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In this Issue

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Parental Influence on Substance Use

Social Exclusion and Home-Made Alcohol

Substance Use and Mental Disorders

Drug Use and Personality

Resilience, Substance Abuse and Crime

University and Substance Abuse Interventions



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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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SOCIAL NETWORK CHARACTERISTICS, PERCEIVED DRINKING NORMS AND HAZARDOUS ALCOHOL USE

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ABSTRACT

Efforts by researchers, policy makers and other stakeholders to bring about significant reductions in alcohol use among the youth appears not to be yielding desired results, as the problem of hazardous drinking among the youth has persisted. One possible problem is that studies and policies on alcohol have not adequately situated the problem within relevant social contexts. This cross-sectional study examined the influence of social network characteristics, perceived drinking norms and demographic variables on hazardous drinking among 1,315 adult males newly recruited into a youth empowerment scheme in a state in Southwest Nigeria. Data were collected using structured questionnaire. Results showed that about 18% of the respondents reported scores falling within the hazardous drinking zones while 13% were abstainers. Hierarchical multiple regression analyses were performed to explore the extent to which each of the network characteristics and other factors predicted hazardous drinking. Age ($\beta = -.19$; $p < .05$) and educational status ($\beta = -.16$; $p < .05$) of participants significantly predicted hazardous drinking by accounting for about 15% of the explained variance in hazardous drinking. Social network characteristics accounted for about 33% of the explained variance in hazardous drinking. The importance of these and other findings of the study, and the need to factor in normative and social influences in alcohol-reduction intervention programmes were highlighted.

INTRODUCTION

The consumption of alcohol by young people is not a new phenomenon. Concerns regarding drinking by youth can be traced back to Medes and Persians who tried to stop such behavior by rigorous education about the harms of alcohol (Hawker, 1978). By the late 18th century young people were being encouraged to take the pledge thereby promising: "*I do agree that I will not use intoxicating liquors*

as a beverage" (Hawker, 1978). However, there is growing concerns with regard to the amount of alcohol that is consumed by young people and the manners of consumption in recent times. Abikoye and Adekoya (2010) found that about one-thirds of the respondents in their study reported hazardous drinking patterns.

Efforts by researchers, policy makers and other stakeholders to bring about significant reductions in alcohol use among the youth appears not to be yielding desired results, as the problem

of hazardous drinking among the youth has persisted. Research evidence indicates that young people are drinking more heavily and more hazardingly now compared to their peers in the 1990s that drank just 5.4 units (Bates, 2005; The Canadian Center on Substance Abuse, 2010). One possible problem is that studies and policies on alcohol have not adequately situated the problem within relevant social contexts.

An important factor that may predict hazardous drinking is perceived drinking norms (Abikoye, 2012). The general definition of social influence is that health-related behavior is influenced by a person's social context. The behavioral social context can be represented by the behaviors of an individual's peers or family members (e.g., alcohol use) with whom the person interacts regularly, or by behaviors observed in a larger social environment such as the neighbourhood in which a person lives. The normative social context is represented in an individual's perceptions about the acceptability of a behavior, such as alcohol use, derived from communications from network members, or by portrayals of behaviors in mass media such as television or movies (Brody, Flor, Hollett-Wright & McCoy, 1998). If an individual considers a behavior (i.e., alcohol use) as normal and appropriate for him or her, then the likelihood is high that he or she would be more likely to engage in the behavior.

Research suggests that normative perceptions of proximal reference groups are more likely to influence drinking than normative perceptions of distal groups (Borsari & Carey, 2003; Korcuska & Thombs, 2003; Lewis & Neighbors, 2006). In support of this notion, Lewis and Neighbors (2004) found that perceived same-sex drinking norms were more strongly related to personal drinking when compared to opposite-sex norms. Moreover, Larimer and colleagues demonstrated that perceptions for drinking for normative referents specific to three levels (e.g., same-sex, same-race, and same-housing) were uniquely related to drinking when accounting for perceived typical student drinking behavior (Larimer, Kaysen, Lee, Lewis, Dillworth, Montoya, & Neighbors, 2009).

The degree to which an individual identifies with his or her normative referent group may play an important role in norms-behavior relationship. For example, Lewis and Neighbors (2007) found that same-sex normative drinking information was especially efficacious in reducing drinking for women who more closely identified with their gender. Further, Reed and colleagues (Reed, Lange, Ketchie & Clapp, 2007) found that the extent to which injunctive norms information was associated with alcohol use depended on the degree to which an individual identified with that specific group. The present research aimed to more specifically evaluate the influence of social network characteristics and perceived drinking norms on hazardous drinking among youths.

The influence of social network, either positively or negatively, on a wide variety of behaviors is well documented. Most studies on alcohol epidemiology in Nigeria, however, provide little or no insight into the social contexts of alcohol consumption. Analysis of cross-cultural research reveals some near-universal 'constants', namely: proscription of solitary drinking; prescription of sociability; and social control of consumption and behavior. Research findings indicate that these unofficial rules, and the self-imposed protocols of drinking, have more influence on both levels of consumption and drinking behavior than 'external' or legal controls. The present study sought to extend previous research examining the influence of social network characteristics, perceived drinking norms and demographic variables on alcohol use. We hypothesized that the nature of social network characteristics and perceived drinking norms of participants would be strongly associated with participants' drinking.

METHOD

Participants

Participants were 1,315 male adults newly recruited into a youth empowerment employment scheme in a south-western state

of Nigeria. All participants were literate, with at least Secondary School Certificate / West African Examination Council. Mean age of participants was 27.54 (± 5.35). Participants' characteristics are presented in Table 1.

Measures

The survey materials consisted of a section to tap respondents' background information such as age, education, religion, and social network characteristics. These background variables were assessed through individual items on the questionnaire.

Social network characteristics were assessed by asking participants to describe their social networks (friends) with whom they closely associate in terms of number of such associates, educational status, employment status, alcohol consumption status, and age of such associates.

Hazardous drinking was assessed using the World Health Organization's 10-item Alcohol Use Disorders Identification Test

(AUDIT) (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The AUDIT was developed as a simple instrument to screen for excessive or hazardous drinking and to assist in brief assessment. Based on individuals' composite scores on the AUDIT, their risk levels and the implications for intervention can be assessed. According to the AUDIT manual, a score of zero indicates that the individual is an abstainer; scores of 0–7 fall into zone I (alcohol education); scores of 8–15 fall into zone II (simple advice); scores of 16–19 fall into zone III (simple advice plus brief counselling and continued monitoring); while scores of 20–40 fall into zone IV (indicating that the individual should be referred to a specialist for diagnostic evaluation and treatment). The AUDIT has been used by researchers in Nigeria and has been shown to display adequate psychometric properties and cultural relevance (Abikoye & Osinowo, 2011; Akinlawo, 2010). A Cronbach's alpha coefficient of 0.76 was obtained for the AUDIT in this study.

Perceived drinking norm was assessed using the adapted (Brody et al., 1998) 12-item Perceived Norms about Substance Use scale. Each item is scored along a five-point scale ranging from "totally acceptable" to "totally unacceptable," with higher scores indicating that a respondent perceives drinking to be normal for him or her. A Cronbach's alpha coefficient of 0.81 was obtained for the scale in this study.

Procedure

Participants were personally interviewed by the researchers and four trained assistants during the orientation programme for the youth empowerment scheme of the state. The research instrument was administered to participants who were given the option of returning it immediately or to drop it later at a designated place. Informed consent was implied by the voluntary acceptance, completion and return of the research questionnaire. Of the 1500 questionnaire administered, 1315 were returned with usable data, representing an 87.7% return rate.

Table 1: Socio-demographic characteristics of participants

Variable	n	%
Age (27.54 (± 5.35))		
< 20	285	19.62
21 – 25	356	27.07
26 – 30	399	30.34
31+	275	20.91
Educational Level		
WASC/GCE O' Level	478	36.35
National Diploma	366	27.83
National Certificate of Education	305	23.19
Higher National Diploma	115	8.75
First Degree	53	4.03
Religious Affiliation		
Christianity	491	37.34
Islam	663	50.42
Traditional	86	6.45
Others	75	5.70

RESULTS

Table 2 shows participants' alcohol consumption status by AUDIT scores. Overall, 12.47% were abstainers, 46.46% were safe drinkers (falling within Zone 1 of AUDIT), 23.04% scored within Zone II of AUDIT while about 18% scored within the more hazardous drinking zones (Zones III and IV of AUDIT). In order words, about 18% of the participants scored at least 16 and above on AUDIT.

Details of respondents' social network characteristics were explored (Table 3). In terms of age of people that participants socialised with, 24.26% socialised with people aged less than 20 years, 54.07 with people aged 20 to 30 years, while 21.67% socialised with people aged above 30 years.

In order to explore how well each of the independent variables predicted hazardous drinking among newly recruited persons, we conducted hierarchical multiple regression. In the first step, age and educational status were entered. Social network characteristics of participants were entered in the second step while perceived drinking norms were entered in the third step. Results of these are presented in Table 4.

Age ($\beta = -.19$; $p < .05$) and educational status ($\beta = -.16$; $p < .05$) of participants significantly predicted hazardous drinking in the first step. These two variables explained about 15% of the variance in hazardous drinking. In the second step, social network characteristics were added. Together, these variables accounted for about 33% of the explained variance in

hazardous drinking, meaning that the addition of social network characteristics led an incremental prediction (17%) of hazardous drinking. The addition of perceived social norms in the third step increased the joint predictive power to 44% (an increase of 12% over demographic and social network characteristics alone).

DISCUSSION

The present study investigated hazardous drinking in a population of newly-recruited male youths in southwestern Nigeria. Results indicated that hazardous drinking was quite high among respondents, a finding that is consistent with recent empirical reports on alcohol consumption patterns among youths in Nigeria (Abikoye & Adekoya, 2010; Abikoye & Osinowo, 2011).

Age of respondents and their educational levels were found to be significantly associated with drinking. Specifically, younger respondents, compared to relatively older ones, were more involved in hazardous drinking; and higher educational level was associated with less hazardous drinking. The startling finding that younger persons reported higher levels of drinking relative to older persons shows a near-universal contemporary trend and portends great danger to stakeholders involved in regulating alcohol use. As noted by Bates et al., (2005) and Canadian Center on Substance Abuse (2010), youths are consuming more alcohol and they are doing so in increasingly more dangerous patterns now than at any other point in time. The prediction of drinking by educational status is quite plausible in the sense that the more educated an individual is, the more likely that he or she will show more restraints in social situations and habits.

Results also indicated social network characteristics significantly predicted hazardous drinking. For instance, age of people in respondents' social network was negatively associated with hazardous drinking, suggesting that the older the people in a person's social

Table 2: Participants' alcohol consumption status by AUDIT scores

AUDIT Score	n	%
Abstainers	164	12.47
1 - 7	611	46.46
8 - 15	303	23.04
16 - 19	172	13.08
20 +	65	4.94

Table 3: Respondents' social network characteristics

SN Variable	n	%
1. "Average age of people you socialise with"		
Less than 20	319	24.26
20 – 30 years	711	54.07
30 years and above	285	21.67
2. "Alcohol consumption by people you socialise with?"		
No	102	7.76
Yes, Little	388	29.51
Yes, Moderate	619	47.07
Yes, Heavy	206	15.67
3. "Alcohol consumption with people you socialise with?"		
No	102	7.76
Yes, Little	405	30.80
Yes, Moderate	631	47.98
Yes, Heavy	177	13.46
4. "Educational status of people you socialise with"		
Low	361	27.45
Moderate	709	53.92
High	245	18.63
5. "Employment status of people you socialise with"		
Not Employed	488	37.11
Employed	827	62.89
6. "How many people do you closely socialise with"		
Few	390	29.66
Many	755	57.41
Very many	170	12.93

Table 4: Hierarchical multiple regression analysis of demographic factors, social network characteristics and perceived drinking norms on hazardous alcohol use

Variable	Step 1	Step 2	Step 3
Age	-.19*	-.17*	-.17*
Education	-.16*	-.18*	-.18*
Age of members of social network		-.21*	-.24**
Alcohol use by members of social network		.28**	.32**
Alcohol use with members of social network		.22**	.27**
Educational status of members of social network		-.26**	-.31**
Employment status of members of social network		-.21**	-.23**
Number of social network		.23**	.26**
Perceived drinking norms			.35**
<i>R</i>	.41	.57	.67
<i>R</i> ²	.16	.33	.46
Adj. <i>R</i> ²	.15	.32	.44
<i>R</i> ² change (%)		17	12
<i>F</i>	12.28**	21.21**	28.54**
<i>F</i> Change		8.93**	7.33**

network the less likely that the individual would engage in hazardous drinking. Similarly, alcohol use by members of social network strongly predicted hazardous drinking. Alcohol use with members of social network strongly also predicted hazardous drinking. Furthermore, higher educational status social network was strongly associated with less hazardous drinking. Having unemployed persons as social network was associated with hazardous drinking. Finally, perceived drinking norms were associated with hazardous drinking. All these lend credence to earlier findings (Larimer et al., 2009; Lewis & Neighbours, 2007; Reed et al., 2007) attributing major roles to social network characteristics and normative influences on addictive behaviors generally and alcohol consumption specifically.

For greater effectiveness, therefore, alcohol reduction programmes should take cognisance of social factors. Drinking is a social behavior which is hardly exhibited in isolation. In fact, consistent drinking in isolation is considered a form of serious psychopathology. Any alcohol reduction intervention that neglects the social realities of the target population is, thus, bound to fail. The socially-situated experiential learning model (Lederman, Stewart, Barr, & Perry, 2001) could be adopted. The model assumes that substance use among youths is a shared reality learned through drinking-related experiences, stories shared, perceptions and many misperceptions of the behaviors and expectancies of one another. Applying the same model into the creation, implementation, and evaluation of preventive campaigns has the potential of significantly reducing alcohol consumption by the youth. We are of the view that intervention focussed on the interactional experiences that youths have in their social settings can be used to influence alcohol use among them.

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PARENTAL INFLUENCE ON SUBSTANCE USE AMONG YOUNG PEOPLE IN THE NIGER DELTA REGION, NIGERIA

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ABSTRACT

The aim of this study was to assess the pattern and compare the rates of substance use in parents of children with substance use disorders in the Niger Delta region of Nigeria. Between January 2009 and December 2011, a total of 528 participants, comprising 255 fathers of children with substance use-related problems (study group) and 273 fathers of children without problems (comparison group) attending the Psychiatric Unit of the University of Uyo Teaching Hospital, were assessed, using a modified form of a 117-item self-report instrument based on the World Health Organization's guidelines for students' substance use surveys. The demographic characteristics of the respondents were similar. Locally available substances including alcohol were used more frequently than illicit substances by both groups. Possible reasons for using these substances included ready availability, unidentified personal problems, performance enhancement and unemployment. Substance use is on the increase in our environment and this may be attributable to environmental pressures and weak parental discipline.

Key Words: Parental influence, children, substance use, Niger Delta region

INTRODUCTION

Substance abuse is on the increase and of global concern (UNODCP, 2010). It is a major public health problem, especially in developing countries where there are few effective interventions. Substance abuse is the resultant effects of indulging in habit-forming substances. The pervasive influence of these substances especially on youth has been widely reported (Adesanya et al., 1997; Curtois et al.,

2004). Many of the substances such as alcohol in the form of palmwine, local gins; kolanuts and tobacco in the form of snuff, pipe are local substances of traditional importance (Omibgodun & Babalola, 2004; Obot, 2005; Gureje et al., 2007; Parry, 2005). Factors observed to be contributing to their use include ready availability, custom and culture. There have been various reports of damaging effects of these substances on individuals (Adamson et al., 2000; Madu & Matla, 2003; Morojele

et al., 2005). Earlier studies in Nigeria have attributed involvement of youths in various antisocial activities to the influence of substance use (Ekpo et al., 1995; Adesanya et al. 1997). Evidence has also shown its association with HIV/AIDS (Schwartlander & Sittitral, 1998), this is because the mode of use of some of these substances has been reported as risk factor for human immunodeficiency virus infection. Injection use is said to account for 5-10% of HIV/AIDS cases in many countries (UNODCP, 2000). Emotional and psychological problems have also been reported (Adamson et al., 2000). Therefore, there is need to control the use of these substances and by extension prevent the adverse social and economic impacts.

