continued use of cannabis among youths in Dar es salaam, Tanzania. The study employed an explorative qualitative design, using in-depth interviews. Purposive sampling and snowball techniques were used to obtain the study participants. The collected data was subjected to content analysis and the study involved a sample of twelve participants whereby eight of them were cannabis users and four were parents. The findings revealed that loss of parents, having peers who smoke cannabis, being raised in broken family, as well as choosing a career the child did not like were among the factors linked to initiation of cannabis use. Furthermore, the study revealed delinquency behavior in school as well as lack of interest in school life, disregard to religious and parental could be strong indicators for the use of cannabis among youths. Further more the study highlighted issues related to cannabis use like readiness to quit and challenges anticipated and factors associated with continuing use of cannabis.

The study concludes that, there are many factors in families and communities that predispose youths to engage in cannabis use. The majority of those factors seem to emanate from within families and the society at large.

KEY WORDS: cannabis use, Dar-es-Salaam, substance abuse, delinquency behaviour

INTRODUCTION

The prevalence of lifetime and regular use of marijuana (as cannabis is more commonly known) has increased in most developed and developing countries. However, cumulative evidence highlights the risks of dependence and other adverse effects, particularly among people with pre-existing psychiatric disorders (Arsenault et al., 2004).

Cannabis produces changes in the brain so that the individual using it may experience sensations or perceptions not based on external stimuli. He/she may hear or see things that are not there. These effects and others depend on the amount taken and the experience and expectations of the individual. The social environment and the immediate setting or circumstances may also influence an individual's response when cannabis is taken (Mbatia & Kilonzo, 1996).

The question of why people use cannabis, and the potential risks associated with this use, has long been a subject of interest for policy-makers, the public, and population scientists. Many presumed explanations for cannabis use have emerged, encompassing host, environment, and agent. Risk factors identified include genes, psychological and behavioural problems, the tendency to seek sensations or take risks, and prior use of 'gateway' drugs (Kendler et al, 2005; Boden et al, 2006). Alternative possible explanations have their basis in parental behaviour and other aspects of family and friendship dynamics, and still more are based on wider socio-environmental adversity and material deprivation (Merikangas et al., 1998; Rhee et al., 2003).

Tanzanians have traditionally cultivated and used cannabis for many years. Cannabis is grown locally almost everywhere in the country and remains the most abused illicit drug in the country. However, its use in the past it was restricted to older men and traditional healers but today its use has spread to the young generation. Today however, there is a disturbing trend among youth and school aged children of increased interest in the use of cannabis. Youth may try cannabis under peer pressure (the influence of friends) or just because of curiosity or for the relief of tension, frustration, boredom or depression (Mbatia & Kilonzo, 1996).

Statement of problem

Cannabis is by far the most widely cultivated, trafficked and abused illicit drug worldwide. Half of all drug seizures worldwide are cannabis seizures. The geographical spread of drug seizures is global encompassing practically every country of the world. About 147 million people, 2.5% of the world population, consume cannabis. In Africa, some early studies have estimated the magnitude of cannabis use to be around 3% (Samuel, 2003; Driss & Nadia, 2008).

In Tanzania about 1% of adults abuse cannabis regularly and in some communities this number is as high as 5% (Kaaya et al., 1992). Most of the users are marginalized people who

are also experiencing other socio-economic stresses of rapid socio-technological change.

Many studies have been done focusing on the effects of cannabis use and its association with mental illness and many have focused on quantitative approaches to elucidate statistical significance of the risk factors associated with the initiation and persistent use of cannabis. While there are many studies that have dealt with substance abuse, most have focused on the extent and the type of drug abuse and have ignored the complex nature of its occurrence in communities as well as its underlying causes and how these interplay in Tanzanian youth communities. A majority of published studies on cannabis use have been conducted in developed countries whose cultures and socioeconomic environment differ with the one of developing countries, like Tanzania.

This study was designed to explore the nature of cannabis use among youth in Tanzania. Ultimately, the study will influence research agendas and inform the public on ways to tackle the problems associated with cannabis use among youth based on evidence.

The objective of the study was to explore the factors associated with initiation and continued use of cannabis among young people.

Arrest of people dealing with cannabis has become more frequent and has been involving the younger age groups. Young people in Tanzania are increasingly involved in abuse and trading of illicit drugs (Mbatia & Kilonzo, 1996).

A household survey (N=905) in four regions of Tanzania showed that cannabis and khat (commonly known as Mirungi) are the two major drugs that people have experimented with (3.8% and 3.7% of the informants admitting to have ever tried or used the drugs respectively). The study also showed that most of the experimenters were males (57%) and a large proportion of them was between the ages of 21-30 years (Kilonzo, 1992).

Many studies have shown that there is a sequence of drug use from alcohol to cigarette smoking and ultimately leading to cannabis use. This indicates an influence of cigarette use on later use of cannabis. Not only the sequence

of use but also the sequence of age as those who are more likely going to be cannabis users start using alcohol at lower ages, then become cigarette smokers and ultimately become the cannabis users which could be the 'gate way' to the use of other drugs like cocaine and heroin (Green, 1980; Golub & Johnson, 1994; Galanti et al., 1998; Tarter et al., 2006).

Another study was conducted to investigate the role of genetic and environmental factors in adolescent tobacco, alcohol and other substance use in a sample of 327 monozygotic and 174 like-sex dizygotic twin pairs born in Minnesota and aged 17-18 years at time of assessment. The findings revealed that the heritability for the liabilities to tobacco, alcohol and other drug use was estimated to be 59%, 60% and 33% respectively among males, and 11%, 10% and 11% respectively among females. However, the gender difference was not found to be statistically significant. Estimates of shared environmental effect were substantial and higher among females (71%, 68% and 36%, respectively) than among males (18%, 23% and 23%, respectively). Therefore the study findings indicated that adolescent initiation to substance use is influenced principally by environmental factors rather than genetic factors (Han et al., 1999).

Additional studies have identified early initiation of cigarette use, deviant behaviour, poor parent-child communication, being offered drugs as well as pro-drug attitudes and intentions as predictive factors of initiation of cannabis use. Poor communication with parents was particularly important for Hispanic and Asian adolescents, whereas doing poorly in school was a key predictor only for Asians (Ellickson & Morton, 1999). High family conflict, low family bonding, high peer anti-social behaviour, lack of early parental support were shown by a number of studies to play a role (Galaif et al., 2007).

A study conducted in Dar es Salaam among drug users also found that drug use by young people was associated with the following parental characteristics: divorce, separation, and widowhood, frequent change of parental figures, lack of parental understanding, lack of

parental awareness of youth behaviour and lack of parental consistent rules (Mndeme, 2004).

A cohort study revealed that wide ranges of academic and social difficulties that occur during elementary school years (ages 7-9) predict the use of substances observed at ages 14-15. This study, among others highlights the effects of parental care and early school life on use of cannabis and other psychoactive substances (Hops et al., 1999).

Another study showed that, the initiation of cannabis use was predicted mainly by availability of drugs, peers' drug use, a more 'positive' attitude towards future drug use, and regular previous use of licit drugs like alcohol, tobacco and coffee. In that study cannabis dependence was predicted primarily by parental death before age 15, deprived socio-economic status, and baseline use of other licit drugs (Sydow et al., 2002)

METHOD

This was a qualitative survey based on individual interviews in order to obtain a thick description of the perceptions and experiences of young cannabis users.

This study was conducted in Kinondoni municipality of Dar es Salaam Tanzania. Dar es Salaam was chosen because it is the country's commercial capital with a cultural diversity due to in/out migration of people with both urban and suburban context. The Kinondoni municipal was chosen at random among three municipalities in Dar es Salaam city.

According to the 2002 census, the population of the Kinondoni municipality was 1,083,913. This study involved a sample of 12 participants including eight youths between ages 15 and 25 years who were using cannabis and four parents whose youths were cannabis users.

The leader of an NGO working with youths in the area assisted the researcher to locate the first participant to be involved in the study. Thereafter the researcher managed to get other informants purposively through snowball

technique. The interviews were conducted at the nearby primary school by the investigator and each interview ranged from one hour to one and half hours.

Practically, once the researcher was introduced to a person of interest, he sought consent from the interviewee and an appointment for interview was made. After each interview the interviewee was asked to help in identifying other youths with the prerequisite characteristics of being 15-25 years and experienced in cannabis use.

After reaching the eighth participant the researcher asked the participant to assist in locating a parent who qualified to be a study participant by having a child who was known to be a cannabis user. Thereafter a snowball technique was used to get the remaining informants. The same semi-structured interview guide was used for both youths and parents as indicated in Appendix A.

In each interview session, probing open-ended questions were used. The probe questions were outlined prior to the interview sessions; however, questions were improved upon during the interview and episodes were used in consecutive interviews thereby making the interviews semi structured. Kiswahili language was the principal language used to conduct the interviews because it is the common language used by the majority of Tanzanians. The interviews were tape recorded after seeking consent from the interviewees. The data collection was done for one a month period from February to March, 2009. The content analysis approach was used as described by Graneheim and Lundman (2004).

Data analysis for this study began at the commencement of the very first conversation and interview and continued concurrently throughout the data collection period implying continuous clarification, feedback and revisions.

The ethical approval was granted by Muhimbili University of Health and Allied Sciences and the permission to conduct a study was granted from Kinondoni municipal authorities.

Study participants gave verbal consent to participate in the study because signing a

paper or a contract between the researcher and a participant regarded as risky by participants. All participants were assured of anonymity and confidentiality.

RESULTS

The study participants were 12 in total, including eight youths and four parents. Before embarking into a full discussion with the study participant, the sociodemographic characteristics of the study participant was asked by the interviewer in line with making an informant at ease. For the part of youths, none of them was married but three of them declared to have long time sexual partners. All of them have completed standard seven level of education. Among youths six of them were boys and only two were females.

With regard to employment status, none of them have formal employment but they all claimed to be involved in casual work. The two female participants declared to depend on their boyfriends for day to day living because they did not have any other source of income.

Three of the parents were women and only one was a man. All women were housewives and the man is a retiree of Tanzania Railway Authority.

