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Editor-in-Chief

DRINKING MOTIVES, BEHAVIOUR AND PROBLEMS AMONG BLACK SOUTH AFRICAN UNIVERSITY STUDENTS

Karl Peltzer*

Department of Psychology, University of the North
Sovenga 0727, South Africa

ABSTRACT

The present study investigated the drinking motives, behaviour and problems among first-entering university students in South Africa. The sample included 799 first year students chosen at random from the total first year University of the North student population (N=1712). The participants comprised 441 males (55.2%) and 358 females (44.8%) in the age range of 16 to 35 years (Mean age=20.12 years, SD=3.17). Results indicate that past month use of alcoholic drinks was 22.2%. The percentages of current drinkers (n=153) who had experienced alcohol related problems was high: 34% spent too much money on alcohol and 23% engaged in unplanned and 22% in unprotected sexual activity. The most predominant drinking motive was social, followed by enhancement and coping. Social and enhancement drinking motives were predictors for current alcohol use, heavy drinking and risky drinking, while coping drinking motives were predictors for drinking problems. Intervention programmes may address coping motives with problem drinkers and social and enhancement motives with male current and risky drinkers and social motives in female drinkers.

KEY WORDS: Drinking motives, drinking behaviour, drinking problems, black university students, South Africa

* Correspondence concerning this paper should be addressed to Karl Peltzer, Department of Psychology, University of the North, Private Bag X1106, 0727 Sovenga, South Africa, e-mail: peltzer@unin.unorth.ac.za.

INTRODUCTION

Early adulthood, roughly from ages 18 to 25, is a period of transition in emotional development, educational and vocational activities, living arrangements, and marital and economic status. It is a period when young people assume adult roles, responsibilities, and social skills. For university students, this period is a time when they are no longer under direct parental supervision but are faced with new social and academic pressures, and they enter an environment where the use of intoxicating substances, mainly alcohol, is normative, and/or culturally acceptable (Prendergast, 1994).

Health problems associated with drugs such as alcohol include chemical dependency, diabetes, cirrhosis of the liver, kidney failure, fetal anomalies, injuries from accidents, and homicide. In addition, adolescents who use drugs and alcohol regularly are likely to engage in unprotected sex, thereby increasing the chance of contracting HIV (Gardiner, Mutter & Kosmitzki, 1998). South Africans are very concerned about the misuse of alcohol among young people (Parry & Bennetts, 1998). The 1998 South African Demographic and Health Survey (Medical Research Council, 1998) found that among the age group of 15 to 24 years 23.5% of the males and 8.5% of the females are current drinkers, and risky drinking during weekdays 3.1% for males and 1.2% for females, and risky drinking during weekends 29.3% for males and 30.1% for females (Risky drinking is defined for males as drinking 5 or more drinks per day, and for females as drinking 3 or more drinks per day).

Evidence from studies of college samples does consistently suggest that alcohol is consumed for several different purposes for different psychological effects in different contexts. A pattern of impulsivity/sensation seeking is strongly related to increased drinking among students. A second pattern of drinking associated with negative emotional states is also documented. Social processes appear especially important for drinking in many college venues and may contribute to individual differences in drinking more than enduring personality differences (Baer, 2002).

The literature on drinking motives suggests that individuals drink for three distinct reasons: coping motives (CM: to reduce and/or avoid negative emotional states); social motives (SM: to affiliate with others); and enhancement motives (EM: to facilitate positive emotions) (Stewart, Zeitlin & Samoluk, 1996). Patterns of these three drinking motives have shown to predict aspects of alcohol use or abuse behaviour. For example, individuals who drink primarily for CM have been shown to be more likely to drink heavily, to drink alone, and to experience alcohol-related problems, than those who drink primarily for SM. Cooper, Frone, Russel and Mudar (1995)

hypothesized (a) that enhancement and coping motives for alcohol use are proximal determinants of alcohol use and abuse through which the influence of expectancies, emotions, and other individual differences are mediated and (b) that enhancement and coping motives represent phenomenologically distinct behaviors having both unique antecedents and consequences. Previous research suggests that SM drinking is more common than either CM or EM drinking. However, the patterns and levels of motivations associated with alcohol use behaviour appear to vary as a function of age, gender and culture (Gire, 2002; Stewart *et al.*, 1996). American male university students were found to score significantly higher on the EM and SM subscales than female students, younger students scoring significantly higher than older students, and American university students were more likely to indicate coping as a reason for using alcohol than were Nigerian respondents, while Nigerian students were more likely to cite social motives for drinking alcohol than their U.S. counterparts (Gire, 2002; Stewart *et al.* 1996). Gire (2002) notes that future studies are needed, first to replicate this finding, and then to obtain data on both the quantity of alcohol consumption and "problem drinking" to see if there is a relationship between specific motives for drinking and problem drinking across cultures.

The present study investigated the drinking behaviour, alcohol problems and drinking motives among first-entering black university students at in South Africa.

METHOD

Sample and procedure

The sample included 799 first-year students chosen by systematic random sampling from the total first-year University of the North student population (N=1712). Fifty-seven questionnaires were incomplete and consequently disregarded. The students were 441 male (55.2%) and 358 female (44.8%) in the age range of 16 to 49 years (Mean age=20.12 years, SD=3.17). Distribution by ethnicity showed 522 (65.3%) Northern Sotho, 169 (21.2%) Tsonga, 62 (7.8%) Venda, and 41 (5.1) others.

After a list of all registered students had been obtained every second student was chosen at random and invited for participation in the project in the form of advertising their student numbers. All students were given a questionnaire to fill in in a classroom situation under the supervision of project staff. Names of different substances and the purpose of the study were explained to the students. Informed informal consent was sought from the

students before the administration of the questionnaire. Anonymity and confidentiality was assured.

Measures

The questionnaire included 15 items on the socioeconomic background. Details of the additional inventories used are the following: Data pertaining to prevalence and frequency of alcohol use (6 items) were obtained from a *WHO Model Core Questionnaire* on substance use by the World Health Organization (Smart, 1998). Cronbach alpha for the alcohol use measure was .78 for this sample. A 20-item *College Alcohol Problem Scale*, rated from 5=very often to 1=never/almost never (O'Hare, 1997). Cronbach alpha for the Alcohol Problem Scale was .91 for this sample.

A 15-item *Three-Dimensional Drinking Motives Questionnaire*, 5 items on enhancement motives, 5 items on coping motives and 5 items on social motives, rated from 1=almost never/never to 4=almost always (Cooper, Russel, Skinner, Windle, 1992). Cronbach alpha for the enhancement motives was .71, for the coping motives .88 and for the social motives .86 for this sample.

RESULTS

Of the students 54% reported lifetime use of alcohol, 28.4% of the male and 15% of the female students reported current or past months alcohol use ($X^2=18.09$, $p<.001$). The majority had began drinking alcohol between 16 and 17 years (148), followed by 18 to 19 years (97), 14 to 15 years (76), 12 to 13 (21), 20 to 21 (20), 10 years and less (20), and 22 years and above (4). A history of heavy drinking was reported by 114 (28%) of the male and 30 (12%) of the female students.

On the question, on the days you drank during the last 30 days, about how many drinks did you usually have a day. The majority (75.4%) reported zero drinks (abstinence), 7.5% 1 to 2 drinks (moderate), and 17.0% 3 and more drinks (potential problem drinking). Men consumed significantly more drinks than women ($X^2= 54.96$, $p<.001$) (see Table 1).

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Table 1: Drinking behaviour by gender

On the days you drank during the last 30 days, about how many drinks did you usually have a day	Male f (%)	Female f (%)	Total f (%)
0 (abstinence)	282 (66.4)	299 (86.4)	581 (75.4)
1-2 drinks (moderate drinking)	32 (7.5)	26 (7.5)	58 (7.5)
3+ drinks (risky drinking)	111 (26.1)	21 (6.1)	132 (17.1)

Participants were asked to rate how often they had experienced the following problems over the past year as a result of drinking too much alcohol. Responses were rated from very often, often, moderate degree, seldom, never or almost never. Here the frequencies and percentages of current drinkers (n=153) who have experienced the following problems either often or very often are presented: Nausea, vomiting or feeling tired/hangover (43, 28%), memory loss (34, 22%), feeling sad, blue or depressed (34, 22%), nervous/irritability (21, 14%), physical injury (20, 13%), family problem related to your drinking (28, 18.4%), badly affected friendship or relationship (28, 18%), engaged in unplanned sexual activity (35, 23%), fights or arguments with others (35, 23%), problems with study performance (41, 27%), hurt other person emotionally/physically (32, 21%), caused you to feel bad about yourself (35, 23%), did something you later regretted (39, 26%), spent too much money on alcohol or drugs (51, 34%), drove under the influence (26, 17%), did not use the protection when engaging in sex (34, 22%), illegal activities associated with drug use (20, 13%), problems with the law/school administration (24, 16%), problems with appetite or sleeping (25, 17%), and caused others to criticize your behaviour (32, 21%). Kruskal-Wallis Test showed that men reported to have experienced more problems related to alcohol than women (Chi-Square=11.75, p<.001).

Drinking motives by gender are shown in Table 2.

Table 2: Drinking motives by gender

Item	Total	Men	Women	t
	M (SD)	M (SD)	M (SD)	
Social motive (SM)	9.2 (5.1)	9.8 (5.2)	8.4 (4.2)	3.83***
Coping motive (CM)	7.9 (4.0)	8.4 (4.2)	7.3 (3.6)	3.98***
Enhancement motive (EM)	8.1 (4.6)	8.7 (4.4)	7.4 (4.8)	3.92***

PELTZER

The most predominant drinking motive was social, followed by enhancement and coping.

Male students scored significantly higher on all three drinking motives (SM, CM and EM) than female students.

Table 3 indicates logistic and multiple stepwise regression analyses for drinking motives and alcohol variables.

Table 3: Regression analyses for drinking motives and drinking behaviour and problems

	Drinking motives	Current alcohol use	Current heavy drinking#	Current risky drinking##	Drinking problem
		B	B	B	Beta
Total	Social	.13***	.15***	.15***	ns
	Enhancement	.09***	.08**	.10***	ns
	Coping	ns	ns	ns	.20***
	Nagelkerke R Square	.24	.25	.27	Adjusted R Square: .08
Men	Social	.11**	.12***	.12***	ns
	Enhancement	.15***	.13**	.13***	ns
	Coping	ns	ns	ns	.29***
	Nagelkerke R Square	.29	.28	.28	Adjusted R Square: .08
Women	Social	.15***	.17**	.16***	ns
	Enhancement	ns	ns	.07*	ns
	Coping	ns	ns	ns	.26***
	Nagelkerke R Square	.12	.16	.19	Adjusted R Square: .07

#Heavy drinking was defined as 5 or more drinks in a row in the last 30 days and ##Risky drinking as 3 or more drinks on a usual drinking day in the past 30 days

***p<.001, **p<.01, *p<.05

Social and enhancement drinking motives were predictors for current alcohol use, heavy drinking and risky drinking, while coping drinking motives were excluded from the equation. Coping motives were predictors for drinking problems, while social and enhancement were excluded from the equation. This was almost the same for men and women, with the difference

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that for men and not for women enhancement motives were significant for current alcohol use and heavy drinking.

DISCUSSION

The prevalence of alcohol use in this sample seem to be generally lower than that found among university students in western countries but similar to other developing countries (Gliksman, Newton-Taylor, Adlaf & Giesbrecht, 1997; Lu, Engs & Hanson, 1997; Isralowitz & Hong, 1988, Ndom & Adelekan, 1996). In this sample past month use of alcohol was 28.4% among men and 15% among women. Odek-Ogunde and Pande-Leak (1999) found in a private international university in Nairobi that past month of alcohol was 70.3% among men and 47.2% among women. The lifetime use of alcohol (54%) in this study sample seemed to be much lower to what was found among Nigerian university students, namely 77% for alcohol (Adelekan, Abiodun, Obayan, Oni & Ogunremi, 1992).

Consistent with other studies was that male university students consumed more alcohol and also reported more alcohol related problems than university women (Hanson & Engs, 1990; Lu *et al.*, 1997).

The alcohol related problems of engaging in unplanned sexual activity (23%) and not using protection when engaging in sex (22%) found in this study is cause for concern, considering high HIV prevalence rates among youth in South Africa. Generally, other alcohol related problems such as driving under the influence and caused others to criticize their behaviour seem to be higher among this sample of current drinkers than found among Singaporean university students (Isralowitz & Hong, 1988).

The study found that the most predominant drinking motive was social (9.2), followed by enhancement (8.1) and coping (7.9). The same sequence were found in a study with Nigerian university students, namely social (13.5), followed by coping (9.8) and enhancement (9.7), while coping (12.2) was found the strongest drinking motive, followed by social (11.4) and enhancement (9.3) among American university students (Gire, 2002). The reported overall greater relative frequency of drinking for social motives relative to coping motives seem to suggest that the use of alcohol to socialize or affiliate is much more frequent among young adult university students than the use of alcohol to cope with negative emotional states (Stewart *et al.*, 1996). Gire (2002) interprets these findings from the motivational model perspective such that drinking to cope is more likely to lead to problem drinking and it may be that problem drinking is less prevalent in collectivist or African societies. The presence of other in-group members may constitute

such a viable source of social support that a person who is struggling to cope with a problem need not resort to drinking as a way of addressing the problem. However, not having such social support, the person from an individualist or American setting may find alcohol to be negatively reinforcing in the sense that it will provide temporary reprieve from his or her problems. He further states that in the U.S. culture, people who drink for coping reasons seem to be at greater "risk" for developing drinking problems. Given the role of the expectancy models, this may be due largely to their belief that alcohol can enhance their ability to deal with negative affect. However, in this study coping drinking motives were found to be the only predictor for problem drinking, which may indicate that in both African and American society similar (coping) drinking motives lead to problem drinking. Further, this study found that male students scored significantly higher on all three drinking motives (SM, CM and EM) than female students, which is conform to findings from other samples with university students (Gire, 2002; Stewart *et al.*, 1996).

In this study social and enhancement drinking motives were predictors for current alcohol use, heavy drinking and risky drinking, while coping drinking motives were predictors for drinking problems. In consistence with a study by Karwacki and Bradley (1996) drinking motives (social and enhancement) except for coping motives were associated with quantity/frequency of alcohol use. Bradizza, Reifman and Barnes (1999) found some limited evidence of a significant relationship between coping motives and alcohol misuse in the mid-adolescent age group. This seems to confirm that enhancement and coping motives represent phenomenologically distinct behaviors having both unique antecedents and consequences (Cooper *et al.*, 1995).

Drinking motives have frequently been linked to both the quantity of alcohol consumption and the likelihood of negative consequences. For motivational models of drinking to be useful, however, drinking motives must have predictive power independent of other variables typically associated with alcohol-related problems (Carey & Correia, 1997), which should be the subject of further investigation. On a practical level, the results may suggest that intervention approaches regarding alcohol use may benefit from considering the different drinking motives in a specific cultural and gender context. Further, coping motives may be addressed with problem drinkers and social and enhancement motives with male current and risky drinkers and social motives in female drinkers.

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**THE SADC EPIDEMIOLOGY NETWORK ON DRUG USE (SENDU)
PROJECT:
DESCRIPTION, FINDINGS (2001-2002) AND POLICY
IMPLICATIONS**

Charles D.H. Parry*

Andreas Plüddemann

Alcohol & Drug Abuse Research Group

Medical Research Council

Cape Town, South Africa

Johnny Strijdom

*Directorate for Social & Human Development & Special Programmes
SADC, Gaborone, Botswana*

The Southern African Development Community (SADC) Regional Drug Control Programme makes provision for the establishment of a regional drug surveillance network (SADC Epidemiology Network on Drug Use – SENDU) in the 14 SADC member states. The overall goal of SENDU is to improve the information base for policy makers in SADC member states to address the health and socio-economic burden caused by misuse of alcohol and other drugs (AODs). This article describes the methodology employed in the SENDU project and the trends and the associated consequences of AOD use in eight of the SADC countries for which data had been collected up to the end of 2002. Among other things the article highlights the burden faced by all countries from alcohol and cannabis. Abuse of Mandrax (methqualone) is also fairly pervasive. Drugs such as cocaine, heroin and Ecstasy continue to be trafficked across countries in the SADC region and are making inroads in several countries. The article concludes by outlining selected policy implications and issues requiring further monitoring or more in-depth research.

