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DRUG
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ALCOHOL STUDIES

In this Issue

EFFECTIVENESS OF PICTORIAL WARNINGS ON
CIGARETTE PACKETS IN EGYPT

SUBSTANCE USE AND SEXUAL RISK BEHAVIOURS IN LIBERIA

HOW EFFECTIVE IS THE “WAR ON DRUGS” IN NIGERIA?

PREVALENCE AND CONSEQUENCES OF SUBSTANCE USE IN ETHIOPIA

ARE NEEDLE AND SYRINGE PROGRAMMES NEEDED IN AFRICA?

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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Volume 12, Number 2, 2013

CONTENTS

Substance use and sexual risk behaviours amongst in-school youth and young adults living in Liberia	75
<i>Nicole Quiterio, Benjamin L. Harris, Christina P.C. Borba, & David C. Henderson</i>	
Pictorial warnings on cigarette packets: Effectiveness and deterrence among Egyptian youth	93
<i>Nashaat H. Hussein</i>	
Prevalence and consequences of substance use among high school and college students in Ethiopia: a review of the literature.....	107
<i>Worku Abebe</i>	
The “war on drugs” in Nigeria: how effective and beneficial is it in dealing with the problem?	119
<i>Smart E. Otu</i>	
Need for needle and syringe programmes in Africa	137
<i>Ssewanyana Derrick</i>	

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SUBSTANCE USE AND SEXUAL RISK BEHAVIOURS AMONGST IN-SCHOOL YOUTH AND YOUNG ADULTS LIVING IN LIBERIA

Nicole Quiterio^{1,2}, Benjamin L. Harris³, Christina P.C. Borba^{1,4}, & David C. Henderson^{1,4}

ABSTRACT

Little is known about the prevalence of and association of substance use and sexual risk behaviors among youth in Liberia. The present study was undertaken to examine the substance use behaviors and sexual practices of students in 16 secondary schools in greater and central Monrovia, Liberia. The sample consisted of 802 students in grades 7th to 12th who were enrolled in a co-educational school. Among substances reported, alcohol was the most commonly tried substance with almost 50% using it at some point in their life. 78% of respondents had engaged in sex with 13% reported having sex for monetary gain. Of those, more than 25% never or occasionally used a condom. Results indicated an association between alcohol and engaging in sex and an increase in the number of sexual partners. Future research should target both in-school and out-of-school students to develop school education and health services unique to this population.

Keywords: post-conflict Liberia, substance use, sexual risk behaviors, in-school students

INTRODUCTION

Africa has the highest prevalence of HIV infection in the world. According to UNAIDS, the number of people living with HIV in Liberia is 35,000 with the prevalence rate of people from the age of 15 to 49 years old estimated at 1.7%. (WHO, 2008) This figure is similar to rates in neighboring countries of Guinea (1.5%) and Ghana (2.2%) but substantially lower than in eastern and southern Africa, where seven countries

have an HIV infection prevalence higher than 15% (WHO, 2008). Unfortunately, AIDS case reporting can be problematic since those affected must be seen in a hospital or clinical setting and clinicians must recognize physical manifestations of the disease, if laboratory testing is unavailable.

In 1847, the Republic of Liberia was created as a haven for “free people of color,” descendants of Africans who were made free due to luck, birth, or their own efforts to establish freedom. Many Africans

came to Liberia seeking independence, where they could live without pressures of slavery. Between 1989 and 2003, Liberia experienced a brutal civil war, which devastated much of its infrastructure including roads, schools, hospitals, and factories. Most major businesses were destroyed or heavily damaged, prompting many foreign investors and businesses to leave the country. Educational systems broke down and many distraught youth were forced to turn to other means to support themselves and their families. Young boys had little opportunities for employment, so many of them joined the army of rebels. Due to stigma and poverty, girls were forced to survive by doing sex work. Post-conflict, Liberia continues to struggle as there are few resources and services available to rebuild the country. As children returned to school, some of them had been away for more than a decade. The disruption of the educational systems heavily impacted the current classroom, which now contains a wide range of student ages. Some high school students are in their twenties and a few in their thirties. Having older children and young adults together in the same classroom impacts the development of younger children, who may be exposed to alcohol and other substances and sex at an earlier age. Younger children may be more vulnerable to such acts like coercive sex than older children, especially if it involves goods or monetary gain.

Statistics show that 63.8% of the population live on less than \$1 per day (UNDP, 2006). Despite its rich natural resources and potential for self-sufficiency in food production, Liberia has difficulty competing with lower costs of production in neighboring countries and imports many of its goods. Although the employment

rate, including formal or informal work, appears to be 96%, much of this work (79%) is vulnerable and inconsistent, often generating very low wages (UNDP, 2006).

Studies from refugee and internally-displaced populations in other countries have shown that alcohol and drugs can serve as a means of coping with such psychiatric problems as depression, anxiety, and stress disorders, which are particularly common in this low socioeconomic group (de Jong & Kompro, 2002; Steel, et al., 2009; Weaver & Roberts, 2010; Weiser, et al., 2006). Other studies in Africa have demonstrated how alcohol use is associated with risky sexual behaviors (CSA, 2000; D. Kebede, Akilu, & Sanders, 2000; MOH, 1999), sexually transmitted disease prevalence, HIV incidence, and HIV prevalence.

Young people are a vulnerable population as many start to experiment with alcohol and other drugs, engage in sexual risk behaviors such as unprotected sex and have multiple partners during this time (Pela, 1986; Blum, McNeely, & Nonemaker, 2002) developed an ecological model to explain the vulnerability of adolescents to risk behaviors that takes into account macro-level environment, social environment, school, family, peers, and individual factors. In Ethiopia, youth who used alcohol, khat, and other substances were also found to engage in risky sexual behaviors (D. Kebede, et al., 2005). Sexual intercourse among adolescents is a risk factor for teen pregnancy, clandestine abortions, sexually transmitted infections including HIV, and school dropout (Illika & Igwegbe, 2004; Oye-Adeniran, Adewole, Umoh, Fapohunda, & Iwere, 2004) (Illika & Igwegbe, 2004). A qualitative study among military conscripts

in Northern Thailand drew the following conclusions regarding alcohol consumption and inconsistent condom use: Alcohol is (1) consciously used by men to reduce inhibitions that constrain their interpersonal interaction with women and with each other; (2) reduces inhibitions of individuals to sexual risk taking; (3) provides a socially acceptable excuse for non-use of condoms; (4) is associated by conscripts with brothel attendance; and (5) is seen to enhance male sexual pleasure, in contrast to condoms, which are said to reduce pleasure (Gossaye, Deyessa & Berhane, 2003).

While there have been a few published studies regarding the sexual practices of adolescents living in Liberia, there has been no published data on the possible association between sexual risk behaviors and substance use in young people. One study in Liberia estimated that 30-49% of females ages 14-17 had sexual relations at least once a month; while over 80 percent of female non-students ages 18-21 years were sexually active (Nichols, Woods, Gates, & Sherman, 1987).

The present study was undertaken to examine the substance use behaviors and sexual practices of students in 16 secondary schools in greater and central Monrovia, Liberia. We have sought to determine the prevalence and possible association of substance use and current sexual practices in this population in order to better characterize the extent of the problem, guide future research, and implement prevention and control programs to better educate young people. To our knowledge, there has been no national public health initiative in Liberia to discuss abstinence, "safer sex" practices or sobriety thus far.

METHOD

Primary and secondary education in Liberia

After the 1997 elections in Liberia, which established a civilian government, several schools reopened and were being operated by churches or Christian missions. Other schools were being funded by the government under the supervision of the Monrovia Cooperative School System (MCSS). Most of the schools are found in Monrovia since there is a lack of good roads throughout the country. The Liberia education system consists of primary and secondary education, which is free and compulsory, although enforcement of attendance is lax. Primary education is typically 10 years of schooling comprised of a pre-primary grade followed by 6 years at the primary level and 3 years at the secondary level. Secondary education consists of 3 years at the junior level followed by 3 years at the senior level. The majority of students can only afford to attend public or government schools because of high tuition fees at most private schools. Private schools offer a better quality of education to their students, often providing books and other materials.

Study design and participant recruitment

A cross-sectional study was performed examining substance use behaviors and sexual practices of in-school youth and young adults. It was conducted during a one-week period in June 2008 in central and greater Monrovia, the country's largest and most densely populated city. The study was conducted by the World Health Organization with collaboration and ethical and research protocol approval by the

Liberian Ministry of Health and Social Welfare, and the Ministry of Education.

Recruitment occurred at all co-educational secondary schools in central and greater Monrovia. All schools received a letter from the principal investigator requesting participation in a questionnaire to understand the psychoactive substance use and sexual practices amongst secondary school students in Monrovia. The first 16 schools that responded were included in the study. Six of these schools were public institutions (approximate cost \$21/semester) and 10 were private (approximate cost \$142/semester). The study consisted of students from Grade 7 through 12. Those students interested in participating in the questionnaire were asked to put their names in a box. The first 50 names drawn were chosen to participate in the questionnaire. Two schools picked an additional name so the study participants totaled 802. No attempts were made to control for gender or grade.

Two field assistants administered the questionnaire to each school and 20 field assistants were utilized. All 20 field assistants were affiliated with non-governmental organizations working in the neighboring areas and had at least a high school diploma. The PI provided training to the field assistants on questionnaire administration, questionnaire overview and questionnaire instructions.

The principal at each school approached students regarding voluntary participation in an anonymous study on substance use and health behaviors conducted by the World Health Organization and approved by the Ministries of Health and Education. Students verbally consented to participate in the study. The students completed the questionnaire in

a separate class on the schools' premises during regular school hours. All participating students completed the questionnaire in the same room along with the field assistants. Field assistants provided instructions and reinforced that the questionnaire was anonymous, voluntary, and that there would be no repercussions to the responses. Field assistants were present in the classroom during the full length of the questionnaire along with a designated school representative. This designated representative was chosen by the school principal. The field assistant collected all questionnaires and then placed them in a box with a school code.

Measures

All information collected was obtained through self-reporting. Demographical data was collected regarding age, gender, and substance use behaviors. All questions were in English, which all students must learn to enter secondary schools. The questionnaire did not have any identifiers or markers from the World Health Organization, Ministry of Health or Ministry of Education.

Information was collected about substance use including alcohol, cigarettes, marijuana and other drugs. Questions were asked about lifetime and current use, age at first use, time elapsed since most recent use, frequency of use, whether respondent uses substance alone (yes/no), and other specifics of alcohol, cigarettes and marijuana. Lifetime and current use was asked about cocaine, bubbles, heroin, dungee, and brown sugar. Questions regarding sexual practices included age of first intercourse, frequency of sex, and condom use and frequency. Additional information regarding whether sex was ever used for monetary gain or gifts and

possible homosexual feelings or sexual acts was also collected.

Statistical Analysis

We analyzed the data using the Statistical Package for the Social Sciences for Windows Version 17. We stratified respondents by age and gender. We computed frequencies for dichotomous variables and means and standard deviations for continuous variables. Comparison between age and substance use, age and sexual behaviors, gender and substance use, and gender and sexual behaviors was conducted using Pearson chi square test. All associations were considered to be statistically significant at $p \leq 0.05$.

RESULTS

A total of 802 students between 12 and 36 years were included in the study as shown in Table 1. Of these, more than half of the respondents were 19 years of age or older ($n=445$; 55.5%). Approximately equal number of males ($n=388$; 48%) and females ($n=379$; 47%) were included in the study. For grades 7 and 8, the mean age of the respondents was 17 ± 2 years with an age of range of 12 to 29 years. For grade 9 and 10, the mean age was 20 ± 3 years with an age range of 13 to 35 years. For grades 11 and 12, the mean age was 21 ± 3 years with an age range of 14 to 36 years.

Table 1. Demographics of in-school youth and young adults in post-conflict Liberia (N=802)

Demographic variables	N (% of study pop.)	Mean	Median	Range (years)
Gender				
Male	388 (48.4)			
Female	379 (47.3)			
Missing	35 (4.4)			
Age (years)		19 ± 3	19	12-36
≤18 years of age	344 (42.9)			
≥19 years of age	445 (55.5)			
Missing	13 (1.6)			
Grade				
7th and 8th	224 (27.9)			
Age		17 ± 2	17	12-29
Male	107 (47.8)			
Female	98 (43.8)			
9th and 10th	293 (36.5)			
Age		20 ± 3	19	13-35
Male	143 (48.8)			
Female	144 (49.1)			
11th and 12th	229 (28.6)			
Age		21 ± 3	20	14-36
Male	113 (49.3)			
Female	109 (47.6)			
Missing	56 (7)			

Alcohol was the most commonly tried substance with close to half of all respondents consuming it at least once in their lives ($n=394$, 49.1%) as shown in Table 2. Of the 394 students that used alcohol, 78.9% (310) consumed it before the age of 18. 59.6% (235) used it at least once within the last month and 54.0% (213) would describe their drinking habits as continued use of alcohol. In age comparisons, 78.7% of younger respondents (≤ 18 years of age) drank alcohol occasionally compared to 59% of older respondents (≥ 19 years of age). Older respondents were more likely to drink at least once a week ($\chi^2=11.709$; $p=.001$) and drink alone ($\chi^2=5.662$; $p=.019$). Regarding other substances, older respondents were more likely to have smoked cigarettes ($\chi^2=6.672$; $p=0.010$) and used marijuana ($\chi^2=10.290$; $p=0.001$) compared to younger respondents. There were no differences in use of cocaine, bubbles (benzodiazepines), heroin, dungee, or brown sugar by age.

In terms of gender, males were more likely to smoke cigarettes, use marijuana, and drink alcohol compared to females ($\chi^2=7.991$; $p=0.005$) ($\chi^2=12.013$; $p=0.002$) ($\chi^2=15.767$; $p=0.001$). There was no difference in use of cocaine, bubbles, heroin, dungee, or brown sugar by gender (see Table 3).

Sex was also prominent, with 78.8% (632) reporting that they had sex at least once thus far (Table 4). Of those that had sex, 89.1% (563) had sex at least once a month. Younger respondents were more likely to have had early sex defined as sex ≥ 15 years of age than older respondents ($\chi^2=32.2$; $p=0.01$). There were 82 (24.9%) respondents who reported having sex for monetary gain. More than 25% ($n=21$) of them were 18 years and younger. 14.8% (92) reported that they

had homosexual feelings or engaged in sexual acts with persons of the same sex. 20.9% (128) reported never using a condom, while 13.1% (80) reported using a condom occasionally. Only 47.3% (289) reported using a condom every time. More than 60% (354) perceived their HIV risk as low. Only 19.1% (113) characterized their risk as high or very high. Males were more likely to have sex than females ($\chi^2=6.667$; $p=.010$). Those males that engaged in sex, 35.2% of them had early sex compared to 24.1% of females ($\chi^2=8.873$; $p=.003$). 12.6% ($n=39$) of males reported 7 or more sexual partners which was significantly higher than 4.6% ($n=13$) of females ($\chi^2=16.827$; $p=.001$). 17.9% ($n=56$) of males had homosexual feelings or engaged in sexual acts with persons of the same sex compared to 11.0% ($n=32$) of females ($\chi^2=5.839$; $p=.016$). There were no significant gender differences between using sex for monetary gain, perceived HIV risk or frequency of condom use as shown in Table 5.

In comparing alcohol consumption and sexual behaviors in Table 6, those students that admitted to drinking alcohol at least once were more likely to engage in sexual behaviors ($\chi^2=31.540$; $p=.001$). They also had a greater likelihood of having more sexual partners ($\chi^2=25.555$; $p=.001$). When alcohol was used before age of 18 years, 36.7% (97) students reported having early sex and 17.3% (45) students never used a condom. This was significantly higher than students who used alcohol after the age of 19 years ($\chi^2=9.306$; $p=.025$). Those students that had at least one drink a week were more likely to have a greater number of sexual partners ($\chi^2=18.331$; $p=.001$) and use sex for monetary gain ($\chi^2=28.972$; $p=.001$). 56.0% of them perceived their HIV risk

Table 2. Associations of explanatory variables and age (N=802)

Demographic variables	Age 18 or younger N (%)	Age 19 or older N (%)	χ^2	df	p-value
<i>Sex</i>					
Male	154 (47.0)	230 (53.6)	3.300	1	.069
Female	174 (53.0)	199 (46.4)			
<i>Grade</i>					
7 th and 8 th grade	159 (50.6)	62 (14.7)	134.487	2	<.001*
9 th and 10 th grade	115 (36.6)	177 (41.9)			
11 th and 12 th grade	40 (12.7)	183 (43.4)			
<i>Ever smoked a cigarette</i>					
No	306 (95.9)	389 (91.1)	6.672	1	.010*
Yes	13 (4.1)	38 (8.9)			
<i>Ever use alcohol</i>					
No	186 (55.5)	193 (44.1)	9.973	1	.002*
Has used alcohol	149 (44.5)	245 (55.9)			
<i>Early alcohol use</i>					
Used before age 18	149(100)	162 (66.7)	62.602	1	<.001*
Used at age 19 or after	0 (0)	81 (33.3)			
<i>Frequency of alcohol intake</i>					
Occasionally	85 (78.7)	110 (59.1)	11.709	1	.001*
On a weekly basis	23 (21.3)	76 (40.9)			
<i>Drinking alcohol socially</i>					
Does not drink alone	96 (80.7)	139 (68.5)	5.662	1	.019 ^a *
Sometimes drinks alone	23 (19.3)	64 (31.5)			
<i>Last used alcohol</i>					
Last month (at least once)	96 (75.6)	162 (81.8)	1.834	1	.176
Other	31 (24.4)	36 (18.2)			
<i>Continued alcohol use</i>					
Not continued	63 (45.0)	91 (40.1)	.858	1	.354
Continued alcohol use	77 (55.0)	136 (59.9)			
<i>Ever use marijuana</i>					
No	311 (94.2)	363 (87.3)	10.290	1	.001*
Has used marijuana	19 (5.8)	53 (12.7)			
<i>Used marijuana alone</i>					
No	11 (73.3)	17 (48.6)	2.613	1	.106
Used marijuana alone	4 (26.7)	18 (51.4)			
<i>Ever use cocaine</i>					
No	343 (99.7)	441 (99.1)	1.140	1	.286 ^a
Has used cocaine	1 (0.3)	4 (0.9)			
<i>Ever use bubbles</i>					
No	341 (99.1)	439 (98.7)	.390	1	.532 ^a
Has used bubbles	3 (0.9)	6 (1.3)			
<i>Ever use heroin</i>					
No	344 (100)	444 (99.8)	.774	1	.379 ^a
Used marijuana alone	0 (0)	1 (0.2)			
<i>Ever use dungee</i>					
No	343 (99.7)	440 (98.9)	1.783	1	.182 ^a
Has used dungee	1 (0.3)	5 (1.1)			
<i>Ever use brown sugar</i>					
No	342 (99.4)	443 (99.6)	.067	1	.796 ^a
Has used bubbles	2 (0.6)	2 (0.4)			

*Significant at p<.05

^aOne or more cells have expected count less than 5. Reported Fisher's Exact Test.

