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PURPOSE AND SCOPE

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

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

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**KHAT (*CATHA EDULIS*): ACADEMIC, HEALTH AND PSYCHOSOCIAL
EFFECTS ON “MATURE” STUDENTS**

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ABSTRACT

The leaves of the plant khat (*Catha edulis*) are commonly chewed in certain countries of East Africa and the Arabian Peninsula. Chewing of khat leaves has a deep-rooted religious and socio-cultural tradition and has a peculiarity of certain influences on the physical, physiological and psychosocial well-being of those involved in the habit of chewing the leaves. The objective of this study was to investigate psychosocial, academic and health implications and reasons for students' involvement in khat chewing habit. A cross-sectional survey of students aged 22 years and above was studied; Five hundred and twenty eight subjects participated. They were summer school students of Jimma University, Ethiopia. A self structured questionnaire was used in data collection on the socio-demographic, academic, economic and health effects of khat. Results clearly indicated that males dominated in chewing khat (63.52%); 54.9% of khat chewers were Muslims; 46.3% of the students reported focus and concentration on their studies as the reason for chewing khat. Insomnia was the major health problem indicated by 50% of the students; while 71% of the study participants reported being more sociable following khat chewing. Self acclaimed positive academic achievements were reported by 89% of the participants but there were no reported significant effects on objective academic results. It was concluded that to gain concentration and focus was the main reason for students' khat chewing habit. However, there was no evidence of subjective academic achievement.

KEY WORDS: Khat; *Catha edulis*; academic achievement; health effects; mature students; socioeconomic factors; religion.

INTRODUCTION

Khat (*Catha edulis* Forsk) belongs to the family of plants Celastraceae (moonseed). It is an evergreen tree (Figure 1) which grows at high altitudes extending from East to South-

ern Africa as well as Afghanistan, Yemen and Madagascar (Krinikorian, 1984; Kennedy, 1987). The earliest scientific report concerning khat was in the eighteenth century by the botanist Peter Forskal (Baasher, 1980; Al-Hebshi & Skaug, 2005). The chewing of khat leaves



Figure 1. Young *khat* shrub

is common in certain countries of East Africa and the Arabian Peninsula. The khat plant is known by a variety of names, such as *qat* in Yemen, *chat* in Ethiopia, *jaad* in Somalia and *miraa* in Kenya and Tanzania. Other names are marungi, catha, cat, gaad, African salad, tohai, bushman's tea, and flower of paradise; in most western literature it is referred to as khat (Baasher, 1980; Al-Hebshi & Skaug, 2005; Elmi, 1983; National Drug Intelligence Center, 2007).

Historically, khat has been used for medical purposes (Kennedy, Teasue, Rokaw & Cooney, 1983) as well as an aphrodisiac (Krinikorian, 1984; Margetts, 1967), though it was also used for recreational purposes (Kennedy, 1987). It is most used for its stimulant effects (Baasher, 1980). The chewing of khat leaves has a deep rooted socio-cultural tradition (Kalix & Braenden, 1985). It is usually chewed in company (Kennedy, 1987; Elmi, 1983), but may be used by individual to enhance their working capacity (Kennedy, 1987; Elmi, 1983; Kennedy, et al, 1983). The principal features of the "khat experience" are described as increased

level of alertness, ability to concentrate, confidence, friendliness, contentment and flow of ideas (Kennedy, 1987). Khat contains the alkaloids norephedrin, cathine and cathinone. Norephedrin and cathine do not contribute significantly to the psycho-stimulant action; however, they probably are of importance for the sympathomimetic effects on the autonomic nervous system. The constituent that is mainly responsible for the stimulant qualities and the dependence producing effects of khat is cathinone. Cathinone has a similar mechanism of action as amphetamine therefore it is considered as a natural amphetamine (Brenneisen, Fisch, Koelbing, Geissshusler & Kalix, 1990; Geissshusler & Brenneisen, 1987; Kalix, 1996).

Khat is usually chewed at special social gatherings, but is also used frequently during work by labourers, craftsmen, farmers and students to get mental alertness, to be less sleepy and reduce physical fatigue (WHO Advisory Group, 1980; Peters, 1983). Interestingly, studies have also reported a strong association between khat chewing habit and high educa-

tional level (Alem, Kebede & Kullgren, 2007; Al-Hebshi, & Skaug, 2005). Many studies (Ihunwo, Kayanja & Amadi-Ihunwo, 2004; Ayana, Sherief & Tekli, 2002; Zein, 1983) have reported the use of khat by college and university students and proposed that the reasons for chewing by students are to get mental alertness, to work hard in their academic endeavors and to get good grades, though not all studies agree with these reasons (Mekonnen, Makonnen & Gebre-Tsadik, 1998).

Many studies have reported increased prevalence of khat chewing in various communities (Ayana, Sherief & Tekli, 2002; Ataly, Kebede & Kullgren, 1999), occupations (Ihunwo, Kayanja & Amadi-Ihunwo, 2004; Kebede, 2002; Peters, 1983) and among students (Ihunwo et al, 2004; Adugna, Jira & Molla 1994; Cox & Rampes, 2003). Also, various controversial reports have been made on khat concerning health (Ihunwo et al, 2004; Toennes, Harder, Schramm Niess & kauert, 2003; Murugan, Burkhill, Williams, Padley & Murray-Lyon, 2003; Nencini & Ahmed, 1989); psychosocial implications (Hassan, Gunaid, El Khally & Murray-Lyon, 2002; Alem & Shibre, 1997; Stefan & Mathew, 2005); economic effects (Advisory Council on the Misuse of Drugs, 2005; Feyisa & Aune, 2003; Balint & Balint, 1994; Kalix, 1994), academic achievement (Ihunwo et al, 2004; Widler, Mathys, Brenneisen, Kalix & Fisch, 1994), moral implications and the legality of khat (Elmi, 1983; Goudie, 1987). More so, there have been many controversial statements concerning the use of this substance (Abbink, 1992; Weir, 1985; Varisco, 1986; Ministry of Information and National Guidance, 1983; Cassanelli, 1986; Abbink, 1992; National Drug Intelligence Center, 2007; Kalix, Geissshuster & Brenneisen, 1987; Smith, 1994; Beekhuis, 1996; Nencini, Ahmed & Aminconi, 1984). However, few studies have systematically investigated the reasons for khat use, including psychosocial and economic, and the health implications on students who are socially and economically independent. Therefore, the purpose of this study was to determine the reasons and implications of khat chewing by "mature" students.

Mature students are defined as summer school students, aged 21 or over at the start of their course. For the purpose of this study, only students aged 22 years and above (from second year) were included.

METHOD

Study design and sampling: A cross-sectional survey using convenient sampling was conducted during the summer school of Jimma University, Jimma, Ethiopia, between August and September 2008. Summer students (second year and above) served as participants in the study.

Instrument: The instrument for data collection was a self-structured questionnaire developed by the investigators. The questionnaire sought information on, demographic characteristics, chewing and non-chewing habit, academic reasons for khat chewing, self reported cumulative grade point aggregate (CGPA), health, economic and psycho-social implications of khat chewing. Prior to the actual test, a pilot survey was conducted. The essence of the pilot test was to refine the technical and administrative procedures of the test. The pilot study involved 50 students (30 users and 20 non users of khat) with age range between 22 and 45 years (mean and SD of 32.23 and 7.52 years). The questionnaire was administered at an interval of one week using test-retest correlation (Spearman rank order) coefficient method. A reliability coefficient of 0.898 was obtained for the whole instrument in the pilot study.

Ethical consideration: Consent was obtained after having explained the purpose of the study and having reassured them that the collected information will remain confidential.

Administration of the Instrument: The investigators administered the questionnaires 610 volunteer students (400 chewers and 210 non chewers). All the 'Shai bet' (local cafés) around Jimma University were visited and the questionnaires were distributed to participants on sight. Students, particularly summer students, are fond of these cafés, where they read, discuss, chew khat, smoke cigarette and

take coffee or tea. The questionnaires were retrieved as soon as they were fully responded to. This made it possible to collect data from 328 (82%) chewers and 200 (95%) non chewers.

Data Analysis: The coded responses on the questionnaire were then entered on the computer general purpose coding forms. They were analyzed using Statistical Package for the Social Sciences (SPSS) (Windows Version 15.0 Chicago IL, USA). The results were presented with the use of mean, standard deviation (SD) and simple percentages (%). Student's t test and Chi square (X^2) test were used to determine the association between variables of interest. A probability level of 0.05 or less was used to indicate statistical significance.

RESULTS

A total of 528 subjects participated in the study (with age range of 22-50 years; mean \pm SD of 26.93 \pm 5.98 years), out of which 296 were male chewers (mean age \pm SD: 27.97 \pm 6.81 years) and 32 were female chewers (mean age \pm SD; 27.75 \pm 6.94 years). There were one hundred and seventy male (mean age \pm SD: 24.80 \pm 2.46 years) and 30 female (mean age \pm SD: 27.80 \pm 7.17 years) non-chewers.

The proportions of male and female chewers were 63.52% and 51.61%, respectively, showing that males were more likely to be chewers than females. All participants (100%) who chewed khat were chronic chewers (> 2 years). The majority (171 or 52%) of the participants were single, 145 (44%) married, and 12 (4%) divorced. The age groups of the subjects were 22-30 years (78%); 31-40 years (12%); 41-50 years (10%). The majority were Muslims (54.9%), followed by Christians (39%) and no religion (6.1%).

Table 1. Reasons for khat chewing habit (N=328)

Reasons for khat chewing	n (%)
Longer reading/delay fatigue	84 (25.6)
Assimilation	8 (2.4)
Concentration and focus	152 (46.3)
Flow of ideas	44 (13.4)
Memory	24 (7.3)
No reason (for fun of it)	16 (4.9)

The majority of the students (46.3%) reported that the reason for chewing khat was to have focus and to have concentration in their studies. Detailed reasons for chewing khat are depicted in Table 1. Table 2 shows that about 89% reported that khat has helped them to achieve their academic aims so far. However, results showed no significant difference ($t=.063$, $p=.802$) in CGPA between chewers (mean \pm SD=2.67 \pm 0.48) and non chewers (mean \pm SD=2.65 \pm 0.48) at $p < 0.05$.

The majority of the subjects (52%) reported that khat chewing does not adversely affect their health, while about 48% complained that it does affect their health. Lack of sleep (insomnia) when needed was the major health problem reported by 50% of the khat chewers. The majority (71%) of the participants reported being more sociable following khat chewing and about 40% were socially indifferent after chewing khat. Most (84.1%) of the participants took coffee in addition to khat chewing, followed by alcohol (79.3%), while smoking (30.5%) was least combined with khat chewing. Khat chewing was significantly associated with other habits such as smoking and alcohol use ($X^2= 454.228$, $p = 0.0001$).

Generally, the majority (87.8%) of the students considered khat chewing to be ethically

Table 2. Khat chewing, academic, health and psychosocial implications (N=328)

Variables	Yes n (%)	No n (%)	Indifferent n (%)	Total N (%)
Academic achievement with khat chewing	292 (89.9)	32 (9.8)	4 (1.2)	328 (100)
Khat chewing ethically moral?	288 (87.8)	36 (11)	4 (1.2)	328 (100)
Health unpleasant symptoms	171 (47.9)	171 (52.1)	-	328 (100)

moral, 11% considered it as unethical, while 1.2% remained indifferent. In the oldest age group (41-50), 87.5% and about 79.7% of the youngest age group (22-30) reported khat chewing to be ethically moral. About 50% of the middle age group (31-40) considered khat chewing as ethically moral. In terms of gender differences, 75% of the female student participants considered khat chewing to be immoral and unethical. There was a significant association between age group and reasons ($X^2 = 333.582, p = 0.0001$); age group and ethical-moral ($X^2 = 21.822, p = 0.0001$) for chewing khat, and also, between gender and moral-ethical ($X^2 = 98.647, p = 0.0001$).

DISCUSSION

Many studies have reported increased prevalence of khat chewing in various communities, occupations and among students. Also, various controversial reports have been made on khat concerning health, psychosocial implications, economic effects, academic and moral implications, and the legality of khat. More so, there have been many controversial statements for banning, unbanning, recognition and castigation of the use of khat. However, few studies have actually sought the personal opinions of mature students who are socially and economically independent.

This study found that more male participants (63.52%) reported using khat than female participants (51.61%), which is in agreement with several other reports (Cassanelli & Numan, 2006; Alem, Kebede & Kullgren, 1997; Cassanelli, 1986). A study conducted by Eshetu and Gedif (2006), reported an increased frequency of chewing khat among male university students. Alem and Shibre (1997) has reported a relationship between khat chewing with economic frustration and boredom. That report is in agreement with result of the present study in which about 90% of chewers reported that khat was adversely affecting their economic status.