KEY WORDS: alcohol, drug abuse, epidemiology, surveillance, SADC

* Correspondence concerning this article should be addressed to Dr C.D.H. Parry, Alcohol & Drug Abuse Research Group, Medical Research Council, PO Box 19070, 7505 Tygerberg, South Africa; e-mail: charles.parry@mrc.ac.za

Africa is experiencing a period of economic regeneration, spurred by both internal factors such as the growth of democracy in various countries including Angola, the DRC, Kenya, Nigeria, and South Africa and initiatives such as the New Partnership for Africa's Development (NEPAD), as well as by external factors such as technological developments and globalization. While development has many positive aspects, there is increasing evidence that it also has a negative side associated, for example, with increases in health problems linked to chronic diseases of lifestyle (Ezzati, Lopez, Rodgers, Vander Hoorn, & Murray, 2002). With regard to specific risk factors to population health, there is also evidence to suggest that the burden of death and disability from tobacco, alcohol and illicit drug use increases with development (World Health Organization, 2002). In addition, as countries and regions of the world move away from totalitarian systems and undergo rapid political transition, there are increased opportunities for organized crime to flourish. This has certainly been the experience of countries in the former Soviet Union as well as in South Africa. In both regions there has been a rise in smuggling of arms, drugs and stolen vehicles following the transition period (Oosthuysen, 1998).

The Southern African Development Community (SADC) was established in 1992 and comprises 14 member states in the south and east of Africa. The primary focus for the establishment of SADC and its predecessor, the Southern African Development Coordination Conference (SADCC), was to support trade and economic development in member states. The 14 countries currently in SADC differ greatly in land area, population, income levels, and official languages. The region has a population of over 200 million persons with a landmass equal to that of the USA (Parry, Plüddemann, & Strijdom, in press). Local concerns about the potential for drug abuse to increase with development in southern Africa allied with fears that an increase in drug abuse, corruption and organized crime could make the region less attractive to investors, together with international concerns about the potential for the southern African region to become a significant conduit for the transshipment of drugs to Europe and elsewhere, were the driving factors behind the signing of the SADC Protocol on Combatting Illicit Drugs. Subsequently the SADC Regional Drug Control Programme (SRDCP) was approved. This programme outlined the interventions necessary to implement the provisions of the protocol. The SRDCP, which is being implemented with financial assistance from the European Union, has the following objectives: (i) to establish appropriate and well-functioning national and regional frameworks to address drug abuse, (ii) develop and enhance basic capacities to facilitate action, and (iii) further analyse the drug control situation in the SADC region (SADC, 1998). The main intervention areas of the SRDCP were national and regional

capacity-building and coordination, legal development, supply reduction, demand reduction, and illicit drugs and HIV/AIDS. Establishing a SADC Epidemiological Network on Drug Use (SENDU) was one of the six key project areas specified under the demand reduction area of the SRDCP.

The overall goal of SENDU is to improve the information base for policy makers in SADC member states to address the health and socio-economic burden caused by misuse of alcohol and other drugs (AODs). This goal is in line with the call by the United Nations General Assembly Special Session on the World Drug Problem for national drug demand reduction programmes to be based on regular assessment of the nature and magnitude of drug consumption and drug-related problems in the population (Commission on Narcotic Drugs, 1998). There is increasing evidence to suggest that community epidemiology surveillance systems are a useful means of collecting information on substance abuse trends at a local level. Information from local systems can usefully be collated to provide a picture of changing patterns of drug abuse and associated consequences within a country and across several countries (Asian Multi-City Epidemiology Work Group, 1999; Griffiths, Vingoe, Hunt, Mounterney, & Hartnoll, 2000; Kozel, Robertson, & Falkowski, 2002; Parry, Bhana, Plüddemann, Myers, Siegfried, Morojele, Flisher, & Kozel, 2002; Siegel, Carlson, Kenne, Starr, & Stephens, 2000; Sloboba, & Kozel, 1999).

SENDU's immediate purpose is to establish and develop a substance abuse sentinel surveillance system in each of the SADC member states building on the South African Community Epidemiology Network on Drug Use (SACENDU) model operational in three cities and two provinces in South Africa (Parry *et al.*, 2002). This paper will describe the methodology employed in the SENDU project, the trends and the associated consequences of AOD use in eight of the SADC countries for which data had been collected up to the end of 2002, and outline selected policy implications and issues requiring further monitoring or more in depth research.

METHOD

The SENDU initiative has the following core components: obtaining "buy-in" to the project by political leaders, country-coordinators, data contributors and data users; reaching agreement on core data sources – within and across countries and sites within countries; ongoing training; technical support visits to each country; establishment of site specific networks and the implementation of a "basic" surveillance system in each country; collection of data on 6-monthly basis; 6-monthly site (country) and regional report back

meetings that facilitate the validation and collation of data at various levels; a multi-pronged approach to disseminating findings (via newsletters, reports, press briefings, a website and journal articles); and ongoing improvement of data collection systems and expansion of data sources. Full details of the methodology employed by the SENDU project has been provided elsewhere (Parry *et al.*, in press).

The 'basic' system in each country typically comprises the collection of (a) data on demand for alcohol/drug treatment from specialist substance abuse treatment facilities (if available) and psychiatric hospitals, (b) information from the police on arrests, seizures and drug prices, and (c) data from NGO's on patterns of drug use and associated consequences among youth. Additional components (available in some sites) include school or trauma unit studies, as well as data from the traffic police, mortuaries, and prisons (Parry *et al.*, in press).

Training

A budget of € 430 000 over five years has been provided to 'kick start' the process. The funds are being used for training/consultation meetings, technical support visits, transport for country representatives to attend regional meetings on a 6-monthly basis, and to facilitate report writing and information dissemination. A regional consultation/training meeting was held in Pretoria for four days during October 2000 and attended by representatives from all 14 SADC member states. At this meeting agreement was reached on the initiative, broad indicators, and the way forward. In particular, it was agreed that approximately two countries would be added to the network every six months.

Between 2001 and 2003 technical support visits of four to seven days in length were undertaken to 11 SADC member states: Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, Swaziland, Tanzania, Zambia, and Zimbabwe. The focus of these visits has been to learn more about patterns of AOD use in the respective countries, meet with government officials to inform them about the SENDU initiative, assist countries in developing instruments to collect and collate secondary data on AOD use/associated consequences, provide technical support in other areas related to establishing and maintaining an AOD surveillance system, support country coordinators in running an initial meeting of potential members of an AOD surveillance network, conduct visits to agencies where data are to be collected, and identify other areas where technical- or other forms of support are required. A summary of the data sources accessed in the above countries during 2002 is indicated in Table 1. Of these eight countries, South Africa is

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the largest with a population of about 44 million. Lesotho has a population of 2.1 million, and the island states of Mauritius and the Seychelles have populations of 1.2 million and 78 000 respectively. Botswana and Namibia are situated in the central and western parts of Southern Africa, with populations of 1.6 million and 1.8 million respectively. Mozambique is situated on the east coast of Southern Africa and has a population of 19 million. Malawi, situated to the north-west of Mozambique has a population of 10.5 million (Parry et al., in press). The South African network (SACENDU) comprises five sentinel sites, three of which are large port cities (Cape Town, Durban and Port Elizabeth (PE)) and the other two are provinces: Gauteng (a largely urban province which includes the cities of Pretoria and Johannesburg), and Mpumalanga (a largely rural province bordered by Swaziland and Mozambique). The South African sites cover about 36% of the country's population of about 45 million. As compared to South Africa and Mozambique, the surveillance systems in Botswana, Lesotho, Namibia, Malawi, Mauritius and the Seychelles are country-level systems. In Mozambique the surveillance system has been established in the capital, Maputo.

RESULTS

In the paragraphs that follow, treatment demand and law enforcement data relating to Phase 13 of the SACENDU Project, Phase 1 of the AOD abuse surveillance systems established in Malawi and Mozambique, Phase 2 of the surveillance systems established in Botswana and Namibia, and Phase 3 of the AOD abuse surveillance systems established in Lesotho and Mauritius are presented. Data from Seychelles are not available for the July – December 2002 reporting period due to the withdrawal of Seychelles from SADC. This report covers the period July – December 2002, and preceding 6-month periods (if applicable).

Table 1. Data sources by sites: 2002

Source	Botswana	Lesotho	Malawi	Mauritius	Mozambique	Namibia	Seychelles	SA
Treatment centres	5	3	3	8	7	3	1	50
(patients in period Jul-Dec '02)	(72)	(46)	(445)	(427)	(234)	(45)	-	(5830)
Police drug data	Y	Y	Y	Y	-	Y	Y	Y
Psychiatric hospitals	Y	Y	Y	Y	Y	-	Y	Y
Prisons	-	-	-	-	-	Y	Y	-
Traffic police	-	-	-	-	-	Y	-	-
NGOs	-	-	-	-	-	Y	-	-
Mortuaries	-	-	-	-	-	-	-	Y
Surveys, studies	-	-	-	Y	-	-	-	Y
Alcohol production	-	-	-	-	-	-	Y	-
School counsellors	-	-	-	-	-	-	Y	-

Treatment demand data

Information on primary drug of abuse reported at specialist AOD treatment centres* is provided in Table 2. Unless stated otherwise, data relate to the period July to December 2002. To facilitate country comparisons, data for South Africa are averaged over the five sentinel sites in the country.

In Mauritius, Mozambique, Namibia, and South Africa there appears to be demand for treatment for a greater range of substances of abuse than in the other countries, where alcohol and cannabis are the only primary drugs of abuse reported. Based on treatment demand data at least, South Africa appears to have a greater range of substances available than in other SADC countries for which SENDU data are available. South Africa also has the largest number of treatment centres (in general and included in the SENDU project) and the largest number of patients going to substance abuse treatment facilities. However, Mauritius has by far the greatest proportion of patients in treatment whose primary drug of abuse is heroin (close to 50%). The only other countries that reported having patients in treatment whose primary drug of abuse was heroin were Mozambique and South Africa.

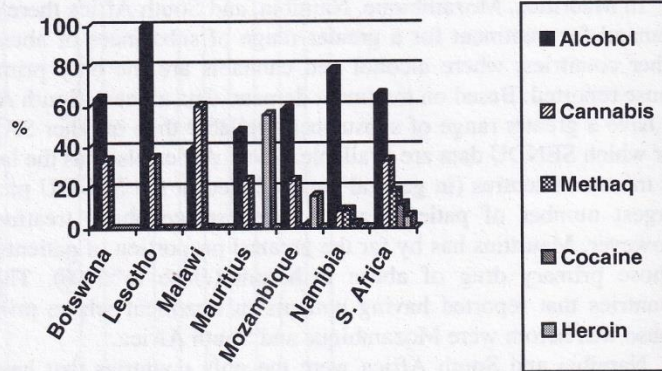
Namibia and South Africa were the only countries that have patients in treatment whose primary drug of abuse was Ecstasy. Methaqualone (Mandrax) was only reported as a primary substance of abuse in treatment centres in these two countries. Of the seven SADC member states for which data were available in the 2nd half of 2002, it was only in Mozambique, Namibia and South Africa that there were patients in treatment whose primary drug of abuse was cocaine. Over-the-counter and prescription medicines were only reported as primary drugs of abuse in Mauritius and South Africa.

The major changes noted across the time periods were an increase in the proportion of patients coming to treatment whose primary drug of abuse was alcohol in most sites for which comparative data were available, a big decrease in the proportion of patients in treatment whose primary drug of abuse was cannabis in Lesotho, a slight decline in the proportion of patients whose primary drug of abuse was Mandrax (mathaqualone) in Namibia and South Africa, and a slight decline in the proportion of patients whose primary drug of abuse was heroin in Mauritius and South Africa, as well as a decrease in the proportion of patients coming to treatment whose primary drug of abuse was cocaine in three of the countries (Botswana, Namibia, and South Africa).

*For Botswana and Malawi information comes from psychiatric hospitals

Figure 1 shows the percentage of persons in treatment who report any abuse (i.e. as primary or secondary drug of abuse) by country and per selected drugs.

Fig. 1. Treatment demand data: primary or secondary drugs of abuse (July - December 2002): selected substances



Across countries and sites the proportion of patients in treatment who are under 20 years of age ranges from 2% (in Lesotho) to almost a quarter in South Africa (Table 3).

Mauritius appears to be experiencing a slow, but steady increase in the proportion of patients in treatment aged 20 years or less. For other sites the proportion of patients under 20 years appears to be holding steady (South Africa) or decreasing (Botswana, Lesotho, Namibia).

With the exception of Mauritius, across sites the predominant mode of ingesting substances is by swallowing or smoking (Table 4).

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Table 2. Treatment demand data (%): Primary drug of abuse (row % add up to 100)

Country	Period	Alcohol	Cannabis	Methamphetamine (Mta)	Cocaine	Heroin	Ecstasy	OTC/Pre*	Other	N	# tx. centres
Botswana	Jan-Jun 02	70.3	23.8	0.5	0.5	0.0	0.0	0.0	4.9	188	9
	Jul-Dec 02	69.6	29.0	0.0	0.0	0.0	0.0	0.0	1.5	72	5
Lesotho	Jul-Dec 01	54.3	45.7	0.0	0.0	0.0	0.0	0.0	0.0	45	6
	Jan-Jun 02	85.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	20	5
	Jul-Dec 02	97.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	46	3
Malawi	Jul-Dec 01	32.7	67.3	0.0	0.0	0.0	0.0	0.0	0.0	445	3
	Jul-Dec 01	21.8	14.1	0.0	0.0	58.7	0.0	1.3	4.1	467	8
Mauritius	Jan-Jun 02	32.7	6.6	0.0	0.0	48.2	0.0	1.1	11.3	452	8
	Jul-Dec 01	33.0	10.3	0.0	0.0	46.8	0.0	2.8	6.1	427	8
	Oct-Dec 01	63.7	20.5	0.0	0.9	15.0	0.0	0.0	0.0	234	7
Mozambique	Jan-Jun 02	74.0	8.0	12.0	6.0	0.0	0.0	0.0	0.0	50	2
	Jul-Dec 02	78.0	8.7	8.7	2.2	0.0	2.2	0.0	0.0	46	3
Namibia	Jul-Dec 01	69.8	30.2	0.0	0.0	0.0	0.0	0.0	0.0	53	1
	Jan-Jun 02	81.5	18.5	0.0	0.0	0.0	0.0	0.0	0.0	65	1
Seychelles	Jul-Dec 01	52.2	21.4	10.1	5.1	5.1	1.1	3.1	1.6	5667	48
	Jan-Jun 02	54.0	19.3	10.3	5.7	5.3	1.0	3.1	1.2	6108	50
	Jul-Dec 02	54.1	21.0	9.5	5.3	4.6	1.1	2.7	1.7	5830	50

*-includes psychotropic medicines

Table 3. Percentage of the population in treatment under 20 years of age

Country	Jul-Dec '01	Jan-Jun '02	Jul-Dec '02
Botswana	-	11.8	8.4
Lesotho	40*	15	2
Malawi	-	-	45.8
Mauritius	2.4	3.1	4.2
Mozambique	-	-	8.5
Namibia	-	10.0	6.5
Seychelles	-	13.2	9.2
South Africa	22.7	22.6	22.8

*-under 23 years

Table 4. Primary mode of drug use by primary substance of abuse (%)

Country	Period	Swallow	Smoke	Inject	Snorted	Other
Botswana	Jan-Jun '02	70.4	24.7	0.0	4.8	0.0
	Jul-Dec '02	80.7	16.1	0.0	1.6	0.0
Lesotho	Jul-Dec '01	52.1	47.9	0.0	0.0	0.0
	Jan-Jun '02	85.0	15.0	0.0	0.0	0.0
	Jul-Dec '02	97.8	2.2	0.0	0.0	0.0
Malawi	Jul-Dec '02	32.7	60.3	0.0	0.0	0.0
Mauritius	Jul-Dec '01	22.7	24.6	51.2	1.5	0.0
	Jan-Jun '02	31.3	15.1	52.6	1.0	0.0
	Jul-Dec '02	33.7	17.7	47.7	0.0	0.0
Mozambique*	Oct-Dec '02	5.0	80.0	8.3	6.7	0.0
Namibia	Jan-Jun '02	84.0	16.0	0.0	0.0	0.0
	Jul-Dec '02	80.4	19.6	0.0	0.0	0.0
Seychelles	Jul-Dec '01	71.7	28.3	0.0	0.0	0.0
	Jan-Jun '02	81.5	18.5	0.0	0.0	0.0
South Africa	Jul-Dec '01	56.5	38.0	2.1	2.6	0.7
	Jan-Jun '02	58.0	35.9	2.4	3.1	0.7
	Jul-Dec '02	58.0	36.1	2.2	3.5	0.2

*excludes alcohol.