Initiation of cannabis use

Low interest in school life

Lack of interest in general school life shown to be associated with initiation of cannabis use in future. And on top of lacking interest it was perceived that even if the parent exerts force on the child it does not generate interest in the child as parents would wish. This was noted in the following quote:

"When I was at school as a pupil I used to like the school life but sometimes I refused to go at school , and if forced by the parents in normally move from home showing that i am going to school but in real sense I do not reach there." [A male 18 years]

Family conflict or loss

Rejection of the child was among the potential initiators of cannabis use as revealed in the study. This aspect was identified by cannabis users as the contribution which parents and guardians play in perpetuating cannabis use among youth as shown in the following quote:

“My life now is nothing because everybody refused to stay with me. My aunts kept on saying that, they will only take care of my younger sisters whom we are sharing a mother because they are having their respective father and told me that, I am not supposed to be staying there anymore.” [A female, 24 years old]

“When my mother was alive everything was okay, my mother started to die following with my grandmother. I remember their deaths events followed one after another; it was like ninety-four and five when she died. After death of my grandmother, I was told by the aunts who are younger sisters of my mother to vacate from that house which used to be our home.” [A female, 24years]

“I was so interested in proceeding with a secondary education, but my father forced me to adopt the career of doing mechanical works at the garage, as a result we quarrelled with him then I fled from home and joined my friends in the ‘ghetto’. And there at ghetto life went on well as usual and I didn’t like even seeing my father until last year when I heard that he was admitted at Muhimbili Hospital then I met him after seven years of being away”. [A Male, 25years]

Upbringing in subcultures that support drug use

Several respondents mentioned in one way or another that lack of employment as among the initiators of cannabis use. One parent who said that also highlighted this characteristic:

“Frankly speaking this street has got a lot of cannabis users. For youths of this street, it could be better if they are given jobs to do rather than being loose and idle. As you can see now many youths are roaming in streets aimlessly. The act of being in streets made them smoke more cannabis and they become more empowered to go and do many criminal offenses and they become ready to do any kind of task despite the risk associated with it.”.
[A female parent, 44 years]

Lack of consistent social control

Early delinquency

It was revealed in the study that when a child is being delinquent in different settings including school and home, as characterized by the habit of beating friends this could be an indicative sign of the cannabis use behaviour later as shown in the following quotes :

“I used to quarrel with my friends at school now and then which made my parents to decide sending me back to the village. [a Male, 25 years]

“Also the baby becomes so disobedient to the parents, what ever you are telling him, he do not understand, and later on he joins that kind of gang. ; whenever you assign him a task to do he refuses and sometimes he even cheats you many times.[a male parent 63 years old]

Loss of religious influence

Many respondents touched the phenomenon of disobedience in following religious practices in one way or another as a predictor of becoming delinquent and ultimately being the cannabis user. This concept can be viewed in the following quotes ;

“It is a long time now since the last time I visited the church , as we used to be led by parents, therefore since from the time they died I found my self in different direction. We used to pray at home.

In addition, it was necessary to go to the church every Sunday even if you miss the Morning Prayer you have to attend the evening one. But as for now you are just alone you feel tired and don't feel like going to the church; may be if it is during the night prayers following Easter day or Christmas day, but even that I rarely do." [A female Christian participant, 24 years]

Dysfunctional family

This was observed to be among the factors playing a role in use of cannabis. One family for example comprised of six children, every child having his own father. This indicates that inconsistent parenting styles may be associated with cannabis use behaviour as quoted below:

"Our family comprised of six children, I have my elder brother who is having his own father; then I am the second born having my own father and then my young sister who is having his own father. My father used to stay just around this street and he used to have another wife somewhere there who is having the daughter whose name resemble mine as we inherited our late grandmother's name " [a female, 24 years]

Cannabis use and strategies for quitting

Lack of support for quitting

The study revealed that some cannabis users are willing to quit, but are so unsure of their abilities to do so. Among the study participants, interviewed majority of the participants indicated the desire to quit from the cannabis use. However, they are very unclear of the way to go to meet that desire as indicated in the quote below:

"...it is very true that I need to be free from using drugs but I do not know what I can do, and I heard that the government is in a process of constructing a rehabilitation centre for drug abusers in Dodoma[A region which is far from Dar

es salaam city]. For my opinions, I think it could be better if it was done here in Dar es Salaam so that we can benefit from that. I am saying so because majority of us cannot afford travelling to Dodoma it is too far". [Male 25 years]

Anticipated challenges were an obstacle towards abstaining from cannabis use especially for those who have been using cannabis to the extent of being dependent on it. Therefore, those challenges in cessation prevent cannabis users from pursuing a course of abstinence due to anticipated side effects.

"May be let's say when I wake up in the morning before I have tea, I feel extraordinary stomach ache which we call it 'arosto'. But immediately after having it the stomach ache stops immediately and I become the same again. Therefore how can I manage to live without it, I think I am going to die." (Female, 23 years)

The study revealed that many cannabis users have given up all hope of having a good life and a successful future. Lack of hope plays a significant role in keeping them from stopping their cannabis use as shown in the following quote.

"...I have lost hope of being the good person in society. Much as I am the first born in our family and I am having three sisters, but as long as I am affected by drugs have withdrawn my self in the tasks of collecting house rent for my father's house in turn I have delegated that to my sister instead". [A male, 25 years]

Availability of cannabis

This seems a challenge in attempts to abstain from cannabis use. This is because at those places you can get the drug of choice even if you do not have money to buy cannabis, you are likely to meet many drug abusers who are willing to offer you something you want. Availability of cannabis is so reliable that if a person tries to stop and starts experiencing unwanted

effects, they can easily obtain cannabis to relieve the symptoms as quoted below:

"...Whenever you go there at maskani (ghettos) you rarely miss people, if you are not there, others are there. Actually 'maskani' never dry even during the night unless it is beyond midnight. Even if you wake up at four in the morning, you will find some people out there. I mean even though you do not find the 'pusha' you will find the users who has gone there to get some" (Female, 23 years)

Behaviour change as a result of cannabis use

Another participant commented as follows regarding perceived behaviour change as a result of cannabis use.

"Every body is individual and unique, one may smoke and refuse to eat meanwhile another person can eat excessively. Another one can decide to quarrel with people and others are so cool and live peacefully. Therefore all in all it depends on individual's mind". [Female, 23years]

Another individual commented that;

"Following cannabis use, your brain becomes dormant you can even forget to clean up your own body". [Female, 24years]

One respondent related cannabis to sexual life experience when he associated cannabis use with the total loss of interest in friends of the opposite sex as indicated in the following quote:

"May be there is a behaviour change as before starting using cannabis, I used to be interested with girls and even used to approach them sometimes for sexual act, but after being a cannabis user from the time I was in standard seven, I stopped having any love affairs with women at all. So up to this moment I do not have

a girlfriend and I don't even think of getting married in future." [Male, 21years]

The aspect of visiting places where youths meet for taking drugs which are locally labelled as *maskani* seems a challenge in attempts to abstain from cannabis use. This is because at those places you can get the drug of choice even if you do not have money to buy cannabis, you are likely to meet many drug users who are willing to offer you something you want. Availability of cannabis is so reliable that if a person tries to stop and starts experiencing unwanted effects, they can easily obtain cannabis to relieve the symptoms as quoted below:

"Whenever you go there at maskani (ghetto) you rarely miss people, if you are not there, others are there. Actually maskani never dry even during the night even if it is beyond midnight. Even if you wake up at four in the morning, you will find some people out there. I mean even though you do not find the 'pusha' [pusha is the local name for someone who sells cannabis at ghetto] you will find the users who has gone there to get some" (Female, 23 years)

Cannabis use is an acceptable and affordable habit

This was revealed in the study that public perceive the cannabis users to be different in terms of behaviour secondary to cannabis use. This aspect is reflected in the following quotes below;

"In most cases my relatives become angry as a result of my cannabis using behaviour, but our relationship remains good as I am their child I keep on doing my businesses."

He also went on by saying that,

"Actually your behaviour do not change so much as long as you are having a task to perform but the money you get from

what ever you are doing can not be saved as you need to spend now and then for drugs ; therefore you have to look for more by any means"[Male, 24 years]

The study revealed that some cannabis users choose to use that addictive substance because of cost as cannabis is more affordable than other drugs like cocaine. Some participants expressed this as quoted below,

"Cocaine is so expensive so you need to have more money, so if you do not have such, you will need to use cannabis instead". [Male, 25 years]

Another respondent added that

"Because when you want cannabis it cost two hundred shillings, so by having one thousand you can have five pieces which are enough for the day. However, for the case of cocaine the dose you get for one thousand it just stay for an hour or so and then you need another dose while you do not have money for that. Therefore, you can take anything coming close to you and go to sell it including your own properties. So you need to have another one thousand or two that is why most people prefer cannabis over cocaine." [Male, 22 years]

DISCUSSION

During the whole process of data collection, some challenges were observed and one of them is that many informants were less willing to share information openly with the awareness of being tape-recorded. Sometimes it was so difficult to write during the interview, as the discussion required the full attention of the researcher. The content was then as carefully as possible written down afterwards in attempts to cover the main aspects dealt with in the interview.

A particular valuable aspect of this method was the manner in which it facilitated

closeness and private talks with the informants. The sensitivity nature of the research topic and the ways in which the informants who were cannabis users lived in society while exhibiting that behaviour were well explored via this methodological approach as it was emotionally rewarding while offering freedom of expression of individuals inner feelings and perceptions.

There are number of factors which seem to have contributed to initiation of cannabis use among them are a child being rejected, lack of interest in school life, a child exhibiting delinquent behaviour, being forced to choose undesirable career, lack of employment, loss of parents/guardians as well as being raised in broken families.

The findings of the study correlates with many studies like the one by Ellickson and Morton (1999) whose study revealed that early initiation of cigarette use as well as deviant behaviour and poor parent-child communication are among the initiation factors of cannabis use among youths (Ellickson & Morton, 1999).

Concerning the role of school life, the study revealed that cannabis use behaviour started after completion of primary school. This tells that being at school is an opportunity to be safe and protected from using any illicit drug. Therefore this gives indication that having more opportunity for primary education scholars is likely going to protect enormous number of youths who happen to be roaming around in streets and be easily trapped in cannabis use and use of other illicit drugs.

It seems that many youths, at some point in time, experience the desire to quit cannabis use, but they seem to face many challenges, which put them retard them from taking action. These calls for targeted intervention that can motivate them understand the addiction and what to expect in the dual course of treatment of addiction to cannabis. Therefore, this stands as an opportunity towards assisting youths who are motivated to quit from addictive behaviour to given opportunity.

It is so unexpectedly that some respondents didn't associate their behaviour in relation to cannabis use despite all changes happening to

their day to day life and they kept on believing that a behaviour someone portrays usually comes from learning from people you meet with at 'maskani' (ghetto) but is not associated with chemical component of cannabis. This calls for targeted health education to cannabis users and society at large on the mechanism and how behaviour is changed as a result of physical and psychological impact of smoking cannabis. This is important due to the fact from health belief model that for a person to change he/she should perceive to be at risk of health problems as a result of his unhealthy behaviour (Glanz et al., 2002).

Another important element picked up during the interviews is the element of cost, as youths prefer cannabis to other substances due to the fact of cost difference. They said they would prefer cocaine if they had enough money and currently are using cannabis because of inability to buy adequate doses of cocaine per day. Public perceptions in relation to cannabis use vary as some people deny or downplay bad effects of cannabis use like what is demonstrated in United States. (Tanzanian Daily News of 2 March 2009).

Conclusion and recommendation

The study concludes that there are many factors, which interplay to predispose youths to be engaged in cannabis use and use of other illicit drugs. Majority of those factors seem to originate within families and at society level. In addition, parental care should be emphasized in all circumstances starting from a religious point of view. In addition, I can conclude that if emphasis is put on having stable families and better parenting the society is likely to have better and morally sound youths.

Additionally society has all potentials of shaping the culture, which will enable children to be brought up in conducive social environments. If all people could take the role of advocating for better nurturing of children in totality by reviving to our African style of caring for children whereby the role of controlling unwanted behavior was vested to the whole community if not a specific clan. More over the most vulnerable group of children

who are usually also very disadvantaged, like orphans should be given special care by the society rather than abandoning them.

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APPENDICES

APPENDIX A: Interview guide for cannabis users

1. How can you describe your life when you were at the primary school? In terms of relationship with your friends and teachers. Did you like school life?
2. Please can you explain to me the frequency and belief towards religious issues? frequent?
3. Did you live with both parents when you were the child? if not can you describe a bit what happened to make you stay with a single parent or none of them? If your parents were separated, can you describe the phenomenon that led to that?

