International Journal of Emergency Mental Health and Human Resilience, Vol. 18, No.3, pp. 1, ISSN 1522-4821

Socio-demographic Characteristics and Types of Illicit Drugs Used in Sudan, A Hayat Rehabilitation Center Experience

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ABSTRACT: ***Aims:*** *Hayat Center was launched in 2014 as the first specialized addiction treatment facility is Sudan. Since little is known about alcohol and illicit drug use in the country, our aim was to identify the demographics, types of drugs used medical and psychiatric comorbidities among the first 100 patients seen at the center. To our knowledge this is the first study to address this outcome from Sudan.* ***Method:*** *Data was collected retrospectively, using a structured questionnaire, from the first 100 patients who were seen at the center. Statistical methods used were frequency distribution, percentages and the arithmetic mean.* ***Findings:*** *The patients were predominantly male (95%). Age group 20-40 years represented 76% of the sample, 90% of them were from the capital, Greater Khartoum. An alarming 76% were either college or university graduates. 83% were single, 57% reported alcohol use, and 75% had used cannabis, 37% opioids and 28% Benzodiazepines.* ***Conclusion:*** *This was a small sample and although it is difficult to generalize any findings from it, the data suggest alcohol and drug use affect a young and educated group, and the types of substances used are quite alarming. Demand reduction services need support with a pressing need for capacity building and training of specialists in addiction treatment. There is an urgent need to raise awareness of the problem and allocate funds for treatment services.*

Keywords: *Addiction treatment, llicit drug, Medical and psychiatric, Criminal history*

BACKGROUND

The world drug report 2015 came at a time of an ongoing debate about the post 2015 development agenda and underlines the vulnerability of Africa to drugs and crime stating, it "remains a grave concern, with increasing seizures of heroin indicating the region's role as a key transit area for global drug trafficking routes. These illicit flows bring with them other forms of organized crime, and undermine security, health and development in an already-fragile region." Further, it highlights the fact that the "The nexus between organized crime and terrorism — in which illicit drug trafficking appears to play a role — poses a serious threat, as emphasized by recent Security Council resolutions calling for redoubled efforts to prevent terrorists from benefiting from transnational organized crime. (World Drug Report 2015, UNODC).

It has been accepted that one in every 20 people has used an illicit drug in 2013. There was substantial loss of life in the same year when an estimated 187000 people lost their lives due to a drug related death. Only one out of six problem drug users has access to treatment services globally. Women, adolescents and minorities face barriers to treatment and the HIV/AIDS and other blood borne diseases will need long term and sustained treatment and care. There is a dearth of studies from the region (East Africa) to educate service planners and providers. The situation in Sudan is complicated by many factors e.g. the aftermath of the longest civil war in Africa and one of the longest on record, the drought and famines, the economic hardships and the types of substances used.

It is well worth noting that the country was well equipped with human resources and experienced psychiatrists in the second half of the 20th century. The first psychiatrist to qualify from the African continent was the late professor Tigani El Mahi, also known as the father of psychiatry in Africa. Sudan, together with Senegal, Nigeria and Ghana, have had strong psychiatric traditions beginning in the 1950s. This period saw the emergence of the African Psychiatric Association and its publication, the African.

Journal of Psychiatry, along with pioneering collaborations between psychiatrists and indigenous healers. Progress in these areas was halted in the 1980s and 1990s, a period of wars, political instability, and economic decline. Unfortunately, the dismantling of the institutions that supported psychiatric services and research occurred at a time when the need was greatest. (Gazette, 2006).

In recognition of the perceived growing substance use in Sudan and the need for a national resource center, Hayat center for psychosocial rehabilitation was launched, in November 2014. It is an intelligent partnership between two ministries, Health and Social welfare. It invests heavily in training and capacity building and already has celebrated its first anniversary having received tremendous support from local partners and Sudanese professionals in the diaspora. It is installing evidence and practice based programs like awareness and prevention, the Matrix model in OPD, detoxification and holistic programs in a residential setting. In this article we present the data analysis of the socio-demographic characteristics and the types of drugs used by the first 100 patients seen at the center.

The rationale for our work was that no published data exists about substance use among youth in Sudan, as stated by a paper from Sudan Medical and Scientific Research Institute earlier this year. The same paper found the overall prevalence of drug use among a sample of 500 students is 31%. The current prevalence of tobacco, cannabis, alcohol, amphetamines, tranquilizers, inhalants, opiates, cocaine, and heroin use was 13.7%, 4.9%, 2.7%, 2.4%, 3.2%, 1%, 1.2%, 0.7%, and 0.5%, respectively (Osman et al., 2016).

In 1998 a survey of drug use among prisoners in the capital Khartoum found the overall prevalence was 60.1%, alcohol representing 32.2% of the sample, cannabis 17.6% Diazepam 3.3%, Barbiturates 1.8% (Idris, 1998).

Based on the above, and taking advantage of the rare opportunity

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of the launch of the first rehabilitation center in the country, we designed a questionnaire to capture the following areas among the first 100 patients who were assessed at the center: 1) Demographics; 2) Social and medical history; 3) Alcohol and drug history; and 4) Urine toxicology screening results.