Substance abuse has continued to be one of the major public health burdens in addition to HIV/AIDS, although there are attempts aimed at reducing the associated health hazards in many countries. Efforts have been largely unsuccessful due to the complex nature of factors involved in substance use. There is increasing evidence that there is a genetic relationship between parents and children's substance problem (Adesanya et al., 1997). However, parental influence is of great significance since the important part of normal child development is the growth of moral awareness. Therefore, substance abuse being a maladaptive behaviour, is learned from significant others. Children who are exposed early in life get indulged through both modeling and operant conditioning (Omigbodun & Babalola, 2004). Parents who use substances themselves lack the ability to rear vulnerable children through the normal process of character building. Since the effects of right upbringing is acquiring a sense of what is right and wrong and the ability or desire to abide by rules and norms, children with defective background may grow to view substance use as exciting and rewarding. This seems to provide an explanation for the development and maintenance of substance use in children whose parents are abusing substances. Therefore, if efforts to curb substance use and associated deviant behaviour in children are to yield positive results, adequate attention

must be focused on the family dynamics. Factors believed to be central to the development of a strong moral sense must be strengthened.

In Nigeria, despite the growing indulgence of youths in substances and associated social vices, data on the influence of parents are scarce. The interplay between the socioeconomic impact and the background influence of the family on the growing child seems to be ignored. In the Niger Delta region, the situation is compounded by the prevailing custom that encourages the presence and use of some of these substances in traditional functions and ceremonies. However, in view of the rapid urbanization and socioeconomic changes with attendant risks, more youths are becoming increasingly vulnerable to substance use. Therefore, there is need to explore various strategies aimed at prevention and control. This study examines the pattern and nature of substance use in fathers of children with substance use-related problem to determine the possible influence on their wards.

METHOD

Location of the study

The study was carried out at the Psychiatric Clinic of the University of Uyo Teaching Hospital, Uyo, a community in the Niger Delta region of Nigeria. This is a 300-bed hospital established in 1996, situated on the outskirts of Uyo, the capital of Akwa Ibom State. The state is one of the major oil producing states in the Niger Delta region. The hospital is the only tertiary health institution serving about 3.9 million people of Akwa Ibom State and its neighbouring states of Abia, Cross River and Rivers.

Participants

These consisted of 255 fathers of children with substance use-related problems (study group) and 273 fathers of children without substance use problem (comparison group), attending the Psychiatric Clinic of the University of Uyo Teaching Hospital, between January 2009 and December 2011.

Procedure

A total of 528 participants, made up of the two groups, completed a questionnaire adapted from a modified form of 117-item self-report instrument based on the World Health organization guidelines for students' substance-use surveys (Smart et al., 1989). This instrument has been used in several studies in many countries including Nigeria (Adelakan & Ndon, 1997; Fatoye & Morakinyo, 2002; Courtois et al., 2004; Abasiubong et al. 2008). The nature and pattern of use of substances were compared in the two groups. Information on age, marital status, educational level and occupation were elicited through a semi-structured sociodemographic questionnaire after consent was obtained. The participants were also assessed for reasons for using the substances. This study passed through the Ethics and Research Committee of the hospital for approval. Four assistants helped in administering the questionnaire to the subjects in the clinic.

Data analysis

The results of the study were analyzed using Statistical Package for Social Sciences (SPSS 17.0). Sample means and percentages were calculated from which simple frequency tables were created. Standard deviation from the mean was calculated and comparisons of categorical data were done using Chi-square. The p-value of less than or equal to 0.05 was used to determine the level of the statistical significance.

RESULTS

A total of 255 fathers of children with substance use-related problems (study group) were recruited into the study. This was compared with 273 fathers of children without substance use problems (comparison group). Table 1 shows the sociodemographic characteristics of the respondents. Two hundred and nine

Table 1: Sociodemographic characteristics of the respondents

Variables	Respondents			
	Study group (N=255)		Comp. group (N=273)	
	n (%)	n (%)	X ²	P-value
Age in years				
< 30	17 (6.7)	26.9 (3.3)	8.721	0.073
31-39	29 (11.4)	34 (12.5)		
41-49	76 (29.8)	73 (26.7)		
51-59	60 (23.5)	90 (33.0)		
>60	73 (28.6)	67 (24.5)		
Marital Status				
Married	129 (50.6)	143 (52.4)	9.349	0.025*
Single	48 (18.8)	32 (11.7)		
Sep/Divorced	51 (20.0)	77 (28.2)		
Widower	27 (10.6)	21 (7.7)		
Educational level				
NFE	42 (16.5)	19 (7.0)	38.176	0.001*
Prim. School	34 (13.3)	52 (19.0)		
Sec. School	48 (18.8)	105 (38.5)		
Higher School	131 (51.4)	97 (35.5)		
Occupation				
Unemployed	76 (29.8)	51 (18.7)	9.043	0.011*
Employed	101 (39.6)	129 (47.2)		
Self-employed	78 (30.6)	93 (34.1)		

*Statistically significant

(82.0%) of the study group and 230 (84.2%) of comparison group aged 41 years and above. One hundred and twenty nine (50.6%) of the study group and 143 (52.4%) of comparison group were married, 48 (18.8%) against 32 (11.7%) single; 51 (20.0%) against 77 (28.2%) were either separated or divorced; while 27 (10.6%) against 21 (7.7%) were widowers. A total of 131 (51.4%) against 93 (35.5%) had higher level of education; 48 (18.8%) against 105 (38.5%) had secondary school; while 34 (13.3%) compared to 52 (19.0%) had primary school education. Forty two (16.5%) of the study group against 19 (7.0%) comparison group had no formal education. One hundred and one (39.6%) of the study group against 129 (47.2%) comparison group were employed; 78 (30.6%) against 93 (34.1%) were self-employed; while 76 (29.8%) compared to 51 (18.7%) were unemployed.

Table 2 shows the pattern and prevalence of substance use among the respondents. Locally available substances were used equally by

both groups, but at variable proportions. One hundred and forty seven 147 (57.6%) study group compared to 103 (37.7%) comparison group used palm wine ($\chi^2=4.49$; $p>0.001$). This was statistically significant. There was also statistical difference in the use of cigarettes, kolanuts, brewed beer, hot drinks, Indian hemp, as 109 (42.7%) study group against 73 (26.7%) comparison group indulged in cigarettes ($X^2=3.78$; $p>0.001$); 66 (25.9%) against 39 (14.3%) indulged in brewed beer ($\chi^2=3.28$; $p>0.001$); 68 (26.7%) against 24 (8.8%) used hot drinks ($\chi^2=5.30$; $p>0.001$); 45 (17.6%) against 19 (7.0%) used kolanuts ($\chi^2=3.60$; $p>0.001$); 83 (32.5%) against 87 (31.9%) consumed local gin ($\chi^2=0.05$; $p<0.957$) and 33 (12.9%) study group compared to 11 (4.0%) comparison group used Indian Hemp ($\chi^2=3.55$; $p>0.001$); while 77 (30.2%) against 62 (22.7%) consumed bitter kola ($\chi^2=1.86$ $p<0.063$); 51 (20.0%) against 49 (17.9%) used tobacco/snuff ($\chi^2=0.50$; $p<0.614$). A total of 41 (16.1%) of study group and 37 (13.6%)

Table 2: Pattern and prevalence of substance use among the Respondents

Substances	Respondents			
	Study group (N=255)		Comp. group (N=273)	
	n (%)	n (%)	X ²	p-value
Kolanut	45 (17.6)	19 (7.0)	3.60	0.001*
Bitter kola	77 (30.2)	62 (22.7)	1.86	0.063
Tobacco/snuff	51 (20.0)	49 (17.9)	0.50	0.614
Cigarette	109 (42.7)	73 (26.7)	3.78	0.001*
Palmwine	147 (57.6)	103 (37.7)	4.49	0.001*
Local gin (Ogogoro)	83 (32.5)	87 (31.9)	0.05	0.957
Brewed beer	66 (25.9)	39 (14.3)	3.23	0.001*
Hot drinks	68 (26.7)	24 (8.8)	5.30	0.001*
Sleeping drugs	41 (16.1)	37 (13.6)	0.69	0.493
Indian Hemp	33 (12.9)	11 (4.0)	3.55	0.001*
Cocaine	13 (5.1)	5 (1.8)	1.85	0.064
Heroin	5 (2.0)	3 (1.1)	0.49	0.627
Lysergic diethylamide Acid	-	-	-	-
Anabolic steroids	-	2 (0.7)	0.61	0.450

*Statistically significant

comparison group used sleeping drugs such as Lexotan and Valium ($\chi^2=0.69$; $p<0.493$); 13 (5.1%) against 5 (1.8%) indulged in Cocaine ($\chi^2=1.85$; $p<0.064$); while 5 (2.0%) compared to 3 (1.1%) used heroin. The use of anabolic steroids was found only in 2 (0.7%) of the comparison group.

Various reasons were given by both groups for using the substances. Table 3 shows the different reasons given by the respondents. A total of 103 (40.4%) of study group and 97 (35.5%) of comparison group used substance for no specific reasons; 89 (34.9%) against 93 (34.1%) indulged in them because of ready availability, 43 (16.9%) against 47 (17.2%) claimed to use some of the substances for undisclosed personal problems; 64 (25.1%) compared to 23 (8.4%) used substances as a result of being unemployed; while 19 (7.5%) of the study group and 17 (6.2%) comparison group used them for performance enhancement. A total of 13 (5.1%) study group compared to 15 (5.5%) of comparison group indulged in them because of influence from others.

DISCUSSION

This study shows that substance use is common in our environment. Two important observations are prominent in the study. First is that there is high level of use of locally available substances as reported in previous studies

(Omigbodun & Babalola, 2004; Parry, 2005; Gureje et al., 2007; Morten et al., 2008). This level of use may not be unconnected with the custom that encourages the presence and unrestricted use of locally available substances in all traditional functions and ceremonies (Obot, 2005; Gureje, 2007; Weiss, 2008). The second observation is that regardless of the level, substance use is not only limited to the parents of children admitted for drug problems. Social attitude and culture play a great role in either encouraging or discouraging the habit (Omigbodun & Babalola, 2004). This has wider implication in our environment. Therefore, if efforts aimed at reducing substance use problems must yield the desired result, attention must not only be focused on those seeking medical help. This is so because clinic patients may not give adequate measure of the extent and nature of the scope of substance involvement. A large number of people using substances do not regard it as a problem and rarely seek medical attention. Strategies aimed at controlling substance use should include intensive programs, which must be holistically instituted to help change community attitude and promote moral values.

In line with previous studies, our study shows that among the substances, alcohol is the most widely used (Fatoye & Morakrinyo, 2002; Abasiubong et al., 2008; Roerecke et al., 2008). This is consumed in many different forms and proportions, ranging from palm-

Table 3: Possible reasons for currently using the substances among the Respondents

Variables	Respondents	
	Study group (N=255)	Comparison group (N=273)
	n (%)	n (%)
Easy to get (Availability)	89 (34.9)	93 (34.1)
Unidentified Personal problems	43 (16.9)	47 (17.2)
Unemployment	64 (25.1)	23 (8.4)
Enhanced performance	19 (7.5)	17 (6.2)
Influence from others	13 (5.1)	15 (5.5)
Unidentified reasons	103 (40.4)	97 (35.5)

wine, local gin, brewed beer and hot drinks. In this study, the use of alcohol cuts across both the study group and the comparison. Although, one may be tempted to conclude that the use is environmentally determined, there is variation in rates of use. This may be responsible for the many health challenges in our environment. Therefore, in view of its being an important risk factor for disease burden and social harm (Rehm et al., 2004), there is need to halt the trend and pattern of use of alcohol. This is because it has been reported that alcohol accounted for 3.2% of all deaths and 4.0% of all disability adjusted life years (DALYs) in 2000.

The findings of this study also show the emerging increase in the use of illicit drugs. Although, the pattern as revealed in this study was more in the study group than the comparison group. However, the rates of use are not as high as the locally available substances. Regardless of the quantity, one major concern is the harmful effects of these substances. In this study about 13% of the study group used Indian Hemp and 5% used Cocaine. This when compared to 4% and 2% of the comparison group that used Indian hemp and Cocaine respectively, portray a dangerous trend. The reason being that in many instances, the use of habit-forming drugs is outside the conscious control of an individual. This often leads to both risk-taking and novelty seeking behaviour (Kampov-Poleyvoy et al., 2004). Substance use also has adverse health implications. There is a strong association between substance use and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS). Evidence has shown that HIV/AIDS may be due to the mode and paraphrenalia employed in the use of illicit substances. In the US, intravenous drug users (IDU) were found to be responsible for new cases of HIV/AIDS in the year 2000 (UNODCP, 2000). There is also increasing evidence that the use of illicit drugs, such as Indian hemp may be associated with a variety of emotional and psychological problems (UNODCP, 2007; Moore, 2007).

Our study also seems to demonstrate that substance use is environmentally determined. This is buttressed by the fact that a large number

of the comparison group were also found to be using substances as well. Although, it is difficult to determine in this study what factors specifically are responsible for the use of these substances, the variation in the rates and proportion of different substances used seem to lay credence to parental influence. In almost all the substances except anabolic steroids, the rate of consumption was more among the study group. Although recent formulations that combine biochemical and cognitive approaches emphasize the role of dopamine in mediating incentive learning, substance abuse is maladaptive behaviour and can be learned through modeling. It is possible the role of dopamine is to facilitate the learning process by stimulating motivational behaviours that focus on the need for continuous supplies. It is important to emphasize that substance use is a multifaceted problem and several factors may be contributing to their usage. Sociocultural variables such as attitudes towards the substance, peer pressure and how the substance is portrayed by media are also related to how frequently a substance is used. Though not demonstrated in this study, personality factors have also been identified to contribute to substance use. Substance use has been associated with chronic anxiety, a pervading sense of inferiority complex, or self-indulgent tendencies. Although, this is likely to apply to those with antisocial personality disorder who are known to be at increased risk of using substances and developing dependence, we could not justify in this study any incidence of antisocial personality among our participants.

Different people use and abuse drugs for different reasons. Despite the intimidating harmful effects of these substances, the scope is expanding. In our study, about 40% and 35% of the study and comparison groups respectively used substances for no specific reason. This may probably be just for perceived enjoyment. The findings also suggest that ready availability accounts for about 35% of reasons why people indulge in the use of substances. This is similar to the findings in previous studies (Omigodun & Babalola, 2004; Obot, 2007; Gureje, 2007). The interplay between the prevailing socio-

economic difficulties and unemployment has made young men and women vulnerable to substance use. Therefore, if efforts to control substance use and their associated problems are to yield positive results, unemployment which plays a significant role in substance use must be contended. Regardless of the level of use, some of these substances have the potential of addiction (Obot, 2007). Other possible reasons recorded in this study as being responsible for the use of substance are variable. Unidentified personal problem accounts for about 17% of the reasons why the participants use substances. In this study, a more dangerous reason is the revelation that substances are also being used to enhance performance. This is serious and could be detrimental, because the perceived reward could lead to poor drug control and prevention. Though not specifically revealed in this study, other possible reasons may include poor sleep, fever, pains and infections. This is because it is a usual practice and custom in our environment to treat certain illnesses with native concoctions mixed with some of these substances.

The limitation of this study is that the survey is based on self-report, which is subject to obvious error. This is a hospital based study and the results cannot be generalized. One other major drawback in this study is the inability to determine the levels of different substances in either the urine or blood.

In conclusion, this study has shown that substance use is common in our environment and this can lead to substance abuse. Regardless of socioeconomic standing, the abuse is a multifaceted problem and is very difficult to manage. Since prevention still remains the key in the control of substance use and its associated problems, parental guidance is important to protect children from indulging in the habit. Children must be monitored and supervised in whatever they do, and parents must live a drug free life worthy of emulation, in order to act as role models. The observations from this study suggest that the scope of substance use is expanding. Therefore, there is need to embark on strategies aimed at increasing community awareness on the harmful effects of these substances. Efforts aimed at controlling the sale

and use of these substances in our environment must also include policymakers to enact laws and legislation.