In the present study, the majority (46%) of the student reported chewing khat was to gain

concentration and focus followed by 25.6% for longer reading ability and to delay fatigue and tiredness. Other studies (Peters, 1983; Ayana et al, 2002) have reported that students chew khat to get less sleepy and get mental alertness, especially during examinations. Khat chewing for concentration and focus by students as reported by this study might be due to the feeling of hope, optimism and success which motivate the students to concentrate and focus, leaving behind any boredom or frustration whatsoever. According to Cox and Rampes (2003) khat chewing gives an atmosphere of concentration, cheerfulness, optimism and a general sense of well-being, though these feelings may disappear after chewing ceases.

In this study, a majority of the participants reported that khat has helped them so far to achieve their academic aims. However, there was no significant effect of khat on CGPA of chewers as compared to non-chewers. This report by chewers is not surprising; increased concentration, focus and reading periods as reported in this study could result in euphoria and a sense of better performance. It has been reported that khat through one of its major chemical contents, cathinone, has direct stimulatory effects on the brain (particularly, the cerebral cortex) and spinal cord (Widler et al, 1994). However, the result of the present study did not show any significant association between khat chewing and academic performance. This disparity in findings might be due to the effect of different dosages and frequency of khat usage.

The results of this study also indicate that the majority (87.8%) of the students accepted khat chewing as ethically moral. This finding might not be unconnected to family, religion, socio-cultural tradition and upbringing of the students. Khat is widely grown and used in Ethiopia; its chewing is a social and a culture-based activity. It is said to enhance social interaction, playing a role in ceremonies such as weddings. In fact to some Muslims, khat is known as "the flower of paradise", it is also called the 'leaf of Allah' (Carmichael, 2000; Carmichael & Gebissa, 2004). Some religious leaders are also involved in the habit

of khat chewing, and high incidence of khat chewing has been reported among University teachers, including parents and other highly placed people in the society (Alem & Shibre, 1997; Awas, Kebede & Alem, 1999) who are role models to these students from childhood. A study conducted by Adugna, Jira and Molla (1994) reported the incidence of khat chewing amongst learners in secondary school, and the most frequent users were also in the age group of 15 to 22 years. It is expected that students who grew up with khat from birth and/or started using khat at an early age, coupled with the social and academic benefit they derived from khat will likely concur with the morality of khat chewing.

However, there was a significant association ($p < 0.05$) between gender and reported morality of khat chewing; most of the female chewers (75%) considered khat chewing morally unethical. Cox and Rampes (2003) reported that khat generally seems less appealing to women. According to Barnes (2008), Many Somali women living in the UK apparently support the ban, which they hope will stop their men and male children from being idle and jobless.

The majority (71%) of the participants were government employed; also, about 90% reported that khat chewing was adversely affecting their economic situations. This finding concurs with several other reports (Cox & Rampes, 2003; Adugna et al. 1994; Dhaifalah, 2004) that regular khat use has negative economic impact on the chewers. Fekade, Challi and Tadess (1994) and Kalix and Khan (1984) estimated that about one-third of all wages were spent on khat. Many men secure their daily portion of khat at the expense of vital needs, indicating dependence.

Khat usage was significantly associated ($p < 0.05$) with religion; the majority of users in this study (55%) were Muslims and about 39% were Christians. This finding supports the reports of many previous studies (Alem, Kebede & Kullgren, 1997; Eshetu & Gedif, 2006; Awas, Kebede & Alem, 1999; Adugna, Jira & Molla 1994) that khat chewing is associated with Islam. Previously, khat chewing

was limited to the low land areas of Ethiopia, where the Muslim population predominates. Muslims chew khat to obtain maximum concentration levels during prayer, to keep awake during nightlong prayer and for socialization purposes (Griffiths, 1998; Kalix, 1990; Ayana et al, 2002). However, due to its psychostimulation and other perceived beneficial effects (particularly on academic activities), it is widely taken by a large segment of students and the society at large. A majority of the students reported that socialization (71%) was the main extra-academic reason for chewing khat, while about 11% reported being calm during and following khat sessions and 11% remained indifferent. About 40% reported being indifferent if they did not chew khat, while about 27% were depressed and about 25% reported being aggressive if not able to chew.

In this study, khat chewing was significantly and positively associated with coffee and alcohol use and negatively associated with smoking. About 84% took coffee with chewing; 79% drank alcohol after khat chewing. Concerning tobacco, about 30% smoked while chewing or after chewing. This finding is in agreement with several previous studies on coffee (Zein, 1983); alcohol (Zein, 1983 Eshetu & Gedif, 2006); and contradict studies on smoking (Zein, 1983 Eshetu & Gedif, 2006; Gunaid, El Khally, Hassan & Murray-Lyon, 1999) with khat chewing.

Following khat chewing, the majority (52%) of the subjects reported no health symptom, while about 48% reported various health symptoms. Among the symptoms, insomnia (50%) was the major associated health problem, followed by indigestion and constipation (27%), depression (16%), reduced sexual urge and difficulties maintaining erection (6%). This finding on health symptoms correlated well with several other reports on insomnia (Ihunwo, Kayanja & Amadi-Ihunwo, 2004; Hassan, Gunaid, El Khally & Murray-Lyon, 2003; Alem & Shibre, 1997); constipation (Hassan, et al., 2003; Mwenda, Arimi, Kyama & Langat, 2003); depression (Halbach, 1972; Hassan et al., 2003) and reduced urge and erection (Al-Motarreb, Baker & Broadley,

2002; WHO, 2006). Ihunwo et al, (2004) and Al-Motarreb et al. (2005) reported a contrary finding that increased sexual desire was the most predominant effect experienced by khat chewers. However, there was a significant association ($p < 0.05$) between the frequency of khat chewing and health problems. Various studies (WHO, 2006; Al-Motarreb et al., 2005) have reported similar dose response effect of khat on health.

Based on the findings of the present study, the followings are hereby recommended: (1) Khat chewing habit seems not to constitute any academic benefit. However, there is a need for further qualitative and quantitative experimental studies to further investigate the effect of khat chewing on academic achievement and health, particularly among students before a conclusive statement could be made on khat chewing; (2) the need clearly exists for studies investigating the effect of varied doses and long term effects of khat chewing on humans.

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**PENTAZOCINE ABUSE IN SICKLE CELL ANAEMIA PATIENTS:
A REPORT OF TWO CASE VIGNETTES**

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ABSTRACT

The article aims to draw attention of clinicians to the addictive potentials of Pentazocine use in sickle cell anaemia patients and to highlight some of the associated problems of pentazocine abuse. It also hopes to stimulate the need to review guidelines for the use of analgesics in the management of bone pain crisis or other chronic pains. Two case reports of pentazocine abuse seen in a psychiatry clinic at the University of Ilorin Teaching Hospital (UIITH) Ilorin, Nigeria were made. It was found that both patients who were sickle cell anaemia (HbS) patients were first given intramuscular pentazocine in private hospitals during an episode of bone pain crises. They claimed that though the bone pain crises subsided after a few days on admission, they continued to feign pains in order to be given pentazocine because they enjoyed its dysphoric effect. There were features of pentazocine dependence as shown by intense craving for the drug, excessive sweating, body (not bone) pains, signs of needle pricks on the body, sudden extravagance, begging for money, stealing and poor academic performance among other things. There was no clinical evidence of bone crisis or complications of sickle cell anaemia. It was concluded that more than before, clinicians should be cautious in the use of analgesics which has potential for addiction in sickle cell anaemia and chronic pain patients.

KEY WORDS: Pentazocine abuse; Sickle cell anaemia, Nigeria

INTRODUCTION

In Nigeria, Pentazocine is commonly used in the management of surgical and chronic pains. It is especially used in the management of bone pain crisis of sickle cell anaemia. Pentazocine is a narcotic agonist/antagonist analgesic derived from benzmorphinan.

It is an opioid drug developed in 1967 as a result of efforts to find an effective but less dependence-producing analgesic when compared with morphine. It produces little or no euphoria but has some dysphoric effect in a few individuals (Lang & Pilon,). It was initially thought to be non-addictive, but its potential for abuse was soon realized (Weber &

Fromme, 1970; Huskisson, 1974). Since then, various efforts have been made to reduce its abuse including the production of a brand that contains enough antagonist (naloxone) to counteract its effect, if the tablet is dissolved and injected. An example of this brand is *Talwin Nx*. Other efforts include the classification of Pentazocine as a controlled drug in some countries such as United States of America where it is classified under Schedule IV in the Controlled Substances Act.

The earliest data on substance use and abuse in Nigeria emanated in the 1960s, and were hospital based (Asuni, 1964; Lambo, 1965). Thus, Lambo in 1965 reported 18 cases of cannabis abuse out of 4000 patients seen in Neuropsychiatric Hospital, Abeokuta, Nigeria. Also, Asuni in 1964 reported cannabis abuse in 13 out of 380 patients discharged from Neuropsychiatric Hospital, Yaba, Lagos, Nigeria. Since then, there had been reports on substance use and abuse in Nigeria. While some were hospital based (Adelekan & Adeniran, 1988; Ohaeri & Odejide, 1991), others were community based (Anumonye, 1980; Onibokun et al, 1999). Some studies have focused on at-risk groups such as secondary school students (Adelekan, 1989; Adelekan et al, 2001), undergraduates (Frank & Edward, 1999; Adelekan et al, 2000) health workers (McAuliffe & Rohman, 1986). As a result of these studies, various drugs of abuse such as alcohol, tobacco, cannabis, stimulants, cocaine, heroin, hallucinogens e.t.c. have been documented. The frequency of use of some of these drugs tends to vary depending on, among other factors, their availability, accessibility and effectiveness of legislation against them. However, in Nigeria and most especially in the area of study, no documented report exists on the abuse of Pentazocine especially among sickle cell anaemia patients. This report therefore is aimed at highlighting the addictive potential (and its associated problems) of Pentazocine use as an analgesic in patients with sickle cell anaemia and secondly to stimulate the need for review of guidelines for the use of analgesics in the management of bone pain crisis or other chronic pains.

METHOD

A report of two cases of pentazocine abuse seen in a psychiatry outpatient clinic in the University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Case Reports

Case one: Miss X is a 23-year-old Nigerian undergraduate with sickle cell anaemia whose electrophoretic pattern was HbS. She presented on the 8th of June 2004 with one-year history of self-injection with Pentazocine. This started following her previous admission into a private hospital in Lagos on account of bone pain crisis. She claimed the pains was localized mainly in the chest, hands and thighs. While on admission, she was treated with DF 118, one tablet thrice daily, tramadol, one tablet when necessary and intramuscular pentazocine 30mg once daily. Patient claimed though she was on pentazocine for about 45 days, she actually had bone pains only in the first one week of admission. She thereafter started feigning pain in order to be given pentazocine as she enjoyed its euphoric effect. After discharge, she started self-administering pentazocine. The most preferred site of self-injection was her thighs so that it could be hidden from her siblings and colleagues. While in school, she often sneaked into the emergency room of a nearby Teaching Hospital, picked up some prescription sheets (without permission), prescribed Pentazocine using forged signatures and procured it from different pharmaceutical shops. Sometimes she bought Pentazocine without prescription, as the pharmacy attendants had known her over time. She spent about six hundred Naira (about \$4.00) per day on Pentazocine alone. She sourced money by taking loans from friends, exploiting her mother, and from strangers. Though she claimed she does not prostitute to get money for drugs, her younger sister claimed, on many occasions she had left the campus on trips with men. In the past eight months, patient claimed she was using Pentazocine on daily basis. Delay in procuring it causes running nose, severe

body pains, restlessness, insomnia and intense craving for the drug. Each injected intramuscular dose of 30mg lasts for about five hours. She claimed that the need for the drug has taken a primacy effect over other activities. Usually, her first dose for the day would be taken first thing in the morning while the second dose would be taken just before bedtime. In spite of her awareness that she was already dependent, she could not voluntarily stop. The patient's inability to voluntarily stop the drug and her inability to keep up with the cost of the needed doses per day prompted her to intimate a friend of her problems. She was taken to a medical Consultant/Clergyman who then referred her to a Consultant Haematologist (P.O). The Haematologist assessed her and referred to a Psychiatrist (A.B). The two Units thereafter, co-managed the patient.

On mental state examination, patient was well kempt, co-operative and appeared well motivated. She had rhinorrhea and was a bit restless. She claimed she was feeling cold and feverish in spite of the hot weather. She had no hallucinatory experiences or behaviour suggestive of such. There was no abnormality of stream, form, content and possession of speech. Her cognitive functions were within normal limits. She had a full insight. On physical examination, patient was slightly small for age, mildly icteric and had a slightly protruding abdomen. She had goose pimples and multiple hyperpigmented macules on the anterior aspects of both thighs (from needle pricks).