Can you please tell about the life you father and mother used to have when you were young including their level of education and occupation?

4. Do you smoke cigarette and if so can you describe the pattern of your smoking behaviour? If so what started first cigarette of cannabis? In addition, if you are smoking cannabis can you please describe the pattern you take in cannabis use the amount and other issues associated with?

5. Can you please describe in brief the general behaviour you had before starting using cannabis and after starting using it, is there any difference if so can you please describe it in short?

Among those descriptions of behaviour deference you have described do you associate with cannabis use or not?

6. Can you tell the reasons that made you start using cannabis? Did you have friends who smoke cigarette and drink alcohol in the past? And did you have siblings and other elders who smoke cigarette and cannabis at the homestead where you were raised? Do you have neighbours who smoke cigarette and/ or cannabis and other substances of abuse
7. How can you describe the use of cannabis including their effects and what people say about it? Do you think it is good for you or bad and how do you perceived it to be in your life?
8. What opinion do you have on use of cannabis and other illicit drugs? What should be done? If you are given the opportunity to give your advice to the government, what could you say in relation to your knowledge and perception towards it?

Thank you!

**PREVALENCE AND SOCIO-DEMOGRAPHIC CORRELATES
OF ALCOHOL USE DISORDERS AMONG HIV PATIENTS**

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ABSTRACT

The rate of alcohol consumption is high among individuals living with HIV. The combination of hazardous alcohol drinking and HIV is deleterious to the health of the individual and the general public. Therefore, this study attempts to estimate the prevalence of alcohol use disorders in HIV-infected patients and to assess the socio-demographic factors associated with it. Across sectional descriptive study was conducted among 160 consecutive patients attending the infectious disease unit of the Plateau State Specialists Hospital Jos. A semi-structured questionnaire was used to collect data on socio-demographic variables and Alcohol Use Disorders Identification Test (AUDIT) was used to assess alcohol use disorders. The estimated prevalence of alcohol related problems was 39.4% with 28.8% harmful drinking and 10.6% hazardous drinking (alcohol abuse); 33.1% had started drinking before they were diagnosed with HIV and 6.3% after diagnosis. Male sex ($p=0.000$), poor education ($p=0.000$) and low income ($p=0.002$) were significantly associated with alcohol use disorders. The study revealed that alcohol use disorders are high among HIV infected patients who are males with low socio-economic status. We therefore recommend for screening and treating alcohol problems in HIV patients.

KEY WORDS: Alcohol use disorders, socio-demographics, HIV/AIDS, harmful use

INTRODUCTION

The rate of alcohol consumption is high among individuals living with HIV/AIDS. People who abuse alcohol are more likely than the general population to contract HIV (Petry, 1999; Kalichman et al., 2007; Brown & Wechsberg, 2010). Similarly, HIV infected individuals are more likely to abuse alcohol and other substances at some time during their lives (Lefvre et al., 1995).

Studies have consistently shown that alcohol use is related to high risk sexual behaviour

through multiple reasons. For example multiple sex partners, unprotected inter-course and sex with high risk partners (Audu et al., 2009; Avins et al., 2000; Boscarino et al., 1995; Malow et al., 2001). High rates of risky sexual practices have been reported among adolescents (Grunbaum et al, 2002) and may be correlated with alcohol consumption (Malow et al, 2001). There may be many factors for this association, some of which include expectations regarding the effects of alcohol on sexual arousal and performance, reduced inhibitions and diminish risk perceptions (McDonald

et al., 2000; Fromme et al., 1999; Cooper, 2002).

The combination of problem drinking and HIV has been associated with increase medical and psychiatric complications, delays in seeking treatment and poorer outcome (Samet et al, 1998; Lucas et al, 2002). Alcohol consumption among persons with HIV may lead to disease progression through immunosuppression (Wang & Watson 1995) and impaired adherence to HIV medication (Cook et al, 2001; Wagner, 2001). Tucker and Colleagues (2003) found that persons who drank tended to have worse adherence than those who did not drink, with non-adherence increasing with level of drinking severity. Furthermore, heavy alcohol consumption can also affect both efficiency and toxicity of HIV medication (Fein et al, 1998) and interfere with the metabolism of protease inhibitors (Fabris et al., 2000).

The accuracy of available prevalence of problem drinking among HIV infected persons has been inconsistent either because of small sample size, confinement of study to specific geographical areas and measurement strategy or instrument employed (Cook et al, 2001; Dingle and Oei, 1997; McManus and Weatherburn, 1994). In an analysis of a national probability sample Galvan et al (2002) found that 8% of patients with HIV infection reported heavy alcohol consumption. It was also found that being male, younger and having lower income were associated with heavy drinking.

Studies based on HIV clinic attendees have reported significant alcohol use in 22-63% of HIV patients (Cook et al., 2001; Samet et al., 2004). The prevalence of current alcohol use disorders have been estimated to range from 3-12% (Dew et al., 1997; Ferrando et al., 1990). Research findings have shown lifetime prevalence of alcohol related problems in individuals with HIV/AIDs to be 26% to 60% (Ferrando et al., 1998) compared with that of the general population of 14-24% (Regier et al., 1990; Kessler et al., 1994).

In Nigeria, studies have focused on life time and current prevalence rates of alcohol use without exploring alcohol related problems

(Adejide et al., 1987; Adelekan et al., 1992). Obot (1993) in a general population survey in the Middle Belt of Nigeria found the prevalence of light, moderate and heavy drinkers to be 16.5%, 16.7% and 10.4% respectively. Furthermore, the prevalence of alcohol related problems in a sample of Nigeria students was found to be 13.2% (Adewuya, 2005).

Early detection and intervention aim at reducing alcohol consumption in HIV patients will not only reduce medical and psychiatric consequences associated with alcohol consumption, but also decreases other drug use and risky sexual behaviour thereby, reducing HIV transmission (Lucas et al., 2002; Chersich, 2009). Thus, alcohol and other drug abuse treatment can be considered primary HIV prevention as well (Metzger et al., 1998; Boscarino et al., 1995). Despite these findings, there is limited information available on the use of alcohol and its predictors among HIV/AIDS patients in Nigeria. Hence, we undertook this study to investigate the prevalence and socio-demographic correlates of alcohol use disorders among HIV infected patients receiving treatment. The specific objectives of the study were; to estimate the prevalence of alcohol use disorders in HIV/AIDS patients and to assess the socio-demographic factors associated with alcohol use disorders among HIV/AIDS infected patients.

METHOD

The cross-sectional descriptive study was carried out at the infectious disease unit of the Plateau State Specialist Hospital, Jos. Jos is the capital city of Plateau state and it is located at the centre of North central region of Nigeria. It has an estimated population of 822,873.

Ethical clearance

Ethnical approval was sought for and obtained from the Health Research Ethics Committee of the hospital before the commencement of the study.

Population

The population for this study consisted of all patients (aged 16 years and above) receiving treatment for HIV/AIDS at the infectious disease unit of the hospital.

Instrument

Alcohol related problems were assessed with Alcohol Use Disorders Identification Test (AUDIT). The AUDIT is a cross-culturally validated instrument which has demonstrated good content, criterion and construct validity (NIAAA, 1995) and reliability from 0.77 to 0.83 alpha (Bohn, Babor & Kranzler, 1995). The ten-item instrument includes questions to determine patterns of drinking considered harmful, hazardous and symptomatic dependence in the preceding 12 months. A score of 4 to 7 and eight and above were considered indicative of harmful and hazardous use (alcohol abuse) respectively. A semi-structured questionnaire was used to collect the socio-demographic data.

Procedure

With the informed consent of each consecutive subject the semi-structured questionnaire was used to collect socio-demographic data and AUDIT was used for assessment of alcoholic consumption. This was done on every clinic day until a sample size of 160 patients was obtained. Those who failed to give consent were excluded.

RESULTS

A total of 63 (39.4%) of the 160 patients, were identified to have alcohol related disorders with 46(28.8%) and 17(10.6%) as harmful drinking and hazardous drinking respectively. Higher proportion 53(33.1%) of patients with alcohol related problems had started drinking before they were diagnosed with HIV compared to 10(6.3%) who started drinking after diagnosis.

The mean age of the study sample was 35.6 years (SD = 8.667 years). The majority of respondents were aged between 24-34 years, representing 45% of the study sample. This group had the highest number (29; 46%) of patients considered to have alcohol related problems.

There was a preponderance of female subjects (64.4%); despite this males constituted majority (55.6%) of those with alcohol related problems compared with females (44.4%).

A higher proportion (42; 66.7%) of alcohol related problems was seen in those who were singles than those who were married (21; 33.3%). Of those who earned less than ten thousand naira monthly 49(77.8%) had significant alcohol related problems compared to those who earned more than ten thousand naira monthly (14; 22.2%). A majority, (55; 87.3%) of those who had secondary education or below were significantly associated with alcohol

Table 1: Patients' alcohol related problem status and type and disorders

Drinking and problem variables	n	%
A. Patients with and without alcohol related problems		
No alcohol related problems	97	60.6
Alcohol related problems	63	39.4
Total	160	100
A. Patients with alcohol related disorders and when they started drinking alcohol		
Started drinking before diagnosis	53	53
Started drinking after diagnosis	10	10
Total	63	63
C. Types of alcohol related disorders		
Harmful drinking	46	28.8
Hazardous drinking	17	10.6
Total	63	39.4

Table 2: The relationship between socio-demographic variables and alcohol related problems

Socio-demographic variables	Alcohol related problems		Total	Statistics
	None	Present		
Sex:				
Male	22 (22.7)	35(55.6)	57(35.6)	$\chi^2 = 17.999$ df = 1 $p = 0.000$
Female	75(77.3)	28(44.4)	103(64.4)	
Total	97(100)	63(100)		
Age:				
15 – 24	9(9.3)	3(4.8)	12(7.5)	$\chi^2 = 1.361$ df = 3 $p = 0.715$
25 – 34	43(44.3)	29(46.0)	72(45.0)	
35 – 44	30(30.9)	19(30.2)	49(30.6)	
45 and above	15(15.5)	12(19.0)	27(16.9)	
Total	97(100)	63(100)	160(100)	
Marital status:				
Singles (never married, divorced, separated, widows & widowers)	69(71.1)	42(66.7)	111(69.4)	$\chi^2 = 0.359$ df = 1 $p = 0.549$
Married	28(28.9)	21(33.3)	49(30.6)	
Total	97(100)	63(100)	160(100)	
Monthly income in Naira:				
< 10,000	47(48.5)	49(77.8)	96(60.0)	$\chi^2 = 13.685$ df = 1 $p = 0.000$
> 10,000	50(51.5)	14(22.2)	64(40.00)	
Total	97(100)	63(100)	160(100)	
Educational level:				
Secondary Education & below	63(64.9)	55(87.3)	118(73.8)	$\chi^2 = 9.858$ df = 1 $p = 0.002$
Tertiary education	34(35.1)	8(12.7)	42(26.2)	
Total	97(100)	63(100)	160(100)	

related problems compared with (8; 12.7%) who had tertiary education. Low income, poor education and male sex were significantly associated with alcohol related problems.

DISCUSSION

This study found a high rate of alcohol related problems (39.4%; 28.8% with harmful drinking and 10.6% with hazardous drinking), 33.1% started drinking before they were diagnosed with HIV and 6.3% after diagnosis. This is consistent with earlier studies that found high rate of alcohol related problems among patients with HIV/AIDS (Petry, 1999; Lefvre et al, 1995).