Recreational facilities must be provided to engage youths and channel their interest to other activities that may encourage them to be productive. This would help to develop and take their minds away from drug-related ventures. Efforts must be made to improve our healthcare facilities and services, so as to be able to cater for numerous people with substance-related problems in our environment. There is also an urgent need to create and equip drug rehabilitation centres with vocational training facilities to engage idle youths without jobs to be self-reliant and self-sufficient in order to fend for themselves.

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**SOCIAL EXCLUSION AS A CONTRIBUTING FACTOR FOR THE ADDITION OF
HARMFUL SUBSTANCES TO HOME-MADE ALCOHOL: THE CASE OF MOPANI
DISTRICT IN LIMPOPO PROVINCE, SOUTH AFRICA**

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ABSTRACT

Social exclusion elements (poverty, high unemployment and lack of social contacts) have generally been found to be contributing factors to the increased prominence of home-made alcohol in South African society and in the Mopani District of Limpopo Province in particular. These major elements of exclusion combined create a situation from which it is quite difficult for rural people to escape. Therefore, consumption of alcohol, be it home-made or industry-manufactured, makes a significant contribution to alcohol-related harm globally. Harmful use of alcohol and particularly the under-researched and unrecorded home-made alcohol and its related problems have become one of the major global public health problems. Alcohol consumption has been identified as an important risk factor of chronic disease and injury. Home-made alcohol production and use correlates strongly with the pressures placed upon social capital by rapid modernization and the decline in traditional social relationships and forms of family structure. The socio-economic injustices and the constant weakening of family bonds have created an environment in which temporary escape from the harsh reality of everyday life is often sought through the production of home-made alcohol. The focus of this paper was to explore the rationale towards concoction of harmful substances into home-made alcohol in Mopani District of Limpopo Province. Qualitative, explorative, descriptive and contextual design was ideal and purposive and snowball samplings were used. Data was collected through interviews with brewers and consumers of home-made alcoholic beverages. It was found that foreign substances are put into home-made alcoholic beverages for commercial reasons as a way of dealing with socio-economic exclusion. Due to the high concerns of public health in rural areas because of foreign substances into home-made alcohol, social workers in public health should do awareness campaigns and community education on home-made alcohol.

Key Words: home-made alcohol, unemployment, poverty, social isolation

INTRODUCTION

The tremendous stress, rejection, fear and frequent bouts of depression that often result from social exclusion are high risk factors for illegal production and selling of home-made alcohol as well as for the development of a substance abuse problem. Many people who struggle with the negative effects of social exclusion turn to home-made alcohol production and commercialization to mitigate the discomfort and sense of helplessness they feel. Social exclusion can cause producers of home-made alcohol to use unorthodox methods which put health hazards to their consumers. Unemployment and low-paying jobs may also influence one to consider home-made alcohol production as an option for income generation. This report has been developed to shed light on the escalating problem of home-made alcohol abuse in Mopani District in particular and the Republic of South Africa in general.

Makhubele (2011) asserts that there is a dearth of research that has explored home-made alcohol misuse and abuse in rural areas of South Africa, particularly in Limpopo Province. In spite of the fact that there is dearth of research conducted on home-made alcohol, alcohol is still a major determinant of premature death. In support of this view, Babor, Caetano, Casswell, *et al.* (2003) contend that the harmful use of alcohol causes considerable public health problems and is ranked as the fifth leading risk factor in premature death and disability in the world. Alcohol is associated with a wide range of social problems such as unemployment and poverty. It also plays a role in the social disintegration of family and community life, especially in black communities (Gumede, 1995; Parry & Bennetts 1998). It has been found that its detrimental effects lead to an estimated 3.8% of all global deaths and 4.6% of global burden of diseases (Blomgren *et al.*, 2004; Herttua *et al.*, 2007; Mohapatra *et al.*, 2010; Rehm *et al.*, 2007). Cook (2007) purports that alcohol is also a problem for the communities in which people live, degrading public health and safety and ultimately lowering their standard of living. Social exclu-

sion degrades people in terms of their socioeconomic status or social class. Nonetheless, for a long time, alcohol production and sale, particularly home-made alcohol, has been a major source of revenue to many rural people. Alcoholic beverages are, by any reckoning, an important economically embedded commodity. However, the benefits connected to the production, sale and use of this commodity come at an enormous cost to society.

Background information and problem formulation

The consumption of alcoholic beverages has a very long history in South Africa, dating back to ancient times (Gumede, 1995). Due to the rapid pace of change in the economic and social sphere and prevailing political instability in many African countries, alcohol and other psychoactive substance use and related problems are becoming major public health concerns (WHO/UNDCP, 2003). South Africa has experienced escalating levels of alcohol and other drug (AOD) use during its transition from apartheid to democracy (Burnhams, Myers, & Parry, 2009). Unrecorded alcohol consumption was also found to be considerably higher in developing countries. However, half of all alcohol consumption in Africa, two-thirds in the Indian sub-continent and one-third in Eastern Europe and Latin America remained unrecorded (WHO, 2004). With the exception of Nordic countries and Lithuania (where illegal brewing is identified as a major problem), unrecorded consumption in industrialized countries is comparatively lower and is largely a result of home brewing practices, tourism, and smuggling (WHO, 2004). In contrast, in many developing countries, a large chunk of unrecorded consumption is due to home production, illicit commercial production, and the sale of liquor, resulting in severe or fatal health consequences (WHO, 2004). Similar to the Indian experience, home production and illicit commercial production of alcohol are both a source of livelihood and the primary source for affordable alcohol for self-consumption among the poor in Nepal, Bangladesh, Sri Lanka, Kenya, and Somalia (Assunta, 2002; Sherestha, 1992; WHO, 2004).

Little in terms of alcohol research has been done in rural areas from developing countries hence Mustonen (2007) argues that almost all that is presently known about the relationship between alcohol use and alcohol problems are based on studies conducted in developed countries. Yet, alcohol abuse is considered to be an extremely serious health and social problem in many developing countries. Because traditional alcoholic beverages are locally produced in villages and homes, they are often outside the control of local governments (WHO, 2004). Due to the difficulty in collecting data for a product that is largely illegal, this issue has been largely neglected by the research community (Haworth & Simpson, 2004) and very little published materials exist about these kinds of beverages, prompting WHO (2004) to describe the source of data as almost exclusively grey literature on the internet. Such research work is important because in low-resourced areas, manufactures of home-made alcohol utilise unorthodox and poisonous ingredients to make their brews more intoxicating. Basically in under-developed or rural areas, home-made (traditional forms of) alcohol is produced through a simple procedure of fermentation of seeds, grains, fruits, and/or vegetables. These materials are usually poorly monitored for quality and strength, as well as frequently contaminated and toxic (WHO, 2004; Haworth & Simpson, 2004).

Home-brewing of alcohol in rural areas is an alternative to address problems of social exclusion. Lack of income due to under-employed and/or unemployment and poverty may affect socio-economic and health positions directly, hence home-brewing of alcohol to generate income is considered to be the way out. This income generates or creates average living conditions. Average living conditions are an important distal risk determinants for many socio-economic and health positions. Krieger (2001) contends that socio-economic and health positions are multifaceted constructs that include both resource-based and prestige-based measures. Resource-based measures refer to material and

social resources and assets, including income, wealth and educational credentials; terms used to describe inadequate resources include "poverty" and "deprivation" whilst prestige-based measures refer to individuals' rank or status in a social hierarchy, typically evaluated with reference to people's access to and consumption of goods, services and knowledge, as linked to their occupational prestige, income and educational level. Based on that, production of home-made alcohol addresses in a way, addresses challenges of unemployment, poverty and lack of social contacts. The United Nations has identified two forms of poverty: "human poverty" and "income poverty" (UNDP, 2000). Income poverty refers to deprivation in a single construct — income. While income poverty is only one dimension of poverty, it is undoubtedly a core element. Human poverty, on the other hand, is characterized by impoverishment in multiple dimensions such as health, knowledge, standard of living and participation in society. The World Bank also accepts this view of poverty, which covers not only material deprivation but also low achievement in health and education (World Bank, 2001). It goes without saying that production of home-made alcohol by using unorthodox methods is aimed at bringing an income in spite of the effects it may yield. Moreover, poverty and poor education are considered to be additional factors that contribute to the high levels of production, consumption and availability of alcohol in South Africa (Parry & Bennetts, 1998, 1999) which eventually lead to using unorthodox methods and putting in foreign substances to make the alcohol more intoxicating.

Aim of the study

This was the baseline study aimed at exploring and describing precipitating factors for concoctions of harmful substances in home-made alcoholic beverages in rural areas of Mopani District in Limpopo Province, South Africa.

The objectives of the study

The objectives of the study were as follows:

- To find out the means of survival for rural people in order to address social exclusion (unemployment, poverty and lack of social contacts)
- To describe the ingredients in preparation for home-made alcohol beverages,
- To explore the motives for home-brewers of alcohol for putting in foreign substances whilst preparing their home-made alcohol,
- To increase the collection and sharing of data on home-made alcohol use, alcohol availability and alcohol-related harms in rural areas

METHOD

Research Design and Approach

The dearth of systematic epidemiological surveys at Limpopo Provincial level makes it difficult to estimate the prevalence and patterns of alcohol consumption and/or misuse at a district and local levels. Given the lack of data on the issue of home-made alcohol use and misuse, the researcher used a qualitative method to explore this largely unstudied area in Mopani District of Limpopo Province. All interviews were conducted by the researcher in Xitsonga. Interviews were conducted face to face in a private room, and lasted for 30 to 90 minutes. All interviews were tape-recorded and transcribed *verbatim*. Participants' history of alcohol consumption, including home-made consumption, drinking practices, patterns and were explored. A topic guide was used to ensure that themes of interest were covered across all interviews. In order to obtain an understanding from the perspective of the brewers of home-made alcohol beverages, a triangulation was appropriate as explorative, descriptive and contextual design was ideal to provide rich information from participants' perceptions and experiences within their natural setting without influencing them in any way (Babbie & Mouton, 2001). In other words, it was qualitative in nature, which enabled the researcher to gain a better insight into the production of home-made alcohol and to generate possibilities for future research

(Durrheim, 2006; Babbie & Mouton, 2001). Individual interviews were used which De Vos (2002) asserts that they are meant to gain a detailed picture of a participant's beliefs about, or perceptions or accounts of a particular subject. Contextual design has developed within the information systems design practice of the high technology industry. Contextual design is a popular human-centered design method from the field of information systems design (Beyer & Holtzblatt, 1998). Contextual design practitioners herewith as social science researchers' conduct focused field observations, validate or adjust their interpretations in discussion with participants (Notess, 2005). According to De Vos (2002) people's behaviour becomes meaningful and understandable when placed in the context of their lives. Without a context, there is little possibility of exploring the meaning of an experience. Terre Blanche, Kelly and Durrheim (2006) contend that the meaning of creations, words, actions, and experiences can only be ascertained in relation to the context in which they occur. The principle of understanding in context has a strong influence in the development of qualitative methodologies. The rationale for this methodology was also rooted in the attempt to discover valuable, practical and appropriate information regarding the precipitating factors towards production of home-made alcohols from rural areas.

Population and sampling

Purposive and snow-ball sampling were used in this study. Discussants and interviewees were selected purposively, while others were recruited through snowball sampling. The rationale for purposeful and snowball samples was to target individuals who could provide information to understand the phenomenon of home-made alcohol production in the context of precipitating factors as well as motives for putting in foreign substances and the types of ingredients put in. According to Neuman (2006), purposive sampling is appropriate to select unique cases that are especially informative. The study population was, therefore, limited to the brewers of home-made alcohol and consumers from rural

areas in Mopani District of Limpopo Province. Communities which were highlighted as high-risk areas by South African Police Services in Mopani District were involved and people who produced home-made alcohol were involved up until the saturation level has been reached. De Vos (2002) states that snowball is aimed at approaching a single case that is involved in the phenomenon to be investigated in order to gain information on other similar persons. The researcher approached traditional leaders in each community and they referred him to those households which produced and sold home-made alcohol who eventually referred him to other producers. The hope was that each participant would refer the researcher to the one he or she has worked with on production of home-made alcohol or have knowledge about who produces home-made in the community, particularly on issues of precipitating factors and motives for producing home-made alcohol and ingredients used in the preparation of the home-made alcohol. This qualitative study was ultimately concerned with information richness and not representativeness (Julie, Daniels & Adonis, 2004).

Data collection and analysis

Structured individual interviews (face-to-face) were conducted purposefully with selected persons who brewed home-made alcohol and consumers and each referred the researcher to the next brewer of home-made alcohol. This method was selected as it provided an opportunity to minimize variations in the questions posed to the participants and to make sure that all relevant topics are covered (De Vos, 2002). Participants (producers/brewers of home-made alcohol) were visited at their homes and appointments were secured with each one of them. Informed consent of participants was obtained prior to data collection. The consent form explained the purpose and nature of the study, gave assurance of anonymity, confidentiality and the right to withdraw from the study. The aim and objectives of the study were explained and the participants agreed by signing the consent form. Structured individual interviews which had mainly

open-ended questions based on the underlying objectives of the study, guided the interview process. The interviews were tape-recorded with the permission of the participants, transcribed and thematically analyzed. For the researcher to verify and maintain accuracy, he was guided by the viewpoint that qualitative data analysis involves bringing order, structure and meaning to the mass of information collected (De Vos, 2002). Data was analyzed thematically. Thematic analysis is a search for themes that emerge as being important to the description of the phenomenon (Daly, Kellehear, & Gliksman, 1997). The process involves the identification of themes through careful reading and re-reading of the data (Rice & Ezzy, 1999). It is a form of pattern recognition within the data, where emerging themes become the categories for analysis.

In support of that, Terre Blanche, Durrheim and Kelly (2006) outline the steps as follows: Step 1 is the familiarization and immersion (getting to know the data and engaging the data from the tape recorder, field notes and interview transcripts). In Step 2 is the inducing themes (working with themes that are easily noticeable). These themes emanate from data relating to the research aim. Step 3 entails coding (breaking up the relevant data in understandable means). Step 4 is elaboration (getting fresh view of the data by exploring themes more closely) and Step 5 is interpretation and checking the data (the researcher provides clarification and assessment of the data). Due to the sensitive nature of the subject, discussants and interviewees were assured that all information provided would be treated confidentially. Therefore, subsequent discussion used pseudonyms to protect their identity. An issue-focused approach was adopted in analyzing the qualitative data. This is an approach that describes what has been learned from all informants about a particular situation (Weiss, 1994). Data were coded according to concepts and categories used in the paper, and from these, excerpt files were compiled that collected material from interviews that dealt with the same issue. Excerpts are presented using the preservationist approach

(Weiss, 1994); that is, material is presented in the original speech so as to reproduce the words recorded on tape as accurately as possible. Verbatim vernacular words, with English translation in parenthesis, are inserted in places for emphasis.

RESULTS

Since, this study was qualitative and employed purposive and snowball sampling methods. The researcher used structured interview schedule so as to ensure that all topics are covered and to minimize variations. This section gives a description of contributing factors for the prevailing home-brewed alcoholic beverages in Mopani District of Limpopo Province. Presentation of the results and subsequent discussions are based on the following three themes: Socio-economic exclusion (unemployment, poverty and lack of social contacts), description of the ingredients in preparation for the home-made alcoholic products as well as motives for mixing foreign hazardous substances in home-made alcohol beverages and drinking hazardous home-made alcohol beverages.

Social exclusion

Brewers of home-made alcohol unanimously agreed that the social exclusion directly and indirectly pressurize them to find alternatives means of generating income, hence they produce alcohol from home. Understanding the motivations for brewing home-made alcohol using unorthodox methods and constraints presented by socio-economic exclusion, participants had during interviews to advance that:

Vutomi bya tika. Mintirho ku hava. Mukhalabya a va nyawuli. Ndzi sweka byalwa hikokwalaho ka ku ku fanele ku dyiwa laha kaya literally meaning that life is difficult. I am in an unstable relationship. I brew alcohol at home precisely because food should be provided for here at home.

Other participants corroborated by saying that:

Mukhalabya wa la kaya u lovile naswona kwaha ri hava munhu la tirhaka. Hikokwalaho ke, ndzi sweka byalwa leswaku ndzi ta hanyisa vana va mina, va kota no ya exikolweni. This means that the husband is deceased and I am the single parent and there is no one employed here at home. As a result of that I brew alcohol for survival and to be able to send children to school.