Table 3. Associations between substance use and gender (N=802)

Substance use	Male N (%)	Female N (%)	χ^2	df	p-value
<i>Ever smoked a cigarette</i>					
No	331 (90.9)	346 (96.1)	7.991	1	.005*
Yes	33 (9.1)	14 (3.9)			
<i>Ever use alcohol</i>					
No	158 (41.6)	208 (56.1)	15.767	1	<.001*
Has used alcohol	222 (58.4)	163 (43.9)			
<i>Early alcohol use</i>					
Used before age 18	175 (79.5)	126 (77.8)	.174	1	.676
Used at age 19 or after	45 (20.5)	36 (22.2)			
<i>Frequency of alcohol intake</i>					
Occasionally	112 (67.5)	83 (68.6)	.041	1	.840
On a weekly basis	54 (32.5)	38 (31.4)			
<i>Drinking alcohol socially</i>					
Does not drink alone	128 (69.9)	103 (77.4)	2.202	1	.138
Sometimes drinks alone	55 (30.1)	30 (22.6)			
<i>Last used alcohol</i>					
Last month (at least once)	143 (79.4)	108 (78.8)	.018	1	.894
Other	37 (20.6)	29 (21.2)			
<i>Continued alcohol use</i>					
Not continued	96 (46.6)	56 (36.6)	3.597	1	.058
Continued alcohol use	110 (53.4)	97 (63.4)			
<i>Ever use marijuana</i>					
No	319 (86.7)	339 (94.2)	12.013	1	.002 ^{a*}
Has used marijuana	49 (13.3)	21 (5.8)			
<i>Ever use cocaine</i>					
No	363 (98.7)	379 (100)	5.369	1	.068 ^a
Has used cocaine	5 (1.3)	0 (0)			
<i>Ever use bubbles</i>					
No	382 (98.5)	377 (99.5)	2.786	1	.248 ^a
Has used bubbles	6 (1.5)	2 (0.5)			
<i>Ever use heroin</i>					
No	388 (100)	378 (99.7)	1.117	1	.572 ^a
Used marijuana alone	0 (0)	1 (0.3)			
<i>Ever use dungee</i>					
No	384 (99.0)	377 (99.5)	.930	1	.628 ^a
Has used dungee	4 (1.0)	2 (0.5)			
<i>Ever use brown sugar</i>					
No	384 (99.0)	379 (100)	4.289	1	.117 ^a
Has used bubbles	4 (1.0)	0 (0)			

*Significant at p<.05

^aOne or more cells have expected count less than 5. Reported Fisher's Exact Test.

Table 4. Associations between sexual behaviours and age (N=802)

Sexual behaviours	Age 18 or younger N (%)	Age 19 or older N (%)	χ^2	df	p-value
<i>Sex</i>					
Male	154 (47.0)	230 (53.6)	3.300	1	.069
Female	174 (53.0)	199 (46.4)			
<i>Grade</i>					
7 th and 8 th grade	159 (50.6)	62 (14.7)	134.487	2	<.001*
9 th and 10 th grade	115 (36.6)	177 (41.9)			
11 th and 12 th grade	40 (12.7)	183 (43.4)			
<i>Had sex</i>					
Not had sex	109 (32.5)	29 (6.7)	86.108	1	<.001*
Had sex	226 (67.5)	406 (93.3)			
<i>Had early sex</i>					
Before age 15	98 (44.7)	91 (22.8)	32.290	1	<.001*
At age 16 or after	121 (55.3)	309 (77.3)			
<i>Sex frequency</i>					
At least once a month	196 (95.6)	367 (96.3)	.181	1	.670
Other	9 (4.4)	14 (3.7)			
<i>Number of sex partners</i>					
Less than 3	172 (78.9)	259 (66.2)	12.735	2	.002*
Between 3 and 6	28 (12.8)	96 (24.6)			
7 or more	18 (8.3)	36 (9.2)			
<i>Sex for monetary gain</i>					
No sex for monetary gain	201 (90.5)	336 (84.6)	4.321	1	.038*
Sex for monetary gain	21 (9.5)	61 (15.4)			
<i>Homosexual feelings or sexual acts</i>					
No feelings or acts	194 (87.8)	333 (83.7)	1.901	1	.168
Feelings/sexual acts	27 (12.2)	65 (16.3)			
<i>Perceived HIV risk</i>					
Low	128 (60.7)	226 (59.8)	7.883	3	.048*
Moderate	23 (10.9)	57 (15.1)			
High	10 (4.7)	32 (8.5)			
Very high	50 (23.7)	63 (16.7)			
<i>Condom Use</i>					
Never	49 (22.3)	79 (20.3)	4.840	3	.184
Occasionally	22 (10.0)	58 (14.9)			
Often	36 (16.4)	77 (19.7)			
Every time	113 (51.4)	176 (45.1)			

*Significant at $p < .05$

as low. 17.3% (13) students that drank alone had 7 or more sexual partners and 28.9% (22) used sex for monetary gain. If they reported their alcohol use as con-

tinuous, they were more likely than those students who did not drink on a continuous basis to have sex ($\chi^2=6.548$; $p=.010$), have a greater number of sexual partners

Table 5. Associations between sexual behaviours and gender (N=802)

Sexual behaviours	Male N (%)	Female N (%)	χ^2	df	p-value
<i>Had sex</i>					
Not had sex	53 (14.2)	80 (21.4)	6.667	1	.010*
Had sex	321 (85.8)	294 (78.6)			
<i>Had early sex</i>					
Before age 15	111 (35.2)	70 (24.1)	8.873	1	.003*
At age 16 or after	204 (64.8)	220 (75.9)			
<i>Sex frequency</i>					
At least once a month	282 (94.6)	269 (97.8)	3.935	1	.047*
Other	16 (5.4)	6 (2.2)			
<i>Number of sex partners</i>					
Less than 3	201 (64.8)	223 (78.2)	16.827	2	<.001*
Between 3 and 6	70 (22.6)	49 (17.2)			
7 or more	39 (12.6)	13 (4.6)			
<i>Sex for monetary gain</i>					
No sex for monetary gain	226 (84.4)	259 (89.3)	3.116	1	.078
Sex for monetary gain	49 (15.6)	31 (10.7)			
<i>Homosexual feelings or sexual acts</i>					
No feelings or sexual acts	256 (82.1)	259 (89.0)	5.839	1	.016*
Feelings/sexual acts	56 (17.9)	32 (11.0)			
<i>Perceived HIV risk</i>					
Low	182 (60.5)	163 (59.7)	.873	3	.832
Moderate	40 (13.3)	38 (13.9)			
High	25 (8.3)	18 (6.6)			
Very high	54 (17.9)	54 (19.8)			
<i>Condom Use</i>					
Never	67 (21.6)	56 (19.8)	1.685	3	.640
Occasionally	40 (12.9)	36 (12.7)			
Often	52 (16.8)	59 (20.8)			
Every time	151 (48.7)	132 (46.6)			

*Significant at $p < .05$

($\chi^2=11.831$; $p=.003$), use sex for monetary gain ($\chi^2=4.288$; $p=.038$) and use a condom every time ($\chi^2=11.134$; $p=.011$) (Table 7)

DISCUSSION

To our knowledge, this is the first questionnaire exploring the prevalence of substance use and sexual risk behaviors

in Liberia. During the civil war, many children were forced to drop out of school to either participate in the war or help support their family. This resulted in many Liberian children being close to fifteen years behind in school relative to their counterparts in other countries. As the country of Liberia attempted to reform its educational systems post-conflict, many children, now adults, went back to school.

Table 6. Associations between alcohol consumption and sexual behaviours (N=802)

Sexual behaviours	N (%)	N (%)	χ^2	df	p-value
	<i>Never had alcohol</i>	<i>Has had alcohol</i>			
<i>Had sex</i>					
Not had sex	96 (25.3)	38 (9.8)	31.540	1	<.001*
Had sex	284 (74.7)	348 (90.2)			
<i>Had early sex</i>					
Before age 15	79 (28.6)	110 (32.2)	.902	1	.342
At age 16 or after	197 (71.4)	232 (67.8)			
<i>Sex frequency</i>					
At least once a month	246 (95.7)	318 (96.1)	.046	1	.830
Other	11 (43.3)	13 (3.9)			
<i>Number of sex partners</i>					
Less than 3	218 (81.3)	213 (62.2)	25.555	2	<.001*
Between 3 and 6	36 (13.4)	87 (25.6)			
7 or more	14 (5.2)	40 (11.8)			
<i>Sex for monetary gain</i>					
No sex for monetary gain	246 (88.2)	292 (85.6)	.864	1	.353
Sex for monetary gain	33 (11.8)	49 (14.4)			
<i>Homosexual feelings or sexual acts</i>					
No feelings or acts	243 (86.8)	284 (83.5)	1.277	1	.258
Feelings/sexual acts	37 (13.2)	56 (16.5)			
<i>Perceived HIV risk</i>					
Low	160 (63.0)	190 (57.1)	6.075	3	.108
Moderate	27 (10.6)	54 (16.2)			
High	15 (5.9)	29 (8.7)			
Very high	52 (20.5)	60 (18.0)			
<i>Condom Use</i>					
Never	60 (21.8)	67 (20.0)	3.383	3	.336
Occasionally	33 (12.0)	47 (14.0)			
Often	45 (16.4)	71 (21.2)			
Every time	137 (49.8)	150 (44.8)			
	<i>Used alcohol before age 18</i>	<i>Used alcohol at 19 or after</i>			
<i>Had sex</i>					
Not had sex	32 (10.7)	6 (7.2)	.860	1	.354
Had sex	268 (89.3)	77 (92.8)			
<i>Had early sex</i>					
Before age 15	97 (36.7)	13 (17.3)	10.038	1	.002*
At age 16 or after	167 (63.3)	62 (82.7)			
<i>Sex frequency</i>					
At least once a month	243 (95.3)	73 (98.6)	1.701	1	.192
Other	12 (4.7)	1 (1.4)			
<i>Number of sex partners</i>					
Less than 3	167 (63.3)	44 (60.3)	.912	2	.634
Between 3 and 6	68 (25.8)	18 (24.7)			
7 or more	29 (11.0)	11 (15.1)			
<i>Sex for monetary gain</i>					
No sex for monetary gain	224 (85.5)	66 (86.8)	.088	1	.767
Sex for monetary gain	38 (14.5)	290 (85.8)			
<i>Homosexual feelings or sexual acts</i>					
No feelings or acts	221 (84.0)	61 (82.4)	.108	1	.742
Feelings/sexual acts	42 (16.0)	13 (17.6)			
<i>Perceived HIV risk</i>					
Low	150 (57.7)	39 (55.7)	.776	3	.855
Moderate	41 (15.8)	13 (18.6)			
High	21 (8.1)	7 (10.0)			
Very high	48 (18.5)	11 (15.7)			
<i>Condom Use</i>					
Never	45 (17.3)	21 (29.2)	9.306	3	.025*
Occasionally	43 (16.5)	4 (5.6)			
Often	57 (21.9)	13 (18.1)			
Every time	115 (44.2)	34 (47.2)			

Table 7. Associations between frequency of alcohol consumption and sexual behaviours

Sexual behaviours	N (%)	N (%)	χ^2	df	p-value
	<i>Drinks Occasionally</i>	<i>Drinks at least 1/wk</i>			
<i>Had sex</i>					
Not had sex	19 (9.9)	6 (6.3)	1.024	1	.311
Had sex	173 (90.1)	89 (93.7)			
<i>Had early sex</i>					
Before age 15	56 (32.6)	25 (29.4)	.261	1	.609
At age 16 or after	116 (67.4)	60 (70.6)			
<i>Sex frequency</i>					
At least once a month	158 (95.2)	85 (96.6)	.276	1	.752 ^a
Other	8 (4.8)	3 (3.4)			
<i>Number of sex partners</i>					
Less than 3	123 (72.4)	40 (45.5)	18.331	2	<.001*
Between 3 and 6	32 (18.8)	35 (39.8)			
7 or more	15 (8.8)	13 (14.8)			
<i>Sex for monetary gain</i>					
No sex for monetary gain	163 (94.8)	60 (70.6)	28.972	1	<.001*
Sex for monetary gain	9 (5.2)	25 (29.4)			
<i>Homosexual feelings or sexual acts</i>					
No feelings or acts	149 (87.1)	61 (70.9)	10.055	1	.002*
Feelings/sexual acts	22 (12.9)	25 (29.1)			
<i>Perceived HIV risk</i>					
Low	104 (61.5)	47 (56.0)	17.490	3	.001*
Moderate	17 (10.1)	20 (23.8)			
High	9 (5.3)	10 (11.9)			
Very high	39 (23.1)	7 (8.3)			
<i>Condom Use</i>					
Never	35 (20.6)	15 (18.1)	3.742	3	.291
Occasionally	22 (12.9)	17 (20.5)			
Often	34 (20.0)	20 (24.1)			
Every time	79 (46.5)	31 (37.3)			
	<i>Not continued alcohol use</i>	<i>Continued alcohol use</i>			
<i>Had sex</i>					
Not had sex	20 (13.0)	11 (5.3)	6.548	1	.010*
Had sex	134 (87.0)	195 (94.7)			
<i>Had early sex</i>					
Before age 15	42 (32.1)	63 (32.8)	.020	1	.887
At age 16 or after	89 (67.9)	129 (67.2)			
<i>Sex frequency</i>					
At least once a month	117 (95.1)	183 (96.3)	.267	1	.605
Other	6 (4.9)	7 (3.7)			
<i>Number of sex partners</i>					
Less than 3	97 (74.6)	109 (56.5)	11.831	2	.003*
Between 3 and 6	21 (16.2)	61 (31.6)			
7 or more	12 (9.2)	23 (11.9)			
<i>Sex for monetary gain</i>					
No sex for monetary gain	120 (90.9)	159 (82.8)	4.288	1	.038*
Sex for monetary gain	12 (9.1)	33 (17.2)			
<i>Homosexual feelings or sexual acts</i>					
No feelings or acts	116 (88.5)	154 (80.2)	3.950	1	.047*
Feelings/sexual acts	15 (11.5)	38 (19.8)			

Table 7. Associations between frequency of alcohol consumption and sexual behaviours (continued)

<i>Perceived HIV risk</i>						
Low	70 (55.6)	111 (58.7)				
Moderate	20 (15.9)	32 (16.9)				
High	8 (6.3)	16 (8.5)				
Very high	28 (22.2)	30 (15.9)	2.283	3		.516
<i>Condom Use</i>						
Never	35 (27.6)	30 (15.8)				
Occasionally	14 (11.0)	31 (16.3)				
Often	19 (15.0)	49 (25.8)				
Every time	59 (46.5)	80 (42.1)	11.134	3		.011*

*Significant at $p < .05$

^a One or more cells have expected count less than 5. Reported Fisher's Exact Test.

The oldest secondary school respondent was 36 years old. While the impact of having to go back to school after close to 15 years can create its own psychological and emotional distress, many of these young adults have also faced significant trauma and economic hardships, which make them more vulnerable to other comorbidities such as substance use, depression, anxiety and post-traumatic stress disorder. The impact of having students in their early and middle thirties affects the dynamics of the classroom. The brain of a 13 year old is less developed than the brain of a 35 year old. Adolescents are very influenced by their peer groups and having peers that are in their 30s who may be using alcohol and other substances and engaging in sexual activity, may have a significant impact on these young adolescents. Most schools group children by age, as children of the same age have similar development trajectories. Having students of various ages in one classroom can change the nature of the classroom, and present significant challenges and barriers for the teacher, who may be used to instructing students at a specific developmental age.