We concede that the sample is small and may not be representative of the true population. It is also biased since it is not a community sample, but rather a hospital/Rehabilitation center. Still we felt it would be useful to analyse the data from this cross sectional sample and we believe many lessons can be learnt from it.

DISCUSSION

As shown in table 1 this is a predominantly male sample with an overwhelming 95%. The reasons for the low turnout of females are multifactorial. We would expect this to be a closely representative sample of the actual prevalence in the community based on our observations in clinical practice. Alcohol is virtually unavailable for females and is a taboo subject altogether in the society. Even if a female is experimenting or recreationally consuming alcohol, it would be very hard for her to keep her social fabric and bear the consequences, ending in the criminal justice system labyrinth. Conversely we observed more of substance use among females, which makes sense, as it is more accessible, less observable and is the predominant pattern even among males. Usual barriers to treatment seeking are in operation here namely, social stigma, labeling, absence of treatment services (especially gender specific), perceived economic and time costs of treatment. It has been observed that it is more common for women to recover without formal treatment. (Copeland, 1997). Also the barriers to health care utilization in both genders, are noted to be "recursive and dynamic" and do not exist independently. Each of the two factors is comprised of items that make up different facets of a larger construct. Patients may fail to see their substance abuse as a problem and similarly, the three system factors— Time Conflict, Poor Treatment Availability, and Admission Difficulty—are made up of both individual and system-based items. (Anderson, 1995).

An alarming pattern is the younger age group seen as young as primary school age with the youngest patient seen being a young girl of 13 years of age.

We need to understand better the reason for the sample being predominantly employed as 80% are in active employment. Part of the reason may have to do with health insurance, as the disease disrupts life and patients are notoriously neglectful of obtaining personal IDs and making arrangement for their healthcare. Although 83% of patients were smokers we did not check for tobacco snuff (locally called Tumbak), a serious problem in the country. Also 72% reported health complications and 17% had a comorbid psychiatric diagnosis. 20% have sought treatment before, 19% of them more than 3 times.

Table 1.
Patients' characteristics

Patient Characteristics	
Female	5%
Male	95%
Age	
< 20	13%
21-40	76%
41-60	10%
>60	1%
Marital Status	
Single	83%
Married	13%
Divorced	4%
Educational Attainment	
Primary school	3%
High school	8%
High school graduate	13%
University student	40%
College graduate	33%
Postgraduate	3%
Employment	
Employed	80%
Unemployed	20%

RESULTS

After the 1983 Islamic sharia laws, the available alcohol was all "moonshine" local clandestine brew, Araqi from dates, (aka date-gin or date-wine) with high risk of additive chemical poisons specially methanol and serious acute and long term health consequences. (BBC, 2010). The hike in use of illicit drugs was described as insane by the interior ministry in 2012 and their estimates of cannabis use (local Bango) reaching phenomenal levels among adult population. "Bango" is cultivated mostly in western Sudan, Kordofan and Darfur regions making it difficult to enforce supply reduction measures, due to the precarious security situation. (Sudan Tribune, 2012).

In our analysis of the data, table 2 cannabis came as the first drug both self-reported and in the positive tests in the POCT Cups. What needs to be determined is if it was a primary cause for seeking treatment and if, like the rest of the world, the strength pf THC is increasing (McLaren, Swift, Dillon & Allsop, 2008). We did not look for psychiatric complications like psychosis or other psychological sequelae of cannabis use. Alcohol came second among the self-reported substances and this is not a surprise. This matches our clinical experience, as alcohol use is one of the main reasons for seeking treatment in public and private hospitals. The opioids self-reported figure of 37 compared to the 25 positive tests could be due to the patients abstaining, substituting prior to treatment seeking i.e. historical use or due to our testing methods. Our laboratory does not have quantitative (confirmatory) assays, which would identify and quantify individual drugs or their metabolites with high specificity, and relies so far, on qualitative (screening) assays, which have their limitations, such as identifying drugs often only with their drug class.

Further, the POCT cups used will need customization, at a cost, to add some substances and drugs purported to be used like anticholinergic, tramadol, synthetic cannabinoids and Pregabalin.

CONCLUSION

This is a maiden paper from Hayat rehabilitation center and the first of its kind from Sudan. We hope it will provide policy makers and clinicians with a preliminary view of the types of drugs available and used currently on the streets of Khartoum. The profile of patients seeking help is alarming as stated in our introduction, the young, educated and employed sought help from their drug use. This is a

Table 2.
Types of substances used by the patients (Self-report/ positive screening)

Substances	**Self-Report %**	**Positive Screening %**
Cannabis --	75	56
Alcohol	57	--
Opioids-Tramadol	37	25
Benzodiazepines	28	20
Cough syrup/ antihistamines	18	2
Amphetamines	9	2
Akisol	8	--
Methadone --	--	2

positive move that should be supported by funding, investment and legislative changes. We accept the limitations of such a design, which could only yield limited conclusions and recommend adoption of a more structured and validated tools e.g. ASSIST (WHO, 2002), ASI (McLellan for future research. The country also need an urgent a situational analysis of the drug problem. Only after such a survey is conducted and a prospective design is applied can we confidently have valid conclusions about the extent of the problems and the desired applicable solutions.

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