The above assertions are corroborated by Niazi, Zaman and Ikram (2009), Burt, Resnick, and Novick, (1998), West (1997) and Cappella and Lerner (1999) when they say that poverty is not only a lack of sufficient income or material possessions. It is also a condition in which people lack prestige and have less access to resources.

With regard to the consumers, drinking home-made alcohol is a way of dealing with the effects of socio-economic exclusion. The superficial link commonly drawn is that poor people take refuge in alcohol to alleviate their unendurable suffering. In some circles, drinking is explained as the natural and expected response to poverty and misery. Alcohol is popularly assumed to be a way of temporarily escaping for a short while the harsh realities associated with social exclusion. Some participants echoed that:

Loko ndzi nwile, ndzi rivala vusiwana – literally meaning that when I am drunk, I forget about my squalor.

In support of the above assertion, some participants stated that:

Vutomi bya tika, mintirho ku hava naswona vusiwana byi ti nyike matimba. Loko munhu a nga nwi, u tshamela ku ehleketa ngopfufu. Le mabyalweni hi kona vanhu va hungasaku kona, i vile hi kona hi kumaka vanghana vo hungasa na vona. This literally means that life is difficult, there

are no jobs and poverty is very rife. When one is unemployed, there is a possibility of thinking too much without a practical solution. At the drinking places, that is where people are relaxing and that is where one meets friends to relax with.

Description of the ingredients in preparation of home-made alcohol beverages

Several type of home-made alcohol were discovered and through interviews, description of how they are produced is presented.

Mporosi (Mqomboti)

This home-made alcohol is known to be the primeval amongst the communities which produce this alcoholic beverage. In ancient times, basically, people would use sorghum malt, ice cream, milk, sugar, yeast, *chibuku* locally known as *chimbukumbafi* or “shake-shake” and water to brew *Mporosi*. It was unanimously agreed that conventionally sugar and yeast were never used, whereas today some brewers add sugar and yeast. It takes seven days to prepare this home-made alcohol as it is cooked and end-products re-cooked (*ku swekisa*) until the brewer is satisfied that it is ready for consumption. It was used during social and religious occasions and by elders. However, of late, people add more hazardous substances to *Mporosi* such as methylated spirits and cabbat (a substance used to fast-track the ripening of bananas). Discussants and interviewees asserted that the *Mporosi* which is brewed currently is not *makoya* – meaning the original one. *Mporosi* we grew up knowing, is made up of sorghum malt, sugar and water than what is currently mixed into something like ice cream. Almost all brewers of *Mporosi* corroborated this fact that the ingredients of *Mporosi* have tremendously changed due to commercial reasons.

Ndzi ta ku nyisa

Ndzi ta ku nyisa literally means ‘I will beat you up’. Some other brewers call it *Skopdonorr*. It is brewed through mixing sorghum malt, maize meal, yeast, methylated spirits,

brake fluids and battery acid. It takes the same process as *Mporosi* so that it ferments and re-cooks and ferments again until the satisfactory level has been reached. On the seventh day it would be ready for consumption. Corroborating this process, an elderly *Ndzi ta ku nyisa* brewer echoed that she learnt how to brew this home-made alcohol whilst she was with her husband in Rustenburg while he was still working in the mines. It is a dangerous home-brew alcohol as it is not supposed to be drunk by weak and sick people. With this alcohol, one should come having had a good meal, preferably porridge to avoid vomiting and dizziness. Consumers are unable to walk after drinking as they get very weak.

Xikwembu ndzi teki

Xikwembu ndzi teki which literally meaning ‘God takes me’. It is a mixture of sorghum malt, water, sugar, yeast, water from boiled roots of *jinja* shrub, battery acid, ice cream, king-korn and brake fluids. After having drunk this mixture, one is certain that he or she will die hence the alcohol named ‘God takes me’. Repeatedly echoed by the discussants and interviewees is that it is by the grace of God that after consuming *Xikwembu ndzi teki* the person will survive. The reason is that the person will start vomiting, trembling and unable to walk. It is obvious that the person will wet himself/herself.

Motives for mixing foreign hazardous substances in home-made alcoholic beverages as well as drinking hazardous home-made alcohol beverages

Participants (discussants and interviewees) constantly echoed that the reasons are obvious as they are not working, are living in poverty and with this kind of home-made alcohol products, people come together to relax and establish relationships. They are brewing alcohol so as to keep the fire burning in their households; hence they used whatever will keep customers coming to them. They were asked whether they thought about the effects of such foreign substances as brake fluids and battery acids could do to a human body. Their

response was that customers were not drinking brake fluids or battery acids but home-made alcohol in spite of what the mixtures were.

There are some pressing reasons for customers in rural areas of Mopani District in Limpopo Province to indulge in home-alcohol and these are: availability, accessibility, affordability and acceptability due to socio-cultural and religious connotations to home-made alcohol. The researcher found that in each community he had discussions with brewers and customers, there were no less than 40 households brewing home-made alcohol in spite of the population size of the community. With regard to consumers, their motives of drinking home-made alcohol beverages despite their debilitating effects were: to relieve stress, to pass time, to socialize, to enhance confidence, as a sexual stimulant and addiction and this corroborate findings from Botswana (Pitso, 2007).

DISCUSSION

Social exclusion is a worldwide phenomenon, distinctly noticed in developing countries. The interface between social exclusion and alcohol abuse is a complex phenomenon and is affected by many contributing factors. Alcohol has diverse influences on people's economic status while economic status in turn affects alcohol use in many ways. The impact of alcohol on poverty is more than through just the money spent on it and the converse influence of poverty on alcohol, has far more to it than found in the absurd explanation that heavy consumption is the result of the harshness of poor lives. Samarasinghe (2009) asserts that lack of opportunities, facilities and services contribute to maintaining poverty. A rapid rise in unemployment can be linked to an increase in alcohol abuse (Stuckler, Basu, Suhrcke, Coutts & McKee, 2009). Conversely, over time, excessive alcohol use can lead to the development of social problems including unemployment, lost productivity, and family problems (Leonard & Rothbard, 1999; Booth & Feng, 2002).

The poor often have different lifestyles and different values from those of people not living

in poverty. The conditions that poor people often cope with may include: unemployment or off-and-on employment, low-status and low-skill jobs, unstable family and relationships, low involvement in the community, a sense of being isolated from society, low ambition, and feelings of helplessness. Many people living in poverty are divorced, are single parents, or have unhappy marriages. They tend to have higher rates of dropping out of school, arrest, and mental disorders. Because of limited access to health care, they are more likely to suffer from poor physical health than are people considered middle class or above. The relationship between socio-economic exclusion and alcohol use is more complicated. Beyond lack of money, poverty leads to certain attitudes, behaviours, and life conditions. These same attitudes and conditions can contribute to production of home-made alcohol using unorthodox methods by brewers and alcohol misuse and abuse by consumers.

Home-made alcohol production and selling is a strategy to address the prevailing problems of unemployment and poverty. Generating income through selling home-made alcohol is the other major element of present poverty reduction efforts. Samarasinghe (2009) contends that these are mostly entrepreneurial and focused on individuals or small collectives. Many poverty alleviation efforts, such as home brewing, try to get poor people to improve their economic status by increasing their incomes.

Not exclusively in rural areas of Mopani District to Limpopo Province, home brewing of alcohol is a way of fighting social exclusion in spite of the health, social and economic burdens caused by the use of this home-made alcohol.

Conclusions and recommendations

The present study gave just a microcosm of the impact of unemployment and poverty as reasons for concoctions of harmful substances in home-made alcohol beverages and the likely alarming home-made alcohol beverages related problems in the country. The broader weakness in poverty reduction plans is lack of a comprehensive model of intervention, or even of

understanding, especially from the standpoint of the poor families and communities. The impact of alcohol, generally and home-made alcohol specifically, on human development is not only on health and economic matters but also on the general wellbeing, including healthy social relationships. Alcohol is a significant contributor to maintaining and worsening economic difficulties and it likely plays a role in generating poverty too. It keeps poor people collectively poor. Given the high unemployment and poverty concerns associated with the production and consumption of home-made alcohols, further knowledge on its mitigating and intervention strategies is required as well as prioritization of research on its links to various disease and socio-economic endpoints.

A multifaceted problem such as alcohol abuse requires a multi-pronged and multi-system approach to intervention (Benegal, 2005). As with most social problems, prevention, detection, and treatment are key areas of intervention in addressing alcohol abuse. There should be a balance amongst preventative, treatment and after-care services, particularly in rural areas. Presently, alcohol policy takes a moral stance rather than a scientific approach towards understanding and dealing with the problem of alcoholism, possibly compounding the problem. A better understanding of the nature, extent, and cause of the problems of unemployment and poverty would help to design policies and interventions that are closer to target in affecting these areas and creating social change. In order to effectively address social problems of unemployment and poverty, public policy must take into account the nature and extent of these problems and the context in which they occur. The present alcohol policy in South Africa seems to be based on an ideological stance rather than a comprehensive understanding of the various dimensions of the problem.

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PREVALENCE AND CORRELATES OF SUBSTANCE USE AMONG PERSONS WITH MENTAL DISORDERS IN A NIGERIAN PSYCHIATRIC HOSPITAL

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ABSTRACT

Few studies in Nigeria have investigated the relationship between psychiatric disorders and substance use. Yet, evidence worldwide suggests that substance related problems might be a major burden among persons with psychiatric disorders.

One hundred and five persons with mental illness (105) were evaluated for substance use with the Alcohol, Smoking, and Substance Involvement screening test (ASSIST). A questionnaire was used to elicit Sociodemographic variables. A high proportion had initiated tobacco (50.9%) and cannabis (34.5%) during adolescent. Factors associated with hazardous drug consumption were male sex ($p < 0.05$), younger age ($p < 0.05$) unemployment ($p < 0.01$) being unmarried ($p < 0.05$) and lower educational level ($p < 0.05$). Routine screening and brief interventions for substance use in psychiatric facilities should be critical components of mental health service delivery.

INTRODUCTION

Several studies have reported that psychoactive substance use is prevalent in Nigeria (Gureje et al., 2007; Adelekan, 1996; Obot 1990). According to the Nigeria Survey of Mental health and Wellbeing, some of the commonly used psychoactive substances include alcohol, tobacco and sedatives (Gureje et al., 2007). Substance use may co-occur with psychiatric disorders (Marshall and Farrell, 2007). This has been consistently found in major epidemiological studies in western countries revealing higher prevalence rates of substance use disorders among persons with mental illness compared with the general population (Kessler et al., 1994 ; Regier et al., 1990).

The pattern and prevalence rates of substance use among persons with mental disorders may vary widely (Wobrock et al., 2007; Haro et al., 2006). For instance, Koskinen et al., (2009) in a systematic review of 47 studies conducted in Western countries reported a range of 1-57% for alcohol use disorders in persons with Schizophrenia. In sub-Saharan Africa, higher rates of substance use have been reported among persons presenting for psychiatric evaluation in mental health facilities (Hauli et al., 2011; Weich and Pienaar, 2009; Ndeti et al., 2008). For instance a recent study in Tanzania revealed that the prevalence rate of substance use in psychiatric populations may be as high as 68.5% (Hauli et al., 2011). This was lower than the prevalence of 74%

reported in a South African psychiatric facility (Weich and Pienaar, 2009). These widely varying rates have been attributed to differences in culture, geographical location and instruments used (Marshall & Farrell, 2004).

Previous studies have identified some correlates of substance use among persons with mental disorders (Hauli et al., 2011). In Tanzania, family history of substance use was associated with use of any psychoactive substance while secondary school level of education was significantly related to tobacco and cannabis use and formal employment with alcohol use. (Hauli et al., 2011). In a South African study, younger age and involuntary admissions were associated with substance use disorders (Weich and Pienaar, 2009). However, studies examining the correlates of hazardous substance use in psychiatric patients have been largely limited to western countries (Cruce et al., 2007). For example, a study in Norway found that female gender and smokers were significantly linked to drug related problems among persons with mental disorders (Cruce et al., 2007).

Previous studies of prevalence rates substance use among patients in Nigerian psychiatric facilities are few and limited to persons admitted into alcohol and drug treatment units (Adamson and Akindele, 1994 ; Adamson et al., 2010). Apart from persons with substance dependence requiring treatment and rehabilitation at psychiatric hospitals (Adelekan, 1996), persons with non-dependent substance use occurring with mental illness may also be present at such facilities (Cruce et al., 2007; Hauli et al., 2011). It is important to examine mentally ill persons with or without co-occurring substance dependence in view of the significant morbidity and mortality reported among non-dependent substance users (Dengerhadt et al., 2001). The use of alcohol and other drugs even among non-dependent individuals may significantly increase risk for violence, impair treatment compliance, and worsen outcome of mental illness (Koskinen et al., 2009).

In developing countries like Nigeria, the financial burden of providing care for the mentally ill is quite high (Amoo, 1998). This is compounded by limited access to mental

health services due to inadequate facilities and qualified staff. Evaluating the prevalence of substance use among persons with mental disorders would provide relevant data and facilitate optimal use of the limited healthcare resources available in the country. In view of this, this study aimed to determine the prevalence and correlates of substance use among persons with mental disorders in a Nigerian Psychiatric Hospital. We hypothesized that gender, age, marital status, employment status and educational level would be associated with substance use among patients.

METHOD

Study design and sample selection

This was a cross-sectional study of persons with mental disorders presenting for evaluation and treatment at the Neuropsychiatric hospital, Aro between December, 2011 and February, 2012. The hospital has 10 wards including a drug abuse treatment facility. It is a government owned specialist tertiary institution located in south-western Nigeria. It provides in-patient, outpatient, and 24-hour emergency services to mentally ill patients. Most of the attending patients have major psychiatric disorders like schizophrenia, affective disorders and substance use disorders.

All patients aged 18-64 years attending outpatient clinic or on admission during the period of the study were eligible to participate in the study. These included patients with substance use disorders admitted in the hospital. Patients that were too ill or refused to give consent were excluded from the study. Patients attending the psychiatric hospital within the study period that met the inclusion criteria were consecutively recruited.

Instruments

A Sociodemographic questionnaire was used to elicit the socio-demographic characteristics of the respondents in this study. It included information on respondents' sex, age, occupation, employment status and duration of illness.

World Health Organization Alcohol, Smoking, Substance Involvement Screening Test (ASSIST)

This interview administered screening instrument was developed by World Health Organization (WHO) to detect psychoactive substance use and associated problems including intoxications and dependence in patients (Humeniuk et al., 2010). It was used to assess drug use in respondents' lifetime and past 3 months. Questions 2-7 were scored for each substance and the resultant substance involvement score computed. The scores were categorized into 3 levels of risk: Low risk (0-3), Moderate risk (4-26) and High risk (27+). Question 8 assessed injecting drug use which is an indicator of risk. The ASSIST has been validated in several countries (Group W.A.W, 2002). Respondents were divided into two groups for further analysis. Those with substance involvement score of 3 or below were categorized as non-hazardous substance users while those with scores greater than 3 were categorized as hazardous substance users.

The instrument was translated into Yoruba (the predominant language spoken in south-western Nigeria) and modified to include local names of common psychoactive substances. Also, the interviewers had received prior training in administering the instrument before commencement of the study.

Ethical consideration

All out- and inpatients in treatment contact with the hospital were invited to participate in the study after the objectives were explained. Written informed consent was obtained from the participants. Ethical approval was granted by the Ethics review board of Neuropsychiatric hospital, Aro, Abeokuta.

Data analysis

Data was analysed with SPSS version 16 (SPSS, Chicago IL, USA). Differences between groups were examined for statistical significance using Chi square test for categorical variables with Yates' Correction or Fisher Exact Test (FET) implemented where appropriate while continuous variables like

age were analysed with independent t-test. The level of significance (p) was set at < 0.05 . Significant variables in the univariate analysis were entered into a logistic regression analysis to determine variables independently associated with hazardous substance use. Odds ratio (OR) with 95% Confidence Interval (CI) were then calculated for the independently associated variables.

RESULTS

Out of 111 patients approached, 105 agreed to participate in the study. The mean age of the subjects was 31.8 (SD =8.6) years. The age range was 19-56 years.