Alcohol was the most commonly used substance amongst youth and young adults with close to 50% consuming it at least once in their lives. This is substantially higher than other African countries such as Kenya where the prevalence rate of alcohol is 5.2% among secondary school students (Ndeti, Khasakhala, Mutiso, Ongecha-Owuor, & Kokonya, 2010). While there are several factors contributing to this increased alcohol use, one explanation could be that many secondary school students may be using alcohol as a way to cope with trauma and their psychosocial distress from dealing with war. War can be very distressing to many people especially if there is loss of lives, property, and jobs within their families. Young people may not have developed effective coping strategies necessary to deal with these types of losses. By not having someone to discuss these issues with or resolve internal struggles with loss, they may be turning to maladaptive behaviors such as drinking alcohol and using other substances to deal with these losses. Using alcohol and other substances can worsen mental health outcomes. In a ten year prospective study

in the United States, adolescents who had engaged in drinking at least once or twice in the past 12 months were more likely to exhibit more substance use, face academic problems and become involved in delinquent behaviors during high school compared to the nondrinkers (Ellickson, Tucker, & Klein, 2003).

Sexual intercourse was also prominent with almost 50% reporting early sex or sex before the age of 15 years. In a cross-sectional study looking at health-related behaviors in Zambia, 9.4% of in-school adolescents reported having early sex (Siziya, Muula, Kazembe, & Rudatsikira, 2008). This is substantially lower than our Liberian questionnaire of youth and young adults. Similar findings were consistent with early sex associated with early drinking (Burack, 1999; MacQueen, et al., 1996). Weekly alcohol assumption for both males and females was a strong correlate for some high-risk sexual behaviors including having multiple partners, exchanging sex for money or other resources and engaging in homosexual acts. In spite of engaging in these high-risk sexual behaviors, 80% of these students believed that their HIV risk was low to moderate. Post-conflict, the Liberian secondary school classroom has a wide age range. Due to this age variability, many of the older students may pressure their younger counterparts to start drinking alcohol and engaging in sexual activity at an earlier age. Adolescents are often affected by their peer groups and having peers that are engaging in these activities may even appear to the younger student as the norm. These findings suggest the complexity of tailoring school education for a diverse age population. Interventions may including discussions on knowing when one is ready to engage in sex,

promoting safer sex practices, HIV transmission and prevention, and awareness of effects of alcohol and other substances.

More males engaged in early sex, had seven or more partners and had homosexual feelings or engaged in sexual acts than females. This may reflect the pervasive and continual male-dominating society where men are considered the "givers" and females are the "receivers." There may be expectations from other males regarding stereotypes that males should have multiple partners while women should be more monogamous. Sex is rarely discussed openly in Liberian society.

This study had several limitations. Firstly, the findings in this study may only be applicable to in-school students. Ndyabangi et al (Ndyabangi, Kipp, & Diesfeld, 2004) compared in-school and out-of-school adolescents in Uganda and found that out-of school adolescents were more likely to initiate sex at a younger age, were less likely to use modern contraception, and were more likely to have multiple sexual partners. Since the civil war displaced many youth from school, our study included a wide age range of secondary school students that returned back to school. Our data was collected through convenience sampling, with several students in their thirties and is more representative of post-conflict societies whose educational systems may have been broken down due to war. It is less representative of typical secondary school student populations and are most comparable to other post-conflict countries. We also did not examine the prevalence of mental and behavioral disorders of these secondary school students; many of whom were probably severely affected by war. In comparison, a study in Ethiopia

showed a prevalence of these disorders in adolescents (Ashenafi, Kebede, Desta, & Alem, 2001; M. Kebede, Kebede, & Desta, 2000), while another study demonstrated that alcohol-related sexual risk-taking, psychiatric morbidity and high frequency of alcohol consumption were all strongly associated in 16-17 year olds in Australia (Bonomo, et al., 2001).

Secondly, data from the questionnaire were collected through self-completion of the questionnaire by study participants. Since all of the data relied on self-report and many people commonly underreport socially undesirable behaviors including substance use and sexual risk behaviors, this can lead to social desirability bias (Davis, Thake, & Vilhena, 2010). Also, students were asked to answer these questions while in school with a designated representative chosen by the principal, which may have raised some concerns with the students in spite of reassuring them that all answers would be confidential.

Sex was not specifically defined. In our study, students were asked: Have you ever had sex? In a study by Thurman et al. (2006) in South Africa, study participants were asked whether they had ever engaged in sex, defined as full penile-vaginal penetration. Broadly speaking, sex can have various definitions depending on the individual. In comparing studies, there may be limitations on studies that broadly define it as opposed to ones that specifically define it. Also the occurrence of homosexual feelings or sexual acts was assessed as one question; thus, if students answered yes, it would be impossible to differentiate between students having homosexual feelings or engaging in sexual acts. Some students who had homosexual feelings may not engage in sexual acts, while most or almost all students who

engage in homosexual experience, probably had homosexual thoughts at some point, prior to engaging in sexual acts. To further strengthen our study, homosexuality should be assessed as one question with subsequent in-depth questions relating to touching, sexual acts and intercourse.

Finally, the lack of a pilot study meant that the questionnaire had not been validated in this population. Participants may have been confused by some of the terminology since many youth identify drugs by their street name rather than the drug's real name. While the questionnaire attempted to correct for these terms by using terms like "brown sugar" for heroin, it did not list all the drug nicknames and may not have chosen the most commonly used ones. There was also no specific timeframe requested to report substance use or sexual risk behaviors. Most questions addressed the initial time or the last time, which may fail to accurately report the frequency of use.

CONCLUSION

This study found that a substantial proportion of youth and young adults are engaging in alcohol use and sexual risk behaviors. Our findings suggest that school and community-based programs should be initiated to decrease HIV risk behaviors and alcohol consumption given the high prevalence of alcohol use and sexual risk behaviors. These programs should be age-appropriate given the wide range in the Liberian school population. Future studies should also examine the prevalence of mental and behavioral disorders such as depression, anxiety and post-traumatic stress disorder among Liberian

youth and young adults given the many psychosocial and psychological stressors that occurred as a result of the war. These studies should include Liberians' own definitions of symptoms and qualitative research may be appropriate for this. Counseling or mental health follow-ups should also be made available for those students who are in need of treatment.

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**PICTORIAL WARNINGS ON CIGARETTE PACKETS:
EFFECTIVENESS AND DETERRENCE AMONG EGYPTIAN YOUTH**

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ABSTRACT

Placing pictorial warning messages of potential health hazards of tobacco smoking on cigarette packets is mandatory by law in Egypt. Photos of victims of heavy tobacco smoking are placed on the front and back covers of cigarette packets in an attempt to warn both users and would be users of the health risks associated with long-term smoking habits. This research aims to assess the way tobacco users in their late adolescence, perceive pictorial warnings and their ability to reduce the prevalence of cigarette smoking among youth in Egypt. Through semi-structured in-depth interviews with a sample of cigarette smokers, the research argues that various social, cultural, and economic factors constrain the effectiveness of pictorial warnings. A key finding is that in order to help reduce the prevalence of smoking among adolescents and youth, the etiology of tobacco smoking needs to be addressed instead of merely focusing on medical side-effects.

Key Words: Cigarette smoking; tobacco; pictorial warning messages; late adolescents

INTRODUCTION

Tobacco smoking among youth is a growing problem in Egypt. Statistics indicate that Egypt has the highest rate of tobacco consumption in the Arab World (El-Awa, et al., 2010; Hanafy, et al., 2010; Sitrin & Bishai, 2008; Nassar, 2003; Dous, 2001), and that most smokers are in their adolescent and late adolescent years.¹ Overall, 19.7% of the Egyptian population currently use some form of tobacco, whether

in the form of cigarettes or water-pipes, commonly known as Shisha (Fouad, et al., 2013). Research emphasize that by the age of 18 years, approximately two-thirds of teenagers in Egypt have tried smoking at least once, with peak experimentation occurring between the ages of 13 and 16 years (Duncan, et al., 1995). Based on estimates from the Global Adult Tobacco Survey (CDCP, 2009, 2007), nearly 32 % of adult Egyptian males (aging 15 and older) smoke cigarettes. Despite these alarming

indicators or all efforts made to educate youth about the harmful effects of smoking nicotine, “cigarettes are still largely considered as a legitimate drug in Egypt” (Anderson & Taylor, 2008: 185). They are publicly marketed and unless a person is under age, any tobacco user can buy them with no fear of apprehension.²

Recognizing the negative impact of tobacco smoking on the health and wellbeing of Egyptians, several attempts were made to deal with the issue. Three laws governing the prevention of tobacco hazards have been issued between 1981 and 2007: Law 52 of 1981, Law 85 of 2002 and Law 154 of 2007. The first tobacco control legislation was adopted in Egypt in 1981, which represented a first step in the ‘battle’ against nicotine. There was another attempt in 1993 to adopt legislation that banned all kinds of tobacco advertising in the country. The Control of Tobacco Product Regulations of 1993 was enacted to reduce tobacco consumption in the country, especially among youth. The regulations required the tobacco companies to have a health warning message ‘Smoking is dangerous to your health’ in the local language on cigarette packets (Dous, 2001). The Ministry of Health then recognized that both the message and the way it was displayed were not very effective to combat the issue, especially among adolescents (Fouad, et al., 2013). In 2002, Law 85/ 2002 included amendments to enforce Law 52/1981 concerning the written health warnings on the cigarettes packets and to totally prohibit tobacco advertisements, promotion and sponsorship. The Law also banned cigarettes or any other tobacco products’ sale to minors. In 2007, a new legislation was adopted with new basic measures: the establishment of a directorate of tobacco control

in the Ministry of Health; the establishment of an implementation/enforcement cell in the Ministry of Health to follow up on implementation; a total prohibition of tobacco use in public places and cancellation of designated areas, although restaurants were spared; the adoption of the principle of taxation increase as a tool for controlling tobacco; the establishment of a national coordinating mechanism, and a high national committee for tobacco control was formed that involved multi-sectorial representation; setting a plan of action to free Egypt from tobacco in 5 years; and the adoption of pictorial health warnings on all tobacco packets, which was implemented in August 2008.

A thorough review of the research carried out on smoking habits in Egypt elucidates that the impact of pictorial warning messages on the prevention of smoking among adolescents and youth is missing in the literature. Studies mainly concentrate on the effect of social smoking norms and smokers’ educational backgrounds on the prevalence of smoking cigarettes. This discourse raises a serious concern as to how to assess the effectiveness of smoking prevention policies and measures adopted in Egypt. In a study carried out by both Sondos Islam and Carl Johnson (2005), for example, the authors came to the conclusion that adolescents’ smoking behavior positively correlates with positive beliefs about smoking, siblings, parent and peer smoking, and social smoking norms. Studies also reveal that perceived adult smoking norms have a strong influence on adolescents’ smoking behavior than peer smoking. The results suggest that adolescents from collectivist cultures,⁴ like Egypt, are more influenced by their family’s smoking behavior and perceived adult smoking norms than their

peers' smoking behavior and perceived peer smoking norms. In another study carried out by Dina Boulos, et al. (2009) to compare three groups of adult male smokers in rural Egypt: light daily and nondaily smokers versus moderate-to-heavy daily smokers, the authors came to the conclusion that statistically significant differences exist between these groups on nearly every measure: non-daily smokers tended to be younger and unmarried, but they also had higher levels of education and professional occupations compared with other smokers. Non-daily and the light daily smokers were more likely than moderate-to-heavy smokers to be planning to quit and to have self-efficacy for quitting, and were less likely to be smoking in the presence of their wives and children at home.

Although most of the studies carried out in Western societies assert the positive influence of pictorial warnings on the prevention and deterrence of cigarette smoking and proclaim that large text-based warnings usually associate with increased perceptions of risk among tobacco users (Hammond, 2012; Kees et al., 2010; Borland et al., 2009; Warren et al., 2009; White et al., 2008; Hammond et al., 2004; Portillo & Antonanzas, 2002; Borland & Hill, 1997), other studies reveal that pictorial warnings may not be that effective in preventing youth from smoking cigarettes. Daniel Romer, et al. (2013), for example, found out despite the assumption that pictorial health warnings on cigarette packets create aversive emotional reactions to smoking and induce thoughts about quitting; they do not appear to alter intentions to quit smoking. He emphasized that the warnings did not appear to enhance the likelihood that the average smoker would

actually try to quit. Studies also presume that while pictorial health warnings are more effective than text warnings (Borland et al., 2009), cigarette branding is still clearly visible, and warnings take up only part of the pack. This is critical, given both the importance of health warnings in promoting negative thoughts about harmful health behaviors and eliciting behavior change (Moodie et al., 2010; Borland, 1997).

The paucity of Egyptian literature carried out on the topic to assess the efficiency of pictorial warning messages placed on cigarette packets makes it hard to assume findings similar to those found in the Western literature on the topic. Therefore, the present research would be a contribution to the literature on cigarette smoking in Egypt. This research aims to assess the way tobacco users in their late adolescence, perceive pictorial warnings and their ability to reduce the prevalence of cigarette smoking among youth in Egypt. Through intensive interviews with a sample of tobacco users, the research argues that various social, cultural, and economic factors constrain the effectiveness of pictorial warnings. A key finding is that in order to help reduce the prevalence of smoking among adolescents and youth, instead of merely focusing on medical side-effects, the etiology of tobacco smoking needs to be addressed. The article is divided into three sections. The first section refers to the research methods used in the present research. The second section discusses the reasons that often lead adolescents and youth to smoke cigarettes in Egypt. The third section deals with the sample's perception of pictorial warnings placed on cigarette packets, followed by a brief discussion of findings and concluding remarks.

METHOD

Through semi-structured interviews with a sample of twenty male tobacco users who have been smoking cigarettes on a daily basis for more than two years, I was able to explore the way they perceived pictorial warning messages placed on cigarette packets. Understanding that there is a problem concerning recruiting a sample of smokers in Egypt, especially among youth who usually tend to conceal their smoking habits from their parents and the community, sample recruitment was based on employing the network sampling technique. I started with one respondent, and through his networks of relationships I was introduced to others. The research's aim was explained to the sample and they all agreed to be interviewed.

The sample interviewed ranged between 18 and 24 years old (median age 21.2). Only 10% of the sample finished their university education while the remainder are still in their college education. All of the respondents interviewed were males. Despite the fact that many females also smoke cigarettes, the reason for selecting males is based on the data on adults in the WHO Eastern Mediterranean Region countries which show that there is high prevalence of male smokers compared with females and that smoking by women has typically lagged behind men as a result of social and cultural barriers (WHO, 2008). Sample scanning revealed a number of shared characteristics among the respondents. None of the youth interviewed works and they all still receive their daily allowances from their parents (a very high dependency ratio). Only 10% of the sample indicated that their fathers smoke cigarettes on a daily

basis, whereas 20% of them pointed out that their parents know about their smoking habit.

All the interviews were tape-recorded and transcribed fully. An interview guide was developed to cover the various themes related to the topic: basic demographic information, the nature of their smoking habits, reasons for smoking, the way they perceive the effectiveness of smoking signs on cigarette packets, and their ideas of how to make pictorial warning signs more effective to prevent other users or would be users from smoking cigarettes. The main data collection method used was semi-structured in-depth interviews. The interviews took place between January and March in 2013. Each interview lasted between two to four hours. The interviewees were verbally informed at the beginning of the interview about the purpose of the study, were informed that their participation was voluntary, and that they could withdraw at any time. They were also asked if they agreed for the interviews to be tape recorded.

Data analysis was based on coding frequencies of the prevalence of thematic responses across participants. Simple keyword searches or word counts within a data was used to allow a quick comparison of the words used by the respondents within the analysis. So depending on what is being counted, frequencies have been used for thematic analyses (Ryan & Bernard, 2000). Generally, determining frequencies relied on the number of individual participants who mention a particular theme, rather than the total number of times a theme appears in the text. Coding frequencies allowed the use of data in simple frequency tables throughout the research for illustration purposes.

Illustrations of responses in the article, on the other hand, are meant to provide a descriptive evidence of the thematic patterns covered through the interviews, and to represent the general attitudes revealed by the respondents. All illustrations are derived from the in-depth interviews which took place in colloquial Arabic by the interviewer who is fluent in both languages, and then translated to English to suit the nature of readers. Respondents were given fictitious names as an ethical procedure to protect their identities.

WHY DO YOUTH IN EGYPT SMOKE CIGARETTES?

When members of the sample were asked to clarify the reasons for smoking cigarettes, as shown in Table (1), 85% of them referred to their desire to be accepted by their peers and friends who mostly smoke cigarettes on a regular basis. These findings indicate that the impact of peers and normative pressures to smoke among youth, especially during high school and college education, is evident and perhaps a major reason for their smoking habits. This finding corresponds to most of the studies carried out among adolescents and youth on smoking habits

(Fathelrahman, et al., 2009; Hammar & Carlson, 2005; Bernheim & Rangel, 2004; Gruber, 2001). Mahmoud, a 21-year-old cigarette smoker explained that by saying:

I was only 14 when I started to smoke cigarettes. My friends encouraged me to try smoking. Although I coughed at the beginning, they taught me how to smoke. All of my friends were cigarette smokers at school.

Omar, a 23-year-old university student also said:

I started to smoke when I was 15. Most girls and boys in my class used to smoke. I felt different and estranged as they used to congregate together during school breaks to smoke. That motivated me to smoke to gain their friendship and acceptance.