In Mauritius, however, almost half of persons in treatment injected their primary drug of abuse. In Mauritius heroin is primarily used intravenously. In contrast, in South Africa most heroin is smoked ('chasing the dragon'), but a large proportion of patients with heroin as their primary drug of abuse report *some* injection use (48% in Gauteng and 34% in Cape Town). This proportion appears to be increasing over time in Gauteng (from 36% in the 2nd half of 2001 to 48% in the 2nd half of 2002).

In all sites patients in treatment whose primary drug of abuse is alcohol are older than persons having other primary drugs of abuse. The mean age of patients whose primary drug of abuse is cannabis ranges from 19 years in Cape Town to 32 years in Mauritius. Patients whose primary drug of abuse is cannabis or Ecstasy (in South Africa) in general appear to be younger than persons having other primary drugs of abuse. Between the 2nd half of 2001 and the 1st half of 2002 a dramatic decrease in the age of patients in treatment whose primary drug of abuse was heroin was noted in Mauritius. This, however, was reversed in the 2nd half of 2002.

The proportion of persons in psychiatric treatment centres having an alcohol- or drug-related admission/discharge diagnosis ranged from 16% in Mozambique to 26% in South Africa, with the predominant substance being alcohol (Table 5). Of the drugs, by far the most common substance was cannabis. Unfortunately, information was not available for several countries for the 2nd half of 2002.

Law enforcement data

Information on the proportion of police arrests for dealing in different drugs is given in Table 6.

In Botswana, Lesotho and Malawi in the 2nd half of 2002 all arrests for drug dealing involved cannabis. In Mauritius, over 40% of arrests for drug dealing involved heroin. This was substantially greater than in South Africa, the only other SADC country (on board the SENDU project) where police arrests for dealing in heroin were reported. In contrast to Botswana, Lesotho, Malawi and Mauritius, in South African sites for which arrest data were available and in Namibia, persons were arrested for dealing in a much greater spectrum of substances.

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Table 5. Psychiatric admission/discharge diagnoses

Country Site	Period	Alcohol only	Alcohol + other	Drug only	Drug + other	Alc + drug (+ other)	Non substance related	N
Botswana	All	Included in treatment centre data						
Lesotho	All	Included in treatment centre data						
Malawi	Jul-Dec '02	6.8	2.9	14.7	3.9	0.0	71.9	1581
Mauritius*	Jul-Dec '01	49.1	4.3	0.5	0.6	0.0	45.5	2812
	Jan-Jun '02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Jul-Dec '02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mozambique	Oct-Dec '02	3.6	1.4	9.0	1.9	0.0	84.1	277
Namibia*	Jan-Jun '02	20.0	5.0	7.0	1.5	0.0	66.5	540
	Jul-Dec '02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Seychelles*	Jul-Dec '01	16.4	22.7	0.5	8.2	0.0	52.2	207
	Jan-Jun '02	2.3	30.4	7.5	7.0	0.0	52.8	214
South Africa	Jul-Dec '01	17.3	2.5	5.6	5.1	2.0	67.5	727
	Jan-Jun '02	12.9	2.6	4.2	3.7	1.7	75.0	896
	Jul-Dec '02	14.3	1.4	3.6	3.7	0.9	76.0	1819

*at this time data are only obtained from one hospital per site.

Table 6. Police arrests for drug dealing (row % add up to 100)

Country	Period	Cannabis or hashish	Mtq.	Cocaine or crack	Ecstasy	Heroin	LSD	N
Botswana*	Jan-Jun '02	100.0	0.0	0.0	0.0	0.0	0.0	226
	Jul-Dec '02	100.0	0.0	0.0	0.0	0.0	0.0	183
Lesotho	Jul-Dec '01	100.0	0.0	0.0	0.0	0.0	0.0	108
	Jan-Jun '02	100.0	0.0	0.0	0.0	0.0	0.0	87
Malawi	Jul-Dec '02	100.0	0.0	0.0	0.0	0.0	0.0	93
	Jul-Dec '01	100.0	0.0	0.0	0.0	0.0	0.0	431
Mauritius	Jul-Dec '01	47.0	0.0	0.0	0.0	53.0	0.0	156
	Jan-Jun '02	37.0	0.0	0.0	0.0	63.0	0.0	125
Mozambique	Jul-Dec '02	59.1	0.0	0.0	0.0	40.9	0.0	149
	Oct-Dec '02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Namibia*	Jan-Jun '02	84.4	14.1	1.0	0.5	0.0	0.0	397
	Jul-Dec '02	84.9	9.3	3.5	2.2	0.0	0.0	226
Seychelles	Jul-Dec '01	100.0	0.0	0.0	0.0	0.0	0.0	16
	Jan-Jun '02	100.0	0.0	0.0	0.0	0.0	0.0	5
South Africa	Jul-Dec '01	-	65.7	16.2	13.8	3.0	1.3	4756
	Jan-Jun '02	-	60.5	19.1	15.2	4.8	0.4	4818
	Jul-Dec '02	-	61.3	16.5	16.8	4.6	0.8	5131

*Including possession. South African data refers to national cases seen by the Forensic Science Laboratory rather than arrests *per se*. These laboratories do not routinely analyse all cases involving seizures of cannabis.

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Police seizures are indicated in Table 7. The highest seizures of cannabis during the 2nd half of 2002 were noted in Lesotho and Malawi, while the greatest amount of heroin was seized in South Africa (77.0 kg) and Mauritius (7.0 kg). Over the past three reporting periods the amount of heroin seizures has increased dramatically in South Africa (from 1.9 kg to 77.0 kg). During the whole of 2002, 111 510 kg of cannabis was seized in Tanzania. A large drop in Mandrax (methaqualone) seizures was noted in the 2nd half of 2002 in South Africa (to 750 099 tablets). The only other country listed in Table 7 in which Mandrax seizures were made was Namibia (679 tablets). During the whole of 2002 substantial seizures of Mandrax were also made in Swaziland (4 909 tablets), Tanzania (the equivalent of 3 000 tablets) and Zimbabwe (1119 tablets). A drop in cocaine seizures was also noted in South Africa (67.1 kg). The only other country listed in Table 7 in which cocaine seizures were made was Namibia (189 rocks). During the whole of 2002 substantial seizures of cocaine were also made in Angola (16.9 kg). A large increase in seizures of amphetamine type stimulants (mainly Ecstasy) was noted in South Africa in the 2nd half of 2002 (275 362 tablets).

Information on drug prices is provided in Table 8. Cannabis is clearly very cheap in South Africa at about 10 US cents per joint. One explanation for this is that cannabis is widely cultivated in certain parts of South Africa. Heroin is also significantly cheaper in South Africa as compared to Namibia and Mauritius. One gram of heroin in Mauritius costs approximately US\$ 333 compared to only US\$ 30 in South Africa. No major changes in drug prices were noted over the two periods for the countries where comparative data was available.

IMPLICATIONS FOR POLICY, RESEARCH, AND STRENGTHENING DATA COLLECTION ACTIVITIES

Various policy implications were raised in the country reports for July to December 2002. With regard to drug treatment it was proposed that consideration should be given to ensuring that there is at a minimum one specialist substance abuse treatment centre in each SADC country as well as ensuring greater involvement of public hospitals in treating substance abuse. It was argued that specific initiatives are needed to increase training of health workers to identify drug problems that may be presenting as physical problems. In addition, there is a need to increase the accessibility and utilization of substance abuse treatment facilities.

Table 7. Police seizures

Country	Period	Cannabis (kg)	Methaqualone (tablets)*	Cocaine (gm)	Amphetamine c Tablets	Heroin (gm)	LSD (units)
Botswana	Jan-Jun '02	147067.3	0	0	0	0	0
	Jul-Dec '02	1471.3	0	0	0	0	0
Lesotho	Jul-Dec '01	19 671	0	0	10 045	0	0
	Jan-Jun '02	4153.7	0	0	0	0	0
Malawi	Jul-Dec '02	4416.7	0	0	0	0	0
	Jul-Dec '01	4 659.2	0	0	0	0	0
Mauritius	Jul-Dec '01	30	0	0	0	22 441	0
	Jan-Jun '02	22.7	0	0	0	4995	0
Mozambique	Jul-Dec '02	43.5	0	0	0	6 973	0
	Oct-Dec '02	N/A	N/A	N/A	N/A	N/A	N/A
Namibia	Jan-Jun '02	774.6	9179	78 rocks	10	0	0
	Jul-Dec '02	147.2	679	189 rocks	36	0	0
Seychelles	Jul-Dec '01	10.2	0	0	0	0	0
	Jan-Jun '02	1.353	0	0	0	0	0
South Africa	Jul-Dec '01	N/A	12 872 000	191 143	121 562	1 856	6 632
	Jan-Jun '02	N/A	2 668 595	375 535	150 324	6 273	322
	Jul-Dec '02	N/A	750 099	67 148	275 362	77 041	1 303

*or equivalent (calculated from powder seized)

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Table 8. Drug prices (July – December 2002) or latest available

Country	Currency	Cannabis (joint)	Mandrax (tablet)	Cocaine (gm)	Crack (rock)	Ecstasy (tablet)	Heroin (gm)	LSD (unit)	Speed (unit)	Approx. local currency to 1 US\$
Lesotho	Maloti	6-8 ¹	N/a	N/a	N/a	N/a	N/a	N/a	N/a	10
Malawi	Kwacha	5	N/a	N/a	N/a	N/a	N/a	N/a	N/a	4450
Mauritius	Rupees	300	N/a	N/a	N/a	N/a	10 000	N/a	N/a	30
Mozambique										
Namibia	Dollar	3	50	450	150	120	450	N/a	N/a	10
Seychelles	Rupees	25	N/a	N/a	N/a	N/a	N/a	N/a	N/a	9.5
South Africa	Rands	1	25-40	200-300	35-200	25-120	120-300	90	60-100	10

¹per small plastic bank bag

In the area of prevention, members of the SENDU network stressed that substance abuse prevention approaches need to target children at a young age, and should focus on high-risk individuals. The focus should not only be on alcohol and drug use but also on sexual risk behaviour. There is a need to address the culture of irresponsible drinking that exists in many countries. Interventions are especially required to address the problems associated with cheap, bulk alcohol in South Africa. In general, the public needs to be educated about drug dependence, and drug abuse issues need to be integrated into the curriculum of health workers, lawyers, etc. Across countries various issues requiring further monitoring or more in depth research were raised. These included the reasons for AOD use among youth; the relationship between AODs and mental illness; the use of heroin, and particularly intravenous use of heroin; demographic/social class shifts in drug use; the complexities of the relationship between substance use and sexual risk behaviour; the role of parental, community and setting influences on alcohol/drug use among adolescents; AOD use among students and vulnerable children; reasons why females are not reflected in treatment statistics; and the incidence of HIV, HCV, HBV among IVDUs and non-IVDUs.

Various suggestions were put forward for how data collection could be strengthened. Among other things site facilitators indicated the need for increased access to other data sources (besides treatment centres and law enforcement sources): NGOs, district hospitals, schools and colleges, people on the streets, general medical practitioners, prisons, and mortuaries, the traffic department, and emergency departments.

DISCUSSION AND CONCLUSION

The findings to date indicate that cannabis and alcohol dominate treatment demand, arrests, and community concern among SADC member states. In countries like Malawi and South Africa, cannabis use, in particular, appears to be causing problems among young persons. Use of drugs such as Mandrax (methaqualone), cocaine, heroin, and Ecstasy, as indicated by treatment demand data, appears to be limited to only a few of the countries. Treatment demand for heroin use is particularly high in Mauritius and Mozambique and in certain parts of South Africa. Police seizures of heroin have also shown a substantial increase in South Africa over the past three reporting periods. In addition, there has been an emergence of intravenous drug use in some countries and the spread of drugs historically confined to particular areas (e.g. methaqualone from South Africa to Namibia). The availability of amphetamine type stimulants (in particular Ecstasy) has been noted in South Africa. The synthetic

stimulant methcathinone has also made an appearance in Cape Town and Gauteng province (Johannesburg/Pretoria).

The findings above demonstrate substantial differences within the SADC region. The region as a whole also differs from other parts of the world (e.g. Western and Eastern Europe, North America and Asia) in terms of patterns of drug use (e.g. type of drugs of abuse and modes of drug use) and consequences (UN Office of Drugs & Crime, 2003). These regions tend to have higher rates of use of amphetamines, cocaine and heroin, higher levels of IVDU, and higher levels of drug related HBV, HCV and HIV/AIDS as compared to the SADC countries.

The data presented, support the view expressed by representatives at Commission on Narcotic Drugs meetings that cannabis use (particularly among youth) is an important issue that needs to be addressed in the region. The patterns of hard drug use in a few of the SADC countries also reinforce the view that SADC countries should not neglect to take steps to curtail the use of drugs such as heroin and cocaine among certain populations in these countries and to prevent the spread of such drugs within the region. Alcohol continues to be a serious problem in the region requiring urgent attention. While some patterns of substance use and associated consequences are unique to certain countries, it is increasingly clear that regional strategies in terms of both law enforcement, treatment and prevention will be required to complement national efforts. As the SENDU data collection is expanded to all SADC member states in 2004 it is hoped that the resulting information will continue to contribute to local, national and regional agencies and give focus to the next five-year SADC regional drug control programme.

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SENSIBLE DRINKING PROJECT: EVALUATION OF HEALTH WORKER TRAINING

Kirstie M Rendall-Mkosi*

University of Western Cape, Bellville, Republic of South Africa

Nandi Siegfried

Medical Research Council, Parow, Republic of South Africa

Sheldon Allen

*Medical Research Council, Parow, and
Human Sciences Research Council, Cape Town, Republic of South Africa*

ABSTRACT

The Sensible Drinking Project is a community level initiative aiming to reduce the high rates of trauma as a result of alcohol problems in the communities around the GF Jooste Hospital, in Cape Town. As part of a multifaceted prevention programme a pilot training of health workers in brief interventions was conducted and evaluated. Information on the short course participants, the course presentation and the feedback from the participants was collected through various methods in an action research process. It was found that the short course was very relevant and well presented, and that the participants experienced a shift in their attitudes towards screening and counseling people with alcohol problems. Although it was not possible to gauge the level of skills and knowledge acquired and the application to the work place, with small adaptations, the course is worth replicating throughout the health services in similar communities. Some of the challenges are also discussed.

KEY WORDS: alcohol, brief interventions, health workers, short-course, South Africa.

* Correspondence concerning this article should be sent to Ms K Rendall-Mkosi, School of Public Health, University of Western Cape, Private Bag X17, Bellville, 7535, RSA. e-mail: mkosi@mweb.co.za

INTRODUCTION

Alcohol related health problems are increasingly recognized as a major public health issue in South Africa, (Parry, 2000) The *per capita* consumption of alcohol is one of the highest in the world ranging from 13.08 of 19.30 litres pure alcohol in 2000. (Rehm & Room, 2003) Given that there are large sections of the population who abstain from alcohol due to cultural or religious norms, or personal choice, the remaining 55% of men and 30% of women consume an average 16.6 litres pure alcohol a year. Not only is this a high consumption, but up to one third engage in risky drinking by binge drinking over weekends, often to high levels of intoxication. In the Western Cape province at least 44% of men and 24% of women are drinkers, and of these, 33% of the men and 30% of the women engaging in risky drinking. (SADHS 1998)

The liquor industry is well established in South Africa retailing across urban and rural areas. The tradition of home brewed beer continues in some rural and urban areas.