Majority of the subjects were males (85.7%), never married (70.5%), employed (50.5%) and had less than secondary school education (61.9%) (Table 1).

The prevalence rates of substances used are as presented in Table 2. Eighty seven patients (82.9%) had used substances in their lifetime. The highest lifetime prevalence of psychoactive substance use was reported with alcohol (78.1%) followed by tobacco (59%), cannabis (53.3%), cocaine (6.7%), opioids (6.7%), sedatives (4.8%), solvents (3.8%) and amphetamine (2.9%). More than a third of alcohol (44.2%) and tobacco users (30.5%) and a fifth of cannabis users (18.2%) had initiated drug use during adolescence. Hazardous tobacco use (45.7%) in past 3 months was most common followed by alcohol (38.1%) and cannabis use (37.1%). Multiple substance use had occurred in 67 patients (63.8%).

Hazardous substance use was significantly associated with male sex ($p < 0.05$), being single ($p < 0.01$), unemployment ($p < 0.01$), younger age ($p < 0.05$), and lower level of education ($p < 0.05$). Hazardous drug users were five times more likely to be male (OR 5.0, 95% CI 1.32-18.9), four times more likely to be single (OR 4.36, 95% CI 1.70-11.01), unemployed (OR 4.0, 95% CI 1.78-9.01) and about three times more likely to have lower educational attainment (OR 2.79, 95% CI 1.2-6.31) (Table 3).

Table 1: Socio-demographic Characteristics of Patients

Variable	N	%
Age distribution		
16-25	26	24.8
26-35	51	48.6
36-45	18	17.1
≥ 46	10	9.5
Age (years)		
Mean ± SD =31.8 ±8.6		
Age Range 19-56		
Sex		
Male	90	85.7
Female	15	14.3
Marital Status		
Never Married	74	70.5
Married	18	17.1
Previously married *	13	12.4
Employment Status		
Employed	52	49.5
Unemployed	53	50.5
Educational Attainment		
Below Secondary	65	61.9
Secondary and above	40	38.9

*widowed, separated or divorced

DISCUSSION

This study found a lifetime prevalence of 82.9%. Similarly high prevalence rates have been reported in previous studies. About 68.5% was reported by Hauli et al. (2011) in Tanzania and 74.5% by Sinclair and Latifi (2008) in United Kingdom. The high rate of substance use among psychiatric patients agrees with the finding in literatures. Different hypotheses have been suggested in an attempt to explain the complex relationship between mental disorders and substance use (Marshall & Farrell, 2007). These include the self-medication hypothesis (persons with mental illness may use substances e.g nicotine to cope with psychotic experiences) (Kessler et al., 1996) and shared-vulnerability hypothesis (common factors predisposing to both substance disorders and mental illness) (Patel, 2007).

Alcohol was the most frequently used substance followed by Tobacco and Cannabis. This pattern was similarly reported by Hauli et al. (2011). The availability of inexpensive forms of these substances, inadequate enforcement of policies regulating their use and relative social acceptability make them widely available in Nigeria (Gureje et al., 2007; Obot, 1990). The relationship between cannabis and psychotic illnesses may explain its high prevalence in persons presenting for psychiatric

Table 2: Prevalence of substance use among the participants

Substance	Lifetime use n (%)	Adolescent onset n (%)	Hazardous drug use n (%)
Any Substance	87 (82.9%)	-	53 (50.5%)
Alcohol	82 (78.1)	46 (44.2)	40 (38.1)
Tobacco	62 (59)	32 (30.5)	48 (45.7)
Cannabis	56 (53.3)	19 (18.1)	39 (37.1)
Cocaine	7 (6.7)	0	5(4.8)
Opioids	7 (6.7)	1(1)	7 (6.7)
Sedatives	5 (4.8)	1(1)	0
Solvents	3 (3.8)	0	0
Amphetamine	3 (2.9)	0	2 (1.9)
Multiple substance use	67 (63.8%)		

Table 3: Factors associated with hazardous substance use

Variable	Non-Hazardous use n (%)	Hazardous use n (%)	χ^2	df	P	OR (95% CI)
Sex						
Male	40 (44.4)	50 (55.6)	5.16	1	0.023*	5 (1.32-18.9)
Female	12 (80)	3 (20)				1
Employment status						
Unemployed	17 (32.7)	35(67.3)	10.4	1	0.001**	4.0 (1.78-9.01)
Employed	35 (66.0)	18 (34.0)				1
Marital status						
Never married	29 (39.7)	44 (60.3)	9.01	1	0.003**	4.36 (1.71-11.07)
Ever Married	23 (74.2)	8 (25.8)				1
Educational status						
Below Secondary	26 (40)	39 (60)	5.23	1	0.022*	2.79 (1.23-6.31)
Secondary and above	26 (65)	14 (35)				1
Continuous variables			S.E	t	df	p
Mean Age	33.7±9.5	29.9±7.2	1.65	2.26	102	0.026*

* p < 0.05 **p < 0.01

treatment at a specialist hospital (Williams et al. 1996; Thomas, 1993; Thornicroft, 1990). The relatively low prevalence rates reported for cocaine, opioids and amphetamines compared with other drugs is in keeping with the rates reported in previous local studies (Adamson et al., 2010; Hauli et al., 2011). Possible explanations include limited availability, accessibility and high cost of obtaining such psychoactive substances (Hauli et al., 2011).

In terms of hazardous drug use, tobacco was the most frequent. This is quite disturbing, considering the significant physical health risks associated with its use (Sani et al., 2006; Erhabor et al., 2002). Consistent with a previous epidemiological study (Gureje et al., 2007), about half of tobacco users started as adolescents. Prevention efforts targeting adolescents may further reduce the burden of tobacco use in low income countries. Smoking cessation programmes should be integrated into mental health services to reduce tobacco related mortality arising from the epidemic in low and middle income countries (WHO, 2005).

This study found male gender, unemployment, lower level of education and marital status (single) to be associated with hazardous substance. Gender differences in substance use may not be unrelated to Nigerian social and cultural norms for men and women (Obot, 2000). Male attributes like aggressiveness, sensation seeking and antisociality may contribute to problematic substance use (Nolen-Hoeksema, 2004).

This study had its limitations. Its hospital based and non-random nature limits generalizability. The sample size limited further analysis of factors influencing use and abuse of specific psychoactive substances. Notwithstanding these limitations, the study had its strengths including the use of an internationally validated instrument, focus on an understudied population and naturalistic design.

This study showed that substance use is prevalent among persons presenting at Nigerian psychiatric hospital. Further studies are required to evaluate risk factors for hazardous use of specific psychoactive substances

among persons with mental disorders. Routine screening and brief interventions for substance use in psychiatric facilities should be critical components of mental health service delivery.

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DRUG USE AMONG PEOPLE WHO PATRONIZE BEER PARLOURS: THE FUNCTION OF BIG FIVE PERSONALITY FACTORS AND SELF-MONITORING

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ABSTRACT

This study investigates big five personality factors and self-monitoring as predictors of drug use among people who patronize beer parlours within Ibadan metropolis. The study adopted ex-post facto design. Two hundred and twenty eight (228) people who patronize beer parlours were sampled using purposive sampling technique. The participants responded to Big five personality, self-monitoring and drug use scales with their demographic information. Two hypotheses were tested using multiple regression and independent t-test. Extraversion, agreeableness, neuroticism, conscientiousness, openness and self-monitoring jointly predicted drug use. Agreeableness, conscientiousness and self-monitoring independently predicted drug use. Gender difference was found in the level at which participants use drugs. It is concluded that personality factors such as extraversion, agreeableness, neuroticism, conscientiousness, openness and self-monitoring are relevant in understanding the dynamics of drug use in Nigeria. Men use drugs more than women.

Key Words: Drug use, big five personality factors, self-monitoring, beer parlours.

INTRODUCTION

Alcohol appears to be one of the major drugs or substances people do abuse easily. This seems to be true when one considers the extent at which people patronize “beer” parlours in our communities these days; in day time as well as night hours. Consumption of alcohol could be a source of occasional pleasure or usual habit. Drug use is defined in this study as alcohol use. The drinking of alcoholic beverages may be viewed from two perspectives: either the drinker is happy or sad.

However, moderate consumption of alcohol may be advised because the risks involved when taking moderate levels of drinks appear to be minimal. The low risk of moderate consumption of alcohol could be attributed to the fact that the drinker may still be fully aware of his or her surroundings. Irrespective of the levels of drug use; alcohol has been noted to have a link with personality characteristics of drinkers (Bogt, Engels & Dubas, 2006); and perhaps their abilities to monitor themselves.

People consume alcohol at their private domain; and as if this is not enough, beer parlours

under the cover of eating houses; have been identified as places where most people patronize to engage in every forms of drugs use. Indeed, it is while drinking alcohol that most shady deals are discussed, money changes hands, prey corrupt predators not to be devoured by the law, decisions are summarily taken over complaints, complaints are being made, documents are sure to be signed since the conditions of signing are discussed and taken after the gulping of at least a bottle or two. Any benefits from alcohol seem to involve drinking small amounts spread throughout the week. Exceeding two drinks per day is linked to increases in blood pressure and heavy drinking raises the risk of stroke and can cause swelling of the heart as well as irregular heart beat. These are some of the risks that some people in Nigeria are exposed to as they cling to the habit of immoderate drinking of alcohol.

While alcohol use is deeply embedded in many societies, recent years have seen changes in drinking patterns across the globe with Nigeria not excluded. Rates of consumption, drinking to excess among the general population and heavy episodic drinking among the young people are on the rise in Nigeria. Alcohol consumption is one of the unhealthiest habits, across the world. The consumption of alcohol carries a risk of adverse health and social consequences related to its intoxicating, toxic and dependence-producing properties. In addition to chronic diseases that may affect drinkers after many years of heavy use, alcohol contributes to traumatic outcomes that kill or disable people at a relatively young age, resulting in the loss of many years of life to death or disability. It also causes about 20 to 30 per cent worldwide disease of oesophageal cancer, liver cancer, cirrhosis of the liver, homicide, epilepsy, and motor vehicle accidents. What is more, drinking is fuelling an epidemic of "risky sex" among teenagers, leading to pregnancies and spread of diseases. Although excessive drinking is already known to stimulate people doing stupid things, alcohol consumption is one important factor to create a feasible environment for HIV transmission as well as other sexually transmitted infections.

Personality has not been looked at extensively in the previous research on alcohol use among people who patronize beer parlours. Certain subscales of personality have been examined as correlates of alcohol use. For example, Wood, Nagoshi, & Dennis (1992) looked at the Eysenck Personality subscales of impulsivity, sensation seeking, and empathy. This research extended the work on personality by using the Big Five Factor personality inventory, which measures the five dimensions of personality - Neuroticism or emotional stability, Extraversion, Openness, Agreeableness, and Conscientiousness. This is a widely used personality test, and therefore it would be valuable to be able to correlate alcohol use with such a widely used and accepted test. Also, in addition to the big five personality factors, is self-monitoring as predictors of alcohol use among people who patronize beer parlours in Nigeria.

Examining the big five personality factors, the first factor is neuroticism, or emotional stability. Costa and McCrae (1992) argue that neuroticism includes the traits of anxiety, anger and hostility, depression, self-consciousness, impulsiveness and vulnerability. The second factor, extraversion includes traits such as "warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotions" (Costa & McCrae, 1992). Openness, which is the third factor, is sometimes referred to as Intellect. Openness to experience includes the facets "fantasy, aesthetics, feelings, actions, ideas, and values" (Costa & McCrae, 1992). The fourth factor is agreeableness. Agreeableness includes the traits "trust, straightforwardness, altruism, compliance, modesty, and tender mindedness" (Costa & McCrae, 1992). The fifth factor is conscientiousness. Conscientiousness includes the personality traits of "confidence, order, dutifulness, achievement striving, self-discipline, and deliberation" (Costa & McCrae, 1992).

Lots of studies in different setting among different samples have showed the link between personality characteristics and drug use. For example, Booth-Kewley and Vickers

(1994) investigated the association between health behavior and personality dispositions. They found Conscientiousness to be a strong predictor of health behavior and low agreeableness to be responsible for risk taking. Health related habits were analyzed by Lemos-Giraldez and Fidalgo-Aliste (1997) and they found, in a cross-sectional study with over a thousand university students, a significant relationship between conscientiousness, agreeableness and health-related behaviors like current alcohol consumption. Martin and Sher (1994) investigated the family history of alcohol use disorders and their relation to the Five-Factor model and found neuroticism, non-Conscientiousness and non-Agreeableness to be associated with problem drinking.

Regarding self-monitoring, there are people who are high self-monitors and people who are low self-monitors. A high self-monitor is someone who is concerned about how they are perceived by others and will actually change their behavior in order to fit different situations (e.g., if they believe they will be perceived negatively by others, they may change their behavior so that they are perceived more positively; rather than just acting in a consistent manner). On the other hand, a low self-monitor is someone who is less concerned with how other people perceive them and will be more likely to act consistently. Self-monitoring may therefore have independent relationship with drinking behaviour of people who patronize beer parlours.

Compared with women throughout the world, it appears that men are more likely to drink, consume more alcohol, and cause more problems by doing so. It appears that this gender gap is one of the few universal gender differences in human social behavior. It is evident in all areas of the world (Almeida-Filho, Lessa, Magalhaes, Araujo, Aquino, Kawachi & James, 2004; Sieri, Agudo, Kesse, Klipstein-Grobusch, San-Jose, Welch, Krogh, *et al.*, 2002), in drinking versus abstinence (Mohan, Chopra, & Sethi, 2002; Peltzer, 2002), in heavy drinking and intoxication (Gmel, Rehm, & Kuntsche, 2003), and in alcohol use disorders

(Jhingan, Shyangwa, Sharma, Prasad, & Khandelwal, 2003). The current study follows the previous studies by examining the gender differences in drinking behaviours of individuals who patronize beer parlours in Nigeria. In the current study, it was predicted that all these big five personality factors along with self-monitoring would independently and jointly predict drinking behavior among people who patronize beer parlours.

This study aimed to (i) determine the extent to which big five personality factors and self-monitoring will independently and jointly predict drug use among people who patronize beer parlours, and (ii) determine gender difference in drug use among people who patronize beer parlours.

METHOD

Design

The research adopted the use of ex-post facto design. The design was chosen because the assignment of participants to the levels of the independent variables was based on events that occurred in the past.

Setting

The study took place in some selected beer parlours popularly called "joints" located within Ibadan metropolis.

Sample

Purposive sampling technique was used to select the participants in the study. The sampling technique was chosen because the participants were selected considering their drinking behaviours as common characteristics. The participants were drawn from some selected "beer parlours" located within Ibadan metropolis. Two hundred and twenty eight (228) individuals who patronized beer parlours participated in the study. The participants comprised of 152 males and 76 females with ages ranged from 18 years to 40 years (mean age=24.44; SD=4.81). Concerning those who work among the participants, they indicated a minimum of 1 year of work experience and a maximum

of 10 years, with a mean year of 5.18 and a standard deviation of 3.09 years. Majority of the participants 91% were singles while 20 of them were married; an indication that most of the people who patronize beer parlours are young adults who are yet to marry. Description of educational background of the participants showed that majority of them were first degree holder 122(53.5%), 22(9.6%) of them had post graduate qualifications, 14(6.1%) had ordinary diploma with 70(30.7%) indicated unclassified educational qualifications.

Measures

A self-structured questionnaire designed by the researcher was used as an instrument for data collection in the study. The questionnaire sought information on demographic characteristics of the participants, big five personality factors, self-monitoring and drug use scales. All scales used a five-point Likert scale, which ranged from strongly disagree (1) to strongly agree (5). The order of the questionnaire is as follows:

Socio-Demographic Variables

The following variables were recorded as socio-demographic factors of the participants: sex, age, marital status and highest educational qualifications. Most of these socio-demographic variables have been implicated as determining factors for drug use among young adults.

Big Five Personality Factors

The participants were given 44-item personality inventory for measuring the Big Five personality dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. The big five personality scale was developed by Pervin and John (1999). The scale is self-administered and requires respondents to indicate whether he or she agree to disagree. This Big five personality scale has demonstrated good internal consistency (coefficient $\alpha=0.82$, $p<0.0001$). In the current study, a cronbach's alpha reliability coefficient of 0.63 was obtained for the 44-item Big five personality scale.