The prevalence of alcohol related problems found in this study is agreed with that reported in the general population (Obot, 1993) but

much higher than 13.2% found in a sample of university students in Nigeria (Adewuya, 2005). People with alcohol related problems are more likely to contract HIV infection because they tend to engage in behaviours that place them at risk (Malow et al, 2001). Similarly, people with HIV/AIDS may be more likely to abuse alcohol as an expression of maladaptive coping strategy or due to the presence of other co-morbid psychiatric conditions which are prevalent in patients with HIV/AIDS (Olley et al, 2003; Pence et al, 2008).

This study had a preponderance of females (67.6%). However, there was a significantly higher percentage of alcohol related problems among males compared with females. This concurs with the study done by Olley et al, (2003). This discrepancy may be accounted for by socio cultural factors in our environment. Studies have also reported that there is gen-

der- difference in responses, such as increased alcohol use and more risky behaviors in men (Olley et al, 2003).

Large proportion of alcohol related problems was found among those without spouse (61.4%). This high rate may reflect the difference in the composition of the study group. Having lower income has been associated with heavy drinking (Galvan, 2002). Similarly, this study demonstrated a significant relationship between low socio-economic status and alcohol related problems. This could be as a result of chronic frustration from discrimination and unemployment among HIV/AIDS patients. Additionally, low socio-economic factors could certainly have affected their ability to access and utilize available resources necessary for their well being.

In conclusion, this study has shown that there is high rate of alcohol related problems and socio-demographic correlates associated with it among persons with HIV/AIDS. The high prevalence of alcohol related problems in HIV/AIDS patients underscore the need for screening of alcohol related problems in all HIV/AIDS patients receiving treatment. Particular attention should be given to individuals who are males, with lower socio-economic status. Implementing these measures can reduce alcohol related problems in HIV positive individuals, with potential benefits for both their personal health and the public health in general.

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ALCOHOL RELATED PROBLEMS, FAMILY TYPE AND YOUTH HIV/AIDS RISK BEHAVIOUR

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ABSTRACT

This paper examined the extent to which youth involvement in HIV/AIDS risk behaviours is related to their patterns of alcohol consumption and differences in family structure. Random surveys were conducted and data collected from pre-degree male and female students at two institutions of higher learning in Akwa Ibom State, Nigeria. Two scales were used for data collection: Alcohol Use Disorder Identification Test (AUDIT) and HIV/AIDS Risk Behaviour Questionnaire (HRBQ) and the collected data were subjected to Chi-square goodness of fit test. Two hypotheses were tested in this study. The first hypothesis predicted a significant association between alcohol-related problems and youth HIV/AIDS risk behavior was confirmed $\{X^2(4) = 39.91, p < 0.05\}$. Results also confirmed the second hypothesis which predicted that family type would be significantly related to youth HIV/AIDS risk behaviour $\{X^2(1) = 4.48, p < 0.05\}$. The results were discussed in line with existing relevant literature. Practical implications of results and recommendations were also highlighted.

KEY WORDS: Alcohol dependence, alcohol abuse, family type, hazardous drinking, responsible drinking

INTRODUCTION

Across the world, between 35-45 million people are living with HIV and AIDS (United Nations Agency for International Development, UNAID, 2005). Of this number, about 25.5 million live in the African continent. So far, more than 13 million of them have died of this disease. South Africa is the region with highest (67%) HIV infection (Parry, 2010). Nigeria has the third largest population of people living with HIV/AIDS in the world after India and South Africa. The prevalence

rate in Nigeria has been on the increase from 1.8% in 1991, through 5.4% in 1999, to 4.4% in 2005 (Federal Ministry of Health Sentinel Survey, 1999; 2005). Youth make up the largest segment of the population that is particularly vulnerable to HIV/AIDS (World Health Organization, 2006). Altogether, 50% of HIV transmission takes place among those aged 15-24, accounting for 5,000-6,000 youth becoming infected daily (WHO, 2006).

The preceding evidence, associating a large number of youth with HIV/AIDS transmission could be explained by the higher tendency

and frequency with which they get involved in HIV/AIDS risk behaviour. Youth risk behavior are those responses, actions and/or activities that increase the actor(s) probability of contracting or transmitting HIV/AIDS (Umoh, 2003). Such behaviours include having unprotected sexual intercourse, having multiple sex partners, sharing injection needles and other body piercing devices. The periods of adolescence and early adulthood are often associated with increased tendency for experimentation, and greater risk taking, thus increasing their vulnerability to HIV/AIDS. Several other factors associated with increased vulnerability include, but not limited to: lack of education and life skills, poor access to health services and commodities, early sexual debut, early marriage, sexual coercion and violence, distorted family background, trafficking and growing up without parental guidance, or lack of other forms of positive role models and protection from exploitation and abuse, peer influence, frequent and unrestricted exposure to and availability of psychotropic substances (WHO, 2006).

The world drug report of the United Nations Office on Drugs and Crime (UNODC, 2009) estimated the total number of people using illicit drugs at upwards of 250 million people – equivalent to about 4% of the global population. Of this number, as many as 38 million people are drug dependent, but only about 4.9 million of them receive evidence – based drug dependence treatment and care. Harmful alcohol use seems to present fundamental health issues which affect physical, social and psychological well-being and thus forms a major health dimension in the determination of behaviour, HIV/AIDS risk behaviour inclusive (Adelekan & Adeniran, 1991; Ikuesan, 1994; USAID report, 2005). There is emerging evidence (Alwan, 2010) that harmful use of alcohol contributes to the health burden caused by communicable diseases such as tuberculosis and HIV/AIDS, although it is one of the four most common modifiable and preventable risk factors for major infections. A growing body of epidemiological and social science research, much of it conducted in developing countries

experiencing severe HIV epidemics, suggests that alcohol use is associated with the sexual behaviours that put people at risk for HIV and other sexually transmitted Infections (Cook & Clark, 2005; Kalichman, Leickness, Michelle, Demetria & Sean, 2007).

In India, sex under the influence of alcohol was independently associated with having an STI or HIV among men who patronize female sex workers (Madhivanan, Harnandez, Gogate et al., 2005). Use of alcohol before sex increased HIV acquisition by 50 percent in a study of over 14000 women and men in Uganda (Zablotska, Ronald, Davidet al., 2006). Having sex while intoxicated was strongly associated with having recently acquired HIV infection in Zimbabwe (Fritz, Woelk, Bassett et al., 2002). A review of studies on the use of alcohol in Nigeria shows that there has been a rapid increase in alcohol availability, consumption, and abuse with young adults in universities and colleges being primary victims (Abiodun, 1991; International Narcotic Control Board report, 1996; Ijeomah, 1997). Olisah, Adekeye, Sheikh and Yusuf (2009) also found a significant association between alcohol related problems and risky sexual behavior among HIV patients. In simple terms, Olisah et al. (2009), observed that a history of heavy alcohol use has been correlated with a life time tendency towards high risk sexual behavior. In this research however, alcohol-related problems have been categorized into three - alcohol abuse, hazardous use and alcohol dependence; dimensions which will make for comparison with the “no alcohol-related problem group”. We have also dichotomized family type into intact and separated family.

Alcohol abuse is said to occur when it is occasionally or continuously used: when not medically necessary, maladaptive or contrary to socially sanctioned ways or levels, against legal prohibitions (Eze & Omeje, 1999). On the other hand, alcohol dependence is developed if an individual is unable to do without the particular alcohol because he/she suffers psychological, physiological or physical distress when he stops taking it. The DSM-IV (APA, 1994) sees dependence as a cluster of

three or more of the symptoms listed below occurring at any time in the same twelve months period: tolerance, withdrawal syndrome, taking the substance in large amounts or over a longer period than was originally intended by the individual, persistent but unsuccessful desire to cut down, regulate or discontinue use of the substance, spending a greater deal of time obtaining the substance, using the substance or recovering from its effects, associating with substance using friends valued over family activities and hobbies and taking extra care to use the substance in privacy. In other words, alcohol dependence is associated with continuous drinking in spite of negative consequences.

Families are assumed to be the frontline agents of socialization. Its type, structure and dynamics could therefore be implicated in the formation of adaptive or antisocial behaviour, HIV/AIDS risk behavior inclusive (National Drug Law Enforcement Agency, 1997). According to Donenberg and Pao (2005), families influence youth sexual behaviour in four different perspectives; the dimensions often targeted in focused HIV/AIDS programmes-Instrumental characteristics, effective parent behavior, parental attitude about sex and parent-teen communication.

At this juncture, it is important to acknowledge that youth involvement in HIV/AIDS risk behavior, like other maladaptive behaviours, seems to constitute a major channel through which HIV/AIDS is contracted and transmitted (Olisah et al., 2009; Cook & Clark, 2005; Kalichman et al., 2007b, Zablotzka, 2006; Fritz et al., 2002; Madhivanan et al., 2005; Bisika et al., 2008). This behaviour seems to be facilitated when youth are exposed to variables like alcohol availability, intake and unhealthy family background. This study is imperative for HIV/AIDS intervention planning as it aids the identification of alcohol related problems population among the Nigerian University/college students.

While research interests and efforts in Nigeria have hitherto concentrated on the causes, prevalence, consequences, prevention, and other alcohol-related epidemiological issues,

attempts however appear inadequate in addressing the problems of the already existing population of abusers, hazardous users before they manifest dependence symptoms and the involvement of this at-risk group in HIV/AIDS risk behavior; a situation that has impeded effective HIV/AIDS intervention strategies in the last decades. An understanding of these would not only sensitize stakeholders on the existence of this at risk group, but would also be useful in designing alcohol treatment/intervention strategies in Nigerian Universities as an integral part of HIV/AIDS reduction campaign efforts. It is also hoped that this work will contribute to the scanty literature in this area of study. This study investigates the association between alcohol related problem, family type and youth HIV/AIDS risk behavior. Specifically, it is tailored to determine the extent to which alcohol related problems are associated with youth HIV/AIDS risk behavior. The study will also find out whether family type (intact or separated family) relates to youth HIV/AIDS risk behaviour.

Scholars have used a couple of theoretical and empirical evidence to explain the distinct concepts of alcoholism, family dynamics and sexually transmitted infections. A theoretical explanation that lends credence to these concepts could be gleaned from Bandura's social learning model (Ghodse & Maxwell, 1990). According to this theory, alcohol is taken by both social drinkers and problem drinkers as well, due to the expectation that pleasant consequences will follow. Most of these behaviours are learned from parents or significant others at the family background, while others are learned through direct experience. After this initial learning and experimentation, a sort of selective attention leads to drinkers anticipating pleasurable effect while trying to ignore punishing consequences such as, risk of contracting STIs or HIV/AIDS, threatened loss of job, etc. As a heavy drinker begins to experience problems, Ghodse and Maxwell submitted that a set of negative expectations develop so that there are strong reasons to want to do alcohol and strong reasons to avoid it. This ambivalence reflects an approach-avoidance

conflict which is experienced as a compulsion to drink (Ghodse & Maxwell, 1990).