Alcohol sales are still relatively unregulated with a higher number of unlicensed outlets than licensed ones in poorer areas. With high unemployment in some communities, selling alcohol is a common informal source of income. (Parry & Bennetts, 1998)

The health consequences of alcohol abuse and dependence include high levels of chronic conditions and excessive trauma and accidents. The rank order of the specific causes of premature mortality in 2000 in South Africa put homicide/violence as second highest, after HIV/AIDS, and road traffic accidents at fourth highest, with 4.1%. (Bradshaw *et al.*, 2003) Although South Africa has been classified as part of the "high mortality developing region" in World Health Organisation (WHO) studies, many researchers believe that due to it being a middle-income country and being diverse in terms of levels of development within the country, the statistics for "low mortality developing regions" are more applicable. The burden of disease as a result of alcohol could then be as high as 6.2%, and the mortality attributable to alcohol as high as 5.3%. (Ezzati *et al.*, 2002)

The poorer areas within the Cape Town Metropole have particularly high rates of trauma as a result of alcohol. In a study carried out in 2001 in Groote Schuur and GF Jooste Hospitals to assess the association between alcohol and trauma 50% percent of patients with injuries had alcohol on their breath when being treated in the trauma units and more than 30% of these had possible chronic alcohol problems, based on the CAGE questionnaire. The causes of injury were due to violence (63%), traffic accidents (22%) and other accidents

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(15%). More of the cases were male than female and the average age was 30 years old (Donson, 2001).

Prevention and treatment of alcohol related problems in Cape Town are limited. Most initiatives are privately run, some for profit. An audit carried out of substance abuse treatment facilities in Cape Town in 2002 showed that access to treatment services for historically under-served groups was limited. While almost all of the 22 facilities reported involvement in a range of activities aimed at increasing the availability of substance abuse treatment, less than half reported conducting outreach activities among under-served groups. Also, few reported providing services such as transport, child-care, and reduced fees aimed at addressing the barriers that prevent clients from accessing available treatment facilities. (Myers & Parry, 2003) Interestingly, most of the referrals to treatment centres between 1999 and 2001 were not made by health workers (10-14%), but by family members (36 – 41%), social services (14 – 18%), or employers (13 – 16%) (Cerff, 2002). This seems to be an unfulfilled role that health workers could be playing in screening for alcohol and drug problems, and referring for treatment when appropriate.

Background to Sensible Drinking Project

In order to address the high rate of trauma related to alcohol in the socio-economically deprived areas of Athlone and Nyanga health districts in Cape Town, the Sensible Drinking Project (SDP) was initiated during 2000. The SDP is a multi-partner community based health promotion project led by a Task Team and is seen as a demonstration project in the region. (Barnes, 2000) The Task Team includes representatives from the regional and local health services, non-governmental organizations such as the South African National Council on Alcoholism and Drug Dependence (SANCA), and the Cape Town Drug Counselling Centre (CTDCC), and the School of Public Health of the University of Western Cape.

The SDP aims to reduce the harm that alcohol causes by increasing awareness of alcohol problems in health workers and community members, improving the skills of health workers and other professionals in promoting the reduction of alcohol intake, and facilitating targeted actions in the communities of Manenberg (in Athlone) and Nyanga. Sensible, or responsible, drinking is being promoted among risky drinkers, while abstinence is promoted amongst those who are alcohol dependent or women who are pregnant. (van Heerden & Parry, 2001) Towards the end of 2000 qualitative research provided the Task Team additional information on the habits, patterns and norms of drinking in sub-groups of the population being

targeted (Rendall-Mkosi & Bomvana, 2001). The pattern of weekend binge drinking by most drinkers was noted, as was the 24 hour availability of alcohol. In the Manenberg area it is common for both men and women to drink, while in Nyanga, it is uncommon for women to drink alcohol although it is becoming more common among young women. Although cultural and religious norms deter drinking, the need to socialize in an area where there are few facilities for sport, recreation or entertainment, encourages regular drinking for many people at shebeens (unlicensed) and taverns (licensed).

The SDP planned various activities in both communities and used a settings approach to define the target group or place for each activity ie. interventions based on a place or social grouping of people, rather than focusing on an illness or symptom (Coulson *et al.* 1998). The National Drug Master Plan (RSA, 1999-2004) and some of the Australian alcohol programmes and policies informed the planning of this programme (Brady, 1998; Crundall, 1996). Certain schools, liquor outlets and clinics were the initial settings in the SDP programme plan, and different combinations of stakeholders took responsibility to develop relevant activities.

Brief interventions for alcohol-related problems

Health workers can play a key role in addressing alcohol-related problems, particularly in primary care and trauma settings. In a short consultation, a health worker can provide valuable therapeutic or preventative interventions without having to be an addictions specialist. A number of brief interventions have shown to be effective methods of helping patients presenting with these problems in these settings to consume less or abstain from alcohol (Fleming & Manwell, 1999; Resnicow *et al.*, 2002; Samet *et al.*, 1996; Smith *et al.*, 1998).

Despite evidence in favour of brief interventions, they are not a commonly accepted part of routine practice (Aalto *et al.*, 2001). Little is known about the application of brief interventions for alcohol in less developed countries, such as South Africa. However, in the primary care settings health workers tend to feel pressurized by high volumes of patients, frustrated by limited resources and time, and discouraged by the likelihood that their consultations are not likely to lead to behaviour change. Several implementation questions need to be answered before one can assess the effectiveness of these sorts of interventions in South African settings. Perhaps the first two questions are:

1. How do health workers currently approach alcohol-related problems in their routine practice in primary care and trauma settings?

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2. How can health workers be trained to include brief interventions in their routine practice?

Due to the high levels of alcohol problems in the catchment area of GF Jooste Hospital and the potentially valuable contribution of brief interventions in the primary care and trauma settings in the area, the SDP prioritised training health workers in the area on brief interventions for alcohol-related problems.

THE TRAINING INTERVENTION AND EVALUATION DESIGN

The short in-service training for health workers

A 7-hour training day and a 4-hour booster session was planned as a pilot training course for health workers in 2001. This aimed to encourage health workers to acquire further knowledge and skills to apply some of these internationally accepted methods of brief interventions for alcohol (Rollnick *et al.*, 1999; Cherpital, 2001; Fleming & Manwell 1999).

The course was run in collaboration with the Medical Research Council and the CTDCC, who provide the training expertise, while the School of Public Health of the University of the Western Cape carried out the evaluation of the training. Between 1 and 3 interested frontline health practitioners were invited from GF Jooste Hospital and the seven surrounding clinics and community health centres, with the aim of having 20 participants in the pilot course.

It comprised the following components:

- Personal and societal attitudes to substance use and addiction.
- Understanding problematic substance use.
- Signs and symptoms of use and how people are affected.
- Screening tools (e.g. CAGE).
- Brief Motivational Interviewing tools (helping to give patients the best chance of changing problematic behaviour in the short time you have available).
- Effective use of resources and referral systems.

The training was presented in an interactive style, making use of presentations, discussions and activities (e.g. role play) to facilitate learning. Certificates of attendance were issued at the booster session.

Course evaluation.

A pragmatic research design was developed to evaluate the training and inform the health services, the SDP and its trainers of the appropriateness and usefulness of this programme for the targeted health workers. This evaluation aimed to assess:

1. Participants' prior knowledge, attitudes and skills for addressing-alcohol-related problems in their work.
2. How the training sessions were received by participants (acceptability).
3. Changes in participants' perceptions of their knowledge, attitudes and skills.

A mix of predominantly qualitative methods was used to achieve these aims, and an action research process was used in that the data was fed back to the facilitators at each stage of the planning of the course.

Semi-structured pre- and post-training questionnaires were developed. The pre-training data was collected by visiting the participant in her work place a few days before the training, while the post-training questionnaires were self-administered after the training day and booster session. The evaluator observed the main training day and the booster session, and documented the training activities, the reactions of the participants, and the discussion. A focus group was also conducted one month after the booster session.

The interviews and questionnaires were summarized by computing frequencies of the closed questions, and generating lists of the responses to the open ended questions by thematic content analysis. The observation notes were summarized to give feedback to the facilitators on issues of course content, level of engagement by participants, and pace of the training. The focus group was taped and summarized using theme analysis.

EVALUATION RESULTS

Study participants

Thirteen participants attended the main day of the training. This included 9 nurses, 1 social worker and 1 doctor, and 2 unskilled workers who were inappropriately sent to the training. Eight participants attended the booster session a month later and 4 attended the focus group discussion two months after the booster.

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Pre training information on participants

All 7 of the pre-training interviewees (5 nurses, 1 social worker, and 1 hospital human resources manager who also does nursing clinical duties), who were visited at their work, said that alcohol problems are very much part of their daily work, but none of them used any standardised screening tools. Few of the nurses were aware of any referral facilities and would refer people with alcohol problems to a social worker or psychiatric nurse. Most said they would try to motivate people to cut down on drinking using a fairly direct approach. Their understanding of the cause of alcohol problems was uniformly related to poor community living conditions and high unemployment, and the fact that drinking is a common pastime.

None of the interviewees had received a formal course in the handling of alcohol problems before, but 2 had recently attended a lecture at a tertiary hospital and one had worked as an occupational nurse for a brewery and learnt a counselling method from the social worker there.

None of the interviewees kept statistics related to alcohol problems, and the most common 'guesstimate' of the number of adult patients with alcohol related health problems was around 50%.

Post one-day training feedback

Although most of the participants had been nominated to attend the training by their superiors, instead of volunteering, and were not really aware of the purpose of the course initially, it was observed that they quite easily became involved in the training and participated in exercises and discussion without much hesitation.

The participants generally gave positive comments on the presentation of the sessions and the notes they received. Only the role-play was mentioned as a weak aspect due to confusing scenarios and unclear modeling by the presenters. All participants felt that the programme was too rushed and suggested that 2 to 3 days would be better. They also made some suggestions for which topic should be further covered in the booster session. In effect each of the topics in the day was suggested by one participant. Other suggestions made for additional topics that could be covered in the booster session included:

- Family counselling approach.
- Running support and youth groups.
- Involving other role players.
- How to make alcoholics accept they have a problem.
- What are the AA 12 steps.

- How to deal with a drinking colleague.
- Putting pressure on the government to realise that more detoxification centres are needed.

At the beginning of the post-training questionnaire participants were asked to rate their knowledge and understanding of brief motivational interviewing tools before the workshop, on a scale of 1 – 10 where 1 is none and 10 is excellent. The average of 8 respondents who answered the question was 4,4. At the end of the questionnaire they were asked to rate their confidence in trying to use motivational interviewing with their patients. The average score was 7,7 on the 10 point scale. This could be used to indicate the positive effect of the training on their potential to use the techniques in practice.

The evaluator observed that participants were very interested in the display of drugs such as marijuana and cocaine, and in the discussion of their use and symptoms, even though the main focus of the training was on alcohol.

Another observation was that although the techniques being taught are only appropriate when a person is sober, many of the examples described by participants focused on the trauma situation and dealing with intoxicated patients.

Post booster session feedback

The role-plays carried out at the booster session served to clarify the main techniques being taught and reinforce their application for situations where people are sober.

In rating the relevance of the listed training topics, the participants ranked the brief motivational interviewing tools, and resource lists and referral systems, equally; next came the dynamic of habits and readiness to change, the clinical presentation of drug and alcohol users and DTs, and Screening tools, all ranked equally; and lowest was managing withdrawal and overdose.

There were many comments and case descriptions offered by the participants which indicated that a more empathetic attitude had been generated towards their typical patient with alcohol problems, and that they had new skills and information to use in the interaction with the patient.

In terms of who should attend this type of training in future, it was mentioned by some that the group should consist of different types of staff, and many more in the district should be trained. All responded in the positive when asked – would you recommend this course to a colleague?

When interviewed on their use of the brief interventions since the training, case examples described by some of the participants indicated appropriate attempts at the application of screening techniques and the counseling process. Some of the nurses dealing mainly with TB clients explained how they started

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using the CAGE as a standard part of the TB general history taking history-taking interview.

The barriers cited for not using what they had learnt were time, denial of substance abuse by patient, literacy level of patient, and inadequate counselling space.

When asked to rank a list of possible future topics for training the following ranked order of preference emerged:

1. Community based intersectoral actions.
2. Drug problems.
3. Working with youth on drug and alcohol prevention.
4. Policies and legislation regarding alcohol.
5. Women's health and substance abuse.
6. Management of intoxicated patient.
7. Long term counselling.
8. Research in various aspects of alcohol and drug.

An interesting discussion was held in the focus group about the relevance of promoting sensible drinking in a community where drinking to intoxication was the norm. While the philosophy on which the SDP is founded espouses the possibility for controlled drinking, the nurses, many of whom live in the area of the SDP, question the viability of individuals reducing their intake as opposed to abstaining from alcohol.

DISCUSSION

Main findings

The evaluation of the presentation and content of the short course, from the point of view of the participants, presenters and evaluators was very positive, and there was a lot of agreement about the aspects requiring change. There is no doubt that this short course, with some adaptations, is able to enhance the knowledge, attitudes and skills of health and social service workers to attempt to use brief interventions with people with alcohol problems.

There was inevitably a dilemma for the presenters, who had a lot of experience in counseling on drugs other than alcohol, to limit the time spent on other drugs even though the participants were interested in these drug issues. While we acknowledge that a number of people in the SDP areas take drugs and alcohol, due to time constraints in the short course, and the fact that alcohol is the most prevalent substance use problem across all age groups, and

is often the precursor to using other drugs, a conscious effort was made to remain focused on alcohol issues.

Another challenge was to limit the amount of story telling and scenario painting around trauma situations and drunk patients. It was mainly the participants from the hospital setting who engaged in these debates, and it had the effect of detracting from the techniques being taught, which are mainly only applicable when a person is sober. However, what this indicated to the evaluators was that dealing with drunk patients is clearly something many of the participants find difficult, and strategies to deal with the scenarios they were describing should possibly be included in the training.

Using role-plays by the presenters to demonstrate a counseling technique requires careful planning. In this pilot training the presenters were not clear enough, which led to confusion by the participants when they were invited to do role-plays themselves. The ideal would be for the training to involve participants using the techniques in real situations in the clinics, or with trained actors, and then doing debriefing. (Rollnick *et al.*, 2001, Aalto *et al.*, 2001)

The range of topics suggested by participants for further training indicates an interest in dealing with the problems of alcohol from a comprehensive approach. Topics included preventive, promotive and rehabilitative issues. There seems to be a dearth of such capacity building opportunities or readily available information for the health workers in this district.

Strengths and limitations of the study

The participatory methods used and involvement of the evaluator in the preparation of the course enabled the presenters to receive quick and useful information for adjusting their sessions and meeting some of the expressed needs of the participants. The information gathered was adequate for the adaptation of future runs of the course, and served to confirm that the training is of good quality and relevant.

Despite only 7 pre-training interviews being done, for logistical reasons, it was felt that these were fairly representative of the target group and the information gathered served as useful information for the trainers in planning their presentation. It also served as some baseline information on the roles of the staff, their prior training in alcohol related issues, and their understanding of the causes of the alcohol problems. Having 11 participants from various frontline health professions served to promote a multidisciplinary approach in the clinical setting on a grass-roots level.

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The number of participants resulted in this being a rather small pilot. Also, the numbers of participants who completed pre- training interviews and who participated in a post training focus group was lower than planned, and limited the generalisability of the findings of the evaluation to other health professionals in the area. The lack of any long term follow-up of the participants or observation of them using the techniques in their work environment limits the evaluation to focusing only the process and content of the training, without answering any questions of impact on people with alcohol problems.

The application of brief interventions in routine practice

The five steps for brief intervention as described by Fleming (1999) were all included in the training sessions: Assessment and direct feedback; negotiation and goal setting; behavioural modification techniques; self -help literature; and follow-up and reinforcement). However, it is difficult to assess to what extent the participants were able to absorb the complexity of applying these to people at different stages of change and with different levels of drinking problems. Although they may be applied initially, it is not uncommon for complex interventions such as these to fail to be maintained as a part of routine practice (Kruijver *et al.*, 2000; Roisin *et al.*, 1999). It is likely that, especially for those who were hearing many of the terms for the first time, they were able to become familiar with the process and logic of the model, but not the techniques and their applications. It should also be mentioned that English is not the first language for most of the participants. Follow-up training, mentoring and support, is probably necessary to revise the main principles and to practice specific techniques.