Self-monitoring Scale

The self-monitoring scale was developed by Snyder (1974). The Self-Monitoring (SM) scale measures the extent to which the respondents consciously employ impression management strategies in social interactions. Basically, the scale assesses the degree to which respondents manipulate the non-verbal signals that they send to others and the degree to which respondents adjust their behaviour to situational demands. In his original study, Snyder (1974) reported very reasonable test-retest reliability (0.83 for one month), and for the present study, an alpha reliability coefficient of an initial study, provided ample evidence regarding the scale's validity.

Personal Drug Use Questionnaire

This 39-item Personal Drug Use Questionnaire was developed by Miller and Tonigan (1996). Each one describes a way that you might (or might not) feel about your drug use including drinking alcohol. For each statement, the participants were to indicate how much they agree or disagree with each of the test item on a 5-point Likert format. High score on the scale indicates higher drug use.

Procedure

All data were collected directly from the participants through the use of questionnaire. A brief introduction of the study objectives was given to the participants. The procedures to protect their confidentiality were explained, and participants were told that filling in the questionnaire implied informed consent. Then, the participants responded to the questionnaires. At the completion of filling in the questionnaires, participants were thanked for their participation.

Results

Big Five Personality Factors and Drug Use

Big five personality factors and self-monitoring independently and jointly predicted drug use among people who patronized beer parlours.

The result presented in Table 1, reveals that extraversion, agreeableness,

Table 1: Personality characteristics as predictors of drug use

Predictors	β	t	p	R	R ²	F	p
Extraversion	.037	.583	NS	.707	.499	36.723	<.05
Agreeableness	-.240	-3.248	<.05				
Conscientiousness	-.424	-8.368	<.05				
Neuroticism	.021	.355	NS				
Openness	.039	.675	NS				
Self-monitoring	-.654	8.435	<.05				

conscientiousness, neuroticism, openness and self-monitoring as predictor variables jointly predict drug use ($F(6, 221) = 36.723$; $p < .05$, with $R = .707$; $R^2 = .499$). This suggests that all the predictor variables jointly accounted for 50% variation in drug use among people who patronize beer parlours. However, Agreeableness, Conscientiousness and self-monitoring were significant in independent prediction ($\beta = -.240$; $t = -3.248$; $p < .05$; $\beta = -.424$; $t = -8.368$; $p < .05$ and $\beta = -.654$; $t = 8.435$; $p < .05$) respectively. This suggests that Agreeableness, Conscientiousness and self-monitoring have significant independent contribution in the joint prediction and are directly related to drug use in the population of people who patronize beer parlours. However, extraversion, neuroticism and openness were not significant in independent prediction of drug use ($\beta = .037$; $t = .583$; $p > .05$; $\beta = .021$; $t = .355$; $p > .05$; $\beta = .039$; $t = .675$; $p > .05$) respectively. The stated hypothesis that Big five personality factors and self-monitoring will independently and jointly predict drug use among people who patronize beer parlours was partially confirmed.

Gender difference in drug use

The result of t-test for independent samples shows that gender had a significant influence on drug use among people who patronize beer parlours ($t = 3.442$; $df = 226$; $p < .05$). In the means, the result further confirms that male participants ($\bar{X} = 117.414$) significantly report higher drug use than female participants ($\bar{X} = 96.881$). The result indicates that there is gender difference in levels of drug use among

people who patronize beer parlours. The stated hypothesis that male participants will significantly report higher drug use than female participants among people who patronize beer parlours was confirmed.

DISCUSSION

Findings of the present study are consistent with the existing literature, which support the link between personality characteristics and drug user in Nigeria. Specifically, hypothesis stated that Big five personality factors and self-monitoring would independently and jointly predict drug use among people who patronize beer parlours was partially confirmed. The results showed that all the predictor variables jointly predicted drug use by accounting for 50% of variation of the drug use among people who patronize beer parlours. In the result agreeableness, conscientiousness and self-monitoring as personality factors independently predicted drug use. The same result revealed that other personality factors did not independently contribute to the prediction of drug use among people who patronize beer parlours. This finding indicated that personality factors such as extraversion, neuroticism and openness are not significantly related to drug use among people who patronize beer parlours; rather agreeableness, conscientiousness and self-monitoring do.

The results showed low scores on agreeableness to be related to higher drug use. This suggests that the lower the agreeableness

personality characteristics of those who patronize beer parlours, the higher their levels of drug use. It was found that low conscientiousness related with high drug use among people who patronize beer parlours. This means that the more this category of people feels confidence or dutiful and is achievement striving, the lower the levels of drug use. It was also found that higher self-monitoring relates with lower drug use among people who patronize beer parlours. In line with the present study, Booth-Kewley and Vickers (1994) investigated the association between health behavior and personality dispositions and found Conscientiousness to be a strong predictor of health behavior and low agreeableness to be responsible for risk taking. The result also supports the work of Lemos-Giraldez and Fidalgo-Aliste (1997) who found a significant relationship between conscientiousness, agreeableness and health-related behaviors like current alcohol consumption. This result generally showed a set of evidence suggesting that personality traits are risk factors for psychoactive substance use, along with social environment and life experiences.

The stated hypothesis that male participants would significantly report higher drug use than female participants among people who patronize beer parlours was confirmed. The result showed that male participants abuse drugs than female participants. This appears to be true when one admit the fact that more men patronize beer parlours than women and the fact that it is always the men that take women to beer parlours for drinks; not always the other way round in this society. The finding is supported as evident in all areas of the world in drinking versus abstinence, in heavy drinking and intoxication and in alcohol use disorders (Mohan, Chopra, & Sethi, 2002; Gmel, Rehm, & Kuntsche, 2003; Jhingan et al., 2003).

This research found agreeableness, conscientiousness and self-monitoring as predictors of drug use among people who patronize beer parlours. This study is particularly valuable with its addition of a complete personality measure to the study of drug use among people who patronize beer parlours. It also used a

more in depth look at situations than some previous studies. The significant findings for the personality factors are important additions to the previous research in this population. Confirmation of gender difference in drug use also adds to the body of knowledge in the population of people who patronize beer parlours. Future research should be done to explore some of the factors not concentrated on in this study, to find a better measure of situations to predict alcohol use as a form of drug, and to compare this sample to other samples in terms of personality and alcohol use.

Implications and recommendations

Personality characteristics have been found to associate with alcohol as a form of drug among people who patronize beer parlours. The major implication of this is that individual differences among drug abusers can play an important role in the choice of a change in drinking behaviours of those who patronize beer parlours. Regarding the relationship self-monitoring and drug use, there is a need for drug users to keep track of their daily drinking and be accurate about it in order to help them to effectively change their drinking behaviour. Therefore, more attention should be focused on personality characteristics effects on the efficacy of different treatment plans for alcoholism or any other forms of drugs. More research is needed to fully evaluate how personality assessment can be useful in the choice of drinking behaviour or drug use for treatment plans.

Limitations

There are several limitations to consider when interpreting the results. This sample is not representative of the entire people who patronize beer parlours in Nigeria, but it was drawn from a sample that included a wide range of ethnics. Of course, there may be some misclassification with the categories of never, former, and current-users of drugs. For example, some individuals might be reluctant to disclose their illicit drug use; some might not recall use in the distant past and some might even exaggerate their levels of drug

use. Categorizing people who patronize beer parlours based on self-reported behavior at the spot of drinking beers might be too broad. Future studies should use multiple methods for assessing drug use and personality traits.

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NARRATIVES OF RESILIENCE AFTER A PERIOD OF SUBSTANCE ABUSE AND CRIME

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ABSTRACT

Substance abuse and criminality are critical problems in South Africa, yet little is understood about youth resilience. Through narrative analysis, this study sought to gain an understanding of resilience in eight men who have disengaged from criminality and substance abuse. Childhood difficulties, ineffective parenting, delinquent peers, and a lack of commitment to school, all contributed to involvement in risk behaviours. A desire to change, often triggered by a pivotal event, was important in turning away from risk behaviours. Other contributing factors included the negative impact of drug abuse, leadership and social skills, academic competence, access to social support and religious beliefs. Maintaining a prosocial life style was supported by giving back to others and an effective substance abuse programme.

Key Words: resilience; substance abuse; criminality; gang involvement; interviews; narrative analysis

INTRODUCTION

Substance abuse is prevalent amongst South African youth. For instance, 28.9% of Cape Town adolescents and 31.8% of Durban adolescents who presented at trauma units were found to have positive breath alcohol levels, and 15.4% of Cape Town adolescents to 28.6% of Durban adolescents tested positive for methaqualone (Parry et al., 2004). Substance abuse is not only problematic for the user him/herself, but also has costs to society such as the strong associations with criminal behaviour (De La Rosa, Rugh, & Rojas, 2005; Sullivan & Hamilton, 2007; Walker-Barnes & Mason, 2004). Arrestees in South Africa have

been found to be highly likely to have used an intoxicating drug at the time of arrest (Parry, Plüddemann, Louw & Leggett, 2004).

An important question to ask, therefore, is how young South Africans might be resilient in desisting from substance misuse and crime. While there is some debate in the literature as to whether resilience might be limited to those who have never yielded to risk factors or displayed behavioural problems (for instance, Masten, 2001), others understand resilience in broader terms, seeing it as successful adaptation or recovery after a period of maladaptation or developmental difficulty (Roisman, 2005; Stajduhar, Funk, Shaw, Bottorff, & Johnson, 2009). It is in this latter sense that

we use the term, and we approach it as a process that involves both the capacity of an individual to navigate towards and negotiate for resources that will promote their health, and as a condition of that individual's family, community and culture to provide these resources (Ungar, 2008).

Risk factors for becoming involved with substance abuse and criminality include the experience of adversity, associating with delinquent peers, poor parenting and low levels of school commitment (Anda et al., 2006; Esbenson, Peterson, Taylor, & Freng, 2009; Hawkins et al., 2000; Kliwer & Murrelle, 2007; Palermo, 2009; Tiet et al., 2010; Xiamong et al., 2002). Involvement in antisocial behaviour can be divided into two groups (Moffitt, 1993): one, smaller group engages in antisocial activities at every life stage (life-course-persistent antisocial behaviour), while another, larger group engage in these activities only during adolescence (adolescent-limited antisocial behaviour). However, "snares" (such as substance misuse) can make it more difficult for even this latter group to disengage from antisocial activities (Moffitt, 1993).

By contrast, coming from a supportive family environment, low levels of parental discord, greater bonding with teachers and less engagement with delinquent peers have all been identified as protective mechanisms involved in resilience to substance abuse and criminality (Carr & Vandiver, 2002; Meschke & Patterson, 2003; Hawkins et al., 2000; Ryan, Miller-Loesi, & Nieri, 2007; Stoiber & Good, 1998; Tiet et al., 2010; Xiamong et al., 2002). Agency and the role of the social context are also important aspects of the resilience process, but tend to be under-emphasised in resilience studies. Studies that have explored these highlight the role of self-reflection (individuals reflect on the consequences of abusing substances and recognise that they need to make changes in their lives) and the development of a personal sense of control and choice (whereby individuals actively make changes in their lives), as well as social support and religious practices (Mohatt et al., 2007; Stajduhar, Funk, Shaw, Bottorff, & Johnson, 2009; Todis,

Bullis, Waintrup, Schultz, & D'Ambrosio, 2001).

Very little resilience research has, however, been conducted on the African continent, where living and social service conditions may be different from developed-world contexts. The aim of this research was to gain an understanding of how individuals deal with the risks they experience, their personal agency in the resilience process (Rutter, 2007), and the role of their particular context (Ungar, 2008).

METHOD

Research Design

A narrative research design was employed in this research as it offered insight into how the participants' experiences informed the resilience process; and how their styles of coping and effective use of resources within their environments contributed to their adaptation to adversity (Hauser, Golden, & Allen, 2006).

Participants

Eight, English-speaking men ranging in age from 18-42 years were interviewed. They were drawn from a faith-based substance abuse program that serves men from a working class community, and were selected on the basis that they had histories of substance abuse and criminality but had disengaged from antisocial behaviour and now work for the substance abuse program from which they were recruited.

Data collection

Narrative interviews were used in this research. The interviews were unstructured, and several broad, open-ended questions on the topic of inquiry were formulated.

Procedure

Ethical approval for this research was granted by the Ethics Committee of the Faculty of Humanities, University of Cape Town. The participants were interviewed individually at their place of employment. The interviews were recorded and transcribed, and the

transcripts were then rendered anonymous by the use of pseudonyms for both the participants and their communities. Once a draft of the findings had been prepared, findings were presented to the participants for further comment via a focus group discussion (Riessman, 1993).

Data analysis

The data was analysed using narrative analysis and thematic narrative analysis. Narrative analysis allows for exploration of the individual's agency by preserving and looking for meanings within the narrative accounts, thereby privileging the narrator's experience (Hauser & Allen, 2006; Riessman, 1993; Riessman, 2008). Narrative analysis also allows for exploration of contextual elements as the researcher can look for aspects within narratives that involve other people, cultural conventions and social systems (Fraser, 2004; Hauser et al., 2006). Thematic narrative analysis was used as it allows for exploration of aspects of resilience which have been identified in past literature (Riessman, 2008).

The names of both participants and their communities have been changed, in order to preserve their anonymity.

RESULTS AND DISCUSSION

The structure and organisation of the narratives

Participants' narratives were generally organised temporally (Riessman, 2000) and followed a common trajectory: they began their interviews with a discussion of their childhood experiences. They then moved on to discuss their introduction to drugs and criminality, the drug and crime-related activities they took part in, and the difficulties they experienced as a result of these activities. Many of them went on to discuss how they formed the desire to stop these activities. Almost all of them ended their narratives with a discussion of their current involvements. The stories they told tended to be quite rich in detail and complexities.

The general temporal arrangement of these stories along this common trajectory, as well as their attention to detail may indicate that these participants understand their resilience as a coherent but complicated process with many different aspects. What this would imply is that their resilience involves active navigation of their environment in an attempt to overcome adversity (Ungar, 2008). The description of the findings (below) follows that common trajectory.

Becoming involved with substance abuse and criminality

Although the system of apartheid has long been dismantled, inequality still exists across racial categories in terms of employment, housing and access to adequate health care and education (Barbarin & Richter, 2001). Seven of the eight participants grew up in low socio-economic suburbs where they were exposed to substance use, crime and gang-related activities. As Liam notes, "growing up here in Oakhurst it was about gangs all the time"; and Luke acknowledges that "Greenoaks was *filled...with drug merchants...*".

Some participants were also exposed to substance abuse and gang-related activities within their family environment: Steven's and Liam's fathers were both alcoholics and Peter's father was a drug addict. Peter's father and brothers, Luke's father and Liam's brother were also involved in gang-related activities. They acknowledged that the environment in which they grew up may have contributed to their delinquent behaviour: Steven discussed how youth tend to model the behaviour of their parents and family members and "what [they] see in [their] communities". A resilience-building intervention might therefore include positive role models for young people, such as is offered by mentoring programs (DuBois & Neville, 1997).

For many of the participants it appears that the experience of childhood difficulties contributed to their substance abuse and criminality (Anda et al., 2006; Tiet et al., 2010). Gary discussed how his mother left him to be raised by an abusive uncle. He felt that he "wasn't

receiving...that father figure love” from his uncle, and ran away from home. He lived on the streets for roughly a year and was then placed with foster parents. He felt that they were good to him, but his feelings of rejection persisted. He then “end[ed] up with the wrong friends” and amongst them he “felt like this is [his] place”. When he was with these friends, he used drugs. Steven also experienced difficulties with his parents who divorced when he began high school:

Steven: “...there was not a lot of attention...being shift on us at that particular time...and because of...the male mentor not being there, that...absent father...I went into the wrong avenues looking for that...role models...”

As a result Steven, like Gary, sought acceptance elsewhere: he joined a gang soon after his parent’s divorce and began taking drugs thereafter.