Empirical literature linking alcohol misuse with STIs and HIV/AIDS risk behaviours seems to be consensual. Olisah, Adekeye, Sheikh and Yusuf (2009) investigated the rate of alcohol related problems and high risk sexual behavior in patients with HIV/AIDS attending medical clinic in a Nigerian University Teaching Hospital. A consecutive sample of 120 patients with HIV/AIDS attending the medical out-patient Department in Ahmadu Bello University Teaching Hospital, Zaria-Nigeria was assessed. All participants were screened for alcohol-related problems using the Alcohol Use Disorder Test (AUDIT). High Risk Sexual Behaviour Questionnaire (HRBQ) was also used to generate data for High risk Sexual behavior. Alcohol-related problems were found in 28.3% of participants (10% had hazardous use, 3.3% had harmful use and 15% were alcohol dependent). Chi-square analysis of data collected revealed a significant association between alcohol-related problems and risky sexual behavior $\{X^2(1) = 42.449, P < .05\}$.

In the same vein, Bisika, Konyani, Chamangwana and Khanyizira (2008), in an epidemiologic study of the prevalence of HIV among drug abusers in Malawi, collected a purposive sample of 200 drug abusers. They were invited to provide urine and blood samples. The blood samples were tested for HIV. The study found a high prevalence of HIV among non-injection drug abusers, with those who abused alcohol being more likely to be HIV positive compared to cannabis abusers.

In a review of the pattern, contexts and impacts of alcohol use associated with commercial sex reported in global literature, Qing, Xiaoming, and Bonita (2010), identified peer-reviewed articles from 1980 to 2008 reporting alcohol consumption among Female Sex Workers (FSWs) and male clients. The use of alcohol to facilitate the transition into the practice of commercial sex among both FSWs and male clients was observed. Also significant was the association between harmful use of alcohol, HIV/ sexually transmitted infections and unprotected sex.

Interest in the psychosocial context of sexual behavior and risk taking has been renewed in the wake of concerns about HIV infections, STDs and unintentional pregnancy in youth. While studying youth sexual risk-taking behavior in single parent ethnic minority families, Forehand, Rex, Kotchick, Beth, Dorsey, Shannon, Miller and Kimis (2004), asserted that parents have a potential role as models for their youth with regard to sexual behavior. The study supports the assertion that family structure has an important influence on adolescents' sexual socialization.

Similarly, Santelli, Brener and Robin (2010) assessed the relation of socioeconomic status, family structure and race/ethnicity to adolescent sexual behaviour that are key determinants of pregnancy and sexually transmitted diseases. The 1992 Youth Risk Behaviour Survey/ Supplement to the National Health Interview survey provided family data from Household adults and behavioural data from adolescents. among male and female adolescents, greater parental education, living in a 2-parent family and white race were independently associated with never having had sexual intercourse. Parental education did not show any linearly association with other behaviors. Adjustment for socioeconomic status and family structure had some effects on the association between race/ ethnicity and sexual behaviour.

Prior to this study however, Yoisin and Dexter (2002) examined the relationship between family ecology and HIV sexual risk behavior. Family psychosocial and HIV risk factors were assessed in 171 African American and 187 Puerto Rican adolescent males (aged, 14-19 years). Demographic information including age, race, grade level, family composition, household membership, family income and parents' educational level were obtained. Other measures used included the Social Support Survey, the Male Sexual Behavior Questionnaire, the Exposure to Violence Probe and the Self-Efficacy Scale. Findings suggest that family ecology, culture and gender role variables differentially affected HIV/AIDS sexual risk behavior within these groups.

The reviewed literature led us to hypothesize that a significant association would exist between alcohol-related problems and youth HIV/AIDS risk behavior. It was further hypothesized that family type would be significantly related to youth HIV/AIDS risk behavior.

METHOD

Participants

One hundred and eighty two (182) respondents comprising 79 males and 101 females were randomly selected from the population of pre-degree students of two higher institutions of learning in Akwa Ibom State, Nigeria; namely: University of Uyo (64 students) and State Polytechnic, Ikot Ekpene (118 students). Their age ranged from 15 to 25 years of age, with a mean of 22.48.

Instruments/materials

Alcohol use Disorder Identification Test (AUDIT) and the HIV Risk taking Behaviour Questionnaire (HRBQ) were used to collect data for this study. These instruments were administered in conjunction with questions to probe into the socio-demographic status of the respondents. AUDIT identifies people who abuse alcohol, those who are dependent on alcohol and those whose alcohol consumption has become hazardous or harmful to their health. Participants Scores in AUDIT Scale correlated with the clinical diagnosis of alcohol related problems using the Composite International Diagnostic Interview (CIDI) with a correlation coefficient of 0.780 ($P < 0.001$) (Adewuya, 2005), cited in Olisah et al. (2009).

The HRBQ was used in assessing respondents' HIV/AIDS risk taking behaviour which was dichotomized into 'high risk behaviour' and 'low risk behaviour'. The instrument is structured to be sensitive to both Injection Drug Use (IDU) and sexual behaviours. Ward, Darke and Hall (1990) posited however that the scale is free from culture and gender bias. Item 3 in section A of the questionnaire probed into the family background

of the respondents. Options of the family setting ranged from intact family (where the respondents grew up with both parents and the sibling), to separated family structure (where the respondents lived with either of the parents or the uncles, aunties, grandparents or significant others).

Scoring

AUDIT is a 10 item instrument incorporating questions about the quantity and frequency of alcohol use. It is structured in a five-option format ranging from 'never', through 'less than monthly' to 'daily or almost daily use of alcohol' with 'never' attracting a score of 0, while 'daily or almost daily' attracts a score of 4. However, items 9 and 10 on the scale are structured to have three options of: (a) – never, (b) – yes, but not last year and (c) – yes during the last year. 0, 2 and 4 are attached to options a, b and c respectively. AUDIT therefore has a maximum score of 40 and a minimum of 0. Adewuya (2005) however stipulates a cut-off of 5 and above for hazardous alcohol use with sensitivity of 0.935 and specificity of 0.915 in Nigerian sample. Cut-offs of 7 and 9 respectively were also recommended for diagnosis of harmful use and alcohol dependence respectively. Thus scores between 0 (total abstinence) and 4 were taken to represent "no alcohol-related problem group".

The HIV risk-taking Behaviour scale (HRBS) is a brief 11-item Questionnaire developed to measure the Injection Drug use and Sexual behaviours of respondents. This scale provides three scores: a drug use sub-total indicating level of HIV risk-taking behaviour due to drug taking practices, a sexual behaviour sub-total indicating level of risk associated with unsafe sex and a gross total score indicating level of HIV risk the respondent has of contracting or transmitting HIV occasioned by one's involvement in either one or both dimensions of HIV/AIDS risk behavior (Ward et al., 1990). The scale is structured in a six option format. Therefore, in this study, respondents that reported two or less risk factors were categorized as having low HIV risk behavior, while those that

reported more were defined as having high risk behaviour.

Procedure

Approval to conduct this study in the institutions was obtained from the Heads of Departments, who assigned lecturers to assist the researchers in conducting the survey. Informed consent was obtained from participants who were randomly selected to participate in the research. Respondents were briefed of the aim of the research, and questionnaires administered. Information was gathered anonymously and responses could not be traced back to any particular respondent. The respondents were encouraged to work independently to avoid undue influences from friends and/or colleagues during decision making. Two hundred (200) questionnaires were administered. Eighteen (18) of these were discarded on grounds of either not being properly filled or respondents being above the age range of interest (15-25 years) or both; the researchers were left with a total of 182 questionnaires to use in data analysis.

RESULTS

Result of the chi square (X^2) analysis of data shows a significant association between alcohol related problems and youth HIV/AIDS risk behavior { X^2 (3) = 24.15, $p < .05$ }. A significant relationship between family type and HIV/AIDS risk behavior was also found { X^2 (1) = 4.48, $p < .05$ }. These results are presented in tables 1 and 2 below.

From Table 1, about 41 (22.5%) respondents were alcohol dependent, 26 (14.3%) of these were involved in high HIV/AIDS risk behavior, while 15(8.2%) indicated low risk behavior. Similarly, harmful users and hazardous users of alcohol recorded high HIV/AIDS risk behaviours. Of the 13(7.1%) respondents that reported harmful use of alcohol, 11(6.0) indicated high HIV/AIDS risk behavior, while 2(1.1%) indicated low risk behavior. In the same vein, among respondents who were hazardous users of alcohol, high risk behavior was observed in about 10 (5.5%), while 8 (4.4%) were low in HIV/AIDS risk behavior. When the alcohol-related problem group was compared

Table1: Chi-square table showing the association between alcohol related problems and youth involvement in HIV/AIDS risk behavior (n, %)

HIV/AIDS risk behaviour	No problem	Hazardous use	Harmful use	Dependence	SumF
High	38 (20.9)	10 (5.5)	11 (6.1)	26 (14.3)	85 (46.7)
Low	72 (39.6)	8 (4.4)	2 (1.1)	15 (8.2)	97 (53.3)
Sum	110 (60.4)	18 (9.9)	13 (7.1)	41 (22.5)	182 (100)
X^2 (3) = 24.15, $p < 0.05$					

Table2: Table of Chi-square analyses showing family settings and youth involvement in HIV/AIDS risk behaviour

HIV/AIDS Risk Behaviour	Intact Family	Separated family	SumF
High	42 (23.1)	43 (23.6)	85 (46.7)
Low	63 (34.6)	34 (18.7)	97 (53.3)
Sum	105 (57.7)	77 (42.3)	182 (100)
X^2 (1) = 4.48, $p < .05$			

to the no alcohol problem group (72: 39.6%) vs (110: 60.4%), it was obvious that only 38 (20.9%) of the respondents with no alcohol problem were involved in high HIV/AIDS risk behavior against 72 (39.6%) respondents with low HIV/AIDS risk behavior. Of participants in high HIV risk behavior, 10 (20.9%) respondents in the alcohol-related problem group reported hazardous drinking behavior, 11 (6.0%) reported harmful use, and 26(14.3%) were dependent on alcohol against low HIV risk self report of 8 (4.4%), 2 (1.1%) and 15 (8.2%) for hazardous users, harmful users and dependents respectively. Consequently, result of the chi-square (χ^2) analysis of data shows a significant association between alcohol-related problems and youth involvement in HIV/AIDS risk behaviour $\{\chi^2(3) = 24.15, p < .05\}$.

From table 2, it could be seen that a little over half of the respondents 105 (57.7%) were from the intact family setting. Of this proportion, 63 (34.6%) reported low involvement in HIV/AIDS related risk behavior, while 42 (23.1%) were observed to have high risk of contracting HIV/AIDS. Conversely, 77 (42.3%) respondents came from the separated family background. About 43(23.6%) of these respondents reported high involvement in HIV/AIDS risk behavior; a sharp contrast with 34 (18.7%) which indicated low risk behaviour.