A diagnosis of Pentazocine dependence was made and patient was admitted on to the medical ward for detoxification as the Teaching Hospital, as at the time of this report, did not have a separate drug ward apart from the psychiatric ward. While on the ward, she was placed on oral Chlorpromazine 100mg b.d and oral Benzhexol 2.5mg b.d. In spite of the vigilance by nurses and relatives, patient on several occasions still self-injected and purchased Pentazocine by sending unsuspecting relations of newly admitted patients to purchase the drug for her. She often lied to them, claiming that she had been given an emergency prescription and her relations had not turned up to buy the

drug for her. In view of these tricks, patient was transferred to the psychiatric ward a week from the date of admission. On the psychiatry ward, she was monitored more closely and a chart detailing her movement at all times was kept. She was not allowed access to writing materials and money. She was discharged after 23 days having satisfied some set goals such as presumed elimination of drug in the system, improved health and physical functioning and, reduction in potential hazard to public health and safety. This was based on patient's response at clinical interview sessions, counseling sessions and report from her confidant and closest relatives around (her younger sister). The Chlorpromazine and Benzhexol tablets were tapered off after two weeks post discharge.

Case Two: Mr Y is a 25-year-old University drop-out with sickle cell anaemia with HbS electrophoretic pattern. He is the last of three children all with sickle cell anaemia. The first is a male and a medical doctor who died about two years ago, while the second is a female who, patient claims, abuses Pentazocine also. Mother is a petty trader while father is a retired middle level civil servant. Patient was first seen on the 10th of February 2005 on account of four-year history of self-injecting with Pentazocine. Though patient had been given Pentazocine on a few occasions while on admission at the University of Ilorin Teaching Hospital, he became addicted to the drug about four years ago when he was admitted at a private hospital in Lagos on account of osteomyelitis of the left mandible. While on admission, he claimed, he was given intramuscular *Fortwin* (Pentazocine) 30mg b.d and parenteral antibiotics for about 3 weeks. Thereafter, patient claimed, he continued to feign pain in the jaw and the thigh so that he could continue to be given Pentazocine as he enjoyed the 'euphoric experience' the drug gave him. After discharge, patient presented at the Accident and Emergency Unit of University of Ilorin Teaching Hospital, Ilorin feigning bone pain crisis. He specifically requested the attending doctor to prescribe intramuscular Pentazocine, folic acid and chloroquine tablets. Patient's access to doctors was facilitated because most of

them knew his late brother as a colleague. This facilitated his chance of being given a prescription without entering it into his case notes. This allowed him to have multiple prescriptions within a short period of time without the doctors' knowledge. At a point, some doctors became suspicious of his incessant complaints and would ask him to present at the sickle cell clinic. Thus, he started stealing prescription sheets and forging prescriptions. Most times, at the pharmacy stores, his prescription sheet will not be requested for or scrutinized as he was well known to the attendants.

Patient claimed he self injects once daily, which translates to about 300 Naira (\$2) per day. He sustains his drug habit through begging, especially from hospital workers and patients' relatives. He also goes to public places with fake prescription sheet to beg for money and sometimes makes up to 200 to 500 Naira daily. He often stole and sold items from the house to make money. His persistent begging for money has made him a common feature on the corridors of the hospital until he was referred to the Psychiatrist for management. Patient expressed a wish to be treated for drug abuse (Pentazocine). He admitted that the drug behaviour had made him an object of ridicule at home and in the community. His academic records had also been negatively affected. He claimed he knew he was being ruined gradually by the drug yet he could not stop. He therefore readily accepted to being managed on the psychiatry ward.

On mental state examination, patient was poorly kept, co-operative and appeared quite motivated. He was apprehensive but not restless. He had no rhinorrhea or feverish feelings. Other aspects of mental state examination were essentially normal. On physical examination, he was markedly small for age and mildly jaundiced. He had multiple hyperpigmented macules (needle prick points) on the anterior and medial aspects of the cubital regions of both upper limbs. A diagnosis of Pentazocine dependence was made and patient was to be co-managed by the Psychiatry and Haematology Units. Since there was no drug ward, patient was detoxified on the psychiatry ward

using oral Chlorpromazine 100m b.d. and oral Benzhexol 2.5mg b.d. Patient was discharged after three weeks having satisfied some set goals such as presumed elimination of drug in the system, improved health, reduction in potential hazard to public health and safety. This was based on patient's responses at clinical interview sessions, counseling sessions and report from relations and ward staff. He was referred to the outpatient clinic for continuation of counseling, rehabilitation and maintenance of drug free behaviour.

DISCUSSION

Report of incidence and features of Pentazocine abuse in our environment has not been given enough priority. Authors in other parts of the world had reported some features of ulcers that could indicate the use of pentazocine (Ghandi et al, 2004; Prasad et al, 2004). Based on the two cases presented, we suggest that, in a sickle cell anaemia patients, the presence of one or a combination of needle prick points, an increase in frequency of report of 'bone pain crisis' (usually a feigned pain) and a sudden non-prudence on financial matters should raise a suspicion of parenteral drug abuse until otherwise proven.

In the above two case vignettes, they were both exposed to the use of Pentazocine, an opioid drug, subsequent to an episode of genuine need for the drug (bone pain crisis in the first case and osteomyelitis in the second case). It is worthy of note that the use of Pentazocine was prolonged (at least three weeks) in both cases. It was also observed that both cases continued to feign pain after genuine pain had subsided in order to continue to self-inject Pentazocine. At this point, it could be said that the patients were becoming addicted and needed the drug not for its pain relieving properties but for its euphoric effect. This will suggest a need for doctors taking care of patients with chronic pains to appreciate the difference between genuine and feigned pain. While this point may seem obvious, there is a need to caution that, to wrongly be on any side could be danger-

ous. To wrongly assume a patient is feigning pain and therefore withhold potent analgesic is unethical and may unduly prolong suffering, whereas to assume the converse could as well predispose the patient into drug addiction. It is therefore pertinent for clinicians to set out formal guidelines or charts for determining when, how and what analgesic to give while attending to different categories of pain disorders. Such protocol/guideline would need to be reviewed until the best of practice is achieved.

The above cases also illustrate the accompanying dangers of drug dependence. On its own, the management of sickle cell anaemia may predispose a family to physical, psychosocial and financial stress. The presence of a co-morbidity of sickle cell anaemia and drug dependence might further affect their clinical and psychological states. The dependent patient continues to inject Pentazocine in order to alleviate or eliminate withdrawal symptoms. To sustain and fund the drug habit, he/she may engage in antisocial behaviours such as stealing, begging, lying, prostitution especially in females, and selling properties at ridiculous prices. These behaviours were exhibited by the two cases cited above and could, if unchecked, further compromise their physical and mental health. There is therefore, a need to ensure careful use of analgesics with addictive potential in these patients in order to minimize societal cost of health.

The patients were to go through two phases of treatment; detoxification and stabilization phase and, the rehabilitation and relapse prevention phase. In the study centre, we could not detoxify patients using dose-tapered opioid agonists such as methadone nor partial antagonist such as buprenorphine or adrenergic agonist such as clonidine and lofedipine. In the alternative, and for calming effect the patients were placed on oral dose of chlorpromazine 100mg twice daily to be adjusted according to clinical response. The Chlorpromazine was tailed off two weeks after discharge.

In spite of the limitations of facilities for substance and drug abuse management in the treatment centre, the authors have within the available resources managed these cases of

Pentazocine abuse by dividing treatment into detoxification/stabilization and rehabilitation/relapse prevention stages. While we could state that the patients had successfully gone through the detoxification/stabilization phase, plasma or urine pentazocine level monitoring would be needed to determine the degree of relapse prevention. Reports have shown that the proportion of patients using opioids (heroin) tend to drop from 17% to 6% after residential rehabilitation programmes (UNODC, 2002). We would have referred the patients to self-help groups but we could not, as such groups do not exist in this environment. However, the patients are still being followed up in the outpatient clinic on a monthly basis for abstinence-oriented counseling. The satisfactory and quick recovery in these patients so far seemed to be a reflection of their high level of motivation, absence of psychiatric symptoms, family support, intensive counseling and a relatively low severity of substance use (UNODC, 2002). These factors have been shown to improve recovery, treatment adherence and attitudinal change.

In conclusion, we suggest that seminars be organized for health workers on the use of pentazocine (and other analgesics) in sickle cell anaemia disease. Patients with chronic pain should also be counselled on the symptoms of dependence on analgesic drugs and to report same to their doctors immediately. Where not in existence, drug units (separate from the general psychiatric ward) should be established in all tertiary hospitals. Finally, legislation against indiscriminate sales of controlled drugs should be enforced.

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**THE IMPACT OF THABA-BOSIU CENTRE ALTERNATIVE
LIVELIHOODS PROGRAMME ON ALCOHOL PROBLEMS:
A CASE STUDY OF HA MOTHAE**

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ABSTRACT

This paper is based on a study that was conducted in March 2009 aimed at assessing the impact of alternative livelihoods programme on the social and economic lives of Ha Mothae residents. A case study approach was used and a purposeful sampling technique was used in selecting respondents, while data were analyzed qualitatively. The findings indicated that the programme has benefited most of the respondents despite the problems they encountered at its implementation stage. Also that it has had relative impact on the social and economic lives of the recipients. Therefore, it is recommended that the programme should be introduced and implemented in other parts of the country to reduce the problem of alcohol dependence, and that it should be government funded.

KEY WORDS: Alcohol dependence, alcohol problems, alternative livelihoods, case study

**INTRODUCTION AND
BACKGROUND**

King Moshoeshe I made the first written law prohibiting the use, importation and introduction of European brandy to Lesotho in 1854 (Molao oa yoala yoa Makhuoa, 8th November, 1854). According to this law, disallowing the importation of the European brandy into Basutoland did not mean that traditional beer was not used because it was used for ceremonial purposes. Among the Basotho, traditional beer has always been used but was basically meant for elders, given to men while making deci-

sions at *khotla* (local court) and used during ceremonies. For King Moshoeshe I, the European brandy seemed to pose a more serious problem for his people than traditional beer. For example, he believed that European liquor created quarrelling and strife and that paved the way to destruction of society.

In 1870, two years after Lesotho was declared a British protectorate, King Moshoeshe I died and his son King Letsie I took over the chieftainship. A few years later, the British administrators, missionaries and some of Basotho raised concern that the habit of drinking took a different direction. According to Mo-

hapeloa (2002:81) this habit took root during and after the Gun War – 1880-1881. He shows that before the war, the government took measures against it but because Basotho had virtually become their own masters, they consumed beer freely and the chiefs who ought to have stopped them set a bad example. One of the reasons is as stated by Sir Lagden (1909:568),

there were no efforts (laws) made to suppress brandy canteens in farms of the Free State, from which the Basotho drew supplies of this vile stuff that maddened them. In this way, King Moshoeshe I law could not simply work.

The alcohol consumption in Lesotho then increased, leading to social problems among the Basotho. The Paris Evangelical Missionary Society (PEMS) priests were also shocked at the rate at which Basotho consumed spirituous liquor. In the words of one PEMS missionary consumption of spirituous liquor was one of the “worst aspects by which European civilization revealed itself to Basotho and abuse of spirituous liquor of European manufacture began to play havoc among them”(Duvoisin, 1967:532). What was interesting was that some of the sons of Moshoeshe I who were chiefs and were supposed to be the custodians of his 1854 Molao oa Yoala yoa Makhua were the ones who were involved in the trafficking of spirituous liquor. Smith says “chiefs who had been content to buy a bottle of smuggled brandy now purchased barrels. Drunkenness was rife”.

In the 1880s when drunkenness was rife among Basotho, the PEMS missionaries did not standby and watch the problem. The first attempt they did was to form an international movement in Lesotho known as Temperance Society, whose sole purpose was to campaign against liquor consumption. Recently, in the 1980s Blue-Cross Lesotho was introduced in Lesotho to deal with alcohol related problems. It is a Christian organisation which is independent of any political tendency or denominational adherence. It was founded in England and was then called HOPE UK. The objectives

of the organisation were: to assist those who are battling with alcohol related problems, using every available modern means; to inform people about the dangers of alcohol and drugs; to encourage prevention amongst young people, by promoting a drug free lifestyle and to support an alcohol policy, promoting health for all.

Thaba-Bosiu Centre (TBC) was founded in 1989 to implement the objectives of Blue-Cross Lesotho in Lesotho. The centre operates through prevention and treatment programmes and its main objective is “to contribute towards a reduction of alcohol and drug related problems in Lesotho for individuals, families and society as a whole”. The treatment programme initiatives include, treating individuals and families with alcohol and drug related problems, irrespective of religious or political affiliation. The approach was intended to pay attention to individual needs through a family and community based need. While, the objective of the prevention programme is to educate the community on alcohol and drug related problems. This entails providing education and information to specified target groups in Lesotho through the use of the media, mediating techniques, seminars, workshops, campaigns and other relevant resources available in the society.