Apparently, peer pressure seems to have a direct impact on the initiation of cigarette smoking among adolescents and youth in Egypt. The need to be liked and the pressures imposed by peers to gain their acceptance and friendship usually motivate adolescents and youth to smoke cigarettes. Fifty five percent of the sample, on the other hand, referred to the enhancing effect of nicotine on their concentration and mood-alteration. Ali, a 19-year-old explained that by saying:

I always smoke heavily before exams. Smoking enhances my concentration and gives me the power to stay out late to study. After exams, however, the number of cigarettes I smoke usually drops.

On the other hand, various misconceptions and false beliefs about nicotine are

Table 1. Reasons for smoking cigarettes

Reasons	Total N = 20 (%)
Peer pressure	17 (85%)
To enjoy the experience	11 (55%)
When they face problems	9 (45%)
To feel as grown-ups (sense of manhood)	7 (35%)
Smoking is normalized in their communities	5 (25%)
To imitate their parents	2 (10%)

usually mediated among youth, especially when they congregate for social reasons like parties, when they work, or when they decide to study together for academic exams. Many of the respondents interviewed believe that nicotine is a mood-altering substance that can reduce anxiety and feelings of restlessness. This particular point relates to what 45% of the sample clarified as a reason for their smoking habits. They believed that smoking can reduce tension and anxiety associated with the social or psychological problems they encounter. Mostafa, an 18-year-old respondent, explained that by saying:

Whenever someone in my group has a headache, he asks for a cigarette. Many of us do the same thing, assuming that nicotine can change their mood and help them endure headaches.

A very interesting finding was also expressed by 35% of the sample who admitted that smoking cigarettes correlates with their sense of manhood and masculinity. They believe that when they were in high school, smoking cigarettes helped them feel as grown-ups and that they could imitate those who were older than them. Tamer, a 20-year-old smoker said:

When I was in my first year at high school, I found students older than mine smoke cigarettes. That motivated me to do the same thing, which gave me the chance to introduce myself to them and became their friend. When I did that, I felt being older with a high status than my friends.

Twenty five percent of the sample also noted that it is normal to smoke in

the communities where they come from (schools, universities, social gatherings, etc.). This sense of normalization among adolescents and youth seems to positively affect their acceptance of smoking cigarettes as a socially acknowledged form of behavior. The sense of normalization of cigarette smoking, from their perspective, motivates many youngsters to try smoking cigarettes, at least on a habitual basis. Van-Vliet (1990) explains that normalization essentially means the admission by members of a society that smoking has obtained a firm footing in society. He also warns that simultaneously, it proves to be an unrealistic option to eradicate cigarette smoking (Van-Vliet, 1990). Nour, a 19-year-old respondent explained that by saying:

Wherever one goes, he/ she will find youth smoking cigarettes. I don't really know how such a problem can be prevented. Youth encourage each other, especially when congregate in large numbers.

Finally, 10% of the sample seemed to be affected by their parents' smoking habits and believe that their parents may not resist their attempts to smoke. This finding indicates that the reaction of smoking parents to their children's smoking habits may take two forms: either a positive feedback children may receive once their parents know of their smoking habits or to parental indifference to their children's smoking habits since they do the same thing. Sayed, a 21-year-old explains that by saying:

I think my father knows that I smoke cigarettes. I do my best to get rid of the smell of tobacco before returning

home. However, the smell may be stuck to my clothes. I believe that he would do nothing once he knows about my smoking habit. He does that himself.

THE EFFECTIVENESS OF PICTORIAL WARNING SIGNS

When members of the sample were asked to identify ‘precisely’ at least three of the pictorial warning signs placed on cigarette packages and the significance of each, only two respondents (10% of the sample) were able to identify them (see fig. 1, 2, and 3). They referred to different reasons for not being able to identify all pictures.

One main reason clarified by the entire sample is that they do not normally buy whole packets of cigarettes (20 cigarette per packet) for various reasons (as shown in Table 2), such as the lack of financial resources (90%), fear from parental punishment when parents discover that they smoke cigarettes (65%), consumption of less than a packet per day (55%), and the easy access to borrowing cigarettes from friends rather than buying whole packets (45%). These findings indicate that, out of practicality, the pictorial warning

Table 2. Reasons for not buying whole packets of cigarettes

Reasons	Total N= 20 (%)
Lack of financial resources	18 (90%)
Fear from parental punishment when discovered	13 (65%)
Consumption of a less than 20 cigarettes per day	11 (55%)
Easy access to cigarette borrowing from friends	9 (45%)



Figure 1. A health warning sign on cigarette packets in Egypt with a note which reads that “Smoking leads to early aging and lack of ability”



Figure 2. A health warning sign on cigarette packets in Egypt with a note which reads that “smoking causes tongue cancer”



Figure 3. A health warning sign on cigarette packets in Egypt with a note which reads that “smoking leads to feet Gangrene”

messages placed on cigarette packets neither deliberately target nor technically reach adolescents and youth. They mainly target adults who are able to buy whole packets of cigarettes on their own. Tarek, a 20-year-old respondent, elucidates that by saying:

I don't buy whole packets of cigarettes. I simply buy the amount of cigarettes I need per day from street kiosks selling cigarettes. They sell cigarettes according to the numbers required by consumers (far'ret).

Kamal, a 24-year-old respondent stated that:

I don't have enough money to buy a whole packet (which may cost up to LE 17). I don't work. My daily allowance from my father is only five pounds per day.

Wael, a 23-year-old respondent also discussed that by saying:

If I buy a whole packet (20 cigarettes) I may not be able to smoke them in one day. When I go home, I should return empty for fear that my parents may recognize that I smoke and be punished. So, it is more practical to either borrow or share cigarettes with other friends.

As a methodological procedure, then, I showed the sample three pictorial warnings, particularly those currently used in Egypt (Figures 1, 2, and 3), and asked them to express their opinions about them. Although ninety percent of the sample admitted that photos need to be placed on cigarette packets to warn potential users of the health problems associated with

'heavy' or 'long term' smoking, the entire sample criticized the photos on the ground that they only focus on severe health hazards (as shown in Table 3). From their perspective, those photos may be irrelevant to youngsters at their age who would interpret that invariably assuming that they can easily quit, and consequently may not become addicted to tobacco as with the cases of grown-ups who appear on cigarette packages. Adel, a 22-year-old respondent referred to that point by saying:

The photos are scary. They show extreme cases of people who have been smoking for years. Those photos need to be replaced. They do not look like real. This is not a good way to target adolescents and youth. They will never be deterred by those photos, assuming that they are still young and in good health. Photos need to be changed.

On the other hand, as explained earlier, 80% of the sample believes that young smokers may not watch those photos or signs simply because they do not buy whole packets of cigarettes on their own due to the lack of financial resources and to avoid being exposed to parental

Table 3. Adolescents' criticisms of pictorial warning signs

Reasons	Total N= 20 (%)
They only focus on health hazards	20 (100%)
Youngsters do not encounter those signs	16 (80%)
Photos are offensive in displaying severe medical cases	13 (65%)
Long-term exposure to the signs would normalize them	10 (50%)
Photos are not real	6 (30%)

punishment. Sixty five percent of the sample referred to the photos as being 'offensive' (especially the photo of Gagarin cases), which may force smokers to either disdain or avoid watching them. Rizk, a 20-year-old respondent explained that by saying:

The photos are scary. Besides, they do not clearly explain the relationship between smoking cigarettes and the health problems that appear in the photos. In most cases, young smokers will overlook them.

Fifty percent of the sample revealed that long-term exposure of smokers to pictorial warning signs eventually normalizes them among adolescents and youth. They believe that even when deciding to use photos, they have to be changed every year or so, otherwise they would lose their effectiveness. On the other hand, 30% questioned the pictures themselves by explaining that they represent "photo-shop" (fake or fabricated photos) rather than actual cases of medical complications heavy smokers suffer from.

When members of the sample were asked to clarify how to make the photos more effective, since most of them agrees that photos can help prevent the spread of smoking among adolescents and youth, they all referred to the idea that photos have to target the actual reasons for smoking cigarettes, such as how to deal with peer pressure, the misconceptions associated with using nicotine, or simply to inform young smokers that they should not incorporate others in their smoking habit. They also explained that photos and their accompanying written signs should clarify to both users and would-be users that there is no direct link

between smoking and concentration or finding solutions to the problems they face, and that smoking cigarettes would not make them grown-ups. In other words, the messages and their pictorial warning signs should attempt to target the actual reasons they suffer from or those that made them smoke in the first place rather than creating an image of potential long-term health threats they may encounter with long-term or sustained smoking of cigarettes.

CONCLUSION

One of the main challenges confronting specialists in tobacco control in Egypt is the selection of pictorial warning messages to be placed on cigarette packages. Unlike what Hammond, et al. (2012) advocates that "there is a need for research to examine the most effective types of message content for pictorial warnings, including the use of fear-arousing graphic depictions of disease, images that highlight human suffering, symbolic imagery, and the use of personal testimonials" (Hammond et al., 2012: 4), there is a need to highlight pictorial messages that target the social and cultural etiological-bases behind cigarette smoking in Egypt.

Findings of the present research revealed that various reasons usually motivated adolescents and youth to smoke cigarettes. Their smoking habits are usually affected by peer pressure and the tendency to be accepted in adolescent and youth communities; the false beliefs and misconceptions mediated among adolescents and youth of the positive effects of smoking cigarettes on concentration and mood-alteration; the misconception that smoking nicotine can help release tension

and enhances the ability to solve problems; youngsters attitude to be treated as grown-ups, especially among males which associate smoking cigarettes with the development of their sense of manhood and independence; the mediated sense of normalization among adolescents and youth of the prevalence of smoking; and the desire to imitate parents who smoke.

Findings also elucidated that various reasons limit the effectiveness of pictorial warnings placed on cigarette packages in Egypt. The idea that photos only reveal the negative health consequences associated with long-term tobacco use among adults; the fact that youngsters do not directly get exposed to the photos placed on cigarette packages due to the lack of financial resources, fear from parental punishment when parents discover that they buy cigarettes, using less than 20 cigarettes per day and depending on borrowing cigarettes from friends, which bounds their direct confrontation with photos; photos are considered as being offensive and scary from their perspective; the normalization of photos which technically become 'worn-out' after long-term usage; and their suspicion of the photos themselves, which from their perspective, are not real photos of actual cases of diseases adults suffer from due to long-term use of cigarettes.

There is no doubt that warnings with pictures are more effective than text-only warnings, especially in countries like Egypt with a very high illiteracy rate.³ They may increase the message's accessibility by people with low levels of literacy and can help smokers visualize tobacco-caused diseases. However, they need to be rotated regularly to avoid overexposure. Smoking prevention programs aimed at Egyptian adolescents should be accompanied by

smoking cessation programs for the family and adult community members.

Two main research limitations are noted in the present research. First, the entire sample selected was composed of male cigarette users. Further studies are required to emphasize male-female differences and gender variability with regard to smoking behavior. Second, the sample selected was composed of young males in their late adolescence. Despite the fact that cigarette warning signs are also viewed by adults, the present research addresses the problem among a certain age group of users. There is still a need to investigate the way adults perceive warning pictorial signs.

END-NOTES

1. Almost 19.4% (9.7 million) of adults in Egypt currently smoke tobacco; 37.7% men and 0.5% women. Ninety-five per cent (95%) of current smokers in Egypt are daily smokers. Among daily cigarette smokers, men smoked on average 19.4 cigarettes per day (Center for Disease Control and Prevention – CDCP, 2009).
2. Although there is no official age for smoking in Egypt, selling cigarettes to minors (children below 18 years old) is not allowed.
3. The term 'collective societies' usually refers to "Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after him- or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout

people's lifetime continue to protect them in exchange for unquestioning loyalty. Source: Geert Hofstede, Gert Jan Hofstede, and Michael Minkov, *Cultures and Organizations: Software of the Mind*, 2010, p. 90.

4. According to CAPMAS, illiteracy rates among youth aged 15 to 24 was only 8.5% whereas people aged 60 or more had a 62.3% illiteracy rate. Available at: <http://www.egyptindependent.com/news/capmas-more-16-million-illiterate-people-egypt-2012>.

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PREVALENCE AND CONSEQUENCES OF SUBSTANCE USE AMONG HIGH SCHOOL AND COLLEGE STUDENTS IN ETHIOPIA: A REVIEW OF THE LITERATURE

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ABSTRACT

This paper is an overview of mind-altering substance use among high school and college students in Ethiopia in the past two decades. Alcohol, khat and cigarettes were commonly used by both high school and college students in urban as well as rural areas. While the use patterns of the substances were related to the gender, education/age and religion of the users, no clear-cut patterns were observed in relation to several other factors including geographic locations. Further, cannabis was used in selected high schools, and its abuse prevalence was greater in urban private schools, as it was for alcohol and tobacco use. Students who used khat, alcohol or cigarettes also displayed increased violent behaviours towards women and enhanced sexual activity, with increased risks for negative consequences. However, as a limited number of studies have been reported in the literature, this review provides only limited information on such substance use. Nonetheless, despite this limitation, the review can be a useful source of information for designing future research directions and for considering actions directed towards tackling this important problem.

Keywords: alcohol, khat, tobacco, cannabis, students, Ethiopia

INTRODUCTION

Substance use is recognized as a growing problem in Ethiopia and it appears to have greater impact on the younger generation, particularly in urban centres (Fekadu, Alem & Herris, 2007; Alem & Kebede, 2006). Thus, the issue of

substance use has become a serious concern of many professionals and individual citizens in Ethiopia. Accordingly, more recently increased efforts have been made to conduct studies assessing the use of mind-altering substances among various groups of the Ethiopian population. This paper is a brief overview of the reports on

substance use among high school and college students in Ethiopia during the past two decades.

Ethiopia is one of the oldest countries in the world, which is located in the Horn of Africa. According to the 2010 WHO report, it has a population of over 91 million, more than 80% living in rural areas (WHO, 2013). The economy of Ethiopia is largely based on agriculture and its main exports include coffee, hides, oil seeds and more recently khat and flowers (Embassy of US, 2012). The official language of Ethiopia is Amaregna (with its own written script) and the major religions are Christianity (mainly Orthodox) and Islam. The country is regarded as the origin of coffee and khat, besides being one of the earliest centers for alcoholic beverage production (Acuda, 1988).

Ethiopia is among the least developed countries in the world (Heritage Foundation, 2013). Many authorities agree that the political turbulences and the associated socioeconomic problems that have swept the country for a long time are the primary factors contributing to the country's stagnation in development. This situation, in the face of a rapidly changing outside world in terms of communication and trade is believed to create a fertile ground for increased psychoactive substances use in the country (Ethiopian Public Health Association, 2011; Fekadu et al., 2007).

As noted above, this overview was based on published peer-reviewed articles that assessed substance use among high school and college students in Ethiopia in the past two decades. Cross-sectional studies using structured self-administered questionnaires were employed for substance use assessment. While the volume of the literature on substance

use in Ethiopia is generally small, this is even smaller considering only aspects related to high school and college students. Moreover, the reports documented were also limited to only a small fraction of the country's student population and to only specific topics. Accordingly, the number of substances reported to be used by students and the scopes of the conditions under which they were used were not extensive.

OVERVIEW OF SUBSTANCE USE BY HIGH SCHOOL STUDENTS

The prevalence of use of mind-altering substances by high school and college students, as reported in the literature during the past two decades is shown in Table 1. During the past two decades, only six research papers assessing mind-altering substance use among high school students in Ethiopia were published. Of these, only one study that was conducted in 1998, provided the most comprehensive information by collecting data using an open-ended questionnaire from public as well as private schools in central Ethiopia (Kassaye, Sherief, Fissehaye & Teklu, 1999). Out of 428 students surveyed, 142 students (33%) were engaged in the use of one or more substances and, of these, 58% were in urban private, 41% in rural public and 18% in urban public schools. Alcohol, khat, cigarettes and cannabis were more commonly used in private than in public schools in the same urban area, with prevalence rates of 58%, 36%, 49% and 31% vs 18%, 9%, 5% and 1%, respectively (Table 1). By comparison, while the use of khat in rural public school in central Ethiopia was about the same as that in urban private school in close

Table 1. Summary of prevalence (%) of mind-altering substance use among high school and college students in Ethiopia in the past two decades as reported for different geographic locations, settings and study years

Reference	Setting	Location	Study year	Duration of Use	Alcohol	Khat	Tobacco Product	Cannabis
HIGH SCHOOL								
Kassaye et al. (1999)	Urban private	Central	1998	Life-time	58	36	49	31
	Urban private	Central	1998	Life-time	18	9	5	1
	Rural Public	Central	1998	Life-time	18	31	6	3
A dugna et al. (1994)	Rural public	*SW	1991	30 days	—	65	—	—
Reda et al. (2012)	Semi-urban public	Eastern	2010	Life-time	—	24	—	—
Reda et al. (2012)	Semi-urban public	Eastern	2010	Life-time	22	—	—	—
Reda et al. (2012)	Semi-urban public	Eastern	2010	Life-time	—	—	12	—
Rudatsikira et al. (2007)	Urban public	Central	2003	Life-time	—	—	6	—
COLLEGE								
Kebede (2002)	Semi-urban public	*NW	2001	Life-time	—	27	13	—
Deressa and Azazh (2011)	Urban	Central	2009	12 months	22	7	9	—

*SW= Southwestern

*NW= Northwestern

proximity, the use prevalence of the other three substances was closer to that in the urban public school. The majority (292 or 68%) of the students in both urban and rural schools started to use substances at the ages of 12-16 and 8-19 years, respectively; however, those in the private school (73%) started at younger as well as older ages (6-22 years) (Table 1).