This result, no doubt, implicates the family setting in youth HIV/AIDS risk behaviour as a chi-square (χ^2) analysis of data reveals a significant relationship between family type and HIV/AIDS risk behavior $\{\chi^2(1) = 4.48, p < .05\}$

DISCUSSION

This work set to examine the association between alcohol related problems, family type and HIV/AIDS risk behaviour among youth in Nigerian higher institutions of learning. It was hypothesized that a significant association would exist between alcohol related problems and HIV/AIDS risk behavior. Analyses of the data supported this hypoth-

esis. This finding is consistent with many other global empirical positions presenting a positive association between harmful drinking and HIV/AIDS risk behaviour (Amoteng et al., 2007; Bisika et al., 2008; Cook & Clark, 2005; kalichman et al., 2007; Fritz et al., 2002; Zablotska et al., 2006, Olisah et al., 2009). As an explanation to this observed association, much of the risk behaviour typically associated with drinking is attributable to the pharmacological properties of alcohol, which decreases cognitive capacity to accurately judge risk inherent in unprotected sex and sharing of needles while it increases attention to sexual arousal (George and Stone, 2000; Davis, Hendershot, George, and Heiman, 2007). Put differently, alcohol, a depressant - known to act directly on the brain - slows down neural activities by enhancing the activities of GABA, thus reducing inhibitions, cognition, sense of judgment, reaction time just as it impairs risk perception (Eze and Omeje, 1999). Additionally, research has also shown that alcohol use before sex (among the youth) may be motivated by the expectation that alcohol will improve enjoyment of sex or sexual performance (kalichman et al, 2007).

Furthermore, hypothesis II, which predicted a significant relationship between family type and youth involvements in HIV risk behaviour was also confirmed. This finding corroborates the results of Forehand et al. (2004) and Yoisin & Dexter (2002), who posited that family structure has an important influence on youths' sexual socialization; family ecology, culture, and gender role variables differentially affect HIV/AIDS sexual risk behaviour within the youth group. Thus youth without positive parental influence tend to be socialized by peers into maladaptive behaviours while in school, HIV/AIDS risk behavior inclusive.

Practical implications of results

A wide variety of alcohol-related problems can have devastating impacts on individuals and their families and can seriously affect community life (Alwan, 2010). Apart from the devastating effects of alcohol on the health sector, other sectors - the economic,

education, law enforcement and justice - do report similar increasing burdens in terms of treatment (Kasirye, 2010). Associated violence and injuries, increasing poverty level, decrease in academic performance among students, increase in law enforcement costs and shortages in food security are all closely related with alcohol trends. This paper does not only contribute to the volume of literature on alcohol related problems and its implication on youth HIV/AIDS risk behavior in Nigeria, but also reaffirms that alcohol trends in the African society, coexist with the HIV/AIDS pandemic. It is expected that findings of this study would draw stakeholders' attention to the hitherto neglected at-risk population (abusers and hazardous users) on our campuses before they graduate into alcohol dependents. These findings have also brought to the fore the urgent need for intervention/treatment for harmful users of alcohol as an integral part of HIV/AIDS reduction plan in Nigeria. The role of the household in reducing the spread of HIV/AIDS through wise and proper parental management is also evident.

Recommendation and Conclusion

As HIV/AIDS is spreading fast among Nigerian youth, it is imperative to turn research interest to variables that do not only increase the risk of infection but those that also impede the progress of HIV/AIDS intervention programmes in the country. Reducing the harmful use of alcohol by effective policy measures and by providing relevant infrastructure to successfully implement those measures is much more than a public health issue. Indeed, it should be seen as a development issue, since the level of risk associated with the harmful use of alcohol in developing countries is much higher than that in high income countries where people are increasingly protected by comprehensive laws and interventions. Efforts aimed at combating HIV/AIDS in Nigeria cannot be isolated from alcohol related problem intervention initiatives and strategies. Findings of this study suggests that alcohol -related problems (harmful use, alcohol abuse and al-

cohol dependence) are associated with high risk sexual behaviours and intravenous drug use which are two major modes of HIV transmission among Nigerian youth in institutions of higher learning. This at-risk population do abuse alcohol, contributing to the difficulties in preventing the spread of the infection and treatment of infected persons. Alcohol-related problem population often delay testing for HIV, accessing appropriate medical care and initiating antiretroviral therapy (ART) which may hasten disease progression to full-blown AIDS (Kendall, Bryant, Steve, Scot and Deira, 2010). It therefore follows that decreasing alcohol use in people who are at risk for becoming infected reduces the spread of HIV and the diseases associated with it. This scientific evidence provides a compelling call to action. As Nigeria is battling with severe HIV/AIDS epidemic, addressing harmful drinking in conjunction with interventions to reduce sexual risk behavior may have the potential to reduce HIV/AIDS transmission much more than conventional HIV/AIDS prevention intervention alone. This paper therefore advances curriculum – based alcohol and HIV interventions for Nigerian students in the universities and colleges as a measure of improving on the current campaign against HIV/AIDS.

It is also evident from our findings that the more stable the family is, the less the involvement of youth from such family in HIV/AIDS risk behaviours. Thus, ways of strengthening the stability of the family, through discouraging separation in marriages and increased parent-ward communication/ attention must be worked out. Programmes aimed at protecting children in single parent homes from indulging in maladaptive behaviours should also be initiated.

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HARM REDUCTION – THE RIGHT POLICY APPROACH FOR AFRICA?

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ABSTRACT

African policy makers find themselves confronted by a phenomenon of rising substance use particularly in urban areas. The knowledge base in terms of prevalence rates, medical consequences, patterns and cultures of consumption remains patchy. Responses are largely driven by imported models advocated by drug control agencies and development partners. There are two inherent flaws to this – first, many of the methods from treatment modalities to drug enforcement techniques were designed for completely different social and cultural scenarios. Secondly, the mode of operation is that of a ‘war on drugs’, where the problem is inherent to the drug itself. The consequences of such a policy can be even more devastating than the drug use itself. The harm reduction paradigm that takes drug use as a fact of modern life, but addresses its problems with regulative intervention provides a policy orientation that is more promising. Existing drug cultures – khat, kola, iboga – that originated and are unique to Africa should be understood within both traditional and quickly evolving modern contexts. A system of regulation should be advocated against vested professional and organizational interest.

KEY WORDS: Harm reduction, harm minimization, drug policy, Africa, drug conventions

INTRODUCTION

Far from being a marginal, export activity, drug use is becoming a fact of life for many African communities, and there is an urgent need for discussing what is to be done about it. This article argues that African drug experts in their policy deliberations have to make careful assessments of (i) the history and context of drug control legislation, (ii) cultures of drug consumption, and (iii) capacity and consequences. All these questions have to be asked against the backdrop of another discussion – what is the overarching objective of policy.

While the Single Convention seeks to prevent and combat this evil, the purpose of this and subsequent control instruments (the 1971 Convention on Psychotropic Drugs, and the 1988 Convention on Drug Trafficking) according to the International Narcotics Control Board is to “reduce harm” (INCB, 2003)

For any reader familiar with the ‘harm reduction’ debate this is a surprising, though little known observation. There is no doubt that given the tenor of INCB pronouncements on drug policy under the presidency of the Nigerian chemist Philip Emafo this was not to be mistaken as an endorsement of methadone

maintenance. But it opened up ground for a crucial reconciliation between the different wings in a polarised debate over the future of drug control. Before returning to this, however, it needs to be recognised that harm reduction itself has become a term that is politically contentious. The United Nations Office on Drugs and Crime (UNODC) secretary general, Antonio Costa, did regrettably concur with the view of the US emissary that ‘harm reduction’ was sending the wrong message, and ordered the term to be deleted from all UNODC documents.¹ During the Bush era harm reduction was largely written out of US drug treatment provision and research. The National Institute on Drug Abuse, an ostensibly scientific institute bound to the ideal of objectivity, refused to publish articles on harm reduction interventions. The previous chief of the United Nations Drug Control Programme (UNDCP – predecessor of UNODC), the Italian criminologist Pinot Arlacchi accused harm reduction advocates of acting as a Trojan horse for drug legalisation, and his successor has called drug policy reformers the “pro-drug lobby”. Much of this furore is not directed at the set of practices that are normally associated with harm reduction, but the underlying philosophical disposition of ‘living with drugs’ (Gossop, 2007). The tacit recognition that drug use has spiralled since 1961, that the problems of drug use are not properly addressed by drug control policies, and that there is a need for service provision for drug users to enhance their health and wellbeing without dissuading them from their drug use, is seen as an existential challenge to some drug control agencies. Yet, drug control should always be dictated by the needs of public health, not the interests of professional groups or ideological dictates. The call for policy to be evidence based has to be continuously reformulated, because it remains in most countries an aspiration at best.

In Africa too there is the danger of a policy formulated by rhetoric, ideology and fear. One

former chief of the Nigerian National Drug Law Enforcement Agency, Ibrahim Bamayi, would pepper his speeches with phrases like the ‘scourge of drugs’, ‘immorality’, and the ‘bane of the young’. Yet as he candidly admitted, his own knowledge of the subject was minimal. “I was not appointed to head the NDLEA because of my knowledge of drugs, but because of my leadership” he once said in a conversation with the author. These hopes were well rewarded, after the agency was overhauled, one third of its operatives sacked and professional standards much improved. Yet the approach taken was one of militarization, with roadblocks, attacks on villages with marijuana farms, and gruesome interrogation methods of suspects. The general had taken the ‘war on drugs’ literally and launched a crusade that earned him the accolade “the fear of Bamayi is the beginning of wisdom.”

The Nigerian experience raises the many problems of drug control in countries where experience is shallow, resources scarce and information patchy. Working at the hard end of drug law enforcement, agencies and policy makers are tempted to import solutions proffered by development partners. Yet in spite of regular lip service to adapting policies to local needs, some of the key players – the US Drug Enforcement Administration, the UNODC and European Commission – continue to subsume national particularity to universal drug control principles. Clichéd phrases, like not re-inventing the wheel, are often used to justify this knowledge transfer, but they also ignore what one member of the Mini-Dublin group² in Lagos said in a candid moment during a meeting in 1999– “there is little that Europe or the Americans can celebrate when it comes to drug control.”

If there are indeed no models of how to successfully contain drug use at an acceptable cost, we can still draw some lessons: (i) that

1 Letter from Antonio Costa to Robert Charles, 11, November, 2005 http://www.tdpf.org.uk/MediaNews_LatestNews_25_01_05.htm

2 In most drug producing and transit countries law enforcement agents and diplomatic staff from developed countries meet to exchange information in an informal setting known as the Mini Dublin Group

there are severe limitations of what policy can achieve in the containing and controlling of human behaviour, (ii) the need for clear policy objectives, and (iii) the urgency of well informed debate.

ALCOHOL AND THE HISTORY AND CONTEXT OF DRUG CONTROL LEGISLATION

In that spirit, I would like to propose that the first thing that is required is a sense of origin of drug control in Africa. The point needs to be stressed that African governments inherited drug control legislation at independence from the former colonial administrations. These were designed either in the spirit of benign paternalism, or mere extensions of metropolitan legislation. Important for the discussion is therefore the regulation of Europe's favourite drug – alcohol.

From the 17th to the 19th century, alcohol like rum, gin, and brandy were important trade items in the Atlantic trading triangle. Yet while European merchants had been happy to ply Africans with hard liquor, and colonial administrators depended on revenue from alcohol and tobacco taxes, colonial policy became ever more disapproving (Akyeampong, 1997; Pan, 1975). Prohibitions on liquor sales to African subjects were introduced across the continent. Some of the best known examples are from white settler colonies in Southern and Eastern Africa where beer halls were located outside settlements to prevent social protest (Ambler 1990). The 1892 Brussels General Act, the outcome of the two year conference of European powers engaging in the process of carving up the African continent, provided the first instance of a drug control regime established by international agreement. The effect of these restrictions on the importation of alcohol was to stimulate African production, a case study in import substitution.