The programme also helps people to devise entrepreneurial schemes to assist them in alleviating the problems that they are experiencing related to making a living and servicing of debts. Therefore, several projects were implemented as alternative livelihoods strategies for people using alcohol and those who brew alcohol for a living. Projects undertaken were, for example, poultry farming, planting and selling of vegetables, and sewing of clothes. They were aimed at reducing the number of people brewing alcohol for commercial purposes.

Workshops and training were held for interested participants in ALPs which aimed at providing them with basic skills in engaging in the alternative livelihoods other than brewing beer. They were also being informed about the social problems associated with abuse of drugs and alcohol.

Research Issues

The study that was undertaken at Ha Mothae from March to April 2009 was intended at assessing the impact of Alternative Livelihoods Programme that was initiated and implemented by Thaba-Bosiu Centre. The issues which the study investigated were;

- The social change in people's livelihoods,
- The economic change in people's livelihoods,
- Sustainability of the Alternative Livelihoods Programme, and
- The level of commitment to the programme by participants.

METHOD

The study was conducted at Ha Mothae village in the district of Maseru. This is where the Alternative Livelihoods Programmes were introduced and adopted by the community.

A case study approach was used in the study. "A case study is an in-depth study of a single organisation, institution, programme, event decision, policy or group which serves as the case being investigated" (Rakotsoane and Rakotsoane, 2006:18). In this study the researchers wanted to investigate the livelihoods of the community members of Ha Mothae after the alternative livelihoods programme was introduced. The study was the intrinsic case study "which is normally conducted for its own sake, in other words, to learn about this case only. There is no expectation that the results will be generalised to explain similar cases" (Sarantakos, 2005:211). According to Yin (2009:18) "A case study is an inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident". Case studies provide descriptive and explanatory information. They also produce first-hand information in that they work in natural settings. Case studies could be qualitative or quantitative depending on whether one uses numbers or not (Rakotsoane and Rakotsoane,

2006:18). The researchers adopted the qualitative case study.

The population of this study consisted of 30 households which were involved in the programme at Ha Mothae. The sample was drawn from those people who were engaged in Alternative Livelihoods Programme. Fifteen households were selected. A non-probability sampling strategy which was purposive sampling was used. This was so because the study targeted those individuals who met the requirements for the purpose of the study by being active in the programme. According to Babbie (2004:183) "sometimes it is appropriate to select a sample on the basis of knowledge of a population, its elements and the purpose of the study".

An interview guide was developed as the data collection instrument which was divided into sections. Under participation questions, the researchers wanted to know how the informants came to be engaged in the programme, whether they volunteered or were forced to participate. With regard to questions under Alternative Livelihoods Programme, the researchers wanted to know whether there has been any economic or social change in the informants' livelihoods and whether they were committed towards the programme. The researchers wanted to find out whether the respondents were willing to continue with the programme and this was highlighted by the questions under the sustainability of the programme. Data was analysed manually by identifying the themes that emerge from findings, the patterns of variations and the relationship among responses.

RESULTS

The study aimed at assessing the impact of the Alternative Livelihoods Programme on people living at Ha Mothae, especially those who brewed beer as their main source of income. This section discusses the findings of the study about people's opinions on the impact of ALP as introduced by Thaba-Bosiu Centre (TBC) at Ha Mothae.

Demographic characteristics of the respondents

Fifteen respondents were interviewed and two were males while the other thirteen were females. Two respondents were single, seven were married and six were widowed. With regard to the educational attainment, the highest level reached was high school. Ten respondents showed to have attained primary level, while four reached secondary and only one respondent made it to high school level. One of the reasons the respondents could not further their studies was that they could not afford further education. Among these respondents, most of them were old, that is, two respondents were in their early seventies, eight were in their late fifties and early sixties, while five were in the age range between twenty-three and forty-five years.

How the respondents knew about the Alternative Livelihood Programme

Nine respondents reported to have been informed by one of TBC representatives, through public gatherings at Ha Mothae in 2004. He was a member of the Prevention Programme at TBC. He informed Ha Mothae villagers about the problems associated with alcohol and drug abuse but specifically he was targeting those who brewed beer for commercial purposes. He made them aware of other means of living other than brewing beer which further accelerated the level of alcoholism in the country. The survival strategies he mentioned included poultry farming, piggery, planting trees, sewing and other agricultural activities.

Informants who were interested in the information disseminated by the Prevention Programme of Thaba-Bosiu Centre during public gatherings reported that they attended a workshop at Lihaseeng for a week. One of the respondents said: "we undertook a said training at Lihaseeng where we were taught about the Alternative Livelihoods Programme".

The other four respondents were informed by other people who had gone for training at Lihaseeng while the remaining two respondents showed that they were encouraged to partici-

pate in the programme by their parents who were brewers of alcohol. As one respondent reported,

"I did not go for training but I was informed by my neighbour who is a participant in the programme and I joined."

The respondents indicated that information about alternative livelihoods, which was different from brewing alcohol, seemed to be very interesting. They added that they were keen to participate, as such, they volunteered and no one forced them to participate in the programme.

Reasons for participation in the programme

There are different reasons why people decided to participate in the programme. The married and widowed respondents showed that they participated in this programme in order to support their families.

"I was not satisfied with the income I used to generate when brewing beer. With the hope that I will get a better income in this programme, I volunteered to support my family."

With regard to the two single respondents, they reported to have taken over the work of their parents and they also participate for acquisition of knowledge, that is, to know how to plant trees and make handicrafts so that they could earn a living. One of them showed that he wanted to bring a helping hand in the family as his mother was struggling to generate enough income to maintain the family. One of them reported:

"I used to be a taxi conductor, but I did not generate enough money to assist my family. I was also an alcoholic and after I received my salary, I would hook up with other colleagues at bars and drink beer. I participated in the programme because I wanted to divert from drinking alcohol."

The other respondent indicated that he was not employed and he participated in order to generate income for the family so that all their needs could be met.

Activities that were implemented in Alternative Livelihoods Programme

There were several activities that people were informed about during their training at Lihaseeng but Ha Mothae villagers chose to engage in poultry farming, sewing and tree planting because they were more affordable than other activities like selling dairy products. This meant that they would have to have livestock which they could not afford (cows, sheep and goats).

Poultry Farming

Some respondents mentioned that they engaged in poultry farming where each participant owned three hens and two cocks. They sold some eggs to generate income. As their capital, the respondents indicated that each member contributed some money to buy those chickens.

However, the respondents reported that their chickens died from sars and they had to resort to other activities to generate some income and they engaged in tree planting.

Sewing

Others used to do patchwork, sewing school uniforms, tracksuits and comforters which they had learned at the workshop. They also contributed some money to buy three sewing machines and to rent a house to work in. They indicated that TBC provided them with two extra sewing machines.

They explained that they encountered some problems in this activity, as said by one of the participants:

“We ran short of materials and could not generate some income, as a result, we resorted to tree planting hoping that we will generate income so that we can buy materials and continue with our work.”

The other problem participants mentioned was lack of money, the respondents indicated that they were unable to pay for the rented house and had to take the machines to individual homes selected by participants. Some did not like this idea and showed that not all of them would access the machines when they wanted to, but, they did not have a choice because they could not afford to pay for the rented house.

Tree Planting

Currently, all the participants showed to have been planting forest trees and selling them. They indicated that they had planted ‘leoka’ which was in high demand by the government (Ministry of Forestry and Land Reclamation) at that time. They reported that they were hoping to generate more income and they showed that the government was the sole buyer of their produce.

Even in this activity, they reported to have encountered some problems as explained by one respondent;

“We run short of suitable soil ‘selokoe’ to plant more trees which we used to find along the dongas, it is not available anymore” (*sic*).

The other problems encountered were that, they did not have dams to draw water so that they could water the plants. The respondents also indicated that they did not have alternative market for the trees except the government so they grew old and some trees died. The respondents mentioned that this was the second year from the first sales, that their trees were not being bought. Among seven thousand trees they had planted, they managed to sell only three thousand trees to the government and they were left with four thousand trees.

The participants indicated that some of the problems arose internally, that is, within a group of participants themselves. They reported that others did not want to clean and take care of the nursery thus conflicts arose and indicated that from the overall participants, eight women quitted.

Other Activities

The two old women aged seventy and seventy-one years respectively, showed that they no longer had strength to engage in activities which required more physical energy, as a result, they engaged in making “*linthoana-nthoana*” (various handicrafts). *Linthoana-nthoana* included using animal horns to make dishes, jewellery and frames. They also indicated that they sew mats, hats and made brooms using grass. They indicated to have learned this art at TBC during their training.

One of the two women mentioned that she was currently selling “*litolobonya*” (the second hand clothes) which she said were donated to them by Mazenod Mission.

Opinions about the programme

There seemed to be a variation in respondents’ opinions with regard to whether they have benefited from the programme or whether there were any effects on their livelihoods since they engaged in the programme.

Participants who benefited from the programme

Generally, the respondents mentioned that they had benefited from the programme. Among the fifteen respondents, twelve of them showed to have benefited from the programme. They indicated that they now have knowledge and skills of generating income other than through brewing beer and spending their time at the bars. They indicated that with the training they had received at Lihaseg, they could make their own nurseries and sell both forest and fruit trees as their other survival strategy. They mentioned that they had learned a lot about agricultural activities since they engaged in this programme. They indicated that having the support from their families, TBC and their community, they have actually learned corporate skills, that is, working together for the common good and to enhance their community.

These twelve participants showed that their lives had improved since they engaged in the programme as compared to their prior survival

strategies. They mentioned that the income they generated before engaging in ALP only allowed them to buy a few things but now they can afford to provide their families with their basic needs.

Males who benefited

Among these respondents, one of them showed that he was no longer dependent on alcohol as most of his time was spent in the implementation process of the Alternative Livelihoods Programme. He further showed that he engaged in sports other than going to the bars. He indicated that he could help his parents to generate more income for the family and also to meet his needs. He no longer spent his money on alcoholic beverages. The other male respondent also indicated to have acquired skills from this programme. He could supply his family with additional income. He reported to have found this programme beneficial because he was unemployed hence did not have any means of generating income.

Older Participants

One woman aged seventy-one mentioned that she was relieved from the hard work she used to do. She indicated that early in the morning she would cook steamed bread and sell at Ha Makhalanyaane. Later during the day, she would continue with brewing thereby made additional income.

“Having engaged in this programme, I see a lot of improvement in my life, not only economically, but I am physically well now. I am relieved from hard work because I could not even have enough rest”, she reported.

For those who were also the consumers of their own product, they indicated that they do not drink beer any more.

Respondents who did not benefit from the programme

With regard to the other three respondents who indicated not to have benefited from the

programme, they showed that they had approximately three years as participants in this programme but they did not see any progress in their livelihoods. They indicated that they participated only in tree planting and they did not have any income generated because they did not sell anything. However, they reported not to be brewing beer anymore.

Changes introduced at community level after introduction of the ALP

The participants mentioned that they spend most of their time cleaning the nursery and looking after their individual gardens and also doing domestic work as opposed to brewing or consuming alcohol. As for the two single respondents, they indicated that after their involvement in the programme, they invited their friends to participate. They even formed a soccer team at Ha Mothae with the help of the Prevention Programme. TBC supplied them with soccer equipment. These informants reported to spend most of their time at the play grounds if not at the nursery, unlike at bars like they did before.

The participants showed to had a change in their attitudes towards their survival strategies, that is, the source of their living prior to engaging in the programme. They even managed to invite other people from the village of Ha Rathoko to participate in the programme. They also indicated that there were no longer people who were brewing beer in the village, rather people consumed the Western-type of beer in the bars around the village and these bars were also regulated as to when they should be opened and when to be closed.

Sustainability of the programme

In corroboration with the respondents' level of satisfaction with the work they do, there seemed to be a variation in their responses with regard to their willingness to continue with these works.

Three of them were not willing to continue with the work. One of those who were not going to continue with the programme in future reasoned that it took them a long time before

they could find some buyer for their products. These were mostly participants who were not engaged in any other alternative livelihoods strategies other than tree planting only.

On the other hand, those who wished to continue indicated that the skills they had acquired in this programme were essential hence why some of them brought their children to join them to keep them busy and get away from possibilities of engaging in deviant behaviours such as crime and involvement in drug and substance abuse.

This group of people thought that it was a worthwhile venture to invest in this programme and encouraged others to participate. They indicated to have done some public gatherings to inform people about the consequences of alcoholism and some preventive measures to encourage them to join.

As for the two old women, they indicated that they no longer had strength but if they are still alive, they would continue with other activities which did not require a lot of physical effort and would continue to generate some income. They mentioned that they would continue with handicrafts like making brooms and mats with grass as their way of generating income.