In an earlier study, A dugna, Jira & Molla (1994) focusing more on assessment of khat use by students in rural public high school in southwestern Ethiopia, found that the prevalence rate during the last 30 days was as high as 65%, among 248 respondents (Table 1). The majority of the khat users were males (73%) and Muslims (56%), and most (67%) of them belonged to the age group of 15-22 years, the median age being 15 years. The prevalence of chewing khat increased with the ages/grades of the students. While approximately half of the khat chewers were in

favor of using it, about 41% either opposed or were indifferent.

A more recent survey, Reda, Moges, Wondmagegn & Biadgilign (2012), also designed to assess khat use in another geographic location, reported that out of 1,721 public high school students in a semi-urban town in eastern Ethiopia, 24% admitted chewing the stimulant (Table 1). Of these, the majority were again males (71%). While the mean age was 15 years, the prevalence of khat abuse increased with age. More Muslim students chewed khat compared to any other religious group, followed by Orthodox Christians. In follow-up surveys (Reda, Moges, Mondmagegn & Biadgilign, 2012; Reda, Moges, Yazew & Biadgilign 2012) focusing on alcohol and tobacco, 22% and 12% of the participants responded consuming these substances, respectively (Table 1). The mean ages of the respondents were 17 and 15 years, respectively. In both cases,

the majority were males, and the use of the substances increased with the age of the consumers.

A study carried out in 2003 (Rudatsikira, Abdo & Mulla, 2007) to determine the prevalence of tobacco use among public high school students in an urban setting in Addis Ababa also revealed that among 1868 students, 112 (6%) responded being cigarette smokers, and the majority (75%) of these were males (Table 1). The vast majority (91%) of the respondents felt that smoking was harmful, and of these, 70% had the desire to quit.

SUBSTANCE USE BY COLLEGE STUDENTS

Surprisingly, only two research papers were published in the past two decades focusing on mind-altering substances use assessment among college students in Ethiopia (Kebede, 2002; Deressa & Azazh, 2011). These papers contained information only on selected substances, without enabling respondents to list freely whatever they might have used.

In one of the papers, Kebede (2002) reported his findings of a survey conducted in 2001 evaluating the use of cigarette and khat among undergraduate students in four college campuses in semi-urban settings in northwestern Ethiopia (Table 1). Out 1103 students who participated in the study, 27% chewed khat and 13 % smoked cigarettes. There were greater associations between the use of these substances and being male and/or Muslim. The use of these substances was reported to have been started when most of the students were seniors in high schools, and this practice increased with the years in college or age of the students. The

majority (82%) of the students mentioned lung diseases, including lung cancer, as a health risk of cigarette smoking. Most of these students expressed their desire to stop smoking.

Based on a recent survey performed in a medical school in Addis Ababa, Deressa & Azazh (2011) reported that among 622 undergraduates, 22%, 7% and 9% consumed alcohol, khat and cigarettes, respectively (Table 1). In all cases, the majority were males. Also, being an Orthodox Christian or a Muslim was strongly associated with alcohol or khat consumption, respectively. The use of khat, cigarettes and alcohol appeared to increase with the class year or age of the students.

In the literature reviewed, four types of mind-altering substances are reported to have been used by the high school and college students surveyed, although the prevalence of use documented was variable. Viewed from the perspective of the broader Ethiopian society, each substance can be considered as having its own unique social values and characteristics. Alcohol (ethanol) in Ethiopia is a socially accepted and widely used substance/drug. There is no law regulating the production, distribution and use of alcohol in the country. It is available as an industrial and traditional product for commercial as well as personal use. Khat (*Catha edulis*, Celastraceae) is a widely-grown and used green leafy plant whose fresh leaves are chewed for brain stimulation and other purposes. It is distributed and consumed without any regulatory oversight. Due to the financial benefits it can provide to a certain sector of the Ethiopian population and the government, the cultivation of khat has increased significantly in recent years. Similarly, the use of tobacco products in Ethiopia is widespread; products

are manufactured and made available to consumers with no restrictions of any sort. Most people consume tobacco by smoking as cigarettes. Cannabis is more commonly known as hashish in Ethiopia, referring to marijuana. Unlike alcohol and tobacco products, marijuana is illegal in Ethiopia. The cannabis plant is cultivated in several places in the country, but more widely in central, western and northwestern locations. A well-recognized place for its cultivation is the Shashemene area in southern Ethiopia where Rastefarians of Jamaica origin live as a community (Fekadu et al., 2007). Cannabis is consumed as marijuana smoke, although it is not locally known by this name.

Comparison of mind-altering substance use in private and public high schools in an urban setting (Addis Ababa) at the same time indicates that students in private school were generally more frequent users (Kassaye et al., 1999). The substances used in both school types were khat, alcohol, cigarette and cannabis and each was used at a higher prevalence rate in private school. One likely reason for this could be the greater opportunity for the private school students to have financial access, based on the ability of their parents to send them to this type of school. Another possibility could be the existence of a more relaxed atmosphere in the private school to make it easier for the students to play a “dangerous” game with such potentially harmful substances. The observation that the use of tobacco products in the urban public school was similar to that in another study conducted about five years later (2003 vs 1998) in the same location also suggests that such time difference between studies should not necessarily be a factor to cause changes in the consumption rate of tobacco prod-

ucts (Kassaye et al., 1999; Rudatsikira et al., 2007) (Table 1). In this regard, it is assumed that the supply and affordability of tobacco products and students’ desire for consumption did not change over this range of time. This observation and the variations noted between urban private and public high schools regarding patterns of drug abuse should be given due considerations in future prevention and/or treatment programs.

When responses of students in urban public high school are compared to those in rural public school in close proximity in central Ethiopia, it is evident that the use prevalence rates of alcohol, tobacco and cannabis in both types of schools were close, while the prevalence of khat use were markedly different, being higher in the rural town school (Kassaye et al., 1999). In agreement with the khat data for the students in the rural town public school, similar results were documented for public high school students in a distant semi-urban town in eastern Ethiopia (Reda et al., 2012). In addition, even a higher prevalence rate of khat use was reported by students in another public school in rural setting in southwestern Ethiopia (Adugna et al., 1994). The reasons for the higher rates of khat consumption in public high schools in the above 3 rural/semi-urban locations relative to the urban school in central Ethiopia may be related to the intense khat cultivation and marketing in these regions, and the culture of khat chewing among the general population. It is also likely that, the prices of khat may be cheaper in these rural/semi-urban places to be affordable by students. In view of these observations, certain variations in geographic locations and time of data collection on khat abuse become less important. However, this

reasoning does not appear to apply when it comes to alcohol and tobacco use in a semi-urban setting, in which case the rate for each is higher than that in either urban or rural public high school (Reda et al., 2012; Reda et al., 2012; Rudatsikira et al., 2007). It is thus relevant to gather information on substance use specific to the place of interest under consideration.

Concerning college students, while most of those in Addis Ababa (an urban setting in central Ethiopia) reported using alcohol, followed by cigarette/tobacco products and then khat, the majority of the students in northwestern Ethiopia used khat and then cigarette (Kebede, 2002; Deressa & Azazh, 2011) (Table 1). Since the studies conducted in these places were specific to these items, there were no reports of use of other substances. It is likely that the variations in the prevalence of substance abuse between the two study groups with regard to khat and cigarette are related to environmental/cultural factors partly created by distance. It is also interesting to note that the pattern of substance use among college students in Addis Ababa was close to that of the students in public high school in the same location/setting (Kassaye et al., 1999). This may indicate that irrespective of level of education or age, environment plays a more important role in determining substance use pattern. Nonetheless, this argument may not provide a satisfactory explanation for what was observed regarding khat in public high schools in other regions of Ethiopia and in the colleges in north-west of the country, where, generally, higher prevalence rates, albeit variable, were observed in all cases (Kebede, 2002). This finding may, again, call for a case by case information gathering to achieve a more realistic outcome,

especially when variable influencing factors are involved. However, irrespective of the factors that might have played a role, the fact that college students were nearly equally vulnerable to substance use as the majority of the students in public high schools suggests the need for implementation of effective preventive and/or treatment programs for this student population group as well.

It should also be noted that although the literature reviewed in most cases indicated the use of individual substances separately, in other instances, the substances are consumed in combination or one immediately following another as pointed out earlier. As an illustration, Reda et al. (2012) among the khat chewers they interviewed, 33% and 44% were also reported consuming cigarettes and alcohol, respectively. In this case, khat was considered as a gate-way for cigarette and/or alcohol use. The consideration of such substance use practice can play a useful role in the delivery of appropriate prevention and/or treatment measures.

In the different studies reviewed it was described that khat chewing was generally more common among males than females in both high schools and colleges. This may be due to cultural restrictions imposed upon females for such a practice. Also, more Muslim students were reported to chew khat than Christians and others. The reason for the higher prevalence among the Muslim students could be their greater cultural attachment to khat, which may have part of its basis on religious grounds. By contrast, more Orthodox Christian followers were identified to consume alcohol. Culturally, restriction on alcohol consumption in Ethiopia is more relaxed in Orthodox Christian community than for Muslims. While most high

school and college students started using substances at relatively younger ages, the prevalence of abuse tended to increase with their grades/ages. This can be explained to be related to increased pressure/stress of studies. Despite continued use, however, some students were aware of the harmful effects of the substances they consumed, especially the effect of cigarette smoking to cause lung cancer (Kebede, 2002; Deressa & Azazh, 201). Such knowledge of students can facilitate the delivery of a more effective educational program.

Besides the documented demographic characteristics, the literature also provided variable information as to the factors that may be responsible for starting the use of substances and/or continuing using them. These factors included desire for relaxation, relief from stress, staying alert, curiosity, need for socialization, influences of other people, effects of use of substances, influence of advisement and cultural practices. These factors, together with the demographics noted, can serve as useful predictors of potential abuses; their understanding can thus be important for focusing attention on target issues for subsequent relevant actions.

SUBSTANCE USE AS A RISK FACTOR FOR SEXUALLY TRANSMITTED DISEASES (STD) AMONG HIGH SCHOOL AND COLLEGE STUDENTS

Only 3 research papers were identified dealing with this topic and even these publications contained limited information mainly as a secondary issue to a broader problem.

In a study conducted in an urban setting in Addis Ababa, it was found that the

consumption of alcohol and khat by public high school students (15-24 years old) was associated with increased engagement in sexual activity (by 38% for alcohol and 44% for khat consumers) (Taffa, Klepp, Sundby & Bjune, 2002). As only 40% of the male responders indicated condom use intention, the use of substances was implied to enhance the risk of exposure to STD. Furthermore, the effects of alcohol and khat to enhance sexual activity was greater (by about 18%) when these substances were used by male students than by females.

In a semi-urban town in western Ethiopia, researchers also found that the use of alcohol and khat by high school students resulted in increased engaging in premarital sexual practice (by 30% for alcohol and 28% for khat) (Seme & Wirtu , 2008). In this practice, there was greater tendency for the students to have multiple sexual partners and running the risk of contracting STD, including HIV. Male students, generally, were more inclined to be engaged in such practices.

Similarly, Samuel and Angamo (Samuel & Angamo, 2012) reported that the use of both alcohol and khat by college students in a semi-urban setting in central Ethiopia was associated with increased risky sexual behaviours/practices of various types, although the association was not significant considering khat alone. In this context, risky behaviour was defined as a pattern of personality that exposes to HIV infection.

Since only the effects of khat and alcohol were described as potential risk factors for contracting STD, the roles of other mind-altering substances are not clear and remain to be studied. In all student groups, the use of both khat and alcohol increased risky sexual behaviours/

practices that may lead to contacting STD, including HIV. This conclusion was based on responses of participants who filled out questionnaires presented to them. Similar studies conducted in conjunction with laboratory tests for HIV infection in different groups of young Ethiopians have shown more tangible associations between risky sexual practices with the use of khat and/or alcohol (Abebe, Debella, Dejene, Degefa, Abebe, Urga & Ketema, 2005). Moreover, a combination of khat and alcohol was mentioned to have a greater effect for indulging in risky sexual activity than any one of the individual substances (Taffa et al., 2002; Seme & Wirtu, 2008). However, since these studies were not performed systematically (eg., most lacking appropriate controls), this claim requires further verification. Given the limited amount of information, the reports reviewed can serve only as preliminary findings to lead to further research.

SUBSTANCE USE AS A RISK FACTOR FOR VIOLENT BEHAVIOUR AMONG HIGH SCHOOL AND COLLEGE STUDENTS

There are only a few reports addressing this particular issue in Ethiopia. Further, besides the limitations in details, these reports originated only from 2 study groups in different places.

A study conducted in semi-urban high schools in eastern Ethiopia demonstrated that in a sample of 764 female students (14-24 years old), the use of alcohol, khat and/or tobacco was associated with higher levels of sexual violence victimization (Bekele, Aken & Dubas, 2011). This behaviour was further increased when

both women and men used of these substances.

In a similar study performed in central Ethiopia it was shown that the prevalence of violent behaviour among 1,294 male undergraduate college students increased by 67%, 33% and 67% due to khat, alcohol and cigarettes consumption, respectively (Gelaye, Philpart, Goshu, Berhane, Fitzpatrick & Williams, 2008). Following this, the effects of alcohol and khat on violent behaviour directed against females were assessed in 1,378 male undergraduate students (Philpart, Goshu, Gelaye, Williams & Berhane, 2009). Both physical and sexual activities offensive to females were considered violent behaviours. While the use of alcohol and khat individually caused a two-fold increase in risk of committing an act of violence by male towards women, a combined use of the substances further increased the gender-based violence.

Additional research assessed the effects of substance use on prevalence of gender-based violence among 1,330 female college students (Arnold, Gelaye, Goshu, Berhane & Williams, 2008). Women who consumed cigarettes, khat and alcohol reported encountering greater gender-based violence. A combined use of alcohol and khat was mentioned to be even a greater risk factor for this experience than the individual substances.

In the reviewed reports, the effects of mind-altering substance use on violent behaviour were assessed as part of bigger studies involving various other factors, leaving many unanswered questions. However, collectively, the reports suggest that the use of khat, cigarette and/or alcohol by males and/or female students is associated with increased violent behaviour of males against females.

Geographical locations and educational levels of students appeared to have no significant effects on this conclusion. Also, while this observation was true whether the users were males or females, the expression of the behaviour became even greater if both sexes used the substances at the same time. In addition, the combined use of these substances was as a greater risk factor for violent behaviour than the individual substances. Despite the limitations of the studies, the results reported are in agreement with those of other studies on alcohol and cigarette use by different population groups (Champion, Foley, DuRant, Hensberry, Altman & Wolfson, 2004; Dibaba, 2007). The limitation of information on students' violent behaviours in this regard calls for further research efforts.

LIMITATIONS OF THIS REVIEW

Given the size and diversity of the student population anticipated to be involved in the abuse of mind-altering substances in Ethiopia, only very limited studies have been reported in this regard during the past two decades. Thus, the reports reviewed hardly reflect the situation regarding the general student population. In addition, considering the individual reports, there are certain important shortcomings that are shared among most of them. These drawbacks include (1) the self-reporting of data by study subjects may be associated with recall bias, and under-reporting of substance use and related behaviours; (2) the use of close-ended questionnaire items in most of the studies limits the amount and type of information that could potentially be reported by respondents; (3) the

methodologies used for collecting data in some of the studies do not seem well defined and standardized with the possibility of reporting incomplete and inconsistent results; (4) feasible responses obtained using questionnaire-based studies were not shown to be supported by laboratory or clinical findings to further confirm their validity; (5) the cross-sectional nature of the studies reported did not establish trends and causalities between substance use and potential risk factors, etc.; and (6) some of the studies utilized small sample sizes that could contribute to wider confidence intervals with low accuracy.

Despite these limitations, however, the studies reviewed provide useful information on substance use patterns for designing future research directions and policies, and for considering other actions directed towards tackling this important problem. The consideration of the identified limitations in future research is highly relevant.

CONCLUSION AND RECOMMENDATIONS

Although mind-altering substance use is recognized to be an emerging problem in Ethiopia, only limited information is available in the literature. In this paper is provided an overview of substance use among high school and college students in Ethiopia based on reports published in the past two decades. Alcohol, khat and tobacco/cigarettes were reported to be commonly used by both public and private high school students and college undergraduates in urban as well as rural areas located in widely-spread areas in the country. While there were certain variations in the prevalence of use of these

substances with geographic locations and the research methodologies utilized, there were clear-cut patterns of use in relation to the gender, educational level/age and religion of the users. In addition, cannabis (marijuana) was reported to be used by students in selected high schools, the proportion of which was higher in private school as it was the case for use of alcohol and tobacco. Students who used khat, alcohol or cigarettes were also reported to display increased violent behaviours towards women and enhanced sexual activity without precautionary measures for STD and other negative consequences. However, aside from being small in number, most of the available studies were associated with certain shortcomings, contributing to the inconsistencies observed. Despite this, the reports could provide relevant information that can at least indicate areas of weaknesses and certain useful aspects of substance use among high school and college students in Ethiopia. The information documented can thus be helpful for designing future research directions and policies and for considering practical measures against existing problem of substance use.