While the brewing of different beers and the fermentation of wines, particularly from the palm tree, is historically recorded as an ancient tradition, the technique of distilling was

established in the late 19th century. It quickly became an important cottage industry, particularly for urban women. The challenges that the relatively sudden availability of home distilled and relatively low priced liquors posed to the traditional assumptions about its proper use are well documented (Akyeampong, 1997). Social tensions along the lines of age and gender, key organising principles in African (and any) society, were subverted by the market. Many traditionalists who saw access to alcohol as a privilege of age rather than a prerogative of purchasing power regarded the availability of alcohol to young men as a grave offence to the proper order of things. In East Africa the alarm caused by alcohol was “a question of the age and gender of the drinker; and the absence or presence of particular categories of persons.... it was ‘joint drinking’ which challenged ideas of propriety” (Willis, 2002). There was equal concern over the role played by women, but this has once again been explained as stemming from the perceived financial independence of distillers, which was in essence no different from the financial independence of other market women.

With independence legislative arrangements were normalised, and brewers and distillers led the way in the industrial processing sector. But concerns over the commercialisation of alcohol remained, as had happened in earlier in Europe. The Ugandan informants interviewed by Willis, for instance, lament that people do not drink like they used to, that the alcohol is stronger and more widely available, and that people tend to misbehave.

Colonial authorities applied a system of multiple standards, where white settlers and merchants had free access to range of beverages deemed too dangerous for natives, who according to a British delegate at the Brussels conference ‘knew no moderation’ (Klein, 1999). However, the drug control legislation introduced from the 1930s onwards introduced blanket bans. Only opium and cocaine, two of the substances that were brought under control, were largely unknown in Africa. Legislation had little to do with local need, and everything to do with the obligations of

the metropolitan country to the League of Nations that had organised the drug control conventions. In successive conferences held at Geneva in 1920, 1925, 1928 and 1931, the restrictions on the production and distribution of these three plant-based substances grew ever tighter. While the League was blown apart by the Second World War it re-emerged in the shape of the United Nations in 1946. It is a little known fact that drug control was one of its immediate concerns, and an area where the organisation could play an influential part and align itself with the foreign policy outlook of its most powerful member, the USA. Drug control proved a rare instance of super power accord, and all three conventions enjoyed support from the General Assembly.

Though the US government supported eradication measures in countries as diverse as Jamaica, Belize, Mexico and Thailand at an early date, drug control was primarily a domestic and law enforcement issue until the 1990s. In the following decades, in the absence of state level rivalry, security agencies began identifying non-state actors as threats to national security (Andreas and Nadelman, 2007; Klein, 2008; Feiling, 2009). Throughout the 1990s the US Drug Enforcement Administration sharply accelerated its programme of building operational bases across the continent, to gather intelligence, pressurize African governments, and provide training and equipment to selected partner agencies. At a different level the European Commission, emerging as the largest single donor agency, included accession to the three UN drug conventions as an aid conditionality. To be eligible for development assistance countries had to introduce legislation that criminalised drug production and use even where these were part of a well established tradition. Given that most policy makers have little interest in and knowledge about drug policy, they find it easy to agree on some global principle that drugs are deleterious to the well being of the young, and have no clear understanding of the unintended consequence of a drug control programme. Across Africa the passage of drug control measures into national legislations has proceeded apace over the past

twenty years, accompanied by the passage of so called Drug Master Plans. In the Southern African Development Community, European development funds have prompted the drafting of a SADC Drug Protocol. The reasoning is that drug trafficking undermines governance by fostering corruption. This is only partially correct, as traffickers are only in the business because of the combined factors of powerful market demand and strict prohibitions. The Drug Master Plans that are drafted with assistance by the UNODC are rarely a planning instrument for national governments as most of the listed activities remain on paper only. They are at best aspirational statements, that are not owned by the governments in whose name they are published.

For the most part then, drug policies in Africa are a response to external pressure – by US and European government agencies, and by the appearance of drugs and traffickers from abroad. Yet the implications of drug control policy go well beyond the crack down on white powders flowing in from Latin America and the Far East.

TRADITIONS OF NON-ALCOHOLIC DRUG CONSUMPTION IN AFRICA

According to the UNODC, traditional patterns of use should be exempt from prohibitionist interventions, provided that these are regulated by tradition and phased out for younger generations (UNDCP, 1997). What exactly constitutes ‘traditional’ drug use does remain contested, given the preponderance of an ideology based policy-making approach in this field. My second contention is therefore that recognition be given to evidence of traditional use, and particularly the scholarly work on historical and contemporary patterns of drug use. We can start by tracing the century old history of cannabis use in many parts of Eastern and Southern Africa, documented in the magisterial work by du Toit (1980). Though this scholarship suggests diffusion from India, there is no doubt that over several centuries the herb became accultur-

ated. Among many different population segments, including the Twa in Rwanda, cannabis use has become integrated and normalised. He further describes the use of cannabis by Zulu, Sotho and Swazi warriors to build up courage and suppress scruple, a tradition that is reportedly continued by soldiers across the continent today. There are further reports of medical application, for example during child-birth. It is reported that in many sub-groups cannabis use is seen as normal and adaptive behaviour.

What is more controversial is how cannabis use has been spreading over the past fifty years to areas where it was hitherto unknown, particularly in West Africa. More complex still is the question of how the use of cannabis and all other psychoactive substances have taken hold in the fast growing African cities. The proviso that 'traditional use' be acceptable is difficult to transfer to the entirely different environment of the modern city. Yet it is precisely in the urban context that drug use is taking off in Africa, as it is in other regions, and has of course in European history.

Urbanisation has been proceeding at break-neck speed across the continent. A majority of people are now living in cities lacking in many basic services, including the rarely considered need for entertainment and the building of community, two areas where substance use comes to the fore. The need for leisure and pleasure where people can relax, and where the community of strangers can mix across ethnic boundaries and social distinctions, is well served by the provision of locally produced vegetable based drug products of moderate potency (Klein and Beckerleg, 2007).

Given their international treaty obligations, African government may have to tread softly when licensing cannabis cafes similar to the coffee shops found in the Netherlands, or the Medical Marijuana cooperatives of California, though both provide a model worth exploring. Less contentious but equally challenging is the regulation of drugs that are culturally embedded in particular regions where they are rarely recognised as drugs, but are spreading to new areas. There are three of these cultural complexes of significance in Africa.

(i) The khat belt

Historically khat consumption was confined to the areas of khat production, because of the instability of the psychoactive alkaloids contained in the leaves of the shrub. These leaves are harvested, collected into bundles some 200-300 grams in weight, and chewed in regular chewing sessions held in private houses, or increasingly in *mafrishes*³ or khat cafes. Until the introduction of road, rail and air transport, which have facilitated the emergence of khat as a global commodity, its use was confined to parts of Ethiopia, the Meru mountains of Kenya and the highlands of northern Somalia (Klein, 2009). Historical sources report a well regulated pattern of consumption in urban areas like Harar (Anderson et al., 2007), and the integration of khat chewing into the rhythm of life in rural areas (Gebissa, 2004). Khat is best described as a stimulant that has little impact on the well being of the chewer when used in moderation. And yet, there is growing concern in Ethiopia and Kenya over the spread of khat to areas where it was hitherto unknown and to new groups of users like students. Even more contentious is the spread of khat use to countries inside and outside Africa where there is no history of consumption at all. Some, like Uganda, are deliberating over the pros and cons of this phenomenon, while others like Rwanda and Tanzania have taken a prohibitionist approach.

(ii) Kola nut

This caffeine containing nut is chewed with enthusiasm in Burkina Faso, Ghana, Niger, Nigeria, and Mali, where it provides for the vertical integration of forest and savannah (Lovejoy, 1985). At the risk of generalisation, one can record a marked difference in the pattern of consumption that has emerged between these two ecological regions. While southern consumers integrate kola in rituals of hospitality as a religious offering, or in a more profane context, combine it with alcohol

3 From the Arabic; as Beckerleg notes, Yemenis are often pioneers in the introduction of khat to new areas.

when socialising, northern kola chewers display more extensive patterns of use. Northern Nigeria and Ghana are predominantly Muslim, and most people abstain from alcohol, leaving kola as “one of the few stimulants permitted by the Koran” (Abaka, 2005). The long term consequences of heavy kola use are particularly evident in poor oral health, but also in symptoms of self neglect, the prioritisation of kola use over other activities, and the central importance that kola use has in the lives of regular chewers. These are all symptoms of addiction listed by the International Classification of Diseases (ICD-10), yet the only country that has recognised the risk of immoderate kola use is Saudi Arabia where it is classified as a controlled drug. For the time being African governments are more concerned about the missed opportunity of turning kola into an export commodity, but the implications of heavy use and the extensification of use will require a response in the future.

(iii) Iboga

The only recorded instance of the use of heavy hallucinogens in Africa is the Bwiti cult found in Cameroon and Congo Brazzaville. This most powerful of substances is gained from root bark shaved off the iboga tree, used for visionary purpose. Members of the cult ingest varying dosages of the bark before embarking on a spiritual journey that takes place over several days. Accompanied by attendants from the cult, they engage in different ritual tasks all designed to help with the processing and interpretation of the powerful visionary and auditory hallucinations brought about by the psychoactive ibogaine. Strong doses are taken only on occasion by most adepts of the cult, and involve a painful ordeal of stomach cramps, vomiting, and the loss of physical control. There are regular cases of overdoses when administered inexpertly (Fernandez, 1982). The Bwiti cult strongly disapproves of iboga consumption outside the context of ritual, and there is little information about ‘recreational’ use. Given the strong physical reaction to iboga – fevers, sweating, and intense vomiting – it is an un-

likely candidate for extensive use. In recent years Ibogaine has been promoted as a treatment for drug and alcohol addiction. (Brackenbridge, 2010)

One of the regular refrains in the drug policy field is that there is not enough information for policy makers to move forward. This needs to be contested, as information abounds, but policy makers are either unaware, or reluctant to take note of politically controversial findings. When it comes to African drugs, information exists for the discussion to commence, but we need to update the picture on trends and developments. Critically, African drugs tend to stay off the radar as long as they remain confined to the continent, but once drug and drug habit are exported to Europe and North America they become a policy issue, as in the case of khat (Klein, 2009). Then decisions on the classification of substances with origin and distribution in Africa are taken to an international level, in fora where African policy makers and experts have little influence. A parallel example would be the classification of the coca leaf in the 1961 drug convention. Coca leaves are widely chewed across the Andes and have been part of a culture of consumption reaching back well before the pre-Columbian era. Yet the decision to class coca as a drug and agree on the elimination of use and the eradication of production was reached without consultation of farmers, users and traders, contributing to social unrest and instability that has plagued Bolivia, Peru and Colombia for the past thirty years (TNI, 2003). There is an urgent need for a good understanding of drugs and drug use in Africa to provide the background for policy discussion. This starts with the awareness that these drugs form a part of the cultural fabric of different societies, that there are spiritual as well as recreational uses, and that the cultural context in which drug use has already been normalised is dynamic and adaptable. The multiple questions of what drugs are about, who uses them, what should be the distinction of problematic and non problematic use, need to be given pride of place in drug control discussions.

CAPACITY AND CONSEQUENCES

In terms of drug control one question that is never explored is what governments are actually capable of achieving. There is little point in passing legislation impossible to enforce or policies that cannot be implemented, as this only serves to bring the government into disrepute. The capacity of many African states is stretched already. Adding new responsibilities such as eradication domestic cannabis production without a thorough assessment of resources and capacities runs the risk of being counterproductive.