Conclusions and Recommendations

Based on the findings the study concluded that the Alternative Livelihoods Programme (ALP) has had a relative impact on the social and economic lives of most recipients despite the problems participants encountered in their different activities. Its major impact has been on awareness raising and education on substance abuse. Moreover, the findings indicated that people are willing to continue with the programme and this shows that Thaba-Bosiu Centre (TBC) has achieved its objectives of educating the Ha Mothae community on alcohol and drug related problems through public gatherings held in that village and through workshop and training which were held at Lihaseng. The empowerment aspect of the programme has been successful.

In addition, the study recommends that through community organisation, people can

evaluate and solve their social problems as they identify their common problems or goals and work together to achieve these common goals. Due to the problem of alcoholism in the country that results mostly from home brewed beer, there should be adjustment of the ALP in other parts of the country to reduce the problem of alcoholism. Awareness programmes must be made about the problems of alcohol misuse in all ten districts of Lesotho.

The government should provide funds for TBC to carry/adjust the programme to other villages. The government should find market for the products of people engaging in the ALP. There should be enforcement of Liquor Licensing Act of 1997 which clearly shows the penalties of running a shebeen or bars without licences with beer brewers included. Sporting facilities should be made available for the youth to occupy them rather than spending their time in the bars and engaging in deviant behaviours like criminal activities associated with heavy drinking.

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**THE FEASIBILITY OF INTEGRATING ALCOHOL RISK-REDUCTION
COUNSELING INTO EXISTING VCT SERVICES IN KENYA**

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ABSTRACT

This pretest-posttest separate-sample study with intervention and comparison groups documented the abilities and willingness of trained voluntary counseling and testing (VCT) service providers to integrate alcohol screening and risk reduction counseling into their routine service delivery. Pre-test (n=1073) and post-test data (n=1058) were collected from different clients exiting from 25 VCT centers. A 12-month intervention that required all VCT providers from the intervention groups to screen all VCT clients for their alcohol use and offer them brief risk reduction alcohol-related counseling was implemented. At post-test, the intervention group clients (n=456) had better study outcomes than the comparison group clients (n=602). Intervention clients were more likely to report that their VCT service provider had: asked them about their alcohol use (83% vs. 41%; p<0.05); asked them about their partner's alcohol use (72% vs. 22%); screened them for their alcohol use (77% vs. 33%; p<0.05); and gave them feedback about their screening results (67% vs. 35%; p<0.05). The study concluded that VCT service providers are able and willing to integrate alcohol risk reduction services during routine VCT services, and supports the integration of alcohol risk reduction counseling at VCT services in Kenya.

KEY WORDS: Alcohol, VCT, Integration, Service provision, Risk reduction, Counseling, Kenya

INTRODUCTION

Alcohol use has been identified as one of the underlying social factors that drive HIV risk behavior. The association between alcohol use, reduced sexual inhibitions, HIV transmission and individual behavior has been demonstrated in many studies in both developing

and developed countries. Weiser et al. (2006), Zablotska et al. (2006), Morojele et al. (2005), and Shaffer et al. (2004) have all documented that alcohol is thought to fuel HIV transmission by blunting one's behavioral self-monitoring and increasing the likelihood of multiple partners, unprotected sex, intergenerational sex, and commercial sex.

Despite the recognition of the role that alcohol plays in fuelling the HIV epidemic, programmers have been faced with the challenge of how to respond to alcohol use in HIV prevention. In sub-Saharan Africa, few HIV prevention programs, including voluntary counseling and testing (VCT) programs have directly addressed the issue of HIV risk behavior as a result of alcohol use. This is partly because service providers offering HIV prevention programs are not formally required to ask their clients about whether they use alcohol, hence missing a great opportunity to address this risk factor with their clients.

In recognition of this gap in service provision, in 2005, the WHO requested member states to intensify efforts to reduce the burden of alcohol-related problems nationally, regionally and globally (WHO, 2005). A policy paper presented to a Regional Health Ministers Conference in Kenya, on February 2006 urged member states to put issues related to alcohol in their national HIV/AIDS strategies and ensure that appropriate alcohol and HIV/AIDS policies and programs were in place (Morris et al., 2006).

To respond to this, in Kenya, VCT programs were identified as one of the key entry points for services designed to reduce HIV risks associated with alcohol use. In 2007, Kenya had over 900 VCT centers (LVCT, 2007), and so they were considered an important entry point for targeting risk reduction messages to VCT clients who use alcohol. During pre-test counseling, clients are given information on modes of HIV transmission and triggers of risky behavior. Thus, the VCT setting offers an optimal venue for discussing alcohol as a factor in HIV transmission, and for helping clients formulate risk-reduction plans. However, because greater quantities of alcohol often predict greater sexual risks, it is important for service providers to screen clients for their levels of alcohol use so as to offer relevant advice and referral. Also, because men are more likely to drink and engage in risky behavior, whereas women's risks are often associated with their male sexual partner's drinking (Kalichman et al., 2007), it is important for peo-

ple to be screened for both their own alcohol use and that of their partners, and appropriate messages and advice offered.

To respond to these issues, researchers from Kenya designed a study whose objective was to determine the feasibility of integrating alcohol risk reduction counseling into VCT service provision. This paper describes the study project and its findings.

METHOD

Study Design

This study employed a pre-test post-test research design with separate samples, and two treatment groups (intervention and comparison). Pre-test and post-test data were collected from VCT clients in 15 static and 10 mobile VCT sites from three provinces in Kenya. The three provinces were purposively selected because that is where the intervention partner, Liverpool VCT, Care and Treatment (LVCT), had VCT centers that they were supporting. The sampled VCT centers were purposively selected because they were situated in high density population areas with anecdotal evidence of high alcohol use. Eight of the static sites were randomly allocated to the intervention group, while the remaining seven, together with all the mobile VCT sites, were allocated to the comparison group. Because providers at the mobile sites move from one site to another, all of these sites needed to be assigned to the same treatment group. This decision to allocate all the mobile sites to the comparison group was made randomly.

Pre- and Post-Test Data Collection

In June 2006, the pre-test data were collected using face-to-face exit interviews from 1,073 VCT clients from all the participating VCT centers. In July 2007, after a year of implementing intervention activities, the post-test study was conducted among 1,058 VCT clients. Although the same facilities were visited, different clients were interviewed. Sample sizes at both pre-test and post-test allowed for

a 95% confidence level and a power of 90%. At both study points, the same data collection methods and tools were applied. The respondent's drinking levels were assessed using the Alcohol Use Disorders Identification Test [AUDIT] (Babor et al., 2001; Saunders 1993). The data collection tool was a structured questionnaire that had been pre-tested and translated into two local languages, and at post-test had an additional section that measured client's exposure to the intervention. Interviewers were trained on administration of the survey questionnaire, the informed consent form, and observation of ethical procedures (described further below). Each interviewer was stationed at the VCT center until they reached the allocated sample for that VCT center, which had been calculated to be proportional to the client flow. Potential respondents were invited for the interview after they had completed their VCT session. The eligibility criteria were that respondents were 18 years and above, had given written consent, and had gone through the VCT session, irrespective of whether they took the HIV test or not.

Description of the Intervention

To respond to VCT service provider gaps, the study aimed to establish whether trained VCT providers would be able and willing to integrate alcohol risk reduction counseling into their routine service delivery. The intervention partners were two local non-governmental organizations. LVCT, which offers training, research and support for VCT counselors, and Support for Addiction Prevention and Treatment in Africa Trust (SAPTA), which offers training for drug and substance abuse counselors. Staff from both LVCT and SAPTA, with technical support from Population Council, developed a three day alcohol training module to integrate alcohol risk reduction counseling into VCT services. Titled "Integrating alcohol risk reduction counseling into VCT services: training module for VCT counselors", this module has 15 units that cover types of substances, definitions, reasons for use, effects on the body, relationship with

risks for HIV, protocol for integrating alcohol screening and counseling into VCT centers, and treatment for excessive users of alcohol. In September 2006, this alcohol module was used to train 32 VCT services providers from the eight VCT centers in the intervention group. The key activities VCT providers were expected to integrate into their VCT counseling sessions included:

a) Screening clients for their alcohol use and that of their partners: During regular HIV risk assessment, the VCT providers were trained to screen clients for their alcohol use. They used the CAGE screening tool (Ewing, 1984) that focuses on 4 questions asked to each client to screen for alcohol use levels.

- 1) Have you ever felt that you need to Cut down on your drinking?
- 2) Have people Annoyed you by criticizing your drinking?
- 3) Have you ever felt bad or Guilty about your drinking?
- 4) Have you ever had a drink first thing in the morning (Eye-opener) to steady your nerves, e.g. get rid of a hangover or get your day started?

This tool was modified to also screen clients for their partners' alcohol use. The same four questions were used to ask about their partners, i.e. has your partner even felt that they needed to cut down on their drinking, and so on. Two or more "Yes" responses were indicative that the client (or their partner) has problems with alcohol. Following this screening, those with an alcohol problem were offered the following brief intervention.

b) Brief intervention for alcohol users: This was modeled based on a similar one from WHO (Babor et al., 2001; NIAAA, 2005). It was a client-centered, 5-10 minutes intervention where the provider explained the meaning of the screening, and gave the client feedback from the screening results. Clients who were not currently taking alcohol were congratulated and encouraged to continue abstaining. Clients with a positive CAGE were empathized with and encouraged to take responsibility

for their possibly risky drinking behavior and given clear, explicit advice and information on how to reduce/stop their drinking and explore with their partner the possibility for alcohol reduction. A menu of alternate strategies for tackling alcohol problems was offered. This included setting of realistic and attainable goals, improving self esteem and self belief that aimed to empower the clients to change their behavior, assured them that they have the capability to change, and solicited their commitment to do so.

c) Referrals to treatment and care services for clients with alcohol problems: During the training, providers were given a referral list for alcohol treatment centers and Alcoholics Anonymous (AA) meetings. They used these lists to refer clients who needed alcohol related post-test care and support.

d) Provision of educational materials: To supplement the information that the clients were receiving from the providers, existing brochures and posters that sought to educate and offer client information on the dangers of excessive use of alcohol were reprinted and distributed to the intervention group. These posters hang at conspicuous places in all the VCT centers at the intervention group.

Additional Data Collection Activities at the Intervention Sites

Three focus group discussions (FGDs) with providers and three with clients were conducted before the intervention to determine whether the program would be acceptable to them. Further, the researchers sought to document the amount of time that the screening and discussions on alcohol were taking. During the intervention activities, an interviewer visited four randomly selected VCT centers from the intervention group. The interviewer sat outside the VCT room and recorded the amount of time each VCT session took. In addition, after each VCT session, the provider was asked to estimate the amount of time they had taken discussing alcohol issues. A total of 32 observations and interviews were documented.

Ethical Considerations and Confidentiality

The study protocol and data collection tools had been reviewed and approved by Population Council's and Kenyatta National Hospital's ethical review committees. All respondents were informed about the study using an informed consent form, which they read or were read to. This form informed respondents about the study, about their voluntary participation without fear or retribution, the benefits and risks of participating in the study, and gave contact details of the principal investigators. All respondents gave written consent by signing the consent form. The signed form was separated from the data collection forms. Respondents who were distressed, for example, as a result of a positive HIV diagnosis, were not interviewed. Respondents were not required to reveal their HIV status to the interviewer and they were not asked about their HIV status. Interviews were conducted in a private place and no identifying information was recorded on the questionnaire. All data collected were kept confidential, and presented in aggregate terms to prevent deductive disclosure. Individual responses were only disclosed to those directly involved in activities associated with data collection, entry, or analysis.

Data Management and Analysis

To test whether the intervention was feasible, researchers focused on the quantitative post-test data set, and compared differences in outcomes between the intervention and comparison groups. The following variables of interest were measured: whether the provider had asked the client about their alcohol use, and that of their partner; whether the provider had screened clients for their levels of alcohol use; whether the providers gave the clients feedback or the results of the screening; whether the providers had referred clients with alcohol problems for further alcohol counseling; whether the clients had been exposed to alcohol education materials. The qualitative FGDs measured whether the alcohol intervention at VCT centers was acceptable to both clients and providers. The qualitative data were

transcribed and verbatim quotes used to describe outcomes.

Quantitative data from the exit interviews were entered through scanning of the completed questionnaires. Formic software, a new technology that ensures speed and accuracy of data entry was used. To verify the scanned data, 15% of the questionnaires were rescanned and 10% were physically checked for consistencies. Data were then cleaned and analyzed using SPSS version 13.0 and STATA version 9.0. Frequencies and bivariate analysis provided descriptive summaries and comparisons between the variables of interest and treatment group. Tests of significance were carried out using Pearson's chi-square test of independence. Results were considered statistically significant at or below a p-value of 0.05.