Along the lines described, the following specific actions are recommended to be considered in the fight against mind-altering substance use by high school and college students in Ethiopia: (1) a more systematic research is needed to obtain additional and more reliable information on substance use, covering greater geographical areas or communities that can better represent the general student population of the country, and (2) based on current knowledge, a number of other immediate actions need to be taken to mitigate/prevent existing substance use problems; these actions may include

(a) educating students about the health problems of harmful substance use, with greater focus on those identified in this review, (b) offering community education on the use harmful substances (involving parents, relatives and teachers and community leaders), (c) providing coping mechanisms to help victims of substance use, (d) minimizing the factors that contribute to or encourage such substance use, and (e) establishing novel and more relevant drug/substance use policies at institutional and/or governmental levels.

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**THE “WAR ON DRUGS” IN NIGERIA:
HOW EFFECTIVE AND BENEFICIAL IS IT IN DEALING WITH THE PROBLEM?**

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ABSTRACT

Since drugs became both a public and social issue in Nigeria, fear about both the real and imagined catastrophic effects of sale and use has led to a reliance on extreme measures to control supply and discourage demand. The traditional ‘prohibitive’ attitude has been the preferred option in a sustained ‘drug war’. This analysis draws from extant research literature, published documents and media reports on drug policy matters. Although the age-long war on drug policy in Nigeria may be producing some desired results, there is evidence of negative consequences and unresolved issues associated with the war. These issues include economic, crime, human rights, development and security, public health, discrimination and environment. The paper calls for a shift from the over-reliance on law enforcement to harm reduction and treatment for people addicted to drugs. The shift will provide far more cost-effective drug control results and guarantee the rights of Nigerians as enshrined in the U. N. Human Rights Declaration and the constitution of Nigeria.

Key words: war on drugs, Nigeria, drug policy, harm reduction

INTRODUCTION

The war on drugs and its operational strategies have continued to come under the spotlight with increasing scrutiny by many writers (see Nadelmann, 1998; Chilton, 2001; Reuter, 1997; Caulkins, Reuter,

Iguchi & Chiesa, 2005; Obot, 2004; Gray, 2009; Crook, 2009; Otu, 2011). These authors have critically assessed the current prohibition and incarceration policies on drugs, and have drawn attention to their damaging effects or outright failure. For instance, Chilton (2001) reviewed the war

on drugs in the U.S. and explained that “it is a tragic and misguided one which remains the foolhardy effort of our time” (p. 1). Crook (2009) referred to the current wave of war on drugs as a ‘brainless’ policy and explained that U.S.’s implacable and unrepentant blend of prohibition and punitive criminal justice is wrong-headed in every way: immoral in principle, since it prosecutes victimless crimes, and in practice a complete disaster of remarkable proportions.

A review of the literature shows that interest in drug matters and particularly drug policy in Nigeria has a long history (see Odejide, 1989; Ebie and Pela, 1981; Pela and Ebie, 1982; Obot, 2001, 2006; Asuni, 1964, Lambo, 1965; Otu, 1995). It predates 1960 when the country gained her independence from the United Kingdom. For instance, Oloruntoba (2006) noted that by 1935, the first Drug Control Law in Nigeria termed the ‘Dangerous Drugs Ordinance’ of 1935 was enacted. This Ordinance regulated (and not prohibited) the importation, exportation, manufacture, sales, and use of opium and other dangerous drugs. By 1960, drugs (including alcohol), had become a major public issue in Nigeria as evidenced by a large increase in drug seizures, arrests, and prosecutions for prohibited drugs notably cannabis (Asuni, 1964, Lambo, 1965; Obot, 2004). The need to curtail sale and use was also a major concern. From this period onward, domestic legislations which focused on the control and prohibition of drugs, especially hemp (*Cannabis Sativa*), became entrenched. Oloruntoba (2006) explained that the vigour and sustained efforts to legislate against drugs in contemporary Nigeria was because of the growing notoriety of the country as a transit point or centre for recruitment

of drug couriers, and a growing pattern of consumption of these drugs within the country. By the 1980s, it became clear that more Nigerians were getting involved in the distribution of drugs, both within the country and beyond, while citizens also experimented with, and used these drugs. The same period marked the beginning of a truly sustained war on drugs and/or war on the people as evidenced in the creation of a separate agency known as the Nigeria Drug Law Enforcement Agency (NDLEA) to wage this war to its logical conclusion.

Nigeria’s increasing notoriety in the international illegal drug economy in the 1980s did not help matters at all. If nothing else, it impelled the Nigerian authorities to intensify her war policy on the traffickers and users alike. Though regulations continued to oscillate between stiff and mild outlooks, perhaps in response to the prevailing circumstances (see Obot, 2004; Oloruntoba, 2006), the bulk of these regulations have continued to lay emphasis on prohibition and punishment (see Drug War Chronicle, 1/18/08). This is aptly demonstrated by the extent of a total war being waged against all non-medical use, manufacture and sale of drugs, with less attention being paid to the alternatives of demand and harm reduction. This approach is a continuation from the colonial period, with prevailing overtones of drugs as being morally reprehensible, and therefore, not tolerated in the society.

In an analysis of Nigeria’s drug policies, Obot (2004) explained that the war on drugs in Nigeria during the military era was based on the perceived need to achieve the US certification benchmarks which consequently led to failure to evolve a home-grown solution to the problems of drug. In fact, as his argument

implied, the war on drugs resulted in significant economic, social and psychological consequences for Nigeria and Nigerians (see Obot, 2004). So even when it is became obvious that the war was failing to achieve its aim of getting these drugs out of the Nigerian society, the Nigerian authority, like her counterparts, showed a disinterest in looking at the other side of handling the drug problems.

This paper draws from the basic arguments of the extant analyses, and takes a step in the direction of the analysis by Obot (2004) and similar others. However, the paper also notes that there is a gap with regards to the full impacts of this war on the Nigerian people. Therefore, in this paper, a harder approach is taken to engage with some of the important fall-outs of this war which have been raised and analysed in different isolated manners though not sufficiently critical in calling for radical policy departure. Thus, the present paper asks the questions: What are the latent and manifest negative impacts of the war on drugs in Nigeria? *Cui bono* (who benefits in the whole war on drugs)? What alternative drug policy option is available to Nigeria?

The style of the present paper is both critical and analytic. It is premised on a cultural perspective which sees the war policy as no more than a product of moral panic that is borne out of what Reinerman (1994) referred to as 'drug scares'. Reinerman avers that moral panic generally, and the specific drug scares, are part and parcel of human nature (culture) which have become recurring cultural, political and economic phenomena in their own right so that the resultant rightist drug policy—anti-drug crusades, punitiveness, war and other marked nuanced public concern about drugs—can be explained sociologically.

In sum, the paper argues that the current war on drugs in Nigeria is causing a nightmare to Nigerians as it is consuming Nigerians in great numbers. It draws on data from the National Drug Law Enforcement Agency (NDLEA), published documents, relevant periodical literature, research and media reports to examine the nature, extent, modus operandi and a whole lot of complex issues and implications of the current drug policy.

THE DRUG SITUATION IN NIGERIA

Two decades ago, NDLEA (1992) had noted that illicit sale and use of substances was on the rise among Nigerian urban youths. Using Lagos and Kano as a case study, the agency noted that young Nigerians in the nation's urban secondary schools were already familiar with, and were using substances such as alcoholic beverages, cigarettes, cannabis, amphetamines, a little of heroin, cocaine and other stimulants and depressants.

Gyong and Tanimu (2010) in their study found that there was a steady increase in the number of suspects arrested for drug related offences in Nigeria over the past two decades. For instance, they revealed that the number of suspects arrested rose from 293 persons in 1991, to a maximum of 6,323 persons in 2006, showing an increase of 2,158%. Their study also showed an increase in female involvement in drug related offences with an increase from 61 females in 1994 to 440 in 2006. Citing Iyamabo (1990), Obot (2004) observed that between 1979 and 1988, a total of 14,833 arrests and 4,574 convictions for drug related offences especially in trafficking, involving Nigerians, were recorded in foreign countries alone.

In the first three months of the year 2009, the NDLEA arrested a total of 38 persons at the Murtala Mohammed International Airport Lagos alone. The agency's also disclosed that it arrested a total of 6,308 suspects in 2007 and 7,899 in year 2008, showing an increase of 1,591 cases representing 20.14 per cent.

The U.S. State Department's 2007 International Narcotics Control Strategy Report reported that sale and local consumption of marijuana in Nigeria was on the increase. It linked the rise in the domestic use of marijuana in Nigeria to the increased quantities seized, the number and size of illicit plots discovered and

destroyed, and numbers of arrests made by the NDLEA. Below is a table showing the drug situation in Nigeria between the periods 1990-2008.

Analysis of the table shows that with the exception of a few years, there was a consistent upsurge in the quantity of drugs reportedly being interdicted by the NDLEA between 1990-2011. For instance, from 1994, it is clear that the figure shifted from that of single digit to double digits, and continued in an upward direction with three digits. The same trend is observed with the number of persons interdicted for various drug dealing offences. These figures may have been the product

Table 1. The distribution of drug seizures and arrestees between 1990 – 2011

Year	Cannabis	Cocaine	Heroin	Others	Total	Male	Female
1990	170.6	110.6	861.25	NA	1,142.45	NA	NA
1991	1,496.61	545.39	66.82	15.72	2,124.54	NA	NA
1992	2,508.11	415.67	690.84	3.51	3,618.13	NA	NA
1993	7,378.89	1,293.69	283.51	1.87	8,957.96	NA	NA
1994	19,732.66	90.76	91.65	94.3	20,009.37	632	61
1995	15,258.74	15.91	30.27	210.39	15,515.31	732	66
1996	18,604.72	6.16	19.38	1,203.79	19,834.05	1,099	88
1997	15,904.72	31.9	10.49	1,736.01	17,683.12	2,208	164
1998	16,170.51	9.26	3.62	2,609.75	18,793.14	2,610	204
1999	17,691.14	15.64	81.35	322.25	18,110.38	2,380	121
2000	272,260.02	53.42	56.6	234.28	272,604.32	2,253	132
2001	317,950.20	195.82	46.63	308.84	318,501.49	2,693	136
2002	506,846.09	35.35	55.62	791	507,728.06	2,549	108
2003	535,593.75	134.74	87.58	937.41	536,753.48	2,316	174
2004	68,310.07	124.47	90.94	233.83	68,759.31	3,382	318
2005	125,989	395.91	70.42	88.72	126,543.65	3,181	292
2006	192,368.30	14,435.88	33.09	515.57	207,352.84	5,883	440
2007	210,262.90	393,678	120,638	699,735	211,476.00	5,891	417
2008	335,535.34	3,654,904	116,054	5,304,033	336,442.84	7,584	315
2009	NA	NA	NA	NA	NA	6,700	342
2010	174,661.59	706.433	202.08	2,550.622	178,120.725	6,296	492
2011	191,847.91	410.805	39.752	2,982.45	195,283.917	8,639	567
TOTAL	3, 027,851.50	19,781.24	2,954.83	16,071.17	3,085,355.15	47,028.00	4,437.00

Source: NDLEA 2012 Annual Report

of several factors, and given that the figures continued to rise even in the face of the war on drugs suggested that the war had failed.

THE MODUS OPERANDI AND FACES OF THE WAR ON DRUGS IN NIGERIA

The responsibility of prosecuting the war on drugs in Nigeria rests with the Nigeria Drug Law Enforcement Agency (NDLEA). This war is relentlessly being fought in collaboration with the police, customs, immigration, army and of recent, with Nigeria Security and Civil Defence Corps to stem the cultivation of the most commonly trafficked and used drug (*sativa cannabis*) in the country. On routine basis, the NDLEA, the Nigeria Police and Army acting on intelligence, carry out both aerial and ground patrols on suspected cannabis farmlands in their bid to carry the war to the local farmers who are producing cannabis. In 2009 for instance, the Cable News Network (CNN) reported of the NDLEA patrolling the southern forests (especially part of Ondo and Delta states) in search for hidden cannabis farms for eradication.

Eradication by the NDLEA and its partners is carried out through clearing of farmland, usually by spraying of pesticides. In the process, legal crops are also destroyed and innocent farmers and their family members assaulted and arrested. Experts working for UNDCP *Drug Policy Around the World Reports* (2008b) believe that crop eradication is a failure because of what they regard as “balloon effect”, which means relocating the farm to another area. Various media and intelligence reports reveal that marijuana cultivation is shifting away from the arable

lands of Ondo and Delta states of the southern part of the country to other states in the Northern part of the country as the raid intensifies in these traditional homes of marijuana.

The NDLEA is also seriously prosecuting the war by means of interdiction which they engage to seize drugs en route to and from Nigeria. The agency is not alone in the prosecution of this war in this manner. Hundreds of trained NDLEA personnel are posted to the country’s borders to forestall the clandestine smuggling of illicit drugs such as heroin, cocaine, and synthetic drugs. Although some robust breakthroughs have been made in this regard, interdiction is acknowledged as having fallen short of its avowed objective of curtailing the country’s drug availability and use (UNDCP reports, 2008; Reuter, 1997).

A key feature of the NDLEA war on drugs in Nigeria is raid/bust. In raiding suspected drug sellers and users, NDLEA and the police often storm, in a commando style, any identified or suspected drug den or transaction point to dislodge the selling and buying of these drugs and by so doing make dealing on drugs more risky. From the birth of the agency till today, raids on suspected drug dealers and locations have remained an enduring strategy, often conducted at odd hours, with the raid team in combat readiness. These raid sometimes lead to loss of life—both of the dealers/users and among personnel of law enforcement agencies (see also Goldstein, 1985).

THE NATURE OF NIGERIA ILLEGAL DRUG MARKET AND LAW

Against the backdrop of the established link between drug markets, crime

and violence, and the moral indignation directed at the use and sale of drugs, legal controls had a long time ago been instituted with widespread appeal. Past and present Nigerian authorities have to share in the belief that to eliminate the dangerous crimes caused by drugs, and promote moral uprightness in the society, it is desirable to target both those who distribute these drugs, and those who use them—both seen by moral entrepreneurs as ‘devil folks’ (see Cohen, 2002; Goode & Ben-Yehuda, 2009). The NDLEA (2009) Annual Report states as follows:

Recognising the links between illicit traffic in drugs and psychotropic substances and other related organized criminal activities which undermine the legitimate economy and threaten the stability and security of the country, Nigeria has been in the forefront of global efforts at suppressing the drug menace in support of global peace and security (NDLEA, 2009).

The first official Drug Control Law in Nigeria was the Dangerous Drug Acts of 1935 which was aimed at the prohibition of importation, exportation, transit, production, sales, distribution of opium, coca leaves, Indian hemp, morphine or heroin or other dangerous drugs (see Olorunto-ba, 2006). This was followed by the Indian Hemp Decree of 1966 which prescribed a stiff punishment of death penalty or 21 years of imprisonment for the cultivation, 10 years of imprisonment for exportation and for those found smoking it or in possession of it (see Federal Military Government, 1966). Obot (2004) reported in his seminal assessment of Nigeria’s drug policy between 1994-2000 that the 1966 Decree was amended in 1975, with less

severe penalties. He noted for instance, that the death penalty was abrogated while punishment for smoking was reduced to six months or fine.

Throughout the 70s, 80s, and 90s when the military controlled the affairs of the country, there was what appeared to be an ambivalence and complacent attitude of the military to drug matter, either partly because the drug issue was not perceived as a public problem, or the international agencies and the western countries had not brought pressure to bear on the authority whom they apparently tolerated. However, beginning from the mid-80s, the lukewarm attitude of the military towards the problem of drugs changed as a result international pressures and possibly to deal with internal opposition that was on the rise. Consequently, the military regime of this period came up with tougher and repressive laws and policies on illegal drug sale and use. Obot (2004) however explained that this attitude which occasioned the 1984 Nigerian drug law was done to reflect the mood of the new military officers in power. This mood appeared to be that of ‘corrective’, ‘intolerance, and a no-nonsense one’.

Two significant changes occurred in the statute book of Nigeria drug policy and law during the 1980s and 1990s periods of military rule. One was the amendment and subsequent repealing of the already amended 1975 Indian hemp Act (decree) which brought back stiff penalties for trafficking in and/or sale of cannabis. The second, and most pronounced, was the creation of a Special Tribunal (Miscellaneous Offences). The Decree expressly prescribed death penalty by firing squad for dealing in, buying, selling, exposing or offering for sale or luring somebody to buy, sell, use, smoke, or inhale any drug

known as cocaine or related drugs (see Federal Military Government, 1984b). Worst still, the Decree had a retroactive effect—being backdated to 31 December 1983 when the government came to power. The turning point of the Decree and historic in the annals of drug regulations in Nigeria was the execution (by firing squad) of three men who had been convicted of the offence prior to the promulgation of the Decree (see also Ellis, 2009). As a result of public outcry which greeted the execution—by both local and international community—there was a moratorium on the punishment. On 27 August 1985, the Decree was repealed when a new military government came to power.

In 1989, the National Drug Law Enforcement Agency (NDLEA) was founded by Decree 48. The Decree created an enforcement agency and institutional framework charged with the responsibility of regulating what was perceived to be an ever-increasing trafficking in and abuse of illegal drugs. The Decree specified punishments for illicit drug use and trafficking, that included life imprisonment for trafficking in cocaine, LSD, heroin or similar drugs, asset, and 15 years but not exceeding 25 years for possession or use (for details, see NDLEA Annual reports, 2009; Uwiagbo in <http://againstbangida.com/docs/gloriaokon.pdf>).