It is important to be very clear about the risk of unintended consequence in the drugs control field where the state moves to proscribe and prohibit certain forms of behaviour engaged in by sections of its own citizens. These are patterns of behaviour that are consensual and do not involve third parties. When the state interferes it has to work on the Hippocratic principle of first of all, doing no harm. It is arguable that a drug user stands to suffer far greater harm from arrest, interrogation, imprisonment and a criminal record than he or she would have from the use of the drug. A further consideration has to be that “one of the most pernicious and often forgotten side effects of prohibition is corruption. Illegal vice and police graft are two sides of the same coin” (Legget, 2002). Drug control legislation in societies where there is continuous demand for drugs has the potential to corrode the entire criminal justice system. At the street level patrolling police officers can hold up drug users and extort bribes; they can plant drugs on people for the same purpose as reported from Nigeria (Klein, 1999). At higher levels, senior officers can shield drug traffickers or even become involved in the trade itself. Bribes, often accompanied by violent threats, sway judges and prison officers. And the realisation of these practices quickly spreads, undermining the legitimacy of the government and the stability of the regime.

Corruption is dogging drug enforcement the world over, as the UNODC recognise International drug control has produced several unintended consequences, the most formidable of

which is the creation of a lucrative black market for controlled substances, and the violence and corruption it generates.” But the corrosion of governance hits particularly hard where remuneration of law enforcement is low, supervision poor, and the capacity for internal reform is limited. By institutionalising rogue behaviour among front line officers, an unenforceable drug control law turns its objective of promoting law and order on its head. Once links between organised crime and senior officers have been made, a dangerous momentum is put into play that makes reform difficult and costly.

HARM REDUCTION AS THE OVERRIDING POLICY PRINCIPLE

Most areas of life are ridden by the tensions between general principles, formulated with reference to universal rights and absolute values, and their application in the realm of practice. Nowhere is this more clearly in evidence than in the field of drug policy, where a system of restrictions, controls and punishments has been set up by international agreement to prevent the production, distribution and consumption of certain substances unless specifically authorized by government authority for medical or research purposes. Behind these prohibitions lie the best of intentions as laid out in the preamble to the 1961 UN Single Convention on drugs.⁴ The treaty is “Concerned with the health and welfare of mankind” about the dangers of addiction to narcotic drugs and therefore imposes control on their availability as part of the signatories’ “duty to prevent and combat this evil.” Since it came into force nearly half a century ago, over 140 countries have acceded to the treaty and brought tough drug control legisla-

4 The Single Act was an amalgamation of several drug control treaties that had been developed under the auspices of the League of Nations during the 1920s and 30s. We can trace these drug control efforts back to the first international meeting at Shanghai in 1909.

tion onto their statute books. Yet the dispiriting reality is that in spite of these efforts drug use, far from becoming controlled has been expanding radically.⁵

Over ten years ago the UNDCP⁶ published a study on drugs in Africa, where the continent was referred to as drug control's 'last frontier'. Following in the geographic determination of that report, this article will address Sub-Saharan Africa, leaving the discussion of North Africa for another time. Since then, successive World Drug Reports have reported that the use of illicit substances has been rising sharply in many African countries, at the very time as trends were stabilising in Europe and falling in the US. For many policy makers these reports came as wake up call, as they had regarded drug use as a symptom of developed country decadence from which Africa, for all its poverty, remained immune. One group of members of the Nigerian National Assembly, freshly convened after the return to civilian government in 1999, told the author that the trafficking syndicates making use of Nigerian airports to ship cocaine and heroin into Europe were no major concern of theirs. If Europeans wanted to import these substances and kill themselves let that be their problem, why should Nigeria invest precious resources to control this traffic. Such a disconnect from trends in the population is sadly reminiscent of the failure by African health researchers and epidemiologists to register the spread of HIV/AIDS during the 1980s. In this case too, cultural preconceptions overrode scientific evidence, as observed by James Chin, who ran a modelling seminar in Swaziland with leading African experts at a time when many participants rejected the pos-

sibility of an impending crisis, because AIDS was a western disease of homosexual and drug addicts (Chin 2007).

Considering the three salient features of drug use in Africa, (i) the history and context of drug control legislation, (ii) existing cultures of drug consumption, and (iii) the capacities of government institutions shaping drug control legislation's consequences for these institutions, harm reduction should be the overarching policy principle for African drug policy. It is based on the recognition that drugs play a part in most societies and that there are definite problems associated with certain patterns of use. The objective of policy is to use the various instruments at its disposal to reduce the risk of suffering harm to its citizens. Curtailing the influx of dangerous substances is as much a part of that as treatment for those whose pattern of use has slipped out of control. Whatever the policy mix, it has to be governed by the ideal of reducing risk and harm to the largest number of people.

The practices that are bundled together under the label 'harm reduction' and used in many different countries are not necessarily all applicable to African countries. The prevalence of injecting needle use reported in the last, continent wide Rapid Assessment Study by the UNDCP (UNDCP, 1998) was low. Since then, there have been dramatic changes in drug use behaviour. It seems that African countries, led by Mauritius are fast catching up with other parts of the world (Abdool et al., 2006). In addition, there is a high risk of hospital based infections, as exposure to small volumes of blood on unsterile instruments reused for invasive medical procedures is common, and critically understudied. Indeed, "Many AIDS prevention programs in Africa have set aside injection risks in their communications with the public, perceiving IDU as uncommon.... Africa's growing population of IDU are, in some communities, largely unaware that sharing needles carries a risk of transmitting HIV" (Reid, 2009).

Much of harm reduction is concerned with reducing the risks of needle injecting of which only sporadic incidence is reported from

5 Indeed in countries like the UK, where data on drug related deaths has been collected since the founding of the National Registrar in 1837 (Berridge and Griffiths, 1987), the tally has moved from a few hundred, to 3,301 in 2005 (Corkery, 2008). Different definitions on 'drug related death' compete – the figure cited was compiled by the Office for National Statistics

6 The United Nations Drug Control Programme changed its name to United Nations Office on Drugs and Crime in 2004.

Africa so far (Beckerleg, 1995; Deveau et al., 2006, Needle et al., 1996). On the other hand, we have good information on the risks run by governments that reject harm reduction for ideological reasons. Russia has refused to consider needle exchange programs or methadone maintenance, and now has a population of over 1 million people living with HIV or AIDS. The main vector for infection is the sharing or injection equipment, often inside the prison system. Predictably, infection rates have crossed over into the non-drug using population via sexual intercourse. There are early indication that this pattern of infection is about to repeat itself in Africa (Reid, 2009).

The warning signs are clear for all governments: intervention in human behaviour comes at a high price, and the consequences can be devastating. They impact the health of the people and the integrity of affected institutions. Many of the international agencies specialising in drug control point out these risks. Drug prohibitions pushes users into adopting more dangerous practices – stronger drugs replace moderate drugs, consumption moves to riskier settings where social controls are weak, and more dangerous modes of administration (smoking crack as opposed to snorting cocaine; injecting heroin as opposed to smoking or eating opium) are adopted. Yet these outcomes are not factored into control systems. Most importantly, the corruption of agencies involved in drug control, though well known and found in countries across the globe, is simply ignored by agencies like the International Narcotic Control Board.

Fortunately there is a rising body of knowledge not only about drugs and drug use, but also about drug policy and its impact. We have a better understanding of the efficacy of the drug programmes employed in different countries and can learn from over thirty years of waging a war on drugs. With the head of the US Office of National Drug Policy redirecting drug policy from war towards treatment, and with the directive by the Obama administration that the closure of Medical Marijuana centres is no longer a priority for law enforcement, we see a shift in approach among one of

the world's leading advocates of drug control. How this will play out in the mid term remains to be seen given the vested interests in the status quo. For Africa, the situation is at a different point.

Much of the international attention focuses on African countries as transit route for cocaine and heroin. This is neither new (Klein 1994), nor is it of major significance for drug markets in either Africa or importing countries. However alarming the shipment of cocaine via Guinea Bissau may appear to some commentators, closing down this route will not impact dramatically on European cocaine markets. There are simply too many alternative routes, and a host of amphetamine producers on stand by to fill in any temporary shortage. While the efforts by UNODC to support governance in West Africa are well intended they obscure the origin of the problem. African countries are victims of the 'sausage effect', where the closure of one trafficking route simply re-opens another. In this case, cocaine exporting cartels have relocated from the Caribbean to West Africa, with a raft of consequences for local law enforcement and property prices (UNODC, 2009).

What should be more important for African countries in the long term is finding a framework for the regulation of all psychoactive substances. This should take account of traditional substances like kola nut, khat, iboga, cannabis, and alcohol, as well as tobacco, prescription medicines and the new substances like cocaine and heroin. It may well be possible to enforce prohibitions on the latter as long as markets are tiny and the product is imported. But when it comes to plant based substances that are locally grown and sold, policy has to be governed by realism – what can be achieved. We therefore suggest that the idea of harm reduction become the overarching policy principle, with the clearly stated aim to contain the harm caused by all psychoactive drugs. Given the failure of the war on drugs in many other parts of the world, the risks of inappropriate interventions to the fabric of government, and the danger of unintended consequences, this seems to be the most promising foundation for African drug policy in the 2010s.

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ANNOUNCEMENTS

International Society of Addiction Journal Editors (ISAJE) World Health Organization (WHO)

ISAJE/ WHO YOUNG SCHOLARS AWARD 2011

Purpose of the award

The award aims to provide appropriate recognition for the contributions to addiction science of young scholars from developing countries and to promote their involvement in research and publication in the field.

Eligibility for the award

The criteria for eligibility will be as follows:

- The applicant should be less than 35 years old
- He/she should be the lead author in the published paper being submitted for the award
- He/she should hold a current academic or research position in a low or middle income country (as defined by the World Bank, see attached list); or should have held such a position at the time the research for the paper was being carried out
- The research reported should have been carried out predominantly in a low or middle income country
- The paper should be based on a topic of relevance to the country or region of origin, or should have broad implications for the field of addiction research
- The paper submitted for the award should have been published either online or in print form in a peer-reviewed scholarly journal between 1 July 2008 and 30 June 2011.

Successful applicants will be required to submit proof of age and of their current institutional affiliation.

The application procedure

The award is for the best paper on any topic related to addiction published the previous

year by a young scholar working in a developing country. The decision will be made by an award committee selected with the approval of the ISAJE Board of Directors.

Each application should include:

- a copy of the paper being presented for the award; or URL or DOI;
- a full CV of the applicant including current position and affiliation, qualifications held, publications and other research outputs and details of relevant research training;
- a letter of support from a senior colleague (this may be sent separately).

The award

The successful applicant will receive a certificate and financial support of up to USD \$2000 from the sponsors of the award to attend an international scientific or clinical meeting in the addiction/ substance abuse field. The meeting will be chosen in consultation with ISAJE. The sponsors of the award are ISAJE and WHO.

Submission procedure

The full application for this year's award must reach ISAJE by **31 July 2011**. Submit to: Jean O'Reilly, ISAJE Executive Officer, National Addiction Centre PO48, Institute of Psychiatry, London SE5 8AF, United Kingdom. The letter of support must also be received by this date if sent separately. Electronic applications in the form of an MS Word or a pdf file are acceptable and should be submitted to jean@addictionjournal.org

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