Although detailed new knowledge on brief interventions may not have been achieved it is significant that there was an attitude shift towards showing empathy towards people with alcohol problems, and an increase in their confidence to try some brief interventions. (Aalto *et al.*, 2001)

Another issue is the difference between the trauma unit services and the general primary health care clinics. The participants from these two settings seemed to visualize the alcohol related problems differently and therefore require different tools. Cherpital, (2001) also reported on this difference and suggested that the demographic profile of alcohol users is different in the two settings. Her comparison of screening instruments revealed that the CAGE was more appropriate for screening primary care patients, while AUDIT and HOLD were better for emergency department use. It may be worth designing training specifically for emergency department workers so that both the

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screening and the interventions (for example dealing with intoxicated people) are well matched with the participants' context.

Does the sensible drinking philosophy fit?

The promotion of a sensible drinking message in a community where an "all or none" approach to alcohol is very common poses a public health challenge. If the health workers are inclined to promote only an abstinence message, it will contradict the sensible drinking philosophy. It is perhaps necessary to do further research into the how people from these two communities differentiate between normal and pathological drinking. It could be that they are more similar to communities such as in Arizona where people in Flagstaff have no positive description for normal or heavy drinking, but view both as problematic, while in other places normal drinking was a culturally valid concept and problems only arose in terms of amount consumed and the context. (Bennett *et al.*, 1993)

Public health implications

Since alcohol problems are very common in South Africa, and especially in the Athlone and Nyanga districts, as discussed at the beginning of the paper, the short course offers a beginning to the process of shifting negative attitudes and capacity building amongst health and social service workers at a community service level. In-service training over a couple of days is deemed to be preferable to longer training, which affects the staffing of the facilities for a longer period. There are clearly benefits for training people from a range of disciplines simultaneously as this increases their insights into each other's views and professional roles with regard to alcohol problems. The more workers who can and will use brief interventions in their daily work the more likely we are to assist people to take control over their alcohol problems, and to convey a general message to the public that risky drinking will no longer be an accepted norm.

CONCLUSIONS

The participants found the training appropriate and useful and almost all who returned for the booster session had applied some of the tools within their work or personal life. There was very little negative criticism of any aspect of the training, and participants and presenters agreed that the objectives would have been better achieved over 2 or 3 days.

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The training was successful even though the targeted number of participants was not reached. With minor adaptations to the programme and two full days, the training will provide the awareness, understanding and some tools for addressing problematic drinking in the daily work of the health practitioners.

It is clear that there is a need for this type of short in-service training in communities where there are high rates of alcohol related problems, and where little other training and preparation is offered to health workers in their basic or advanced training. While the SDP is satisfied with the quality and purpose of the training it is important to assess the impact of the health worker interventions on the rate of harmful alcohol use in the long run.

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EVIDENCE-BASED ALCOHOL AND OTHER DRUG POLICY: A DEVELOPING COUNTRY PERSPECTIVE

N. Siegfried*

South African Cochrane Centre

Charles D.H. Parry

Alcohol and Drug Abuse Research Group

South African Medical Research Council

ABSTRACT

The alcohol and other drug field has been slow in joining the growing movement towards evidence-based policy. Some exceptions do exist such as around alcohol taxation and drunk driving. In this paper, we discuss these examples in more detail within a developing country context. We also identify various obstacles to evidence-based policy and explore strategies for moving towards a more evidence-based approach to implementation of substance abuse policy. It is encouraging that the Cochrane Drug and Alcohol Group (established in 1998) has already produced several systematic reviews and has also identified various priority areas with important policy implications for future reviews. These include brief interventions to prevent further substance abuse or treat low-level dependency, and substance abuse prevention including school-based interventions.

KEY WORDS: alcohol; drugs; evidenced-based policy; harm-reduction, developing countries

* Correspondence concerning this article should be addressed to Nandi Siegfried, South African Cochrane Centre, Medical Research Council, P.O. Box 19070, Tygerberg, 7505, South Africa. e-mail: nandi.siegfried@mrc.ac.za. This manuscript is based on an invited presentation given at the 9th International Conference on Treatment of Addictive Behaviours, Cape Town, September 2000.

INTRODUCTION

The early 1990s saw a revolution in healthcare, namely the rise of evidence-based practice (Anderson, 1999; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). This search for evidence to support each and every aspect of healthcare, from treatments for heart disease to the structuring of health services, has also extended into the social and welfare services. However, with some exceptions, the alcohol and other drug (AOD) field has been slow to join this growing movement and this is especially true of AOD policy. In this paper we aim to: i) describe the influences on AOD policy-making; ii) present and critically appraise case studies of evidence-based AOD policy; and iii) provide recommendations for driving AOD policy by evidence, particularly in a developing country setting.

Policy: what does it mean?

At a basic level, policy is about goals, aims and visions and about plans of action adopted in relation to these goals (Freeman & Pillay, 1997). There is nothing in the meaning of the word "policy" to suggest that it is to be informed by science or best available evidence. On the contrary, it incorporates visionary ideals. In the past and, in many parts of the world at present, drug and alcohol policy was dictated by the dominant mores of the country and shaped by societal belief and attitudes. The most notable example of this in the Western world is National Prohibition brought about by the vocal and powerful temperance movement in the United States earlier last century. This proved to be disastrous at many levels, not least at the social level, and the laws against the sale and purchase of liquor were repealed in 1933 (Musto, 1996). This policy shift illustrates how AOD policy can be based on evidence in that it is formulated in response to what does *not* work, rather than what does work - what we have labelled "process-of-elimination" evidence. The move away from so-called zero-tolerance and supply reduction to that of demand reduction can also be viewed in this light.

The Declaration on the Guiding Principles of Drug Demand Reduction adopted by the Special Session of the UN General Assembly on Illicit Drugs in June 1998, states that "demand reduction programmes should cover all areas of prevention, from discouraging initial use to reducing the negative health and social consequences of drug abuse. They should embrace information, education, public awareness, early intervention, counselling, treatment, rehabilitation, relapse prevention, aftercare and social reintegration" (United Nations General Assembly, 1998). They emphasise that

demand reduction strategies should be built on knowledge acquired from research and specific activities should be evaluated to assess and improve their effectiveness. If, as in the case of many current AOD interventions, there is no or only anecdotal evidence, then what is implemented must be comprehensively evaluated. Importantly, the Declaration also recognises that evaluation should be appropriate to the specific culture and programmes involved. This Declaration offers an over-arching policy framework, within which member countries can develop policies specific to their own needs, but which conform to the above ideals.

EXAMPLES OF EVIDENCE-BASED POLICY

Alcohol taxation

Alcohol consumption is determined by many factors, including the micro-environment, social learning and the prevalent "drinking culture". Alcohol consumption is also influenced by price and, according to Edwards *et al.* (1995); the effect of price change on consumption has been more extensively investigated than any other alcohol policy measure. Alcohol is an elastic commodity: when other factors remain unchanged, a rise in price usually leads to a drop in consumption. Governments justify taxes on alcohol on three bases: public health, economic efficiency and revenue-raising (Grossman, Sindelar, Mullahy, & Anderson, 1993). From a public health perspective, taxation curtails drinking and so too its harmful effects on health; from an economic efficiency point of view, taxation covers costs not accounted for by the drinker such as excess death, violence, crime, traffic accidents and healthcare costs; revenue raising is self-explanatory.

It is important to note that it is easier to control industrially produced alcoholic beverages than those produced at home. In many developing countries home production of traditional beverages accounts for much of the alcohol consumed. Attempts to raise taxes on the industrially produced product can backfire and push sales towards the untaxed, cheaper traditional product with possibly even greater harms. Jernigan (1999) describes this occurring in the land-locked African country of Zimbabwe. In February 1995 the government raised the excise tax on clear and traditional beers too far, resulting in a dramatic drop in revenue. Drinkers had either migrated to traditional beer or the illegal market, forcing the government to revise the tax downward in July of that year.

To date, most studies supporting taxation have been conducted in developed nations and there are few, if any, studies of the substitutive process

between alcoholic beverages and other commodities, be they non-alcoholic beverages, other drugs, or even leisure activities (Osterberg, 1995). Nonetheless, on the strength of available evidence price policy appears to be an effective and achievable strategy to reduce alcohol-related problems. In countries where the evidence in favour of taxation is yet to be confirmed, implementation of alcohol taxation must be accompanied by evaluation to assess and improve the effectiveness of these policies.

Drink driving

The primary approach to preventing drinking and driving is deterrence. If a driver is likely to get caught and if the penalty is severe and quickly applied, then the drinker is more likely to avoid driving. Edwards *et al.* (1995) write that the most effective approach to deterrence occurs when police engage in frequent, wide-spread and publicly visible checks along the road, with drivers randomly stopped and breathalised. Success of this approach is best seen in Australia. After the state of New South Wales first introduced randomised breath testing (RBT) in 1982, the state Road Traffic Authority reported that fatal crash levels dropped by 22% (compared with the average for the previous six years) and alcohol-involved traffic accidents by 36% (Homel, 1993). RBTs now occur at an annual frequency of 1 in 2 for a male driver in those Australian states that have adopted them (Edwards *et al.*, 1995). In terms of punishment, loss of driving privileges rather than incarceration has the greatest deterrent potential. Again these studies focus on developed country settings where policing and established infrastructure counters lawlessness often prevalent in the developing world. In addition, the necessity for strong public support for these campaigns should not be under-estimated.

In South Africa, a 1997 study found that 52% of patients presenting to a trauma unit with traffic-related injuries were blood alcohol concentration (BAC) positive (Peden, Van Der Spuy, Smith, & Bautz, 2000). The mean alcohol level for these patients was 0.14g/100ml; at the time the legal driving limit for alcohol in South Africa was 0.08g/100ml (it has since been reduced to 0.05g/100ml.) The South African national traffic death rate per unit of distance travelled is disturbingly high and is only surpassed by Korea, Kenya and Morocco (Van Der Spuy, 2000). In 1997, in response to these figures, the South African government launched "*Arrive Alive*", a four-month campaign based on best evidence and focusing on drink driving, seat belt wearing and speeding. An evaluation of the campaign found that during October when alcohol was the focus of the campaign there was a consistent decrease in drink driving rates in the targeted provinces (Department of Transport, 1998).

However, the limited time period of the campaign means that this finding provides little real outcome data for evidence-based decision-making. Instead of *ad hoc* campaigns there is a need for sustained enforcement underpinned by a rigorous evaluation process. Outcomes of such research will expectantly provide the evidence that ensures the sustainability of the campaign. This case study clearly illustrates that in a developing country, even when the evidence is available and the political will present, implementation is hampered by scarce resources.

THE HIERARCHY OF EVIDENCE AND THE SYSTEMATIC REVIEW

The randomised controlled trial (RCT) and the systematic review of such trials are traditionally the gold standards for judging the benefits of treatment (Barton, 2000). A meta-analysis refers to the statistical pooling of data from studies to produce a single measure of outcome. In the hierarchy of evidence, the RCT and its derivatives are at the top, controlled observational studies in the middle and uncontrolled studies and opinion at the bottom. The best evidence to use in decision-making is therefore, the evidence highest in the hierarchy.

The Cochrane Collaboration, an international organisation of researchers, healthcare professionals, consumers and other interested parties, prepares, maintains and promotes the accessibility of systematic meta-analytic reviews on the effects of healthcare. By doing so, the Collaboration aims to help people make well-informed decisions about healthcare. Healthcare is broadly defined and reviews range from those on a specific medication for a specific illness through to the effects of models of service delivery. Cochrane reviewers search for all available trials including unpublished data and describe the materials and methods of each RCT they include. One of the distinguishing features of the Cochrane Collaboration is that reviewers discuss the implications of their findings not only for clinical practice and research, but also for consumers and policy-makers where possible.

The Cochrane Drug and Alcohol Group was established in 1998 and has already produced the following reviews: Buprenorphine for the management of opioid withdrawal, Carbamazepine for cocaine dependence, Naltrexone maintenance treatment for opioid dependence, Opioid antagonists and adrenergic agonists for managing opioid withdrawal, and Opioid antagonists for alcohol dependence (Cochrane Drug and Alcohol Group, 2000). To date, the following review protocols have been approved and reviews are currently in preparation: Alpha2 adrenergic agonists for managing opioid withdrawal,

Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence, LAAM maintenance versus methadone maintenance for heroin dependence, Methadone maintenance at different stages for opioid dependence, Methadone maintenance versus no methadone maintenance for opioid dependence, and Opioid antagonists under sedation or anaesthesia for opioid withdrawal. The Group has identified the following priority areas for future reviews, all with important policy implications:

- key treatment issues for amphetamine dependency, cannabis abuse and iatrogenic benzodiazepine dependency;
- brief interventions to prevent further substance abuse or treat low level dependency;
- substance abuse prevention such as school based interventions.

Many of these have been studied in some detail already, but few rigorous reviews have been done. To date, results from a narrative review of studies of brief intervention in primary care settings for problem drinking are very positive (Fleming & Manwell, 1999) – confirmation by a Cochrane review would have important implications for both the developed and developing world, as would evidence in support of prevention strategies, particularly those with a focus on education and young people. Available research suggests that it is easier to improve knowledge by education than it is to affect attitudes and behaviour. Education programmes targeted at children and young people identified as benefiting from specific prevention efforts may be effective in the long-term (Rawaf, 1998), but more rigorous trials are required in this area.

Illicit drug policy

In the Cochrane review of Naltrexone maintenance treatment for opioid dependence, a policy “hot topic” in some countries at present, the reviewers note the heterogeneity of studies within the AOD field and the difficulties relating to recruitment and follow-up of AOD clients (Kirchmayer, Davoli, & Verster, 2000). Although they found that there was a trend in favour of treatment with Naltrexone for certain target groups, they recommended that a well-done clinical trial was still needed to get better evidence. This is the state of much of our current evidence regarding prevention and treatment of illicit drug misuse. A distinguishing feature common to all the above Cochrane reviews is the authors' conclusions that further research is required to confirm the effectiveness of treatments. There are, however, certain areas where although there may be few RCTs of the standard encouraged by the Cochrane Collaboration, there is nevertheless some good evidence that can inform

policy. Methadone maintenance programmes for opioid dependence and needle and syringe exchange programmes for reducing HIV transmission rates have been extensively evaluated in countries such as Holland, Australia and the US (Drucker, Lurie, Wodak, & Alcabes, 1998; Heimer, Khoshnood, Bigg, Guydish, & Junge, 1998; Strathdee *et al.*, 1998). Both these interventions are "harm reduction" measures and have been found, to a greater or lesser degree, to achieve, and to continue to achieve their aims. In addition, economic analyses in the United States have found that needle and syringe exchange programmes would save society money even at high levels of coverage (Holtgrave, Pinkerton, Jones, Lurie, & Vlahov, 1998; Lurie, Gorsky, Jones, & Shomphe, 1998).

Harm reduction versus demand reduction as policy

In Australia, the United Kingdom, and the Netherlands, and to a lesser extent in Canada, Germany and Switzerland, a harm reduction philosophy has driven recent government policy. (Marlatt, 1998; Pettingell, 1997). Harm reduction is a public health alternative to the moral, criminal and disease models of drug misuse and is designed to reduce the adverse consequences of drug use rather than eliminating drug use or ensuring abstinence (Marlatt, 1998). This differs from the UN definition of "demand reduction" which focuses on programmes and policies directed towards *reducing* the consumer demand for narcotic drugs and mood-altering substances. This distinction is important, and needs to be understood when advising or developing policy. The AOD field is often dogged by controversy and vocal outrage not found in other areas of healthcare and social welfare and those in the field have a responsibility to seek out the evidence and engage in informed discussion before making policy judgements.

OBSTACLES TO EVIDENCE-BASED POLICY

Despite most AOD practitioners and policy-makers supporting the principle of evidence-based policy, why does policy very often not reflect the latest evidence? We postulate that this is because:

1. There is a lack of evidence to support specific interventions;
2. The evidence is available but is difficult to access, particularly in developing country settings with limited resources and limited access to the Internet and journals;

3. The available evidence conflicts with the current political agenda - many AOD interventions such a trial of a safe injecting room, may be unpalatable to voters;
4. The available evidence is too costly to implement or there may be insufficient staff to implement an intervention, such as regular random breath testing;
5. The available evidence is disputed by lobbyists with strong and successful advocacy strategies; and
6. The available evidence is not supplied in a timely fashion or in a format useful to policy-makers.