The war on drugs took a dramatic turn in 1993 with the ascension to power of a new military administration as a result of an unpopular coup d'état. Possibly to earn some level of credibility, having been made a pariah by the international community, the administration chose to focus on the drug issue. Decree 48 was amended in 1995, providing the NDLEA with more power to enforce drug laws. For instance, the Money Laundering Decree

of 1995 conferred greater power on the agency to mount clandestine surveillance on the bank accounts of suspected traffickers. The same Money Laundering Decree placed a ceiling on cash payment and mandated banks to report deposits beyond the limit set; it also empowered the NDLEA to eavesdrop on any suspected person's telephone line. Expectedly there was a barrage of criticisms that trailed these decrees and their contents by individual Nigerians and foreigners, especially civil society groups.

In 2004 Decree 48 was further amended by the Cap N30 Laws of the Federation of Nigeria (LFN 2004). The Act stipulates among other things, life imprisonment for production, import, export, sales, purchase, and possession of drugs such as cocaine, LSD, heroin or any other similar drugs upon conviction. There was also a provision for imprisonment of between 7 and 25 years for various categories of offences such as letting out one's premises for use in drug transaction, smoking or using illicit drugs, impersonating any staff of the agency, aiding and abetting in the commission of the offence, etc. (for details see NDLEA Annual Report, 2009, pp. 78-85). This amendment was without prejudice to some of the provisions of the 1995 amendment which included the Money Laundering and Forfeiture of assets decrees.

Table 2 shows the details of cases so far prosecuted, won and/or lost by the NDLEA since it started operation in 1990 to 2011. What is clear from the table and relevant to our central argument is the fact that cases handled by the Agency continue to increase each year, suggesting that drug trafficking and abuse have continued to rise despite the sustained war on the commodity. Alternatively, it

Table 2. Prosecution of drug offenders by the National Drug Law Enforcement Agency (NDLEA) between 1990 –2011

Year	Cases	Won	Lost
1990	16	13	3
1991	78	42	36
1992	271	165	106
1993	154	125	29
1994	87	67	20
1995	343	333	10
1996	550	537	13
1997	1,104	1,088	16
1998	1,194	1,180	14
1999	1,474	1,545	20
2000	1,626	1,624	2
2001	1,172	1,172	0
2002	870	870	0
2003	817	817	0
2004	853	853	0
2005	779	779	0
2006	1,363	1,363	0
2007	1,508	1,459	49
2008	1,720	1,712	8
2009	1,506	1,497	9
2010	1,526	1,509	17
2011	1,501	1,491	10
Total	20,512	20,151	362

Source: NDLEA 2011 Annual Report

also goes to suggest that NDLEA was becoming either more efficient (see Obot, 2004), or that offenders were becoming more stupid and careless.

Of importance too, in the context of the main discourse of this paper, is that the war on drugs is being fought in all fronts. Not only is the war being waged in the field, but it is also being carried to its logical conclusion in this important phase of criminal justice system—the judiciary/court. The stabilising of arrest rates between the years 2001-2005 is instructive. 2001-2005 may be described as Nigeria’s ‘stable political era’ in the new democratic Nigeria; an economic and political peri-

od that appeared to be less favourable to illegal drug trafficking. Ryan (1997), Otu (2004), Williams (1997), Gastrow (1998) have all suggested that illegal organised criminal activities tend to peak during periods of relative political instability.

ANALYSIS AND DISCUSSION OF THE WAR ON DRUGS

As a crime control policy, the hawks’ (punitive) view surely has certain coherence, common sense, and a widespread appeal. Given the plausible nexus between drugs and crime, the war on drugs

may have curtailed the spread of these crimes. Drugs modify consciousness and give the user either a sense of confidence that leads to misjudgement or make the user placid. So one major benefit coming out of the current antidrug policy in Nigeria is that it surely sends the message that drugs are not tolerated making both sellers and users to act with caution.

Rational choice or economic theory suggests that toughness and punitiveness should scare away potential traffickers and users, raise the price of drugs, make them less accessible, and even reinforce the message that drugs are harmful and not tolerated in the society. This should perhaps lead to less drug sale-and/or use that would eventuate into fewer-drug-related problems. Paradoxically, however, empirically-based evidence suggests that notwithstanding sharply increased periods of stringency, occasioned by all-out-war, prices of drugs in Nigeria have been declining. At the same time, drug use and sales are increasing, particularly among young Nigerians, so that the forbidden fruits effects¹ of these drugs are taking a toll on Nigerian youth (see also NDLEA, 1995; Odejide, 1988; Obot, 1993b; Iban-ga, 1997; Obot et al., 2001). These issues constitute a major analytic and policy puzzle to a number of drug policy stakeholders in Nigeria.

The war on drugs in Nigeria is replete with contradictions, making it not different from other countries seeking to control illicit drugs through brute force and rule of law. It comes with lots of costs particularly the human costs that fall on every person connected to the illicit economy. Reuter (1997) explained that America's

drug policies, as currently being favoured, are punitive (in both rhetoric and reality), divisive (certainly by race/ethnicity, age and class), intrusive (in small ways for many and in large ways for some groups) and expensive (costing hundreds of millions of dollars annually). The same policy scenario applies to Nigeria which wholeheartedly toes the path of the former's drug policies (see also NDLEA Reports, 2008, 2009).

Currently, in Nigeria, there are serious security challenges facing the country. Apart from conventional crimes such as armed robbery, rape, theft, and fraud, militia insurgents of different shades of opinion and ethnic-religious backgrounds continue to threaten national, state and local authorities. The manner these groups operate especially the most dreaded of them—the Boko Haram insurgents—suggests they might have a link with other highly organised criminal groups such as illegal arms and drug dealers. Several studies have linked armed groups to organised and syndicate criminals dealing on illicit commodities which lead to the emergence of the popular *narco-terrorism*. Arising from the current insecurity in Nigeria, economic development and growth are adversely affected as the much needed foreign and local investors are wary to invest in the country for fear of either being kidnapped, robbed or killed.

The war on drugs in Nigeria as currently being prosecuted is also discriminating. Its main targets are the poor and less privileged racial groups in societies already characterised by racial tension and highly polarized ethnic divisions. In the U.S. for instance, it is explained that the

¹ Forbidden fruit effects here explain a scenario where by young Nigerians out of curiosity try to experiment with drugs which are being jealously guarded and shrouded in secrecy before them.

poor and minorities, especially the Blacks and Hispanics, are the victims of this war (see Musto, 1973; Inciardi, 1986; Thio, 1998). In South Africa, the majority of those arrested, or facing charges on drug offences are also mainly those at the bottom ladder of the distribution chains, and are black or "coloured" (Otu, 2004). Many inmates are users or traffickers who are more or less privileged and expendable pawns in the game. In Nigeria, significant numbers of those arrested and prosecuted for drug offences are people at the margin of society, trying to survive by offering their services to the drug barons in a country where unemployment is quite alarming. The NDLEA 1992 Drug Data Collection Unit reported that 85% of the 243 drug traffickers arrested were unskilled workers with a substantial number of arrestees found to be impoverished and with low level of or no education at all.

An interesting aspect of the war is its relationship to other crimes. Rather than the commodities causing numerous crimes, it is the war on drugs that is said to be causing the crime. This is the view shared by standard liberal critique (see Skolnick, 1992; Click 1995:378; Chilton, 2001. These authors explain that one of the important consequences of the punitive approach to drugs has been the growth of crime, violence and disease on the parts of addicts and sellers. The reason is simple. Tighter restrictions often create black markets which depend on violence to enforce contacts, prevent employees, customers and others from providing information on the illegal activities to enforcement agencies (Goldstein, 1985; Chaiken and Chaiken, 1996; Ryan, 1997). Such activities also motivate corruption, exacerbating a situation in which Nigeria continues to score very high on

the corruption index. Nigeria's illicit drug market has not reached the point where drug money openly fuels instability and conflict as in Mexico and Colombia, and is unlike some Western consumer countries with streets that are blighted by warring drug gangs, street violence and high volumes of property crime committed by low-income, dependent users. However, the current war on drugs may just be the driver leading to such a scenario.

Nigerians are known for their honed-business skills, and there is widespread youth restiveness and unemployment in the midst of the disrupting influences of the war on drugs. An over-reliance on criminal justice solutions may have been contributing to the widespread violence in the urban slums and city centres more than drug use. Rationale and economic theories teach us that whenever stringent laws are imposed on any economic activity, the people will go underground which will result in high prices, and the consequent increase in the violent crimes committed by both the users and traffickers. Moore (1983) and Goode (1984) explain that since current policy outlaws the manufacture, distribution, possession, and use of these drugs, they also create criminal offences where none previously existed. Antonio Maria Costa, the Executive Director, UN Office on Drugs and Crime, 2008 while reflecting on the deleterious effect of the war on drugs explained thus:

The control system and its application have [created] a huge criminal black market ... There is no shortage of criminals competing to claw out a share of a market in which hundred fold increases in price from production to retail are not uncommon

(see *DrugUNODCWDR_2008_eng_webpdf*, p. 216).

The social impact of the strict prohibition on these drugs includes the spread of HIV/AIDS. Because of the illegality which surrounds the use of these drugs, users often resort to secret, crude and unguarded methods of use. In Africa and Nigeria, HIV/AIDS is a serious problem, with the estimated number of infected persons in Nigeria naively put at 1.5 million of the population. Obot (2000), Odejide (1989), observe that amongst the majority poor community, HIV virus is widespread, and is facilitated by unhygienic means of using drugs. To make matters worse, access to anti-retroviral drugs in Nigeria is very limited so that many Nigerians in the illegal drug market continue to suffer double tragedies of being haunted by the enforcement agencies for their sale and use of drugs and are also being denied the right to quality health care.

The cost of the war on illegal drugs also readily comes to mind and calls for scrutiny. The cost unarguably, eats deep into the treasury of Nigeria meagre resources. Nigel Walker (cited in Whitaker 1987) suggested that criminal law should be determined on the grounds of classical economic cost-benefit, not morality. The true gauge of the success of the war on drugs is thus better measured in the amount of financial assistance that each state devotes to the efforts. In 1989 UN with a total budget of \$1.76 billion allocated about \$37 million towards the war against drugs. Currently, it is estimated that about \$100 billion are spent globally on drug law enforcement (see Transform Drug Policy Foundation estimate, 2011). In Nigeria the amount of money spent on the war on drugs is hard to come by but

certainly on the high side, and currently runs into billions of naira. Even as some analysts believe that every kobo spent on checking the traffickers and users is worth it, the impact of these billions of Naira on the socio-economic development of a country like Nigeria, which struggles to grapple with development and growth, is certainly enormous and cannot be ignored. Put lucidly, the war is irrefutably expensive. It is a crusade that entails an elaborate and expensive institutional apparatuses, as well as a long time frame. In Nigeria, the NDLEA is duplicated in all the 36 states of the federation, including Abuja, the Nation's capital. Maintaining the staff and equipment in all this states is financially burdensome. In the end, it is the Nigerian taxpayers who bear the financial brunt of a policy that is increasingly being jettisoned by practising nations and states across Europe, South America and some states in the U.S.

Table 3 shows the budgetary allocation of the NDLEA for the year 2000 to 2007. What is clear from the table above is that the amount of money spent by the NDLEA, especially on personnel costs, continues to rise even as they are described as paltry.

One frustrating area of the war which builds up the cost is in the criminal justice system (see for instance, Shaw, 1995; Schmallegger, 1996: 402; Meier and Geis, 1997; Reid, 1997; Baynham, 1998; Siegel, 1998; American Bar Association cf. Beirne and Messerschmidt, 2003). As an outgrowth of the war on drug, all phases of the criminal justice process are increasingly "drug driven". In Nigeria defence attorneys consider delay tactics to be a sound legal manoeuvre so that delay of justice is the rule rather than an exception. Increasing court backlogs threaten the legal system's infrastructure and efficiency.

Table 3. Summary of funding for the Nigerian National Drug Law Enforcement Agency (NDLEA) in Naira (N), 2000-2007

YEAR	PERSONNEL COST	OVERHEAD COST	CAPITAL EXPENDITURE	REMARKS
2000	737,625,208	110,246,000	37,803,333	
2001	789,434,817	186,216,124	314,244,106	N250m was supplementary budget
2002	936,631,205	83,796,800	Nil	
2003	935,000,000	66,520,699	Nil	
2004	1,316,467,750	140,000,000	200,000,000	
2005	1,854,114,252	152,000,000	261,660,000	
2006	1,876,086,024	110,246,000	109,500,000	Capital not implemented
2007	3,372,769,820	93,204,909	330,059,136	Capital not implemented

Source: NDLEA 2008 Annual Report

Interdiction, access to suspect’s bank account, the seizure of assets and imprisonment, the key approaches of this war, have created significant corrupting influences and pressures. Corruption affects the police, court officials, members of the military, customs agents, and employees of the correctional services. These people are often implicated in drug deals and this raises a number of ethical and moral questions about the war (see UNODC,2007).

WHO BENEFITS FROM THE WAR?

The collateral damage of the war—discrimination, crime and violence, economic cost, human rights violations, environmental pollution, development and security, public health, loss of sovereignty and a host of others—means that ultimately, the only benefit accruing from the war on drugs in Nigeria is that no one benefits; everyone in the war is a loser. War on drugs means the battle line is drawn so that each opponent holds to its fortress. If the experience

of the U.S is anything to go by, then Nigeria and her people can begin to expect the influx of vandals in the country who will be in a good position to take over the organised crime of illicit drug deal. The Guardian (see <http://www.guardian.co.uk/global-development/poverty-matters/2011/nov/22/ngos-should-talk-about-drugs?>) observed that the war on drugs in countries such as Mexico, Colombia and Afghanistan has led to the displacement of the trade in West Africa with Guinea Bissau already assuming the status of a ‘narco-state’.

Ultimately, the people who lose most in the war on drugs in Nigeria are the ordinary, poor, marginalized and vulnerable masses which the war ironically aims to protect. These people are predictably women, children, and the unemployed youths. And, whenever these categories of citizenries are at risk because of any policy, then it is society which loses completely.

Since it does not seem that any single social problem has ever been completely solved by waging war on such a problem², ultimately, there must be an alternative

² Sociologists-cum-criminologists are shifting from an overarching age-long monolithic approach to social problems and crimes generally. Emphasis now is on integrating solutions in a multiplicity approach to dealing with these problems.

to war, or perhaps, making the war smarter—prohibition with less criminalization. Whenever a war is waged, both sides in the war are losers in all respects—physical and psychological. Given the fragile and weak nature of the Nigerian state and democracy, the war on drugs if not made smarter, may just exacerbate instability and undermine the nascent democracy. The profitability of drugs, and the euphoria it gives users, mean that both the dealers and users will stop at nothing to protect their business and ensure steady supplies. Any policy which focuses on drugs as a social criminogenic rather than a health issue or aims at eradicating drugs will prove ineffective.

The tragedy of the Nigerian war on drugs is its deliberate refusal to learn from other countries which though have waged this war for decades, suddenly realized their mistakes and some are retracing their steps and retooling their strategy. In these countries, there is a parallel understanding that the war on drugs, like the earlier attempt to prohibit alcohol, is a failure.

Notwithstanding the preceding discussion of the war on drugs in Nigeria suggesting that it is not achieving its desired goal, it is clear that there is something to cheer about the war. The war is viewed by many as compelling and necessary with a remarkable proportion of illicit drugs, traffickers, and users having been kept out of circulation in Nigeria. Moving around the cities, towns and villages by police and NDLEA officials reveals some level of circumspect behaviour among users and dealers that imply a measure of social control. This may be a major accomplishment of the enforcement, consistent with Kleiman's (1992) explanation that open air drug markets provide easy

access to users moving from experimentation to regular consumption, while also breeding violence and disorder.

WHAT ALTERNATIVE DRUG POLICY OPTION IS AVAILABLE TO NIGERIA?

Calls for a paradigm shift towards drug tolerance, with an emphasis on demand reduction, humanising drug laws and treatment policy, are rising (see Moore, 1983; Crook, 2009; Nadelmann, 1998; Chilton, 2001; Reuter, 1997, Global Commission on Drugs, 2011; Otu, 2011). The Global Commission on Drugs [GCM] (2011) has called for an end to criminalisation, stigmatisation and marginalisation of those who use drugs but who do no harms to others. It went further to explain that law enforcement efforts should focus not on reducing drug markets *per se* but on reducing their harms to individuals, communities and national security (GCD, 2011). Some western countries, Latin American nations and states in the U.S have begun to align themselves to the new paradigm shift. In these countries, there is an increasing departure from the overemphasis on law enforcement and interdiction, towards harm reduction. The idea behind this shift is that reducing consumption would help to stem profit, and therefore, the production of these drugs.

In Nigeria, the harm reduction approach to drug problem presents an alternative drug policy to the current sustained but unwinnable war on drugs. As with other countries that have shifted approach, Nigerian drug policy should be based on pragmatism and not on war rhetoric, on realism and not moralism, and on the social context of the country and not on U.S. and western countries (for similar

remark see Nadelmann, 1998). The bad news for Nigeria tinkering with this policy is that drug demand and harm reduction policy works effectively where and when there is a clear, well-articulated and sincere programmes in place to support the policy which unfortunately are seriously lacking in Nigeria. The good news, however, is that while it can be said that Nigeria is witnessing a hiatus of drug problem, this problem has not exploded to what we now have in most western countries, U.S., Asia, and South American countries. So the demand reduction policy may be less cumbersome and expensive to operate. And because Nigerians are still imbued with strong cultural ties, with a strong sense of brotherhood, communal response to a common problem, and well developed non-state institutions of social control, the implementation of demand and harm reduction policy may be made a lot easier.