RESULTS

Demographic Characteristics of the Study Population

Respondents from both the intervention and comparison groups had almost similar demographic characteristics. Apart from the post-test sample among the comparison group that had 43% of the respondents being male, the rest of the samples had over 50% of the respondents being male (see Table 1). Over 60% of the respondents were below the mean age of 29 years, over 50% were single (never married), over 40% had a secondary school education and above, and over 59% were Protestants. Over three quarters of the respondents had a sexual partner. About 20% of the respondents were current users of alcohol.

Table 1: Demographic characteristics of the study population at pre-test and post-test, by intervention and comparison groups

Characteristic	Intervention group		Comparison group	
	Pre-test n=483	Post-test n=456	Pre-test n=590	Post-test n=602
Sex (%)				
Male	54	56**	51	43**
Female	46	44**	49	57**
Age in years				
Below mean*	64	69	65	66
Above mean	36	31	35	34
Marital status (%)				
Single (never married)	57	63	52	55
Married	33	33	39	37
Divorced/separated/widowed	10	5	9	8
Education level (%)				
Primary or less	32	27	42	44
Secondary	42	47	44	43
University and above	11	6	2	2
Other formal	15	20	11	11
Religion (%)				
Protestant	67	59	62	64
Catholic	24	32	31	27
Muslim	6	8	3	2
Alcohol use (%)				
Current drinkers	22	27	20	20
Used to drink but stopped	43	40	44	45
Never drank	35	32	35	35

*Mean=29 years

**p<0.05. Because all mobile sites were allocated to the comparison group, these differences could reflect seasonal variations, market days, and other factors that influence gender based activities.

Results of the Individual Variables of Interest of the Post-Test Sample Only, Comparing the Intervention and Comparison Group

Proportions of respondents asked by providers about their alcohol use: At post-test, 83% of the respondents at the intervention group (n=456) reported that they had been asked whether they use alcohol, compared to 41% of respondents at the comparison group (n=602) [$p<0.05$].

Proportion of respondents asked by providers about their partner's alcohol use: At post-test, among respondents with partners, 72% of them from the intervention group (n=365) reported that the VCT counselor had asked them whether their partners drink. At the comparison group (n=442), only 22% reported the same ($p<0.05$).

Proportion of respondents screened by providers for their alcohol use: All the respondents who were currently drinking alcohol and had disclosed this to the providers were asked whether the providers had asked them the four questions in the CAGE screening tool. At the intervention group (n=91), 77% of such respondents said that they had been screened, compared to only 33% at the comparison group (n=43) [$p<0.05$].

Proportion of respondents offered feedback by providers about the results of the screening: Among the respondents who were currently drinking alcohol and were screened for their levels of alcohol use, at the intervention group (n=70), 47 clients were given feedback of their screening results, compared to only five clients at the comparison group (n=15) [$p<0.05$]. In terms of the specific feedback given, at the intervention group, 33 of these clients (n=47) were told that they had a drinking problem. These clients (n=33) reported having been given the following advice (more than one answer was possible): 15 were asked to stop drinking; 12 were told the detrimental health effects of excessive drinking; 11 were informed that alcohol use could cause one to engage in risky sexual behavior, and 8 were told that they were drinking to harmful levels and that they needed to consider reducing their alcohol intake.

Description of the referrals offered by providers to alcohol abusers: All the current drinkers at the post-test survey who had been screened and told that they had a drinking problem were asked whether they had been offered any type of referral. Only data from the intervention group (n=33) is given because the numbers from the comparison group were less than 15. Three clients reported that they were advised to go to an alcohol treatment center for further assessment by an addiction specialist. Another three were reported that they were advised to join an Alcoholics Anonymous (AA) group. Informal discussions with the service providers indicated that most clients wished not to be referred to alcohol treatment centers because of the high costs of services.

Proportion of clients exposed to alcohol education materials: All the clients at post-test survey were asked whether they had picked a brochure on alcohol from the facility to take home and read. At the intervention group (n=456), only 8% of the clients had a brochure, while only 1% at the comparison group (n=602) [$p<0.05$]. On being asked whether they had seen an alcohol poster at the VCT center, at the intervention group, 53% of the respondents said that they had seen one, compared to 16% of respondents at the comparison group.

Acceptability of the program among clients and providers: The program was acceptable to both clients and providers. Almost all the clients at both groups (97% and 90% at the intervention and comparison group respectively) reported that they would have liked to have discussions about alcohol use while at the VCT center. During the FGDs, both clients and providers indicated that alcohol is a major risk factor for HIV risk, and that the VCT room was an appropriate place to help clients reduce their risks, as shown in this quote.

“Personally I feel the need for concern on the level of drinking... When you are assessing the risk... you will find that most of the clients will associate their risks on how they were drunk. You will find a client will say they did something because

of how they drunk the other day. So I feel my need for concern of alcohol drinking in the VCT...”

VCT counselor, Nairobi.

Additional time taken to implement the alcohol intervention: The average time taken for the entire VCT session with the added alcohol component was 52 minutes (range: 46-90 minutes). The recommended time for VCT sessions is 45-60 minutes. Providers estimated that the additional time taken by alcohol discussions was seven minutes. They did not find this additional time a burden.

DISCUSSION

The findings of this study suggest that it is feasible to integrate alcohol risk reduction counseling into VCT services in Kenya. The data showed that the intervention group had better study outcomes than the comparison group. Clients from the intervention group were more likely to have been asked about their own alcohol use and that of their partners. Clients from the intervention group, who were currently using alcohol were more likely to have been screened and given feedback about their drinking levels than similar clients at the comparison group. Clients with drinking problems reported having been advised to consider stopping or reducing their alcohol intake. They also reported having been advised about the dangers of excessive alcohol use, and the relationship between alcohol use and risky sexual behavior. These data indicate that trained VCT providers were able to integrate alcohol risk reduction counseling into VCT services. The alcohol counseling component increased the time taken during VCT sessions by an average of seven minutes, which providers did not find burdensome. Both providers and clients accepted the program and found the VCT room to be an appropriate venue for discussing alcohol related HIV risks. Hence, this study supports the integration of alcohol risk reduction counseling into VCT services in Kenya.

The findings indicate that the chances of a client having a brochure on alcohol on the index day were less than 10%. This was mainly attributed to high demand of the materials. Hence, programs should ensure an adequate supply of information and education materials on alcohol consumption and its association with risky sexual behavior.

This study found that clients with alcohol problems were unwilling to be referred to alcohol treatment centers because of their high service costs. Service providers should devise innovative methods of ensuring clients with alcohol problems have access to continued support, for example through encouraging them to join AA group (which are free) or linking them up with community treatment centers that offer alcohol treatment services at more affordable costs.

This study used a separate sample pretest-posttest research design. It was not a cohort study. As such, it was not designed to measure reduction in alcohol use or HIV risk behaviour that could be directly attributed to the intervention. Its main objective was to document whether trained VCT counselors could integrate alcohol screening and counseling into their regular service provision. Future studies could employ prospective research designs with clients who have been exposed to such an intervention, so as to document whether exposed clients would change their drinking behavior and related risks. Evidence of some intervention components at the comparison sites could be as a result of leakage of the intervention, through movement of service providers from one site to another, a factor which is difficult to control in such study designs.

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ALCOHOL IN AFRICA: SELECTED ABSTRACTS 2009

Clausen, T., Rossow, I., Naidoo, N., & Kowal, P. (2009). Diverse alcohol drinking patterns in 20 African countries. *Addiction*, 104, 1147-1154.

Aims This paper describes drinking patterns in 20 African countries, exploring the extent of abstinence, heavy occasional drinking and daily light drinking and how these aspects of drinking are inter-related. *Design and participants* Data were collected as part of the World Health Survey in 2002–04 and comprise national representative data sets from 20 African countries. A cross-sectional survey of 77 165 adults aged 18 years and older were undertaken by face-to-face interviews in respondent households. *Measures* Drinking behaviour was assessed in terms of life-time abstinence and the following measures over the 7 days immediately preceding interview: high consumption (15 or more drinks); heavy drinking occasions (five or more standard units at at least one session) and daily light drinking (one or two drinks daily). *Findings* In four countries (Comoros, Mali, Mauritania and Senegal), virtually all respondents were life-time abstainers. The prevalence of current drinkers (previous week) did not exceed one-third in any country. Among current drinkers the prevalence of heavy drinking varied between 7% and 77% and the prevalence of daily light drinkers varied between 0% and 21%. Overall drinking patterns varied significantly between and within the examined African countries. *Conclusions* African drinking patterns are diverse, and although life-time abstinence dominates in African countries, a single typical pattern of drinking for the African continent, such as the alleged ‘all-or-none’ pattern, was not observed.

Palen, L. A., Smith, E. A., Caldwell, L. L., Mathews, C., & Vergnani, T. (2009). Transitions to substance use and sexual intercourse among South African high school students. *Substance Use & Misuse*, 44(13), 1872-87.

This study examined longitudinal patterns of initiating substance use and sexual intercourse among a sample of 1,143 high school students from a low-income township in Cape Town, South Africa. Longitudinal data on lifetime incidence of sexual intercourse and alcohol and marijuana use were collected semiannually from 2004 to 2006. Latent transition analysis (LTA) was used to test competing models of transitions to these behaviors. Participants were more likely to move from no risk behavior to substance use, rather than from no risk behavior to sexual intercourse. At all time points, the proportion of youth who had engaged in sexual intercourse but not substance use was very small. The study’s limitations and directions for future research are discussed.

Onya, H. E., Flisher, A. J., Mashamba, J. T. (2009). Cultural factors and home-brewed alcohol use in a rural community in South Africa. *East African Journal of Public Health*, 6(1),37-42.

This paper presents an analysis of the relationship between cultural orientation and home-brewed alcohol use among adolescents in a rural setting. The study involved 1263 students from 30 high schools in Mankweng District in Limpopo Province of South Africa. Boys formed 48% of the sample. Means ages were 16.7 and 16.0 years for boys and girls respec-

tively. A 16 item scale focusing on language, mass media and music preferences was constructed to measure cultural orientations. There was an integration of western and traditional/local activities by respondents who reported having used home-brewed alcohol in the past 12 months. In some respects the sample had western tendencies i.e. English newspapers were read more than no-English newspapers and funky music tended to be preferred to traditional South African music, while in others the reverse was true i.e. Radio Thobela (a radio station that uses vernacular languages) was listened to more than Radio Metro (a radio station that uses English language only). There were significant differences between boys and girls in the use of western media. Older adolescents (18 years or older) used more home brewed alcohol than the younger ones. The concept of culture and its associations with alcohol use invites a critical view on cultural values among adolescents. The positive association with home-brewed alcohol use among secondary school students in our sample has been demonstrated for an orientation towards external cultural influence. Educators and learners need to increase their consciousness on the problematic side of cultural import.

Chersich, M. F., Rees, H. V., Scorgie, F., & Martin, G. (2009). Enhancing global control of alcohol to reduce unsafe sex and HIV in sub-Saharan Africa. *Global Health*, 5, 16.

Sub-Saharan Africa carries a massive dual burden of HIV and alcohol disease, and these pandemics are inextricably linked. Physiological and behavioural research indicates that alcohol independently affects decision-making concerning sex, and skills for negotiating condoms and their correct use. More than 20 studies in Africa have reported higher occurrence of HIV among people with problem drinking; a finding strongly consistent across studies and similar among women and men. Conflation of HIV and alcohol disease in these setting is not

surprising given patterns of heavy-episodic drinking and that drinking contexts are often coterminous with opportunities for sexual encounters. HIV and alcohol also share common ground with sexual violence. Both perpetrators and victims of sexual violence have a high likelihood of having drunk alcohol prior to the incident, as with most forms of violence and injury in sub-Saharan Africa. Reducing alcohol harms necessitates multi-level interventions and should be considered a key component of structural interventions to alleviate the burden of HIV and sexual violence. Brief interventions for people with problem drinking (an important component of primary health care), must incorporate specific discussion of links between alcohol and unsafe sex, and consequences thereof. Interventions to reduce alcohol harm among HIV-infected persons are also an important element in positive-prevention initiatives. Most importantly, implementation of known effective interventions could alleviate a large portion of the alcohol-attributable burden of disease, including its effects on unsafe sex, unintended pregnancy and HIV transmission.

Iribhogbe, P. E. & Odai, E. D.(2009). Driver-related risk factors in commercial motorcycle (okada) crashes in Benin City, Nigeria. *Prehospital Disaster Medicine*, 24(4), 356-359.