How to progress

Given the above constraints and resistance to evidence-based policy, what lessons can be learnt from taking an evidence-based approach? Firstly, where evidence is available, it must be checked for local transferability and feasibility of implementation (including cost-effectiveness) and then integrated into existing policy frameworks. Secondly, practitioners and policy-makers working in the AOD field, need to shift towards what has been termed an “epidemiological culture”(Kirchmayer *et al.*, 2000). By this we mean that the policies that dictate our practice, be it in the prevention or treatment arena, can no longer be shaped by misinformation promulgated by those pursuing their own agenda, be they politicians or lobbyists. We need to champion and advocate for evidence-based decision-making, both in our own practice and at a policy development level.

Should there be no evidence to support an intervention, either locally or internationally, then that intervention needs to be trialed to assess both its efficacy (i.e. whether it works) and its effectiveness (whether it works in the real world). This requires that research and evaluation be recognised as priority areas by government. Government commitment must be reflected in the research budget. However, particularly in the developing country setting, this need not always require a massive injection of funds. Instead what is required is a shift towards establishing evaluation as a core feature of treatment and prevention programmes and accompanying this with capacity-building in the form of relevant training for health professionals and research staff. The establishment of national clearinghouses dedicated to the retrieval, collation and dissemination of scientific evidence related to the AOD field would be of tremendous use, again particularly in the developing country context where access to information is often so limited.

It is clear from the above that for AOD policy to be effective, it must be informed by evidence, and where that evidence is not available, it must be actively sought. The development and implementation of evidence-based policy requires skills, judgement and significant dedication. Should governments choose to make strong connections between science and policy and stay with problems over time, as advocated by Edwards *et al.* (1995), favourable outcomes are likely. It must, however, be remembered that while meta-analysis and systematic reviews can establish the magnitude of intervention effects for different outcomes, the methods are not without limitations. After conducting a meta-analysis of remedial interventions with drink-drive offenders, Wells-Parker *et al.* advise that "the social and policy significance of intervention effects must be determined in the broader arena of personal and social values" (1995). Policy, while it should adequately respond to evidence, is worthless unless it can be implemented. And in order for implementation to be successful, policy needs to account for and respond to the individuals and communities of the society it intends to shape.

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BRIEF REPORTS

**SUBSTANCE USE AND OTHER RISKY BEHAVIOURS OF
SECONDARY SCHOOL STUDENTS IN A NIGERIAN URBAN AREA**

Isidore S. Obot,^{*1} Gloria S. Karuri^{1,2} & Akan J. Ibanga^{1,2}

¹*Centre for Research and Information on Substance Abuse (CRISA), Jos,
Nigeria*

& ²Department of Psychology, University of Jos, Jos, Nigeria

ABSTRACT

With support from the UNDCP, several "rapid assessments" of alcohol and drug use in different groups have been conducted in Nigeria. One of these studies focused on alcohol and drug use among secondary schools in one rapidly growing town in central Nigeria. A survey of 738 students in junior and senior grades of selected schools in the town was conducted to assess the extent of alcohol and drug use, perceived risks associated with drinking, and involvement in risky behaviours. Lifetime consumption of an alcoholic beverage "other than a few sips" was reported by 30% of the students, and past year use by 26%. Among those who consumed alcohol in the past year, 25% reported drinking daily. Lifetime use of tobacco cigarettes was reported by 19.1% of the students; nearly 11 % had smoked in the past year and 6.4% in the past month. Lifetime use of cannabis, cocaine and heroin was reported by 5.8%, 1.9% and 2.4%, respectively. More males than females reported the use of alcohol, tobacco and cannabis. These and other findings are discussed in the context of increasing availability of a wide variety of alcoholic drinks and other psychoactive substances in the country.

KEY WORDS: substance use, Nigeria, adolescents, risky behaviours, urbanization

* Correspondence concerning this paper should be sent to Isidore S. Obot, PhD, MPH, CRISA, P.O. Box 10331, Jos, Nigeria. An earlier version of this paper was presented at the 27th Annual Alcohol Epidemiology Symposium of the Kettil Bruun Society, held in Toronto, Canada in May 2001.

INTRODUCTION

Nigeria, a country with the largest population in Africa, is today experiencing rapid social and economic change. One feature of this change is the decreasing number of Nigerians who live in rural areas. For example, the urban population grew from 27% in 1980 to 40% in 1995. This population shift has been caused, in great part, by the migration of adolescents and young adults from villages to towns in search of employment, education and better standards of living. As new entrants into the urban environment, these young people, who constitute 54% of the population of the country, are exposed to situations that are often unsettling and detrimental to their health and overall development.

Several researchers (Ebie and Pela, 1981; Lambo, 1965) have attributed the rise in alcohol and drug use in contemporary Nigeria to urbanization and the social dislocation associated with migration to cities. This rural-urban shift is in its relatively early stages since, in the early 1990s, about 60% of the population in Nigeria was still rural. Some of the consequences of this shift include the rejection of traditional values, a decline in the influence of the extended family and community, and the increased salience of peer groups, consequences similar to those attributed to rural-urban shift in industrialized societies. In a situation with these deficiencies in social linkages and social support, young people become more vulnerable to the harsh realities of the urban environment (Ferguson, 1993). Added to this is the fact that poverty defines the lives of most young people living in slum areas and shanty towns of Lagos, Kano, Ibadan, Jos, etc., because many of their parents are unemployed or employed marginally. Consequently, many of the young have dropped out of secondary schools if they ever made it there. For their survival, increasing numbers depend on work as street hawkers or errand boys and girls. Instead of providing a solace from the harsh realities of rural life, cities and towns often provide increased opportunity for the initiation of alcohol and drug use and transition to heavy alcohol consumption and drug involvement. For example, in the past few years, there have been extensive efforts by alcohol producers, especially the beer makers, to attract young people to the consumption of their beverages. For the first time in many years and as a reflection of the globalization trend of recent economic policies, there is a wide variety of foreign beer and liquor in all parts of the country.

The tradition of alcohol and drug surveys among youth in Nigeria dates back nearly fifty years (see Obot, 1996). Apart from surveys of school children by independent researchers (e.g., Nevadomsky, 1982; Oshodin, 1981; ICAA, 1985), the National Drug Law Enforcement Agency (NDLEA, the

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country's leading agency for the control of drug problems), has conducted sporadic surveys of drug and alcohol use by secondary school children in different parts of the country (NDLEA, 1992, 1993, 1999).

In a study among out-of-school adolescents in an urban area of Nigeria (Obot, 1999), 292 participants aged 11 to 20 years were surveyed on their alcohol and drug use. The participants were selected from among youth engaged in different occupations, including carpentry, street hawking, and petrol station attendants. Nearly 40 percent (38.7%) of the participants reported lifetime consumption of alcohol with beer as the most popular beverage. The average age of first consumption "other than a few sips" was 13.2 years. Reported drinking in the past year increased with age of respondents. For example, participants who were 17 years or older were more likely to have consumed alcohol in the past year when compared to those who were younger. Nearly one-third of the respondents believed that drinking is associated with health problems; and there was an inverse relationship between alcohol consumption and risk perception.

The present study was conducted in the same city in which the out-of-school youth study was carried out using youth of about the same age but attending school at the time of the survey. The purpose of the study was to assess the use of alcohol and drugs by school children in an area of Nigeria in which little information about youth drug use is available. A secondary purpose was to assess the views of parents of these children on alcohol and drug use by school children (data not reported in this paper).

METHOD

Sample

A total of seven hundred and thirty eight (738) students from five secondary schools in Jos (city in the middle-belt region of Nigeria) participated in this survey. The schools were selected to represent the different types of secondary school in the city, i.e., public, mission, day and boarding schools.* Of the 738 students, 57.2% were male. Most of them were between the ages of 9 and 22 years, with two cases of respondents over 25 years of age. The mean age of the sample was 15.6 years. There were more respondents from senior classes (SS, 63.5%) than from the junior classes (JS, 36.5%). Students in the sample were selected from JS2, SS1 and SS3. Classes in these three grades were randomly

* In two of the five selected schools, the Junior Secondary and Senior Secondary branches were run as separate schools with different and independent administrative set-ups.

selected from the schools to participate in the study. Class size ranged from 22 to 66 students. Three of the five schools were day schools with no boarding facilities. One was a boarding school and one had a combination of day and boarding students. Two of the schools were mission and three were public schools. All except one had male and female students.

Procedure

Permission to carry out the survey in the secondary schools was obtained from the Chief Inspector of Education, Jos North Area Office. Later, the five school principals were visited and their consent sought and obtained. Together with the principal or a representative, we selected one classroom representing each of the three grades and a date was set for the survey in the school.

Data collection was conducted by one person in all the schools following a similar procedure. After introducing the researcher, the teacher left the classroom and did not return until after the survey. Every effort was made to protect confidentiality of the participants and it was made clear to them that participation in the survey was voluntary. They were also informed that they could refuse to answer any question they were unable to answer comfortably. At the end of the survey, the students were thanked for participating in the survey.

RESULTS

Alcohol consumption

Data on "lifetime" and "past year" prevalence of alcohol consumption showed that 30% of the 696 respondents who answered the question had taken some form of alcoholic beverage at least once in their lives, and 26% had consumed alcohol in the past year. The question on lifetime consumption of alcohol specified that use of alcohol meant something more than taking just "a few sips", maybe from a parent's beer glass.

The frequency of drinking among those who consumed alcohol in the past year (n=176) is shown in Table 1. About 25% of drinkers consumed an alcoholic beverage at least once a day in the past year. A greater proportion of drinkers drank occasionally, with 34% of them drinking less than once a month.

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Table 1. Frequency of drinking in the “past year” (n = 176)

Frequency of drinking	n	%
Everyday	45	25.6
3-4 day a week	17	9.7
1-2 days a week	30	17.0
1-3 days a month	24	13.6
Less than once a month	60	34.1

Tobacco use

The frequencies of lifetime, past year and past month cigarette smoking are presented in Table 2. Among the participants who answered the question, lifetime, past year and past month prevalence of smoking were 19.1%, 10.7% and 6.4%, respectively. Use of chewing tobacco was reported by 6.1% of respondents in the overall sample.

Table 2. Prevalence of tobacco use

Smoking	n	%
Ever smoked cigarettes (n=682)		
Yes	130	19.1
No	552	80.9
Smoked in the past year (n=683)		
Yes	73	10.7
No	610	89.3
Smoked in the past month (n=683)		
Yes	44	6.4
No	639	93.6
Used chewing tobacco in the (n=738) past 30 days	45	6.1

Table 3. Prevalence of lifetime use of illicit drugs

Type of drug	n	%
Cannabis (Indian hemp)	43	5.8
Cocaine	14	1.9
Heroin	18	2.4

Note: The whole sample (n = 738) was used to determine the prevalence of lifetime use of these drugs. Due to the inclusion of missing data in the n, the extent of use may be underestimated.

Use of other drugs

As would be expected, illicit drug use was of less frequent occurrence than smoking or drinking. Table 3 shows that Indian hemp (cannabis) was the most widely consumed illicit substance. Nearly 6% had used the drug at least once, compared to 1.9% for cocaine and 2.4% for heroin. The survey did not provide useable data on current use of any of these drugs, i.e., use in the immediate past year or month. However, the relatively low rates of reported lifetime use of the drugs indicate that current ("past year" or "past month") use must be very low in the study population.

Widespread use of inhalants by students in the study area has been reported in previous studies (e.g., Obot, 1995). In this study, 14% of the respondents had sniffed glue (especially Dunlop solution) for fun or to get high at least once. Eight percent had done so in the past year and 5.5% in the past month.

Perception of risk involved in alcohol consumption and drug use

Participants were asked to rate the degree of harm associated with the use of different drugs. This item was included in the study because surveys of young people in other parts of the world show that perception of potential harm from a drug may be associated with reduced use of that drug. There were no clear differences in risk attributed to different types of drug use. At least one-third of the respondents thought that any use of a drug is associated with moderate to great harm. What was notable was the high proportion of participants with no opinion about the harm of associated with heavy drinking and the use of illicit drugs, e.g., having four drinks (or the equivalent of two bottles of beer) a day or using cocaine once or twice a week.

Table 4. Male-female differences in lifetime alcohol and other drug use

Drug	Male		Female	
	n	%	n	%
Alcohol**				
Yes	154	41.1	55	18.6
No	221	58.9	241	81.4
Tobacco (cigarettes)**				
Yes	103	28.1	23	8.0
No	264	71.9	263	92.0
Indian hemp*				
Yes	29	8.0	11	3.9
No	334	92.0	274	96.1

* $p < .05$ ** $p < .001$

Male-female and school grade differences in alcohol and drug use

Using chi-square analyses, we tested for differences between males and females in lifetime alcohol and drug involvement. As shown in Table 4, male participants were more likely than female participants to have smoked a cigarette ($X^2 = 13.95$, $df = 2$, $p < 0.001$), consumed alcohol ($X^2 = 39.07$, $df = 2$, $p < 0.001$), and smoked Indian hemp ($X^2 = 6.51$, $df = 2$, $p < 0.05$) at least once. Males were also more likely to have smoked in the past year. There were no differences between males and females in the use of stimulants, depressants and analgesics.

In terms of differences between participants in junior and senior secondary classes, the seniors were more likely to have smoked a cigarette and consumed alcohol at least once. There was no statistically significant difference between juniors and seniors in their use of Indian hemp. The differences found in the use of tobacco and alcohol is likely the result of age differences and more opportunity to use these substances.

Table 5. Prevalence of involvement in selected "risky" behaviours (n = 738)

Behaviours	n	%
Used alcohol or drug before having sex the last time	42	5.7
Been in a car in which the driver had been drinking in the past month	127	17.2
Fought in school in the past 12 months	183	24.8
Was threatened or injured (with a knife, club, etc.) in school the past 12 months	70	9.5
Have been hit or slapped by partner (boy/girl friend) the past year	115	15.6
Forced to have sex at least once	104	14.1
Used condom the last time had sex	50	6.8

Prevalence of involvement in selected "risky" behaviours

Table 5 shows the frequency of involvement in some risky behaviours. Participants were asked about their involvement in different behaviours and experiences that are often associated with alcohol and drug use or that may lead to negative consequences. For example, they were asked about being in a fight, combining alcohol with sex, and being a victim of violence. The findings show that 9-25% had been the victim of violence, 17% had ridden in a car in which the driver had been drinking, and 5.7% had used alcohol or

another drug before sex. Further analysis is necessary to see whether drug users are more likely than non-users to experience these events.

DISCUSSION

This study was conducted to assess the prevalence of alcohol and drug use among secondary school students in an urban area of central Nigeria. The study also determined the levels of perceived risks associated with heavy drinking and the use of other substances, including tobacco. Among the several findings of the study was that many students in the sample have been exposed to all known psychoactive substances included in the survey at least once. The level of lifetime use of alcohol and other drugs was relatively low when compared to use by out-of-school youth (Obot, 1999). In this study, 30% of the youth had consumed alcohol at least once in their lifetime compared to 38.7% of out-of-school youth (Obot, 1999). In both studies the level of risk attributed to heavy alcohol consumption was similar substantial.

This study has its share of limitations. For example, following our instruction, many participants refused to answer some of the questions, resulting in incomplete data on some variables. There is no way of knowing whether answering all the questions would have resulted in higher or lower estimates of drug use in the sample. Hence, some of the estimates need to be treated with caution. In spite of this, this assessment of alcohol and drug use by secondary school students in the middle-belt region of Nigeria is a significant step in understanding the different ramifications of a growing youth problem in the country. The findings of this and similar studies can provide the basis for the development of prevention strategies against problem drinking and drug use by young people in Nigeria.

ACKNOWLEDGEMENT

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BOOK REVIEW

Alcohol and Public Health in 8 Developing Countries. Leanne Riley and Mac Marshall, editors. World Health Organization (WHO): Geneva; 1999; 179 pages.