This theme of wanting acceptance is evident in most of the other participants’ stories. Trevor, for example, discussed how he “wanted to fit in with [his older friends]. And in order for [him] to fit in [he] had to do certain things with them”. The participants’ desire to be accepted by delinquent peers appears to have contributed to their substance abuse and criminal behaviour - associating with delinquent peers is a risk factor for drug use and criminality (Esbenson et al., 2009; Hawkins et al., 2000; Kliwer & Murrelle, 2007; Palermo, 2009; Tiet et al., 2010; De La Rosa et al., 2005). What this may indicate is that youth need to be encouraged to associate with more competent peers.

Luke also experienced childhood difficulties: his father was murdered when he was six years old and Luke felt that the event “play[ed] a big role in [his]...going onto drugs”. Losing a parent can be very traumatic for youth and can contribute to delinquent behaviour (Ellis & Granger, 2002). What is clear is that these men lacked effective parenting in their lives which contributed to their substance use and criminality (Hawkins et al., 2000; Xiamong et al., 2002). Parents play an important role in

their children’s lives, and engagement by parents has been found to reduce the frequency of behavioural problems, criminal activities and substance use amongst youth (Leidy et al., 2011; Walker-Barnes & Mason, 2004). Support for parents to help them parent effectively may also be a key part of preventive interventions.

Schooling is another key institution in children’s development. A lack of commitment to school has been identified as a risk factor for substance abuse and delinquent behaviour (Esbenson et al., 2009; Hawkins et al., 2000; Kliwer & Murrelle, 2007; Palermo, 2009). The majority of the participants in this study either left school or were expelled, but they were nonetheless intelligent students. Peter, for example, stated that he was “an A student”. Academic competence has been found as a protective mechanism in resilience to antisocial behaviour (Mescheke & Patterson, 2003; Moffit, 1993; Stoiber & Good, 1998). This particular sample, therefore, presents with an interesting contrast. It is possible that they became so deeply involved with drug and crime-related activities that their academic competence was not able to act as a protective factor at that time – a notion that is deserving of further study.

It appears that a lack of positive role models, the experience of childhood difficulties, associating with delinquent peers, ineffective parenting and low levels of commitment to school, all contributed to the participants’ involvement with substance abuse and criminality.

Turning away from substance abuse and criminality

Most participants reflected on the negative consequences their drug-taking began to have on their lives. Andrew, for example, mentioned how he “hit rock bottom” as a result of his drug abuse: recognising the negative impact of drug abuse is an important aspect of the resilience process (Mohatt et al., 2007; Stajduhar et al., 2009).

The participants’ stories indicate that another important aspect of the resilience process

may be a desire to change that is triggered by certain events, also identified in previous studies as an important aspect of resilience (Stajduhar et al., 2009). Events that might motivate an individual to stop using drugs (Mohatt et al., 2007; Tebes, Irish, Puglisi Vasquez, & Perkins, 2004) were strongly related, in this cohort, to their quitting drugs and crime. Peter lost three friends to murder. After discussing this he stated, "So I thought no...I'm getting out of this, this is the *last* now...". Trevor became involved with a gang member who, after some time, wished to make Trevor a member. Trevor noted that he was not "keen for that", and "that was the breaking point" for him. Liam became a father and he "found [him]self not having a cent...for [his] boy" and decided "ya I must do something".

Common themes that emerge from the above discussion are those of self-reflection and the development of a personal sense of control and choice; Peter, Trevor and Liam all realised the negative consequences of their substance misuse and delinquency, which seemed to trigger a desire to actively make changes within their lives. This echoes previous literature on resilience (Mohatt et al., 2007; Stajduhar, Funk, Shaw, Bottorff, & Johnson, 2009; Todis, Bullis, Waintrup, Schultz, & D'Ambrosio, 2001). As Luke noted in his interview, "...those people that want to come right, they come right". Given that those intervening amongst delinquent youth are unlikely to be aware of when the individual makes a decision to change, repeated intervention attempts are important.

Another common theme that emerged from the participant's stories is the importance of social support in turning away from substance abuse and criminality (Mohatt et al., 2007; Stajduhar et al., 2009; Todis et al., 2001). For example, Trevor turned to his aunt, Liam to his mother, for help. For some participants, effective social support came from their communities. Peter and Luke were both motivated to stop using drugs after they attended a church service which appeared to speak directly to their situation:

Peter: So they ask like, "Is there anyone that really wanna make a change in their life and

like, really feel that you wanna give up"...So I like...this is exactly what I'm going through like, this can't be man...

After hearing this Peter went forward and "committed his life to God", after which he joined the Riverdale substance abuse program. Luke, like Peter, also joined the same program after attending a church service which had a significant impact on him. Luke was motivated by the fact that the minister who gave the service was a recovered drug addict, and he noted that "this man changed so there is a possibility to change". For Richard it appears that this role-modelling effect was also the case. He discussed how a friend "who's come out of the same...system" had made a change in his life and this motivated him to change. What this finding points to is the importance of ensuring that those who wish to disengage from substance misuse and criminality have access to adequate social support and positive role models.

Religious beliefs and practices can be an important aspect of resilience to substance abuse (Meschke & Patterson, 2003; Mohatt et al., 2007). All the participants in this study described religion as a key part in their disengagement from substance abuse and criminality. Andrew, for example, discussed how upon joining a substance abuse program he had a spiritual encounter with God where he experienced a "total mind shift". Richard described how he gives talks to prison inmates and that he "go[es] with the message that there *is* a way out [of gang involvement], but with God". The participants' identification with religious beliefs is not surprising, since they now work for a faith-based organisation, but it does suggest that faith-based organisations may be able to play an encouraging role in disengaging youth from substance abuse and criminality.

A further way of turning away from substance abuse and criminality may be through occupying prosocial adult roles: job stability and strong marital attachment inhibit criminal and deviant behaviour (Sampson & Laub, 1990). In this study, Richard discussed how if a gang member "find[s] [him]self [a] job and get[s] married" the other members will

generally respect this decision. Offenders taking the “adolescent-limited path” tend to possess adequate social skills, academic competence and the ability to forge close relationships (Moffit, 1993). The participants in this study reflect this: some of them are married, they are all actively involved in their communities, several described their academic competence, they are currently employed and appeared (from the descriptions of several participants) to have leadership skills (also indicated by the senior roles they employed within their gangs). This may indicate the importance of developing these sorts of skills in youth who are at risk for engaging in antisocial activities.

Clearly, participants’ desire to change was triggered by pivotal events in their lives. Self-reflection, actively making a decision to change, social support, religious beliefs and academic, leadership and social skills all played a role in their disengagement from delinquency.

Staying on track

Some of the participants ended their interviews by discussing current challenges they are facing. Gary, for example, wishes to mend his relationship with his foster parents:

Gary: ...as I learned in the program... about restorative justice. That, it’s not about, being forgive[n]...it’s about letting them know, that you did it and, allowing them to...giving them... that space man.

Gary has started to address this by regularly communicating with his parents and helping them to understand his past drug addiction. For him, the effects of the treatment program are still unfolding. Similarly, Luke discussed how the substance abuse program gave him the necessary “tools” to overcome the obstacles he experienced after stopping drugs. What this points to is the importance of having an effective substance abuse program that equips ex-drug addicts to handle the challenges they may face even after treatment.

Most of the participants expressed a desire to give back to their communities. Andrew stated how “[his] passion today is helping others out there”. Helping others may be an important factor in former drug addicts’ and criminals’ recovery (Kahn & Stephen, 1981). This giving to others also created a restraining network: Liam discussed how if he were to go back to drug and gang involvement he would be disappointing a lot of people because “[he’s] actually the guy that encourage[s] others...a lot of them believe in [his] past...”. The fact that others are dependent on Liam appears to give him a sense of purpose and help him manage temptations to relapse. What this points to is the importance of ensuring that youth who used to engage in antisocial behaviour are encouraged to become involved in prosocial activities and to develop a prosocial network.

Receiving effective substance abuse treatment which equips members with the “tools” to deal with any difficulties they may face after treatment ends, is an important factor in helping people maintain prosocial lifestyles. They should also be offered opportunities to become actively involved in their community by helping others.

CONCLUSION

While a narrative research design privileges the perspective of the narrator, interpretation by the researcher cannot be avoided and it is therefore important for the researcher to review her role in the research process (Riessman, 1993; Willig, 2008). The principal investigator in this study is a white, middle class female from a university who interviewed predominantly coloured¹, working class males. Andrew seemed to implicitly acknowledge her academic position as within his interview he discussed how he turned to substance use in an attempt to “numb [his] senses” to

¹ “Coloured” (mixed race) was a racial category defined by apartheid legislation in South Africa, and which continues to affect health and other outcomes.

“subconscious” and “conscious” problems. Richard acknowledged her race: he discussed how during apartheid he and other gang members would steal money to support their drug habit, and that “it seem[ed] right to steal from, uh, with all respect from the white people”. The interviewer’s race and status may, therefore, have had some influence on how the interviewees told their stories.

Given that possible (though unavoidable) limitation, this narrative analysis has shown how experiences of adversity contribute to delinquent behaviour. It has also shed light on the resilience process: it has shown that these participants disengaged from substance abuse and criminal behaviour by actively navigating their way towards more health-sustaining behaviours. This involved drawing on both resources within themselves and within their environment.

This exploration of resilience could inform future research. It would be interesting to explore the narratives of youth who have disengaged from delinquent behaviour and who are of a different faith, class and ethnicity, and also the narratives of those who have gone through non-faith-based substance abuse programs, to explore similarities and differences. Future research could also explore the narratives of women and girls who have disengaged from delinquency.

The stories these men shared demonstrate that having family members who are drug addicts and/or gang members, the experience of childhood difficulties, ineffective parenting, association with delinquent peers and a lack of school commitment all contributed to these men becoming involved with substance abuse and criminality. Their stories also demonstrate that the resilience process involves reflection on the negative impact of drug abuse and criminal activities, and the development of a personal sense of control and choice in which the individual realises their desire to change and actively makes changes. Factors which helped these individuals make a change are academic, social and leadership skills, religious beliefs, social support and encouragement from ex-drug addicts and gang members. Their stories

also show that maintaining a prosocial lifestyle is supported by having an effective substance abuse program and giving back to others.

These findings highlight the importance of ensuring youth have access to positive role models and adequate support and that they are encouraged to associate with prosocial peers. It also highlights the importance of providing parenting skills workshops and social and leadership skills training, within communities facing adversity. Interventions amongst delinquent youth need to be offered repeatedly, so as to capitalise on the moment when potential participants wish to change. Intervention programs need to provide their participants with skills training that will enable them to manage challenges they may face, and the skills to be able to “give back” to their communities. Delinquent youth could also be encouraged to become involved with faith-based organisations (although their role vis-à-vis other community-based organisations needs further investigation).

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UNIVERSITY AND FAMILY COLLABORATION IN SUBSTANCE ABUSE INTERVENTION IN NIGERIA: A PRIVATE UNIVERSITY CASE STUDY

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ABSTRACT

This paper reports a qualitative intervention research that utilized narrative inquiry instrument to explore the interface of substance abuse issues, disciplinary dilemmas and family involvement at a private university in Nigeria. Under the framework of the primary socialization theory, results show that parental involvement, reactions and anticipated consequences were significant factors in substance abuse treatment and prevention among university students. The extended family also emerged as a protective factor for the development of substance abuse behavior amongst university students. This study presents the Family University Substance Abuse Treatment (FUST) as viable guidelines for a collaborative work with families of university students involved with substance abuse. It is a response to the unique Nigerian dilemma of enrolling students in late adolescence into the adult environment of tertiary institutions and dealing with ensuing deviant behaviours such as substance abuse.

Key Words: Family, socialization theory, private university, qualitative research, intervention

INTRODUCTION

Substance abuse among young people is a social and public health concern that has drawn attention from multidisciplinary researchers such as educationists, psychologists, counselors, social workers, medical practitioners and so on (Samet, Larson, Horton & Doyle, 2003; Samet, Friedmann & Saitz, 2001). University (College) students as a subset of the youth population consume large quantities of alcohol, tobacco and other drugs (West & Graham, 2005). In 2004, a survey of 1400 university students across the United States revealed an annual prevalence of alcohol use as over 80%,

while a third of this population used marijuana (Johnston, O'Malley, Bachman & Schulenberg, 2004).

The menace of drug use is not limited to the United States of America. The UNODC, World Drug Report (2012) states that five percent of the world's population, (230 million) used an illicit drug at least once in 2010. Thus it is a global problem that is present even in African countries (Nigeria inclusive). Majority of students in African Universities regarded adolescents' use and abuse of drugs as a serious matter (Pretorius, Ferreira & Edwards, 1999). Despite the efforts of the Nigerian National Drug Law Enforcement Agency

(NDLEA) and other governmental agencies to stem the tide of substance abuse in Nigeria, there has been a consistent rapid rise in the number of cases among young people aged 10-24. (NDLEA Report in Akinyemi, 2008, on-line news). This author resonates with Obot (2007) that substance abuse especially alcohol is indeed a core problem in Nigeria and there seems to be a complacency and a lack of concern for alcohol's contribution to health and social harm.

The problem of drug use among youths in Nigeria has a unique slant because Nigerian Universities admit students who are still in mid-adolescence. The minimum age of entry into Nigerian Universities is 16 (Joint Admissions Matriculation Board Brochure 2010/2011). When students enroll in Nigerian Universities at a minimum age of 16, behaviors and misconduct typical of adolescence are experienced in the adult environment of tertiary institutions (Steinberg & Morris, 2001). University life provides students with a context for experimentation with alcohol and drugs (Gillespie, Holt & Blackwell, 2007). Lamadrid (2009) also stated that young university students have to make critical choices that will have direct impact on whether they will succeed as adults or not. Such choices include career, lifestyle, and lifelong relationships. The average adolescent making the transition from a life sheltered by parents to university life where the gates open with a promise of sudden independence are met with a barrage of campus clubs and fraternities (Reisberg, 2000). There is also the lure to play hard and party hard in the sports arena (DiRamio & Payne 2007). Drinking and drugs seems to be part of the university party scene.

Although the University environment plays a key role in the development and continuation of substance use among the youth, the influence of the family cannot be overlooked. This is because; adolescent behaviors are influenced by family, peers and the school. Oetting and Donnermeyer (1998) identified the family, peers and the school as primary socialization resources in the Primary Socialization Theory (PST) which was the theoretical framework

for this study. Studies have noted the replacement of the traditional extended family structure, polygamous homes and communal parenting popularly associated with the African Family structure, by nuclear families and monogamous homes (Olutayo & Omobowale, 2006), where most parents are striving for affluence and both parents enter the workforce (Ogunbameru, 2004; Ebigo, 2003), leaving the children unsupervised and exposed to vices like exposure to substance abuse via the media. On the other hand, Adelekan, Olatunji, Abiodun, Imouokhome-Obayan, Oniand, and Ogunremi (1993) observed that there was a significant positive relationship between cannabis use and the traditional polygamous family still practiced in Nigeria. Adewuya, Ola, Aloba, Mapayi and Oginni (2006) observed that youths from polygamous homes were prone to depression which may precipitate the use of psychoactive substances. Also the Nigerian youth is culturally exposed to alcohol as it is present in ceremonies around birth, death and all other life stages (Obot, 2007). Thus the family environment, structure and practices impact significantly on the development of substance abuse behavior in young people.

Using the primary socialization theory as a guiding framework, this paper attempts to answer the following questions: a. What is the relationship between family influence and students' involvement with substance abuse in Nigeria? b. What are the key elements that should be included in a collaborative approach between the University and the Family in dealing with a Nigerian student involved with substance abuse?

METHOD

This was a qualitative intervention research. The study was carried out at Babcock University, learning faith based institution of higher learning.

Sample

Purposive sampling technique was utilized to select 49 participants from four different

groups. These included 20 students involved in substance abuse within two academic sessions (2007 to 2009). Out of the twenty, fifteen were returning from substance abuse related disciplinary action, two (2) were self referred, while ten (10) were referred by a concerned member of staff of the university to the SSS department, 10 parents/guardians of students involved with substance abuse. All student participants were male with an average age of commencement of drug use of 17.5 years. The student participants represented all the four Schools of the university which were the School of Management and Social Studies, School of Education and Humanities, School of Science and Technology, and School of law and Security Studies.

