Motives for Substance Use Disorders: A Trans-cultural Study

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Abstract:

The causes of substances abuse may be of greater importance in different culture. The aim of this study was to compare between Egyptian and Saudi cultures regarding to the causes and the socio-demographic data in substance abusers of these two countries. Thirty two abusers from Mecca and Jeddah, Saudi Arabia, were chosen randomly, their mean age was 33.6±13.6 years old. Another 32 abusers from Alexandria, Egypt were also chosen randomly. Their mean age was 25.3±6.4 years. There were 9 females as benzodiazepine abusers in the Saudi sample, substance abuse causes questionnaire was applied on every abuser participated in this study. More than one third of abusers were students. Mean values of cognitive, emotional, somatic causes and total scores of the scale were not significantly different between Egyptian and Saudi samples, t-test were 0.1, 1.6, 1.1 and 1.2 respectively while p = 0.9, 0.1,0.3 and 0.3 relatively. The Egyptian abusers showed a significant abuse of opioids ($X^2$24.5, p = 0.00001), while the Saudi abusers abused benzodiazepines and stimulants significantly more than the Egyptian abusers (X^2 = 28 and 9 respectively and p = 0.000001 and 0.005 relatively). The drivers or causes of substance abuse are similar in Egypt and Saudi Arabia, Egyptian abusers abuse opioids more than the Saudi abusers while Saudi abusers abuse benzodiazepine and stimulants more than Egyptian abusers.

Introduction:

The reasons for the initiation of substance use disorders may be of greater importance at different ages and in different cultures (Oyepeso A, 1994). For example, the consumption of sedatives and benzodiazepines by older people may begin as self mediation. Drugs may be taken to overcome fatigue or to enhance the appetite and sexual performance. Drugs may be taken for religious purposes purposes as an aid to mediation or to induce mystical states (Robinson TE & Berridge KC, 2003).

Some authors classified the causes of substance abuse into: causes in substance itself, individual personality and society. Other authors divided the motives for substance abuse into social, psychological and environmental factors. Some psychologist divides the causes of substance abuse into cognitive, emotional and somatic causes (Combag HS et al., 2001, Cardinal RN et al., 2002, Dickinson A and Balleine B, 1994). The impact of new drugs and new technologies in different culture is considered. Around 1980, the discovery that heroin could be inhaled and sublimated off the surface of heated tin foil undoubtedly contributed to the explosion of heroin abuse at that time in Britain (Strang & Gossop 1993). During the 1980s the North West Frontier of Pakistan has been one of the major producer regions for black market heroin for export around the world and despite a long history of culturally bound smoking of the opium poppy, the refined product (heroin) is decimating the young male population with current estimates that there are in excess of one million young men who have recently become addict to heroin in Pakistan (Gossop M, 1989, Abdel-Gawad TMS and Osman MI, 1996).

The cathinoids which are alkaloids derived from khat, that is native to East Africa and the Western south part o the Arabian Peninsula, where it grows as evergreen shrub or small tree. The primary active psychoactive ingredients in that are cathinone and cathine, two central nervous system stimulants. A systemic analog of cathinone and metcathinone appeared in the USA for the first time in 1991. In Egypt cannabinoids have always been more widely abused than opioids. Also the wide-spread availability of bango and its cheap price made helped in the persistence of cannabinoids as the most widely abused illicit drug in Egypt till now. A study done to determine why do people abuse drugs in certain categories of drug-abuser found that among high school and university male students the main causes for cannabis abuse were having fun and sharing in a social events as well as sharing peers, while the use of other psychoactive drugs (stimulants and benzodiazepines) was mainly for the relief of physical problems and fatigue followed by the desire to study particularly at the time of exams. However, regarding laborers it was found that they abused cannabis for the same causes as students. On the other hand, they used psychoactive substances for the relief of physical problems and fatigue as well as for getting rid of psychological and social problems (Saueif et al, 1988).

The aim of this study was to compare between two samples of substance abusers one sample was from Alexandria, Egypt and the other one was from Mecca and Jeddah, Saudi Arabia – as regards to socio-cultural demographic data and the causes of substance abuse either emotional, cognitive or somatic and sexual causes.

Methods:

Thirty two substance abusers were chosen randomly from the psychiatric patients who attended the out patient psychiatric clinics in three governmental hospital of Mecca and Jeddah (Saudi Arabia).