CONCLUSIONS

Clearly, the war on drugs has curtailed the availability of drugs but only modestly. Considering that there are vulnerable classes of people—an army of youths who are unemployed and who will continue to find reasons to trade and consume these drugs, and women who are continuously driven by desperation—it appears reasonable to predict that the war will only continue to worsen the problems associated with these drugs. Whitaker (1987) while reviewing the global drug situation and the apparent drug war failure explained that no government can ever conceivably convince all segments of the general public to either abstain from illegal trading in these drugs, or from drug use, so that

ultimately, the cost, both human and material of continuing the war, will continue to mount.

This paper is not about giving Nigerian drug policy makers suggestions on water tight alternative to the war on drugs; it is about analysing the array of critical issues and implications of Nigeria's war on drugs and calling for a rethink by drug policy makers. Noting that the pros and cons of this war are multiple, the current paper suggests a need for a nuanced debate on the war and the need for experimentation with other drug policy alternatives.

Albeit, doing less rarely attracts support for dealing with a problem perceived to be widespread and daunting such as drug problems. This accounts for the wide spread supports for the extant war on drugs policy in Nigeria. However, as it is now, doing less of the prohibition may be the only responsible policy which Nigerian drug policy makers can undertake. This is all about smarter prohibition that combines law enforcement with drug demand reduction. A smarter drug control policy in Nigeria should begin to see the drug problem both as a social and health issue with programmes which will be user-friendly put in place to address the social and psychological and health issues that arise from the use of these drugs. On the supply side, a smarter drug policy in Nigerian should be the one that prohibits by locking up drug offenders for shorter terms, less incarceration, less policing, less surveillance, fewer laws governing individual behaviours, and less obsessive discussion of every lurid drug use and trade. This would mean less intrusive, divisive, and expensive policies and perhaps little increase in drug problems (see Reuter, 1997; Parenti, 1999).

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NEED FOR NEEDLE AND SYRINGE PROGRAMMES IN AFRICA

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ABSTRACT

A narrative review was conducted, drawing on peer reviewed literature and relevant grey literature on injecting drug use in African countries and ethical dilemmas facing harm reduction especially the provision of sterile needles and syringes to injecting drug users. This review aimed at highlighting evidence and the arguments for and against the provision of sterile injecting equipment to people who inject drugs (PWID), and to consider the implications for the African context. The narrative established that high risk injecting drug practices are common among PWID in many African communities, and so are HIV and hepatitis. Current services for this population in Africa are less pragmatic and inadequate. Needle and syringe programmes are both effective and ethical and should be part of the response to injecting drug use in Africa.

Key words: Needle and syringe programmes, injecting drug use, ethics, HIV

INTRODUCTION

Needle and syringe programme (NSP) is among the 9 endorsed interventions by World Health Organization (WHO), United Nations Office on Drugs and Crime (UNODC) and Joint United Nations Programme on HIV and AIDS (UNAIDS) as a part of the comprehensive package for prevention, treatment and care of HIV among injection drug users (WHO, 2009). According to several studies (Beckerleg, Telfer, and

Hundt, 2005; McCurdy, Kilonzo, Williams, and Kaaya, 2007; Savanna, 2009) Africa continues to experience the unheeded spread of heroin and injecting drug use, particularly along the East African coast where heroin is trafficked from Pakistan and Afghanistan by sea. African states such as Kenya, Tanzania, Cote d'Ivoire, Mauritius, Morocco, Nigeria, Egypt, Mozambique, South Africa, Ghana and the Democratic Republic of Congo have a documented growing burden of injecting

drug use. Of significant public health importance is the rise in injecting drug use, usually without sterile injection equipment, and sometimes with very high risk practices such as the deliberate sharing of blood with fellow users who cannot afford heroin, a practice called “flash blood” (Atkinson et al. 2011; McCurdy et al. 2007; Ross, McCurdy, Kilonzo, Williams, and Leshabari, 2008). In Kenya, the HIV prevalence was found to be six times higher amongst drug users who had shared needles compared to those who had not (National AIDS & STI control Program [NASCOP], 2012). In addition, Savanna (2009) notes that whereas some of Africa’s growing population of people who inject drugs (PWID) is largely unaware that sharing needles carries a risk of transmitting HIV; many of the AIDS prevention programs in the continent have perceived injection drug related HIV transmission as uncommon and thus not suitably addressed injection risks in their communications with the public. Mathers et al. (2010) and Savanna (2009) also note that only few countries have implemented HIV prevention and care programmes specifically for PWID in Sub-Saharan Africa. See Table 1 for a summary of injecting drug use, HIV, hepatitis and NSP data in selected high prevalence countries in

Africa. The statistics in Table 1 illustrate the unmet need for adequate services among PWIDs. In one of the large studies including some African states, NSPs were absent or unreported among 14 of the 16 countries in sub-Saharan Africa where injecting drug use occurs (Mathers et al. 2010). In addition, where some of the NSP were present, the rates of distribution were as low as 0.1 needle-syringes per person injecting drugs per year. Mathers et al. (2010) also established that the number of PWID receiving anti-retroviral therapy (ART) relative to the estimated number of PWID living with HIV varied greatly, from as low as less than one recipient per 100 HIV-positive injecting drug users. The prevailing low access to NSP among most IDUs in African communities still makes it challenging to ascertain the overall impact of the NSP; however, there are already documented benefits for those receiving these services as discussed further in this article. Kelly et al. (2006) also notes that the majority of the organizations working in HIV treatment and prevention in Africa were most likely to target the general population and youth with a more generalized heterosexual epidemic perspective which as a result widely excludes special groups such as PWID. According to Kelly et al. (2006) and

Table 1. NSP coverage, injecting drug use, and related disease prevalence in selected sub-Saharan African countries

Country	Population of PWID ¹	% of HIV among PWID ^a	% of HIV in general population ^b	Coverage of NSP ²	% of Hepatitis C among PWID ³
Kenya	30,000	36-43	6.1	-	42.2-60.6
Mauritius	10,000	47.4	1.2	51.9	97.3
Nigeria	-	8.9	3.1	-	-
South Africa	67,000	19.4	17.9	-	-
Tanzania	25,000-50,000	42	5.1	-	22.2

Sources: Peter, Myers, vanHout, Pluddeman & Parry (2013); ^bAIDSinfo (2012); ^cIHRA (2013)

Todd, Nassiramanesh, Stanekzai, & Kamarulzaman, (2007) some of the barriers to equitable or comprehensive programme implementation include: governmental indifference or opposition, stigma, public discomfort and religious beliefs. The lack of mandate from some African governments on acceptable ways to address problems faced by PWID is still a barrier to comprehensive programming (Klein (2011); McCurdy et al. 2007). In addition, existing policies, regulations and strategies are not conducive for implementation of evidence-informed interventions such as NSP (NASCOP, 2012). Much as drug use prevention is important, the “war on drugs” in some countries like Tanzania has been characterized as having accompanying policy that inadequately focuses on the needs of the communities and the drug users themselves (McCurdy et al. 2007).

Therefore, the inadequate coverage of needle syringe programmes in most African states sets center stage for the need to explore the commonly associated fears among the general public and policy makers from around the world. There is as well need to elaborate on the benefits and ethics point of view in support of needle and syringe programmes and harm reduction in general.

METHOD

A narrative review was conducted, drawing on peer reviewed literature and relevant grey literature on injecting drug use in African countries and ethical dilemmas facing harm reduction especially the provision of sterile needles and syringes to injecting drug users. The search terms; *(Africa) AND needle exchange* were used

in PubMed to generate most of the peer reviewed articles used in this narrative. However, these were supplemented by literature from other relevant peer reviewed articles on ethics of NSP and from reports and internet sources of reputable actors in this field such as WHO, UNAIDS, UNODC, International Harm Reduction Association and government ministries.

DISCUSSION

What kind of opposition prevails against Needle and Syringe Programmes?

The controversy on needle and syringe programmes (NSPs) has been mainly fueled by the notion of whether a person who uses drugs should be seen as a patient or a criminal, and whether it is ethical or lawful to provide a person using drugs the means to inject (Tempalski et al. 2007). The criminalization of drug use, which sometimes also involves criminalizing the possession of injection equipment, has been found to cause tension between the PWID, the NSP service providers and police (Klein, 2011; Shaw, 2006). Intense policing and criminalization of drug possession and use potentially worsens the risky injection practices among PWID (Klein, 2011) as also was the case observed in Tanzania (McCurdy et al., 2007). In addition, Savanna (2009) and Klein (2011) observe that criminalization has driven PWID underground thus making this population hard to reach on the streets. Also, due to increased rates of incarceration, an increase in injecting drug use has been reported in African prisons in Kenya, Cote d’Ivoire, Mauritius and Ghana (NASCOP, 2012; Savanna, 2009). In addition, the lesson that should be drawn from the high recidivism rate of

ex-prisoners after release from jail is that the law enforcement approach through punishment by incarceration of criminals (drug users) will not be effective either in preventing drug use in communities or in preventing the spread of HIV and hepatitis through unsterile injection equipment (Visser & Travis, 2003).

One solution that has been used extensively in other regions with high rates of injecting drug use is through pragmatic approaches such as the inclusion of NSPs in the continuum of services for people who use drugs. Shaw (2006) explains that usually the opponents of NSPs greatly support drug treatment programmes that are based on abstinence and “drug-free” treatment for addiction. The WHO (2006) explains that this is because many NSP opponents wrongly perceive that harm reduction opposes abstinence based approaches or even condones drug use but contrary to their views, abstinence is on the same spectrum as harm reduction, with harm reduction being the first step towards being abstinent and healthy for many people who use drugs. Adding more to the opponents’ views, some argue that providing sterile needles to PWID sends conflicting signals to the clients of addiction treatment programmes (Shaw, 2006; WHO, 2006). In reality, most clinical services are skilled in dealing with the simultaneous and seemingly contradictory desires in their patients by explicitly encouraging abstinence and avoidance of harm. If we look close enough, most of us are also full of simultaneously held seemingly contradictory desires (Zhang, Yap, Xun, Wu, and Wilson, 2011). As a result of integration of harm reduction in services delivered by “We Help Ourselves”; a local organization in Australia (WHO, 2006), there were observed improvements in

client retention and completion of rehabilitation programme. There were also reductions in risky sex behaviour among the clients. In addition several other benefits of NSPs include; improved entry to primary health care and drug treatment, plus prevention of other blood borne and viral or bacterial infections (WHO, 2004). Contrary to opponents’ fears and beliefs, WHO (2004) notes that there is not so far convincing scientific evidence of unintended complications of NSPs such as greater injection frequency, increased illicit drug use, recruitment of new PWID, greater number of discarded needles and less motivation among PWID to reduce drug use.

The opponents of NSPs have furthered expressed concerns that NSPs are expensive programmes. Shaw (2006) also notes that others have unfair, judgmental views about addiction. As an example, a protest against NSPs in Springfield, USA involved opponents expressing a concern that tremendous financial resources (tax payers’ money) would be spent on NSPs and yet addiction is a personal choice in which the drug users should be held responsible for its consequences (Shaw, 2006). On the contrary, NSPs have been shown to be a cost effective way of preventing HIV in other low income settings, particularly when started early and with adequate availability (Zhang et al., 2011). Furthermore, to deny access to needles on the basis that people should not be injecting is like banning seat belts on the basis that if people drove carefully there would be no accidents.

Furthermore, some NSP opponents fear that by opening NSPs their communities will be represented as plagued by AIDS and drug use (Shaw, 2006). In addition, there are many examples of

political interference that hinders the desirable progress of NSPs (Buchanan, Shaw, Ford, and Singer, 2003). Similarly, according to McCurdy (2007) and Klein (2011), in some African countries there has been the lack of a clear mandate from governments on acceptable ways to address problems faced by PWID. In addition to lack of government mandate, some critics are skeptical of their governments' commitment in properly implementing NSPs (Voice of America, 2012). From elsewhere in the world, political suppression has been echoed through negative comments on NSPs from influential leaders such as: the former governor of New Jersey Christine Whitman, former US president George W. Bush and Reverend Michael Orsi (Buchanan et al., 2003). Such negative publicity plays a role in stigmatizing NSP.

What ethical basis supports the implementation of needle and syringe programmes (NSPs)?

Social justice (fairness): The principle of justice and fairness mandates that benefit and burdens are equitably distributed within a community (Loue, Lurie and Lloyd, 1995). Therefore people who inject drugs and those who are related to them such as co-users, sex partners, parents, friends or children deserve the equal protections through needle and syringe services to prevent the potential harms and risk to their lives (Iozzio, 2011). However, in comparison to other concerns, drug dependence treatment needs and services have always been allocated inadequate resources. For instance, according to Mathers et al. (2010) worldwide, the proportion of HIV positive PWID receiving ART was estimated at 4%, as compared to

40% for the non drug using population. This neglect for drug dependence treatment is attributable to society's prejudice which is contrary to the principles of justice and fairness (Loue et al. 1995). In addition, there is usually a divide between the active citizens who participate in shaping government/society decisions and the group of marginalized individuals (PWID) that are bound together by their experience of drug use and HIV (Shaw, 2006).

Utilitarianism: When considering the allocation of resources for public health, the right choice is often considered as the one that produces the most gain for the most people, for instance, the greatest reduction in the burden of disease (Roberts and Reich, 2002). In support of utilitarianism, the beneficence and non-maleficence of NSPs are demonstrable by the variety of benefits (Bastos and Strathdee, 2000; Voice of America, 2012) that PWID receive from these services. Furthermore, NSPs are beneficial to non-injecting drug users as well since they reduce transmission of HIV to PWIDs' sexual partners and to new born infants (Iozzio, 2011; Loue et al. 1995). Also, extra services such as legal support systems provided through NSPs among PWID are essential in combating crime resulting from drug dependency (Klein, 2011; Shaw, 2006).

Human Rights: Liberal egalitarians state that everyone has a positive right to the minimum level of services and resources needed to assure minimum quality and quantity of life and thus to health care needed to guarantee that minimum (Roberts and Reich, 2002). This therefore entitles PWID to a comprehensive package of care endorsed by UNODC, WHO

and UNAIDS for addressing blood borne infections among this group. In addition, Iozzio (2011) notes that the provision of NSPs is a common good and a sign of respect and ensures that IDUs and their families are treated with dignity and with sensitivity to cultural, racial, ethnic and gender-based differences. Furthermore, NSPs respect PWID by helping them to make healthy choices such as use of sterile needles instead of unsafe, contaminated ones (Loue et al. 1995). Furthermore, the same author explains that NSPs observe human rights through respect for PWID by increasing their access to primary health care and as well through ensuring high level confidentiality during service delivery.

Communitarianism: The philosophy of communitarianism aims at creating a good society by grooming individuals for that society (Roberts & Reich, 2002). Religious and moralistic approaches largely dwell on this ideology. Todd et al., 2007 emphasizes that if there is continued involvement of the religious community, their focus should be on supporting treatment rather than punishment and this will be a key factor in acceptability of NSPs. In Kenya for instance, punishment of drug users through incarceration has proved inadequate since there are few biological and behavioural interventions in prisons to deter inmates from drug use and other risky practices while in prison (NASCOP, 2012). Indeed, there are also many different views about what constitutes individual and social virtue (Roberts & Reich, 2002). Much as local approval is fundamental in the establishment of NSPs, there are often situations in which decision makers are intimidated and forced to pick sides that may not

necessarily represent the interests and needs of the community (Shaw, 2006). Additionally, there exists a challenge in defining who should constitute the local approval. However, there exists a sharp contrast between relativist communitarians and universalist communitarians (Robert & Reich, 2002). The relativists view morality as entirely contextual while the latter argue that access to proper health should be promoted in all communities regardless local cultural norms. Therefore, it is imperative for the NSP opponents to embrace the moral realism notion which according to Roberts and Reich (2002) emphasizes that morality can be learnt by understanding human nature and analyzing human needs plus requirements of social life.

CONCLUSION

Access to clean injecting equipment has not been achieved in most developing communities, even those with documented injecting drug use (Beckerleg et al., 2005; NASCOP, 2012). People who use drugs in developing communities continue to ask for assistance from their governments, key stakeholders and actors. There is an unmet demand for a greater access to services including NSP (Klein, 2011; Atkinson et al., 2011; McCurdy et al., 2007). In preventing the spread of HIV, including in Africa, high risk groups for injecting transmission (PWID) need to be acknowledged and targeted for outreach (Atkinson et al., 2011; Savanna, 2009). Despite arguments to the contrary, the existing scientific evidence and a broad consideration of ethical principles justifies the use of NSPs in African communities.

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CONTENTS

Substance use and sexual risk behaviours amongst in-school youth and young adults living in Liberia 75
Nicole Quiterio, Benjamin L. Harris, Christina P.C. Borba, & David C. Henderson

Pictorial warnings on cigarette packets: Effectiveness and deterrence among Egyptian youth..... 93
Nashaat H. Hussein

Prevalence and consequences of substance use among high school and college students in Ethiopia: a review of the literature..... 107
Worku Abebe

The “war on drugs” in Nigeria: how effective and beneficial is it in dealing with the problem? 119
Smart E. Otu

Need for needle and syringe programmes in Africa..... 137
Ssewanyana Derrick