Reviewer: James T. Gire, Virginia Military Institute, Lexington, KY, USA

The negative consequences of drinking are well established. Several years ago, the World Health Organization estimated that alcohol accounted for 3.5% of the global burden of disease in terms of disability-adjusted life-years (DALYs) (Murray & Lopez, 1996). This figure has risen to 4% in a more recent estimate (WHO, 2002). At present, the loss is greatest in the developed world, but there are valid concerns that if not checked, the situation in the developing societies will not only increase rapidly but will surpass the present burden in developed societies. However, research and literature about alcohol consumption and related harm in the developing world is scanty, and whatever exists is not well documented. It is therefore difficult to determine the nature and patterns of alcohol consumption and drinking-related problems. Devoid of such vital information, it becomes difficult for public health officials and governments in the developing world to enact effective policies aimed at managing and preventing problem drinking. This book represents a major attempt in collating very helpful information about several facets of drinking in the developing world that would be helpful to public health officials who are also listed as the book's main target audience.

The book profiles 8 countries from the developing world. The selection of the countries appears to stem from factors such as the world region in which they are found and the population of such a country. Thus, all major regions of the developing world are represented, the countries chosen are ethnically and linguistically diverse, have large, medium, and small populations, and differ in their degree of urbanization. Consequently, three countries - Nigeria (profile written by Gureje), South Africa (Parry & Bennetts), and Zimbabwe (Jernigan) - are profiled from Africa in the book. From Asia and the South Pacific three countries are profiled, namely India (by Saxena), Malaysia (Jernigan & Indran), and Papua New Guinea (Marshall); and from Latin America two countries are profiled - Brazil (Carlini-Cotrim) and Mexico (Median-Mora).

The contributors to this volume appear to have been assigned a uniform structure from which to tailor the country profile. Each chapter/profile begins with a brief historical background and history of alcohol, types of alcoholic

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beverages produced and consumed, availability and marketing, patterns of use and alcohol-related problems. On this score, the inclusion of Papua New Guinea is unusual because it had no history of alcoholic production and consumption prior to contact with the colonizers, and alcohol has been widely consumed for only a relatively short time span (slightly over two decades). It thus does not share the range and complexity of alcohol patterns experienced by the 7 other countries. Perhaps another country with a more similar profile from the same world region ought to have been chosen.

Given that alcohol and related problems are discussed using a uniform structure for each country, my approach in this review is to identify the factors that all countries share in common, as well as similarities and differences among certain clusters of countries, rather than give a brief summary along these sub-headings for each country. I will then present an overall critique of the book/monograph.

All the countries covered in the book were colonized by European powers, mainly Great Britain which colonized all but Brazil, Mexico and part of Papua New Guinea, for varying periods of time, ranging from the nearly 200 years in the case of India to less than 20 years for Papua. These colonial experiences have had an effect on the type and place of alcohol consumption in these countries. In addition, all 8 countries are now independent nations, and with the exception of Papua New Guinea, had the experience of manufacturing and consuming beverage alcohol from local products prior to contact with European colonizers. In a majority of cases, the locally produced alcohol continues to thrive, forms a significant proportion of the total alcohol production in these countries and is consumed by people on the lower rung of the socio-economic status mainly because the traditional alcohol products are cheaper than industrially produced alcohol. Thus, as pointed out by Gureje in the case of Nigeria, *burukutu* and *akpeteshi/ogogoro* are consumed almost entirely by the poor. Medina-Mora notes that *aguardiente* is the alcoholic drink of choice for the poor and residents of rural Mexico. Saxena notes that in India, country liquor and illicit liquor are consumed predominantly by members of the lower caste; while Carlini-Cotrim reports that *cacahça*, a locally distilled beverage, is favored by the poorest and least educated class in Brazil. Another similarity of note is the fact that in all eight countries, men drink more than women and are more likely to engage in violent and disruptive conduct following drinking, a tendency that is prevalent in most other societies (Marshall, 1979). With the exception of India where distilled alcohol is the drink of choice, beer is the most popular drink in all the other countries profiled.

There are also some striking differences among clusters of countries. In some of the countries (South Africa and Malaysia), the kinds of alcoholic

beverages consumed are also influenced by racial and ethnic affiliations. Also of note is the powerful influence of transnational corporations in the manufacture and marketing of alcoholic beverages. The poverty in some of the countries makes them too reliant on major alcohol producing companies to provide employment and tax revenue. This influence not only overrides and counteracts public health education efforts but also prevents government restrictions from being imposed on the alcohol industry. In South Africa (home of the world's largest international beer producer), alcohol is unregulated, and spending on advertisements is substantial. The same thing applies to countries like Nigeria and Zimbabwe where alcohol can be advertised on radio, television, billboards, and in print media. Even in countries like Malaysia where advertisements are restricted, alcohol producers circumvent this by sponsoring sporting events, pre-recorded video cassettes, fashion shows, musical shows and other promotions.

An interesting contrast among some of the countries is the role of women in the production and retail of alcoholic beverages. In all eight countries, women form a small percentage of drinkers. However, being at the receiving end of most of the problems emanating from alcohol, women in Latin America and Asia and Asia Pacific regions are at the forefront of efforts to limit alcohol production and consumption in several states in India. Similarly, according to Jernigan, hundreds of women in Malaysia have formed the "*Women Against Alcohol*" movement on rubber estates in Kedah with the efforts to limit the production, sale and consumption of cheap distilled liquor. In contrast, women in the African countries profiled were responsible for the production of most of the traditional alcoholic beverages produced before contact with Europeans and still dominate the production of traditional alcohol (Maula, 1997). Even with regard to industrial alcohol, women have a central role in the retail of beer. This distinction is important because it suggests that strategies for combating alcohol production and consumption would need to reflect the different socio-structural dynamics operating within each country or regions within the same country.

Another major difference between clusters of countries is the relative importance of unlicensed and illegal production of alcohol. Unlicensed alcohol forms a major proportion of all alcohol produced in countries like South Africa and Zimbabwe, but is inconsequential in Brazil and Papua New Guinea. The public health implication of unregulated alcohol production is in terms of the alcohol content, quality control and adulteration with harmful additives. In addition, alcohol sold at unregulated venues is more likely to be sold to minors and in contravention of many laws established by government. Alcohol-related problems also differ across the various countries.

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The uniformity of structure across the country profiles is a strength in the sense that it makes it easy for the reader to compare the same type of information for each country. However, this fairly rigid structure also serves as the basis for the major weakness of the book because it essentially reduces the flexibility of the authors in giving relative importance to certain sections. The discussion of alcohol problems seems to be restricted to the effects it has on the drinker or those within the proximal milieu of the drinker. Thus, not much emphasis is placed on the political economy of alcohol production and consumption and the general politics of alcohol. Yet, it is common knowledge that since the colonizers made contact with the colonized, alcohol has systematically been used as tool for exploitation and subjugation. For example, in countries such as South Africa and Zimbabwe, alcohol was used as part-payment of labor and as a means of control. The same alcohol was used for the purchase of slaves in West Africa. The implications of these kinds of policies on the economic viability, political stagnation and the psyche of the victims is something that needed to be clearly drawn out but was sorely missing. Jernigan touches marginally on this issue in the discussion on Zimbabwe (Chapter 9) but this was mentioned in passing and should have received much greater emphasis in each of the countries covered.

Another area that was not adequately covered is the issue of measurement of traditional or illicit alcohol, both in terms of alcoholic content and volume. There are different types of traditional alcohol produced throughout the developing world that vary widely in terms of alcoholic content. It is commonly concluded that most of these (especially the ones brewed from grain) have less alcoholic content than industrially produced alcohol. Systematic studies documenting the average alcoholic content of these beverages either have not been conducted or their findings are not widely available (Obot, 2000). To compound the problem, there are sometimes no standard measures of these alcohol types. *Burukutu*, the local brew in Nigeria, is sold in various sizes of calabashes. It is very difficult to document the rate of consumption and problem drinking when one cannot establish the volume and alcoholic content of what is consumed. This aspect of alcohol patterns in the developing world should also have received greater attention.

In addition, the coverage relating to alcohol related problems varied widely across the chapters. Some authors (Chapters 3 & 8) gave elaborate details about the effects of problem drinking ranging from health (mortality, liver disease, cancer, etc.), social problems (violence and crime, workplace effects, economic effects, etc.) and coverage on policy and legislation, prevention efforts, treatment and community efforts. In contrast, other authors (Chapters 4 & 5) limited the coverage to such factors as number of hospital admissions and transport crashes that are attributable to alcohol. This leaves

the reader wondering whether the problems of alcohol are more striking in some countries or whether differences represent the absence of available data.

Perhaps the strongest contribution of this book is in magnifying the need for basic data that are crucial in informing public policy on alcohol. Very little funding is given for alcohol related research. Most countries in the developing world have poor record keeping of important information, that is, if such data even exist. Consequently, it is difficult to obtain data on amount of alcohol produced and consumed. A more serious problem exists in attempts to link alcohol to other problems such as its relation to other areas, e.g., physical and mental disorder, accidents, productivity, crime and domestic problems. Many developing nations have enacted and vigorously pursued policies about hard drugs that have almost inconsequential impact on the populace. More research demonstrating the harmful effects of alcohol is needed to sensitize governments to this very serious problem. Evidence from each country profiled in this volume suggests that scientists in this area must intensify their efforts to obtain the much-needed data for each facet of the alcohol research spectrum.

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MEETING REPORT

MEETING REPORT, PARTICIPANT'S PERSPECTIVE: RESEARCH COLLABORATIONS ACROSS CONTINENTS: DRUG ABUSE, HEALTH DISPARITIES, HIV AND OTHER HEALTH-RELATED CONSEQUENCES

Cape Town, South Africa, 1-3 July 2003

Report prepared by Rebecca Traub, Medical Student, Brown University, Providence, Rhode Island, USA.

INTRODUCTION

The National Institute on Drug Abuse (NIDA) meeting, "*Research Collaborations Across Continents: Drug Abuse, Health Disparities, HIV and Other Health-Related Consequences*," was held in Cape Town, South Africa from 1-3 July 2003.

In early 2000, the US National Institute on Drug Abuse (NIDA) convened an international meeting on "*Substance abuse, crime, violence, and HIV/AIDS as consequences of poverty: strategies for prevention, intervention, and treatment in the United States and South Africa*" in Cape Town, South Africa. The meeting was initiated by Howard University, Washington, DC, USA, and the Medical research Council in South Africa. Howard University, along with NIDA, other Federal agencies, and key officials from South Africa and the United States held the meeting to identify research opportunities of mutual interest to researchers and practitioners in the two countries.

The NIDA Southern African Initiative (SAI) is a direct outgrowth of the meeting held in Cape Town. The primary goal of the NIDA Southern Africa Initiative is to stimulate collaborative drug abuse research between the United States and Southern Africa in the areas of epidemiology, early interventions, prevention, treatment, and health services research aimed at reducing drug abuse and dependence and associated adverse behavioural, social, and health consequences. All studies and activities proposed under this initiative must be culturally appropriate, feasible, and acceptable for implementation in Southern Africa and in the United States.

TRAUB

Within the Southern African Initiative there is also interest in basic research focusing on enhancing understanding of behavioural, cognitive, physiological and neurobiological factors leading to, or impacting on, the consequences of drug abuse. Such interest includes research related to the interaction between HIV/AIDS and drug abuse. Findings from studies conducted through this collaborative initiative should have the potential for advancing the field of drug abuse research in both Southern Africa and the United States.

The 2003 meeting was held as part of the Southern African Initiative to facilitate and further expand collaborations between researchers, scientists, and practitioners in the United States and Southern Africa. Additionally, the meeting was to identify strategies and opportunities for advancing the science of drug abuse and other health-related consequences to improve the overall public health in both regions.

The meeting took place over three days, with many of the presentations and development sessions focused on sharing the experiences of collaborative research. Attending participants came from all over the United States and Southern Africa. The meeting sponsors were the U.S. Department of Health and Human Services (DHHS), U.S. Department of State, the Medical Research Council of South Africa (MRC), and the World Health Organization (WHO).

The primary goal of the meeting was to make stronger relationships between researchers, sponsors, and communities in the United States and Southern Africa. The major objectives of the meeting in the field of drug abuse and HIV/AIDS research were the following: enhance collaboration between the United States and Southern African countries; develop research infrastructure in Southern Africa; develop transcultural research "modules"; and build diverse human capacity for conducting research.

The structure of the meeting over the course of three days consisted of five plenary sessions, four concurrent research development sessions, two poster sessions, and one morning for site visits around Cape Town.

PLENARY SESSIONS

The meeting was opened by a video address from Raynard Kington, Deputy Director of the National Institutes of Health (NIH) in the United States, and an overview of the Southern African Initiative presented by Charles Parry of the MRC and Leslie Cooper of NIDA. The plenary sessions, over the course of the meeting, focused on building collaborative research between the United States and Southern Africa.

The opening plenary session was titled, "*Setting a research framework for the Southern African – United States collaboration on drug abuse.*" William Pick, acting president of the MRC, spoke on the MRC's drug abuse and HIV/AIDS initiatives. Maristela Monteiro, team coordinator for substance dependence in the Department of Mental Health and Substance Dependence at the World Health Organization (WHO), discussed the work of WHO in substance abuse. She highlighted the need to address the "10/90 gap" in health research (less than 10% of global health research spending goes to health problems that cause 90% of the global burden of disease). She also discussed the information, epidemiology, prevention, and intervention collaborations in which the WHO participates. Donald Vereen, special assistant to the director, NIDA, spoke on United States drug abuse research priorities. He focused on science based prevention programs, HIV/AIDS, effectiveness research, biological and behavioral research and trials, the economic costs of substance abuse, stigma, drug abuse risk factors, and how research findings get used in practice.

The first plenary panel was titled, "*Strengthening drug abuse research collaboration between the United States and Southern Africa.*" Charles Parry, from the MRC, presented the findings from the Southern African Epidemiology Network on Drug Use (SENDU) project, discussing the epidemiology of drug abuse in Southern African countries. He identified the differences in types of drug use among countries and trends over time. James Anthony, from Johns Hopkins University, spoke about the rubrics and levels of drug abuse research as they may be applied to bi-national and multi-national epidemiological research. He presented the levels of investigation from genes to global regions and the rubrics of epidemiology from quantity to prevention and control. Olive Shisana, from the Human Sciences Research Council (HSRC) in South Africa, presented on substance use and HIV in South Africa from the results of a household survey. With 24.5% of pregnant women in antenatal clinics being HIV positive, she expressed the enormous burden of HIV in South Africa. Gina Brown, from Columbia University, referred to the impact of HIV/AIDS and drug abuse among pregnant women, highlighting successes in decreasing perinatal HIV transmission in the United States.

The final section of the first plenary panel focused on basic and clinical research on drug abuse. Presentations from a number of African and United States researchers addressed the key role that basic science and clinical research has in understanding drug abuse. Stephen Shoptaw, from the University of California, Los Angeles, spoke on the behaviors of drug users. Alexandros Makriyannis, from the University of Connecticut, presented research on pharmaceutical development through understanding the

biochemical effects of drugs of abuse. Perry Renshaw, from Harvard Medical School, discussed the use of brain imaging in better understanding drug abuse, behavior, and addiction. Gad Kilonzo, from the Muhimbili University College of Health Sciences in Tanzania, talked about the range of drug abuse studies in Tanzania. Wendee Wechsberg, from RTI International, discussed a women's HIV prevention project.

The opportunities and challenges of collaborative research between nations were discussed in the second plenary session. Patricia Needle, from NIDA, emphasized that for collaboration to be successful, researchers must find the right partner with whom they are sure they share research goals. Ura Jean Bailey, from Howard University, laid out the core values of collaboration, including: cross cultural sensitivity, continuance, mutual respect, research that is important to the population, participatory decision making, utilizing existing infrastructures, focus on the strengths and weaknesses of populations, using appropriate methodologies for populations, and mutual benefit. Isidore Obot, from the WHO, emphasized the following fundamental principles of collaboration: respect for persons, beneficence, non-maleficence and justice. He discussed the meaning of "informed consent" and the concerns of local and foreign collaborators. Additionally, he Obot addressed the difficulties in collaboration, including differing values between nations and researchers, differing levels of development and financial resources, unequal distribution of benefits, and ethical and cultural issues.

A session titled "*Building partnerships for collaboration between researchers and community-based organizations in the United States and South Africa*" addressed the relationship between researchers and the community in implementing drug abuse programs. Carolyn Tucker, from the University of Florida, presented on engaging community in drug abuse research. She emphasized the important role that community plays in research and intervention programs as well as key considerations for working with community organizers. Joyce Moon Howard, from Columbia University, spoke on the advantages of collaborating with faith-based organizations in drug abuse research. She presented on the projects in which she has worked with church communities, discussing the importance of working as partners with faith-based organizations. Diane Adams, from Georgia Centers for Advanced Telecommunications Technology, addressed issues of health disparities. Virginia Peterson, superintendent-general of the Department of Social Services and Poverty Alleviation, Provincial Government of the Western Cape, spoke on the challenges and rewards of on-the-ground service delivery.