Nine members of staff of the Babcock University Students Support services unit participated. Six were social workers and counselors, while 3 were resident hall administrators. Ten members of the administrative/disciplinary committee involved in policy making and disciplinary process also participated in the study.

Data Collection and Analysis

Data collected through semi-structured interviews, narrative inquiry and focus group discussions was verified by establishing trustworthiness and rigour under the qualitative research values of credibility, transferability, dependability and confirm-ability. Trustworthiness and rigour were established by utilizing combinations of four of the six strategies enumerated by Padgett (2008), which are triangulation of data, peer debriefing and support, prolonged engagement, and Member checking. Coded data were analyzed using content analysis. Ethical considerations for this research involved gaining the informed consent of all participants. They were duly informed that participation in the research was voluntary and that they were free to withdraw from the research at any point. The participants signified their willingness to participate in the research by signing a consent form. During the focus group discussions, participants were offered light refreshments as incentives for participating in the study.

RESULTS

Preferred drug

The most preferred drug among the students was cannabis, followed by a combination of alcohol and cannabis.

University and family interface

Notification by the university emerged as a crucial factor in family involvement. The parent participants in this study indicated varied experiences of how the university notified them about their children's involvement with substance abuse. Some expressed dissatisfaction as stated :

"First and foremost, the university has in their records telephone numbers of parents and if such information is not utilized to contact us what is the essence of collecting the information when it is not used. The university simply informed us of their decision after wielding their big stick..."

"I was only informed that he was expelled from the school."

"The University informed me much later through a letter putting him on suspension"

These statements expressed the parents' experience with the university with regards to notification. This study reveals that notification is a vital component of involving and collaborating with parents for a university based substance abuse treatment.

Parental Responses and effects on Student Substance abusing behaviour

Emotional Response

Regardless of how the parents became aware of their child's involvement with substance abuse, all nine participants expressed intense emotional reactions such as 'shock', 'devastation', 'disappointment' and 'embarrassment' as presented in the following responses.

"It was a shock. Could not believe it. Shivering and weeping."

“I was totally devastated. In my wildest dreams, it was the last thing I would ever think my son involved in. which goes to show you can never really know your children. It takes the grace of God.”

The parent statements confirm the concern expressed by one of the ADC participants that parents experience emotional trauma when they are informed about their child’s involvement with drugs. The statement is quoted below.

“...I am also aware that some parents discover their wards abuse substances when informed by the institution, this gives me concern in the shock such parents go through and the need for them to have proper counseling to deal with the reality of their ward/child’s substance abuse.”

Action Response

The parent participants gave responses that identified various actions that were taken in response to their becoming aware of their wards’ involvement with substance abuse. Some parents stated that they gave advice. One parent said that he beat the child physically. He said,

“I had to beat him up and warned him seriously against it.”

Six parents enrolled their wards in a rehabilitation program. Others reported that they utilized spiritual support such as praying in addition to counseling and rehabilitation programs. Some parents mentioned that they involved members of the extended family through prayers and counseling. This confirms the dual approach by Nigerian families of utilizing both western/conventional and traditional/spiritual methods (Olugbile et al., 2009). According to the parent:

*“Making him to go through the counseling session through a Social Worker at a University Teaching Hospital. **We also used the extended family to do a lot of counseling along with prayers**” (emphasis added by researcher).*

This response indicates that parents and family members need a variety of services to support them as they deal with the reality of their child’s involvement with substance abuse.

Figure 1 presents the impact of substance abuse on familial such as reduced level of

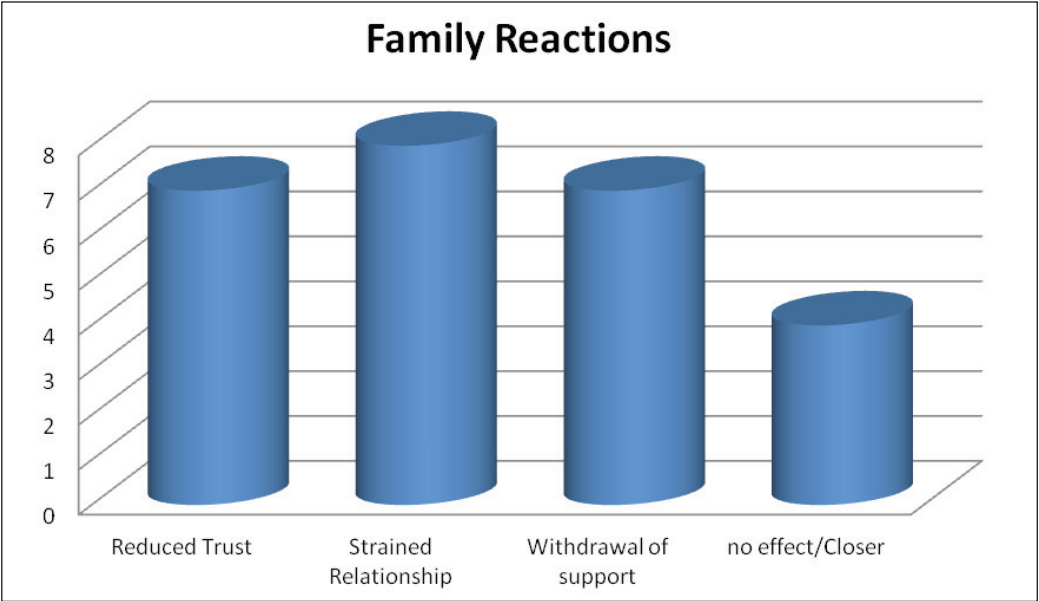


Figure 1: Impact of substance abuse on family relationship

trust, strained relationships and withdrawal of material support. Strained relationship had the highest impact while reduced trust and withdrawal of support had comparable impact. The issue of trust is a major concern for the millennial youth (Moore 2007). A student participant did not allow his mother to be aware of his drinking problem at school because he did not want to lose his mother's trust. He said:

"Not affecting (not affecting relationship) cause she believe it (alcohol drinking) is under control. Level of trust will be reduced. It is important to me that my mother trusts me."

Family influence on drug abuse

Half of the student participants had family members who had a history of involvement with substance abuse. Forty percent of them had family members with a history of alcohol use. One father had used alcohol and cigarettes and a brother and cousin used marijuana. Ninety percent of the students with a family history of substance abuse used the same substance that was the family drug of choice while 60% of the students used marijuana and cigarettes

in addition to the alcohol that was the drug of choice of family members.

Family Involvement

Figure 2 shows that most of the students lived with their biological parents as their primary caregivers. Though the biological family had the largest share of involvement, there was still the presence and influence of extended family and non-kin relationships.

DISCUSSION

The premise for the Primary Socialization Theory as propounded by Oetting and Donnermeyer (1998) is that drug use and other deviant behaviours are the result of social learning. The theory proposes that the primary socialization sources for young people are family, school and cluster peers, and norms and values are transmitted through the bonds between the adolescent and the primary socialization sources. This research therefore was motivated by the component of family influences in the socialization of university students involved with substance abuse, both in the context of

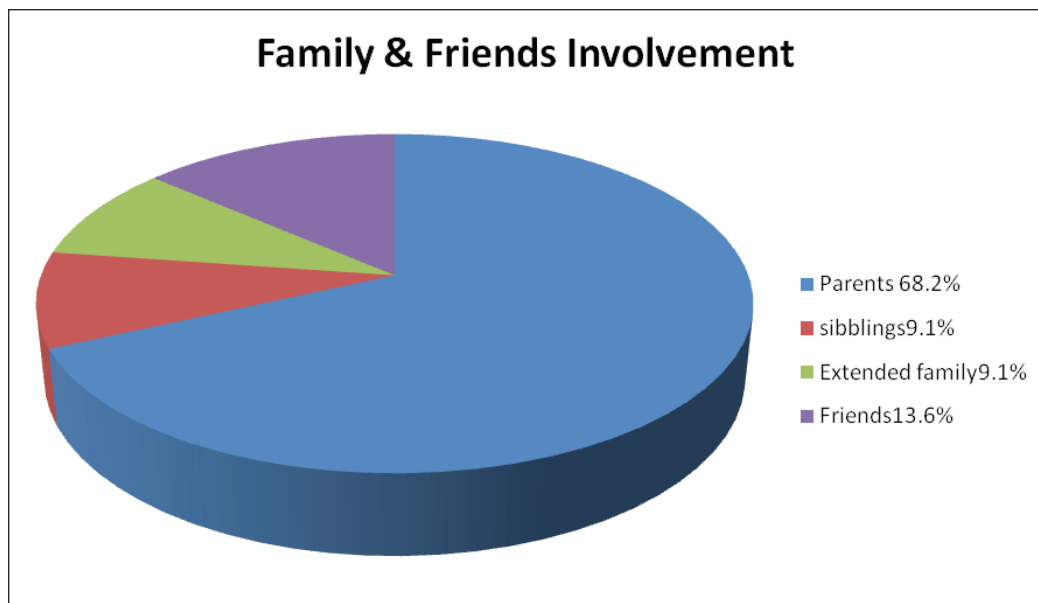


Figure 2: Frequency of family and friends' involvement

the development of the substance abuse lifestyle and the role of family as resources and allies for the intervention process.

The findings in this research revealed that 50% of the student participants had family members who are either current users or had a history of substance use. Alcohol was the drug of choice for 80% of these family members. The high probability of youths repeating deviant behaviour was confirmed by the fact that alcohol was one of the drugs of choice for 90% of the students with family members who used alcohol. This was consistent with previous studies which showed that when the use of specific substances is modeled by parents, children are most likely to use those substances (Oetting & Donnermeyer, 1998).

Students also indicated that the use of alcohol was socially acceptable in their families and in some cases it is seen as a sign of maturity. Their families are generally more accepting of the use of alcohol in comparison to the use of marijuana and cigarettes. However the use of alcohol becomes a concern when there is no control and students get into trouble at the university. The implication of this finding is that whilst the university discourages the use of alcohol in totality and sanctions students for the slightest use, the University may not be able to count on parental support to encourage total abstinence from alcohol. Collaborative work with the family could draw on additional angles of the family component of Primary Socialization theory, such as expression of negative attitudes towards drugs and enforcement of consequences for use. This means that though some families may allow the use of alcohol by their children, they will be encouraged to partner with the university by discouraging the use of alcohol by their children on campus.

As this study revealed and supported by Os-hodi et al. (2010) most of the lived with their parents. Olutayo & Omobowale (2006) observed that though the western system and urbanization has depreciated the extended family influence and there is a shift of emphasis towards the nuclear family, the pursuit of career and material wealth makes the nuclear family

neglect parenting responsibilities without the traditional support of the extended family to safeguard the lapses.

Collaborative work with the family through the provision of psycho-educational services can also benefit family members involved with substance abuse. This approach benefits both the university and the family. The university's institutional policy prohibiting the use of alcohol is not compromised, while it collaborates with families that may permit some levels of use of alcohol. This study showed that even in families where alcohol use was acceptable and family members had some level of use, students were still influenced to change either by actual or anticipated reactions of their parents showing their displeasure at the child's involvement with substance abuse. Students stated that they did not want to hurt their parents or were regretful about the impact of their involvement with drugs on their families. The three sub- themes of family consequences of drug use namely, decreased levels of trust, strained relationships and reduced financial/material support, that emerged under the consequences of drugs on the relationship between the students and significant others were consequences that motivated engagement in treatment and desire for recovery beyond the disciplinary sanctions of the school. University students do not generally seek substance abuse treatment except when they are faced with crises either with the school system or family (Wu et al 2007). It can therefore be deduced that there is emotional involvement between the students and their parents which may be utilized as a strength and motivation for family collaboration leading to positive treatment outcomes (Dekovic et al., 2003).

The utilization of services provided by the university such as drug screening, individual and group counseling etc. was also motivated by the students' need to regain their parents' trust and reinstatement of support and privileges. This motivation was present in all student participants regardless of whether there was substance abuse history in the family or not. Expressions of displeasure by parents as revealed both in the parents' and students'

narrative inquiries, and stated consequences, are key reasons to work with families of university students involved with substance abuse. All the parent participants expressed their strong displeasure at their children's involvement with substance abuse even when they initially expressed some history of use themselves. Battjes et al (2003) confirmed that consequences either from the family, university authority or legal systems were greater motivators for youths to engage in substance abuse treatment than severity of use or specific sources of external pressure such as the court or disciplinary mandates. Men are particularly motivated to enter treatment due to financial pressure (Malowe et al 1999). All the student participants in this study were males. However only 25% of them stated that disruption of financial support from the family was a consequence that affected them and motivated them to obtain treatment.

Whilst this study did not examine the nature of the bond between the students and their parents and how this could possibly have influenced the students' involvement with substance abuse, some of the students did say that the involvement of family in the drug intervention process by the university brought them closer as a family. The nature of family involvement was through notification of their child's involvement with substance abuse, signing of a treatment agreement /contract, participation in counseling sessions and taking

students to referred services such as residential drug treatment. Mark et al (2006) established that communication with parents and family counseling were part of the indices in the key elements of effective adolescent substance abuse treatment programs.. This study established that the average age of onset of drug use was 17.5 years whilst the minimum entry age into the university is 16. It is therefore obvious that students on university campuses are still minors needing parental consent for services.

Also since university students are somewhat suspended between adolescence and young adulthood, they are still financially dependent on their parents while they are developing independence and autonomy (Main 2009). Therefore it is worthy of note that seven students mentioned withdrawal of material (including financial) support as a consequence of the effect of their substance abuse lifestyle on their family relationships. Avoiding these consequences may be used as motivators for abstinence or engaging in treatment

A diagrammatic summary of the Family–University Substance abuse treatment model is presented in Figure 3.

The FUST model promises to be a pragmatic step in addressing the problem of substance abuse among university students under the theoretical framework of the Primary socialization theory. The diagrammatic presentation of the intervention model is a significant contribution to the field of Social work for a

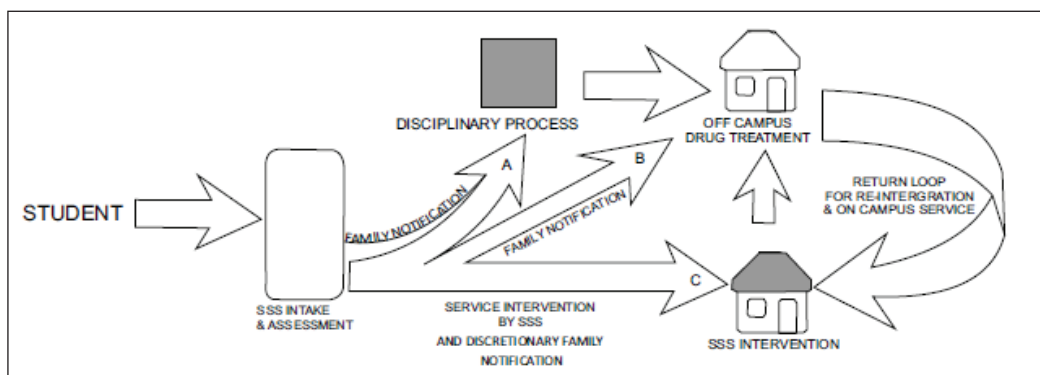


Figure 3: FUST Model for a collaborative approach for working with families of university students involved with substance abuse

collaborative approach to substance abuse intervention amongst university students. The FUST model is presented as a guideline for substance abuse intervention in Sub-Saharan African universities as a recognition that the problem of substance abuse exists among university students and that the problem is amenable to effective interventions (Obot, 2012). While the study was carried out in a faith-based private university in Nigeria there are possible applications to institutions of higher learning in general.

The limitations of this study with reference to PST constructs are that the study did not explore the nature of bonding between the students and their families. Also, this study was carried out in a university that prohibited any form of use of even legal psychoactive substances such as alcohol and cigarettes. It was therefore difficult to determine if the students met the criteria of substance abuse disorder. A student may get into trouble with the university for drinking a can of beer on a weekend but not necessarily be a binge drinker or have alcohol related problems. Further study to properly assess the level of involvement and dependency is suggested. Validated instruments such as ASSIST, AUDIT may be used (Knights et al., 2003, Henry-Edwards et al., 2003). Since this study was carried out in a faith based private university, it is recommended that the proposed intervention be carried out in public/secular universities with more tolerant drug policy. The implementation may bring color and variety to this intervention model.

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