Introduction: There has been global concern regarding road traffic injuries. Motorcyclists constitute a high proportion of fatalities in road traffic crashes. Commercial motorcyclists (Okadas) constitute a unique group in this regard. The purpose of this study was to evaluate driver-related risk factors in Okada accidents in Benin City, Nigeria. *Methods:* This was a prospective study. Interviewers administered questionnaires which were used to assess Okada drivers during a two-month period (November-December 2006). *Results:* A total of 996 Okada drivers were interviewed,

995 males and one female. Their ages ranged from 16-80 years with a mean age of 36.4 +/- 2.4 years. In the majority of cases, the maximum educational level achieved was primary or secondary. The majority of Okada drivers (82.8%) took to the Okada business as a last resort. Driver's licenses for Okada operation were possessed by 73.5% of drivers, but only 27.2% had taken a road test before being given a license. No form of training on the use of Okadas was received by 45% of drivers before they commenced operations. Crash helmets were owned by 56.4%, but they did not use them on a regular basis. Inconvenience was the reason provided for poor compliance by 52.7% of drivers. Regular intake of alcohol was present in 39.8% of drivers. *Conclusion:* Okada drivers are mainly young males with a low level of education who are ill-prepared and ill-equipped for the road. This is a recipe for traffic crash-related injuries and fatal motorcycle crashes. There is an urgent need for job creation, better licensing procedures, road safety education, national legislation, and enforcement of crash helmet laws as well as alcohol breath tests for Okada drivers in Nigeria.

Mbatia, J., Jenkins, R., Singleton, N., & White, B. (2009). Prevalence of alcohol consumption and hazardous drinking, tobacco and drug use in urban Tanzania, and their associated risk factors. *International Journal of Environmental Research and Public Health*, 6(7), 1991-2006.

Evidence suggests substance abuse in Tanzania is a growing public health problem.

A random sample of 899 adults aged 15-59 in two urban sites of differing levels of poverty surveyed alcohol, tobacco and illicit substance use. Rates of substance use were 17.2%, 8.7% and 0.8% for alcohol, tobacco and cannabis, respectively. Living in the less affluent area was associated with higher lifetime rates of tobacco and alcohol use. Substance use is less prevalent in Tanzania than in richer countries,

but lifetime consumption is higher in poorer areas. The association of substance use with a range of socio-economic factors warrants further research.

Ntaganira, J., Muula, A. S., Siziya, S., Stoskopf, C., Rudatsikira, E. (2009). Factors associated with intimate partner violence among pregnant rural women in Rwanda. *Rural and Remote Health*, 9(3), 1153.

Introduction: Intimate partner violence (IPV) is a major public health problem in Africa and internationally, with consequences that include physical injury, significant morbidity and even death. The Rwandan 2005 Demographic and Health Survey (DHS) reported a national prevalence of IPV among pregnant women of 10.2% but there were limited data available on the factors involved. The aim of this study was to determine the factors associated with and prevalence of IPV among pregnant Rwandese women in the rural southern province of Kabutare. *Methods:* A total of 387 pregnant women attending antenatal clinics in the South Province of Rwanda answered a questionnaire which included items on demographics and IPV. Mean age and prevalence of IPV in the previous 12 months as well as lifetime IPV were assessed. Both univariate and multivariate odds of IPV exposure were estimated using logistic regression analysis. *Results:* The mean age of the 387 participants was 29.4 years (SD 6.3 years). More than one in two participants reported lifetime verbal abuse (53.7%). Other forms of lifetime IPV included pulling hair (9.4%), slapping (18.2%), choking (6.5%), punching with fists (19.3%), throwing to the ground and kicking with feet (12.8%), and burning with a hot liquid (3.1%). In the multivariate analysis, alcohol use by male partner was positively associated with lifetime IPV (OR = 2.52; 95% CI [1.35, 4.71] for occasional drinkers, and OR = 3.85; 95% CI [1.81, 8.21] for heavy drinkers). Compared with subjects with no formal education, women who had elementary education were less like-

ly to report lifetime IPV (OR = 0.30; 95% CI [0.11, 0.78]). *Conclusion:* Alcohol use by male partner and low education of women were positively associated with lifetime IPV. The high rates of IPV among Rwandan pregnant women indicate the need for urgent measures to prevent and curb domestic violence using public health education, an awareness campaign and policy advocacy.

Norris, A. H., Kitali, A. J., & Worby, E. (2009). Alcohol and transactional sex: how risky is the mix? *Social Science and Medicine*, 69(8), 1167-1176.

This study examines alcohol use, transactional sex (TS), and sexually transmitted infection (STI) risk among sugar plantation residents near Moshi, Tanzania, from 2002 to 2004. We compare popular discourse gathered through ethnographic methods with cross-sectional questionnaire and STI prevalence data to illuminate the close correspondence of alcohol use and TS with STI transmission. People attributed to alcohol varied consequences: some socially desirable (relaxing, reducing worries) and others (drunkenness, removing shame) thought to put alcohol abusers at risk for STIs. TS-exchanging money, food, gifts, alcohol or work for sex-was not stigmatized, but people believed that seeking sexual partners for money (or providing money to sexual partners) led to riskier sexual relationships. We explore popular discourse about how alcohol use and TS independently and in combination led to increased STI exposure. Popular discourse blamed structural circumstances-limited economic opportunities, few social activities, separated families-for risky sex and STIs. To understand individual behavior and risk, we surveyed 556 people. We measured associations between their self-reported behaviors and infection with herpes simplex virus type-2 (HSV-2), syphilis, and HIV in 462 participants who were tested. Alcohol abuse was associated with prevalent STI and HIV infection. Exchanging sex for alcohol and work were both

associated with prevalent STI. Participants who both abused alcohol and participated in TS had greatest risk for STI. Findings from the two analytic methods-interrogation of popular discourse, and association between self-reported behavior and STIs-were largely in agreement. We posit explanations for discrepancies we found through the concepts of sensationalization, self-exceptionalization, and the influence of an authoritative moral discourse.

Page, R. M., & Hall, C. P. (2009). Psychosocial distress and alcohol use as factors in adolescent sexual behavior among sub-Saharan African adolescents. *Journal of School Health*, 79(8), 369-379.

Background: This study examines the relationship between sexual behavior, alcohol use, and indicators of psychosocial distress (mental health) of adolescents in 6 sub-Saharan African countries using the Global School-based Student Health Survey (GSHS). *Methods:* The sample consisted of 22,949 adolescents from Botswana, Kenya, Namibia, Uganda, Zambia, and Zimbabwe who participated in 2003 or 2004 GSHS surveys. Statistical analysis was conducted to determine whether sexual behaviors increased with levels of psychosocial distress and alcohol use. *Results:* Sexual behaviors (having sex or having sex with 2 or more people) were associated with both psychosocial distress and alcohol use. Odds ratios showed that both boys and girls reporting psychosocial distress and alcohol use were at higher risk for having sex. Results also indicated that the likelihood of sexual behaviors increased when there was an increase in the number of psychosocial indicators and frequency of alcohol consumption. *Conclusion:* The results of this study are consistent with those conducted in the United States suggesting that sexual behavior, psychosocial distress, and substance use are interconnected. These findings highlight the need for school health education and health services in sub-Saharan

Africa, specifically the efforts to reduce psychosocial distress and prevent substance use in efforts to prevent the spread of human immunodeficiency virus and other sexually transmitted infections.

van Heerden, M. S., Grimsrud, A. T., Seedat, S., Myer, L., Williams, D. R., Stein, D. J. (2009). Patterns of substance use in South Africa: results from the South African Stress and Health study. *South African Medical Journal*, 99(5 Pt 2), 358-366.

Background: There are limited data on substance use in South Africa. We describe patterns of substance use based on recent, nationally representative data.

Methods: Data were derived from the 2002-2004 South African Stress and Health (SASH) study. A nationally representative household probability sample of 4351 adults was interviewed using the paper and pencil version of the World Health Organization Composite International Diagnostic Interview (CIDI). Data are reported for lifetime use, socio-demographic correlates of use, and age of cohort predicting lifetime use for four classes of drugs. *Results:* The estimate for cumulative occurrence of alcohol use was 38.7%, of tobacco smoking 30.0%, of cannabis use 8.4%, of other drug use 2.0%, and of extra-medical psychoactive drug use 19.3%. There were statistically significant associations between male gender and alcohol, tobacco, cannabis and other drug use. Coloureds and whites were more likely than blacks to have used alcohol, tobacco and other drugs. Clear cohort variations existed in the age of initiation of drug use; these were most marked for other drugs and for extra-medical drug use. Use of all drug types was much more common in recent cohorts, with a similar cumulative incidence of tobacco, alcohol and cannabis use across age cohorts. *Conclusions:* Epidemiological patterns of use for alcohol, tobacco, cannabis, other drugs and

extra-medical drugs provide the first nationally representative data. New findings on race and exploratory data on time trends provide a foundation for future epidemiological work on drug use patterns across birth cohorts and population subgroups in South Africa.

Siziya, S., Rudatsikira, E., & Muula, A. S. (2009). Alcohol use among school-going adolescents in Harare, Zimbabwe: results from the 2003 Global School-Based Health Survey. *Tanzania Journal of Health Research*, 11(1), 11-16.

Data from the Global School-Based Health Survey (2003) were analysed to estimate the proportions of relevant socio-demographic and behavioural characteristics. Of the 1997 students who participated in the survey, 15.6% (17.1% males and 14.0% females) reported alcohol consumption. Factors associated with consumption of alcohol use were being worried, bullied, smoking cigarettes, truant, and lack of parental supervision. Students who were never worried were 49% (AOR=0.51 [95% CI (0.36, 0.72)]) less likely to consume alcohol compared to students who were most of the time or always worried. Similarly, students who were never bullied were 42% (AOR=0.57 [95% CI (0.42, 0.77)]) less likely to take alcohol compared to students who were bullied at least six times in the previous one month to the survey. Compared to students who smoked cigarettes, non-smokers were 71% (AOR=0.29 [95% CI (0.21, 0.41)]) less likely to consume alcohol. Compared to students who always received parental supervision, students who rarely received parental supervision were more likely (AOR=1.85 [95% CI (1.19, 2.90)]) to consume alcohol, and those students who sometimes received parental supervision were less likely (AOR=0.70 [95% CI (0.50, 0.98)]) to consume alcohol. There is a need to implement public health interventions with special attention to the determinants of alcohol consumption in this age group.

Tumwesigye, N. M., Kasirye, R., & Nansubuga, E. (2009). Is social interaction associated with alcohol consumption in Uganda? *Drug Alcohol Dependence*, 103(1-2), 9-15.

Little is documented about the association of alcohol consumption and social interaction in Uganda, a country with one of the highest per capita alcohol consumptions in the world. This paper describes the pattern of social interaction by sex and establishes the relationship between social interaction and alcohol consumption with and without the consideration of confounders. The data used had 1479 records and were collected in a survey in 2003. The study was part of a multinational study on Gender, Alcohol, and Culture International Study (GENACIS). Each question on social interaction had been pre-coded in a way that quantified the extent of social interaction. The sum of responses on interaction questions gave a summative score which was used to compute summary indices on social interaction. Principal component analysis (PCA) was used to identify the best combination of variables for a social interaction index. The index was computed by a prediction using a PCA model developed from the selected variables. The index was categorised into quintiles and used in bivariate and multivariate logistic regression analysis of alcohol consumption and social interaction. The stronger the social interaction the more the likelihood of taking alcohol frequently ($\chi^2(\text{trend})(2)=4.72, p<0.001$). The strength of the association remains significant even after controlling for sex, age group and education level ($p=0.008$). The strength of relationship between social interaction and heavy consumption of alcohol gets weak in multivariate analysis. Communication messages meant to improve health, well-being and public order need to incorporate dangers of negative influence of social interaction.

Mathews, S., Abrahams, N., Jewkes, R., Martin, L. J., & Lombard, C. (2009). Alcohol use and its role in female homicides in the Western Cape, South Africa. *Journal of Studies on Alcohol and Drugs*, 70(3), 321-327.

Objective: Levels of alcohol use are high in South Africa and not much is known about women's use of alcohol when murdered. The aim of this article is to describe the patterns of blood alcohol concentration (BAC) at the time of death for female homicide victims and to explore the factors associated with having an elevated BAC. *Method:* A subsample of a national, representative, retrospective mortuary-based study of female homicides ages 14 years and older was analyzed. Data were gathered from medical legal laboratory records, autopsy reports, and police interviews from 153 cases at sampled mortuaries in the Western Cape Province of South Africa in 1999. *Results:* Sixty-two percent of women who were murdered had a high BAC at the time of their death, with an overall median BAC of .11% (110 mg/100 ml). A quantile regression analysis showed that a raised median BAC at the time of death was positively associated with the victim's age; being unemployed or not known to be employed; and being killed in a rural setting, in a public space, and on a weekend. Significant interactions between type of homicide and employment showed a modification in median BACs for unemployed victims killed by intimate partners compared with employed victims, with a median difference of .19% (190 mg/100 ml) (95% confidence interval: .14%-.23% [140-230 mg/100 ml]). *Conclusions:* This study highlights the public health impact of excessive alcohol consumption and the need for a comprehensive approach to reduce the harmful effects of drinking.