CONCURRENT RESEARCH DEVELOPMENT SESSIONS

Concurrent research development sessions were held at four times during the course of the meeting, with three sessions occurring simultaneously during each time block. Attendees therefore could only attend one of three sessions being held at a given time. The following descriptions of some of the sessions reflect only those that the author was able to attend.

Concurrent research development sessions were a vital part of the meeting, allowing presenters to talk about their successes and obstacles in collaborative research, and stimulating questions and discussions among attendees. A range of projects was presented, showing the diversity of research interest among presenters and participants.

During the session titled, "*Research on health disparities, drug abuse and addiction*," a number of presenters shared their collaborative experiences in drug abuse research. Leslie Cooper provided an overview of the challenges yet strengths of conducting health disparities related research in an international environment. Frank Wong, from Georgetown University, discussed his work with Southeast Asian populations in the United States, drawing correlates to work that may be implemented in Southern Africa. Kathy Sanders-Phillips, from Howard University, discussed neighborhood risk factors in a South African study. Neo Morojele, from the MRC, presented the results of a young adult drug abuse study conducted in Durban, a project that was conducted in collaboration with Judith Brook, from Mount Sinai School of Medicine. David Brook, from Mount Sinai School of Medicine, also spoke on adolescent substance abuse.

The session, "*Opportunities for collaboration for prevention, intervention and behavioral research: drug abuse, addiction and co-morbidity*," featured a number of researchers who discussed the need for collaborative research as well as the obstacles and successes they had achieved in their research experiences. One of the collaborative projects currently being planned by Jessy Dèveux, from Florida International University, collaborating with Ms. Ann Gloria Moleko at the University of Pretoria, was presented. The proposed study will be a culturally sensitive HIV risk reduction intervention for South African youth that is paired with a parent project on adolescent HIV prevention in the United States. Yaw Amoateng, from the HSRC and Dorothy Malaka, from the University of the North, in South Africa, are working with Murelle Harrison, from Southern University, in the United States, and discussed their collaborative research on preventing substance use and HIV/AIDS among rural African Americans and South African youth. They emphasized the many similarities between rural communities in South Africa and the United States and discussed the strengths of collaboration.

Additionally, they presented the barriers they had to overcome when translating the study from the American population to the South African setting. Donald Vereen of NIDA also stressed the need for improved communication between biological and behavioral researchers to address issues of co-morbidity.

A session titled, "*Abuse of alcohol and tobacco: advancing scientific collaborations,*" featured presentations of collaborative research projects between United States and Southern African researchers as well as discussing theory of collaboration. Gary King, from Pennsylvania State University, proposed the study of collaboration as a scientific phenomenon. He described the four dimensions of collaboration as organization, process, results, and reassessment. Aaron Karnell, from the University of Kentucky, presented an evaluation of a HIV and alcohol prevention curriculum in Pietermaritzburg, in South Africa. The intervention is based upon the United States Project Northland alcohol prevention curriculum. Dr. Alan Flisher, from the University of Cape Town, described the research activities of the Adolescent Health Research Institute and a study of risk behavior predictors of high school dropout. Perpetual Chikobru described statistical analysis techniques for a South African-United States collaborative project. Neo Morojele, from the MRC, presented on the relationship between drug use and adolescent sexual behavior. Judith Brook, from Mount Sinai School of Medicine, New York, discussed a study of adolescent predictors of tobacco use. As each study was presented the charge to the audience was to identify and discuss the role of collaboration.

The range of collaborative research projects presented was large, including many presenters during concurrent sessions. The other sessions, which the author was unable to attend, included the following topic areas: "*Opportunities and challenges in research: clinical, treatment, and health services research,*" "*Challenges to conducting research in community settings,*" "*Research collaboration opportunities: the clinical setting and treatment of drug addiction and co-morbidity,*" "*Opportunities for early intervention, treatment, and prevention of drug abuse in the criminal justice system,*" and "*Research on vulnerable populations at risk for drug abuse and HIV: adolescents, street children, sex workers, AIDS orphans, miners, and migrants.*"

Some of the development sessions facilitated the forging of new collaborative relationships and allowed new researchers to meet with those who are more experienced. Sessions included those on background issues in drug abuse research, grant development, and tips for new researchers. Some of the topics addressed included suggestions for doing presentations, funding opportunities, writing scientific abstracts, and using web information

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resources. Some of the sessions allowed the breakdown of attendees into smaller groups for discussion of individual programs and research needs. Participants received feedback and recommendations from more experienced researchers.

POSTER SESSIONS

Those attendees presenting posters during the meeting received travel awards from NIDA. Presenters represented many regions of South Africa and a number of other African countries. Countries represented by poster presenters included Kenya, Malawi, Republique Democratique du Congo, South Africa, Swaziland, and Zambia. Some of the topics addressed included the following: HIV stigma, tobacco use, accessibility of drug treatment centers, adolescent risk behaviors, drug use and sexual risk behaviors, and student drug use.

SITE VISITS

The third day of the meeting began with half-day site visits in Cape Town and surrounding areas. One group visited a prison, seeing the challenges of drug abuse in a correctional system. Another visited Sizakuyenza, an organization involving the homeless population and working for community development. Some attendees visited a University, and a few groups traveled to community based drug treatment programs, some serving adults and others adolescents. The site visits allowed attendees to see drug abuse research and treatment programs as they are actually implemented in South African communities.

CONCLUSION

Much valuable information was shared over the course of this meeting on collaboration in the field of drug abuse research. The greatest lessons for attendees came from the experiences shared by researchers who are currently working in collaborative relationships. Those attendees looking to find international partners for research studies and interventions learned the key elements to a successful collaborative relationship as well as some of the obstacles that must be anticipated when working with researchers and populations in other countries. A great emphasis was placed on how research can be used to improve public health. Strategies include building research to

practice at the onset of a project and the role of the community as a research partner.

Junior researchers attending the conference were able to learn from the experiences of presenting researchers in a number of sessions. Development sessions addressed important skills such as grant writing, making successful presentations, and writing scientific abstracts. Networking opportunities connected more experienced researchers with those just starting in the field.

Additionally, much important information was learned by all attendees regarding the extent and types of drug abuse in Southern African countries, the nature of the interaction between the issues of HIV/AIDS and drug abuse, and the science and biology of drug use and addiction.

A few elements could be improved for future meetings. First, more time could have been used for networking and informal conversations between researchers, given the goal of building new collaborative relationships during the course of the meeting. Second, junior researchers expressed the concern that they did not have sufficient representation among the session presenters, wanting to have an opportunity to improve and demonstrate their skills in presenting research. Third, the meeting could have improved accessibility by being open to the public, reducing costs of attendance, increasing the number of travel awards, seeking out researchers in more rural settings, and attracting more Southern African students. These concerns should be taken into consideration in the planning of the next meeting on collaboration.

With the concept that this was a "working meeting," the products of the sessions and discussions are expected to continue development. Many researchers found new collaborators with whom they will build new transnational research projects, and those researchers who are currently working in collaborative relationships were able to discuss their successes and obstacles with others facing similar challenges. The dialogue and relationships formed during this three-day meeting will continue through the communication and cooperative projects that are sure to blossom. Hopefully, we will see another collaborative meeting in the near future, allowing us to present and discuss the work of both new and continued relationships as they have resulted from this meeting.

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VALENCIA DECLARATION

MEETING DECLARATION

**DECLARATION OF THE WHO TECHNICAL
CONSULTATION ON THE
MARKETING AND PROMOTION OF ALCOHOL TO
YOUNG PEOPLE**

Valencia, Spain, 7-9 May 2002

A WHO technical meeting on the marketing and promotion of alcohol to young people, hosted by the Valencian Community (Spain) on May 7-9, 2002, brought together 50 people from 22 countries with technical expertise in marketing, public health and community, national and international level responses.

Participants reviewed examples of alcohol marketing to young people, presented by young people and other delegates from Asia, Africa, Europe and the Americas. The examples demonstrated that young people across the globe live in environments characterized by aggressive and ubiquitous efforts encouraging them to initiate drinking and to drink heavily.

The majority of these examples, as well as the majority of expenditures on marketing in this era, augments the substantial and influential presence of alcohol marketing in the traditional media outlets of television, radio, print and outdoor. The examples attest to the rising importance of musical, sports and cultural sponsorships, internet-based promotions and web-sites, product placements, new product development, on-premise and special event promotions, and other efforts to make alcoholic beverages a normal and integral part of young people's lives and cultures. The use of a complete marketing mix of products, pricing, easy availability and promotion requires a comprehensive public health response that addresses all of these marketing variables.

Research evidence suggests that young people respond to this marketing on an emotional level, changing their beliefs and expectations about drinking. The marketing clearly influences young people's decision to drink. Exposure to and enjoyment of alcohol advertising predicts heavier and more frequent drinking among young people. The marketing causes young people to over-estimate the prevalence of heavy and frequent drinking among their peers.

VALENCIA DECLARATION

Alcohol marketing presents a one-sided view of alcohol use, masking its contribution to morbidity, mortality and social harm. It affects social norms about drinking throughout society, and contributes to an environment hostile to public health measures and messages.

Current responses are piecemeal and inadequate, and have done little to control the marketing of alcohol products. Evidence suggests that reliance on self-regulation by the alcohol marketers is ineffective. Media literacy, training young people to de-code and resist marketing messages, insufficiently addresses the emotional and non-logical appeal of the marketing. New responses are required. The global nature of the marketing demands an international response, with complementary efforts at local, national and regional levels.

We make the following initial general recommendations: Noting that the alcohol industry has achieved a high level of sophistication in its use of media to attract and encourage young people to drinking,

We recommend that WHO assist countries in raising awareness of these techniques, and developing best practices in media advocacy and counter-advertising programs, and that such practices be undertaken independently of commercial interests, and with participation of and leadership from young people themselves.

Noting that young people should not be exposed to promotional messages about alcohol in any medium and the general failure of industry self-regulation to limit the marketing of alcohol to young people,

We recommend that WHO assist countries in taking all legislative or regulatory steps necessary to ensure that young people are not exposed to promotional messages about alcohol.

Noting the importance of young people's perspectives on this problem, and the creativity and unique knowledge of the situation that they possess,

We recommend that young people play a central role in the work to free their generation from the illusions created by marketing and associated promotions of alcohol.

Noting that the effects of trade agreements, negotiations and disputes are unknown, but are likely to pose threats to the ability of communities to protect the public health through the regulation of the marketing of beverage alcohol,

VALENCIA DECLARATION

and that there is a particular potential threat from the current negotiations on the General Agreement on Trade in Services,

We recommend that WHO formulate a strategy to ensure that current negotiations on the services agreement does not undermine the capacity of communities to set appropriate and public health-oriented alcohol policies.

As a member of the International Society of Addiction Journal Editors (ISAJE), the *African Journal of Drug and Alcohol Studies* subscribes to the Farmington Consensus which is published below.

THE FARMINGTON CONSENSUS

Preamble

The purpose of this statement is to define the basis for shared identity, commitment and purpose among journals publishing in the field of psychoactive substance use and associated problems.

Our aim is to enhance the quality of our endeavours in this multidisciplinary field. We share common concerns and believe that we do well to join together in their solution. To that end we accede to this document as a statement of our consensus and as basis for future collaboration.

1. Commitment to the peer review process

1.1 We are committed to peer review and would expect research reports and scientific reviews to go through this process. As regards to the extent to which other material will be so reviewed, we see that as a matter for editorial discretion, but policies should be declared.

1.2 Referees should be told that their access to the papers on which they have been re-requested to comment is in strict confidence. Confidentiality should not be broken by pre-publication statements on the content of the submission. Manuscripts sent to reviewers should be returned to the editor or destroyed.

1.3 Referees should be asked to declare to the editor if they have a conflict of interest in relation to the material which they are invited to review, and if in doubt they should consult the editor. We define 'conflict of interest' as a situation in which professional, personal or financial considerations could be seen by a fair-minded person as potentially in conflict with independence of judgement. Conflict of interest is not in itself wrongdoing.

1.4 We are committed to enhancing the quality and efficacy of the peer review system that our journals operate. To that end we will, within our own journals,

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audit the quality of peer review on a continuous basis and where possible provide training to enhance the quality of peer review.

2. Expectations of authors

We put the following expectations to authors:

2.1 *Authorship*: All listed authors on a paper should have been personally and substantially involved in the work leading to the paper.

2.2 *Avoidance of double publication*: Authors are expected to ensure that no significant part of the submitted material has been published previously and that it is not concurrently being considered by another journal. An exception to this general position may be made when previous publication has been limited to another language, to local publication in report form, or to publication of a conference abstract. In all such instances, authors should consult the editor. Authors are asked to provide the editor at the time of submission with copies of published or submitted reports that are related to that submission. Editors are encouraged to develop their own policies regarding the implications of electronic publishing.

2.3 *Sources of funding for the submitted paper must be declared and will be published.*

2.4 *Conflicts of interest experienced by authors*: Authors should declare to the editor if their relationship with any type of funding source might be fairly construed as exposing them to potential conflict of interest.

2.5 *Protection of human and animal rights*: Where applicable authors should give an assurance that ethical safeguards have been met.

2.6 *Technical preparation of papers*: Instructions for authors will be published on the technical preparation of papers with the form of these guidelines at the discretion of individual journals.

3. Formal response to breach of expectations by an author

Working in collaboration with our authors, we have a responsibility to support the expectations of good scientific publishing practice. To that end each

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journal will have defined policies for response to attempted or actual instances of duplicate publication, plagiarism or scientific fraud.

4. Maintaining editorial independence

4.1 We are committed to independence in the editorial process. To the extent that the owner or another body may influence the editorial process, this should be declared, and in that case sources of support from the alcohol, tobacco, pharmaceutical or other relevant interests should be published in the journal.

4.2 We will publish declarations on sources of support received by a journal, and will maintain openness in regard to connections which a journal or its editorial staff may have established which could reasonably be construed as conflict of interest.

4.3 *Funding for journal supplements* : When we publish journal supplements, an indication will be given of sources of support for their production.

4.4 *Refereeing journal supplements* : An editorial note will be published to indicate whether they have been peer reviewed.

4.5 *Advertising*: Acceptance of advertising will be determined by, or in consultation with, the editor of each journal.

15th July 1997, Farmington, CT, USA

Reprinted from *Addiction* (1997) 92(12), 1617-1618.

AFRICAN JOURNAL OF DRUG & ALCOHOL STUDIES

Instructions to Contributors

Content. The African Journal of Drug & Alcohol Studies is a publication of CRISA: The Centre for Research and Information on Substance Abuse. 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 substance abuse in Africa, e.g., epidemiology, prevention, treatment, psychopharmacology, health and socio-economic issues, drug trafficking, and drug law and policy. The term 'substance' is used here to cover all psychotropic and addictive drugs, for example, alcohol, tobacco, cannabis, inhalants, cocaine and heroin, etc., and traditional substances used in different parts of Africa (e.g. kola nuts and khat). The Journal is particularly interested in manuscripts that report an association between substance use and other social and health-related problems, e.g., HIV/AIDS, crime and violence, injury, accidents, physical and mental health problems.

Manuscript. Authors are required to prepare manuscripts in accordance with the *Publicational Manual* (4th edition) of the American Psychological Association (APA). All components of the manuscript should be double-spaced, including the title page, abstract, references, author's note, acknowledgement, and appendixes. Authors are encouraged to keep manuscripts as concise as possible, with a length of 15 pages or less, including tables, figures, and references. Unless absolutely necessary, there should not be more than 3 tables and figures. Every manuscript must include an abstract containing a maximum of 120 words, typed on a separate page. All manuscripts should include the following footnote, typed on a separate page on APA format:

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Covering letter. Every manuscript must be accompanied by a covering letter stating unequivocally that the manuscript or data have not been published previously or concurrently submitted elsewhere for publication. In addition, authors must state that the participants in their study have been treated in accordance with the ethical guidelines as outlined by the American Psychological Association.

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