OPINION/COMMENTARY
MAKING INROADS TOWARDS AN EFFECTIVE ALCOHOL POLICY IN UGANDA

Rogers Kasirye

INTRODUCTION

Like many Countries in Africa, Uganda has a serious alcohol problem. In 2004 the World Health Organization (WHO) ranked the country as number one consumer of alcohol per capita. Though the ranking may have changed since then the burden posed by alcohol is getting worse every day. Reports from NGOs and hospitals continue to show that unless Uganda addresses the production, sale and consumption of alcohol, the development progress it has made will be pushed back. The economic, education, health, law enforcement and justice sectors are all reporting an increasing burden in terms of treatment, other associated violence and injuries, increasing poverty levels, decrease in academic performance among students, increase in law enforcement costs and shortages in food security all closely associated with alcohol trends.

In terms of gender, though men appear to drink more, women are also increasingly taking on this habit. What is worrying is the way the alcohol industry is targeting young people especially the children. Drinking is spreading in universities and other tertiary academic institutions. A recent report showed that alcohol has pushed further the gains made in reducing poverty. Households are spending quality time in drinking and less on agricultural production, many men who spend more time drinking are failing to provide for their families and this is escalating domestic violence.

**ALCOHOL POLICY:
BANNING TOTS**

Policy work on alcohol by non-governmental organizations (NGOs) which were pushing for an effective alcohol policy to address the issue of availability, increased taxation, selling to minors, and decent packaging was boosted by the Ministry of Health (MOH) and the Uganda National Bureau of Standards (UNBS) in September 2009 when they slapped a ban on the production, sale and consumption of *waragi* (local gin) sold in sachets (tots). This came as a result of deaths of over 40 people who had consumed poisonous adulterated illicit alcohol. Alcohol related deaths have continued to happen since 2007 where over 200 people died and over 40 deaths witnessed in the recent past in 2009 due to consumption of adulterated and poisonous alcohol. Many young people had taken on the consumption of alcohol in sachets because they were cheap and readily available in shops and streets, and easy to smuggle into schools.

NGOs in Uganda seized this opportunity to request Parliament to request the executive arm of government to show the public what it was doing to address the problems of alcohol. The Minister of State for Industry (Junior Minister) presented a ministerial statement on behalf of government. After the presentation a heated debate ensued on the floor of parliament; many MPs objected to allowing the resumption of production and packaging of alcohol sachets. MPs maintained their stand in

regard to the cost on public health by selling alcohol to minors and wondered why the Minister did not show clear measures to address the issue. Though over twenty MPs wanted to make contributions, at least the ten who did so all agreed that Government had not given the issue the due attention it deserved. That was why the Ministry of Health believed the ban was the way to go; yet the Ministry of Trade and Industry felt this should be a gradual process. MPs observed that the Ministry of Industry did not have the capacity to re-test the alcohol spread all over the country and all the alcohol in the market being hoarded by traders and that the UNBS had not done its work properly. Some feared the alcohol industry might have used its lobbying skills to influence their work.

The Minister of State for Industry in his statement to the Floor of Parliament in October 2009 noted that all producers will have to package alcohol, including *waragi*, in glass bottles (not plastic) with minimum packaging of 250 ml as recommended by the Ministry of Health and the Uganda National Bureau of Standards.

IMPLICATIONS OF THE BAN

The implication of this ban for now is that alcohol will not easily be concealed by young people as was the case with sachets. The ban for now will help in curbing the number of alcohol related deaths in the country, noted one MP, because most of the *waragi* sachets were manufactured by illicit and unregistered traders who are out there to make quick money from un-suspecting citizens. Because the lethal *waragi* is usually packed in sachets it is difficult to monitor in terms of quality and standards, noted another MP.

Bottled alcohol will allow tracing the source of products, limit abuse, and promote easy follow-up with tax collection. Taxes accruing from alcohol are anticipated to increase since it will be easy to track the alcoholic products. Parliament now has recommended that the issue of packing alcohol in sachets be sent to a

select committee of Industry and that of Health and Social Services for further re-examination and harmonization of various positions.

The NGOs have for years been clamoring for this level of attention especially by parliament; it reduces the lobbying and influence of the industry at ministerial level and levels the ground. Now that Parliament is open to NGOs it will be easy to push for issues and areas that help in controlling alcohol. The advocacy reports, the reviewed law and focal areas for control will be disseminated now that it will be easier to push the issue of alcohol policy through Parliament.

One lesson we have learnt here in Uganda is that in alcohol policy one needs to be alert and serve as a watchdog on every aspect of the issue. You also have to minimize industry influence by raising the agenda at decision making bodies if one is to see any change. It is important to watch out when non effective prevention approaches such as self-regulation and awareness that do make any impact in reducing alcohol problems are advocated by the industry.

Monitoring and influencing the policy process takes some time and patience.

MEETING REPORT
TRAINING PROGRAMME FOR EVIDENCE-BASED
ALCOHOL POLICIES IN DEVELOPING COUNTRIES

Anders Wengen

INTRODUCTION

The Norwegian organizations FORUT, Blue Cross Norway and the International Federation of Blue Cross (IFBC) have embarked on a partnership aimed at increasing the knowledge on evidence based alcohol policies in developing countries. The plan is to have series of workshops in a total of 11 African countries during the programme period that ends in 2013. In November 2009 the first two workshops were held in Malawi and Botswana, and the results from these were positive and encouraging. The programme will be further tested before being scaled up through a training-of-trainers programme that can greatly increase the activity in not only Africa, but also in other continents.

The training programmes were initiated when FORUT and their international network, realized the need for a counterbalance against the alcohol industry initiatives to develop national alcohol policies in several African countries. The industry policy vision ignores, or chooses selectively from, the international evidence base on alcohol prevention developed by independent alcohol researchers and disregards or minimizes a public health approach to alcohol problems. The policies maintain a narrow focus on the economic benefits from the trade in alcohol. Governments should be given easy access to the relevant research (Bakke & Endal, 2009). The fact that most of the civil society working to reduce alcohol related harm in many of these countries are fairly weak, contributed to the realization that without some kind of external support, most of these al-

cohol industry made policies would go through the political system mostly unchallenged.

The 2008 TV-Campaign in Norway, which raised funds for Blue Cross activities in Norway and internationally, presented an opportunity to address the challenge. Blue Cross Norway and FORUT have cooperated earlier, and came together and made a proposal for a programme that would train policy makers and the civil society on the existing evidence base. The proposal was accepted by the IFBC and the preparations for the training programme started in May 2009. We have since then created a module based training programme that will be adaptable to several situations and cultures throughout the world. The training is now being tried out in three countries before the final training programme will be launched in Chad and Lesotho later this year.

The workshops are important and they can have a lasting effect on the alcohol policy process in the countries involved. It is always difficult to assess the long term effect a programme like this has. There are several factors that must be considered to measure the effect on both short and long term. We will follow the processes in the countries closely in the coming years in order to see how the information given at the workshops are used. Follow-up seminars will be held in the participating countries 6-9 months after the workshop in order to better assess whether the programme has any effect. It is however important to stress that developing and implementing an alcohol policy is a big and complex process. The policy mak-

ers have to consider a vast amount of information and are under a lot of stress from different industry interests and civil society groups. The aim of the training programme is not to take a direct role in the development of these policies. Our mission is to make the relevant and important international evidence base on policy effectiveness and cost-effectiveness available to people and organizations involved in the policy process. How they want to use this information is up to them. In addition we hope to equip the civil society with information that will enable them to be a counterbalance to the vested interests of the alcohol industry.

THE PROGRAMME

Even though the political situation in Malawi and Botswana are quite different, the programme in these two countries was more or less the same. This was because some core situations are quite similar. Both countries are in the process of getting an alcohol policy (Bakke & Endal, 2010), both countries have fairly low per capita consumption but considering the big number of abstainers the ones who drink are often heavy drinkers (WHO, 2004). The group of people involved in the alcohol policy process is small, and most of them from the ministries. So in many regards the situations are similar.

The focus in the workshop is strictly on the public health approach to alcohol policies (Babor et al., 2003; Room et al., 2002; WHO, 2008). We do not cover other parts of reduction of alcohol related harms that also are important. The course reading material includes articles and reports focusing on the public health aspects. In addition to WHO country reports and summaries of the most relevant books, we have also included research material relevant for the specific country. All the material is distributed to the participants and is also made available on the internet.

We are using both national and international experts as facilitators. While the international facilitators are focusing on the global picture and the evidence base, the national facilitators are describing the national situation, including relevant legislation and policies. Through com-

bining the national and the international situation we want to make the point that the challenge is just as much a global challenge as it is a national one. Many of the same problems are experienced all over the world, and one need to combine global efforts with national efforts to reduce the harmful effects from alcohol

In the coming training workshops we will continue our efforts to make the programme more relevant to the specific country situation. We will ask the international experts to give more emphasis to some parts of the evidence base, and include more examples. If we are able to pick two or three interventions we can discuss closer it will make this module more relevant.

We will also need to look closer at the challenge of unregistered production and consumption. This will likely come up in all countries. Addressing this will likely need to be an integral part of any alcohol policy in these countries. It needs to be done in a way which is relevant to the local situation and culture in each of the countries.

Feedback from the participants is important for the further development of the programme. Out of a total of 31 evaluation forms received all are saying that the workshop met their expectations and that it was relevant for the situation in the country. The feedback on the presentations from Blue Cross/FORUT and the international experts are overall very good, scoring fives and sixes (on a scale from one to six where 6 is best) from most of the participants. It is our opinion that what we have presented has had an impact on the participants and that most of the participants take an active part in discussions.

We are sure that the content of the workshop is of top quality. A resource group consisting of 18 of the leading experts in alcohol policy and advocacy work from around the world¹ is established in order to ensure the quality of the

¹ The members of the resource group are: Irene Abderhalden, Peter Anderson, Per-Åke Andersson, Thomas Babor, Raul Caetano, Sally Casswell, Joanne Corrigan, Carina Ferreira-Borges, David H. Jernigan, Emma Kaliya, Neo Morojele, Isidore Obot, Kirsty Rendall-Mkosi, Robin Room, Derek Rutherford, Diyanath Samarasinghe, Pubudu Sumanasekara and Kiragu Wachira

content. This group gives feedback on the programme and provides relevant and up to date data. With all the latest international figures and research and good presentations, we provide the participants with important and relevant information.

CHALLENGES AND CONCLUSION

A general challenge however, is that we don't have enough information on the situation in the respective countries. This challenge is two-fold. First, existing information is often hard to find. There is rarely any main contact point one can approach to find relevant research, and finding out where to get this is a complex matter. Often even the bureaucrats themselves don't know what exists in terms of relevant data. If one finds the info the different governmental bodies are not sure whether this is open and accessible information or should be considered confidential. Secondly the existing data is limited and fractional. A general challenge is that there haven't been done enough research, and on very important areas like unregistered consumption, traditional and changing drinking habits, national trends there is hardly any relevant, national data available. This is a great challenge on several levels. From the book *Alcohol: no ordinary commodity* (Babor et al., 2003), we know that there are differences among countries in per capita consumption, patterns of drinking and alcohol-related problems. This suggests that alcohol policies may have to be tailored to fit the needs of each society. When we lack reliable data on the national situation it is difficult to create efficient policies.

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**APPLICATIONS ARE INVITED FOR THE 2010 ISAJE/
WHO YOUNG SCHOLARS AWARD**

The ISAJE/WHO Young Scholars Award aims to provide recognition for the contributions to addiction science of young scholars from low and middle income countries and to promote their involvement in the field. The award is given for the best paper published by a young scholar from a low or middle income country on any topic related to addiction. The winner will receive a certificate and financial support to attend an international scientific or clinical meeting in the addiction or substance abuse field, to be chosen by the winner in consultation with the Award Committee.

To be eligible, the paper must have been published either online or in print form in a peer-reviewed scholarly journal between 1 July 2007 and 30 June 2010. The research reported should have been carried out predominantly in a low or middle income country, as specified by the World Bank classification. Applicants must be less than 35 years old and should be the lead author in the paper being

submitted for the award. They should hold a current academic or research position in a low or middle income country; or should have held such a position at the time the research for the paper was carried out. The deadline for receiving applications is 31 July 2010.

Further details including the full eligibility criteria and application procedure may be obtained from the ISAJE Executive Officer, Molly Jarvis, 4 Windsor Walk, London SE5 8AF, United Kingdom molly@addictionjournal.org.

The award is sponsored by ISAJE, WHO and Virginia Commonwealth University.

Winner of the 2009 Award: The ISAJE Board is pleased to announce the winner of the 2009 ISAJE/WHO Young Scholars Award. Dr Monica Malta, a researcher from Rio de Janeiro, Brazil receives the award for her paper "Adherence to antiretroviral therapy for human immunodeficiency virus/acquired immune deficiency syndrome among drug users: a systematic review" published in *Addiction*.



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