The researchers chose every third substance abuser patients during the period from the 1st of January to the end of June, 2003. Fifty three Saudi substance abusers refused to participate in this study. Another 32 substance abusers were randomly chosen from two private psychiatric hospitals in Alexandria, Egypt.

They were chosen from the in-patients randomly (every third admitted patient) during the same above mentioned periods of time. Sixty one substance abusers refused to participate in this study from Egyptian substance abusers.

A questionnaire about causes of substance abuse was applied on every substance abuser, who participated in this study (Askar A, 1989). An informed consent was taken from every substance abuser, who participated in this study. The questionnaire is consisted of 33 items, which cover the different causes or motives for substance abuse. The author of this questionnaire mentioned 3 types of causes for substance abuse: Cognitive emotional and somatic causes. The reliability of this questionnaire was 0.57 using Sperman and Brown test and its validity was 0.25 (using kappa). This questionnaire is subjective which can be applied individually or in groups. In cases of illiterate patients the researcher, could read the items and check correct in front of chosen items consisted of the illiterate individual. The time needed to complete this questionnaire is ranged from 8-12 minutes.

Socio-demographic data and the time of substance abuse were collected from all substance abusers who participated in this study.

All substance abusers who participated in this study were fulfilling the criteria of diagnostic and statistical Manual of Mental disorders number IV-TR. (American psychiatric Association 2000). All substance abusers who participated in this study had no psychotic disorders and no physical illnesses like diabetes mellitus ischemic heart disease, cancer, … etc.

Statistical analysis:

The program of SPSS + PC was used to analysis the data. T-test was used to compare between two quantitative means while Chi-square was used to compare between qualitative means.

Results:

The mean age of the Egyptian sample of substance abusers was 25.3±6.4 years old while the mean age of the Saudi sample was 33.6±13.6 years old. The difference between these 2 means was statistically significant (t-test = 3.1 and p = 0.003). The 95.0% confidence interval of the difference was 3-13.6 years. The mean duration of substance abuse among the Egyptian abusers was 4.2±3.4 years, while that for the Saudi abusers was 4.6±2.7 years. The difference between these two means was statistically not significant (t-test = 0.5 and p = 0.6). The 95% C.I. was ranging from –1.2 to 1.9 years (Table 1).

Table (1): Comparison of mean age and mean duration of substance abuse between Egyptian and Saudi samples

Mean	Egyptian sample	Saudi sample	t- test	Significance	95% confidence interval
Variables	Mean ± SD	Mean ± SD			
Age (years)	25.3±6.4	33.6±13.6	3.1	0.003*	3-13.6
Duration of substance of substance abuse (years)	4.2±3.5	4.6±2.7	0.50	0.60	-1.2-1.9

Level of significance is at $p < 0.05$

There were 9 females out of 32 substance abusers in the Saudi Sample while there was no female in the Egyptian sample. All these females were house wives and benzodiazepines and Saudi substance abusers as regards to gender was statistically significant ($X^2=10$ while $p = 0.001$). (Table 2).

Table (2): Sex distribution between Egyptian and Saudi samples of abusers:

Nationality / Sex	Egyptian abusers	Saudi abusers	X2	Significance
Female	0	9		
Male	32	23	10	0.001*
Total	32	32		

Level of significance is at $p < 0.05$

In the present study, there were 23 students, 10 semiprofessionals, 8 professionals, 6 laborer workers, 5 soldiers and 3 not working. The difference between Egyptian and Saudi substance regarding to occupations was statistically significant ($X^2 = 29.6$ & $p = 0.00001$) (Table 3).

Table (3): Comparison of occupations between an Egyptian and Saudi substance abusers' samples.

	Egyptian samples No= 32	Saudi sample No = 32	Total	X^2	Significant
Professional	8	0	8		
Semi-professional	6	4	10		
Soliders	0	5	5		
House-wives	0	9	9	29.6	0.00001*
Students	16	7	23		
Laborer workers	2	4	6		
Not-working	0	3	3		
Total	32	32	64		

Level of significance is at $p < 0.05$

Forty two substance abusers out of 64 were single, while only 17 abusers were married, 3 were divorced and 2 were widowed. The difference between Egyptian and Saudi abusers regarding to marital status was statistically not significant ($X^2 = 7.6$ while p 0.06) (Table 4).

Table (4): Comparison of marital status between an Egyptian and Saudi substance abusers' samples.

	Egyptian samples No= 32	Saudi sample No = 32	Total	X^2	Significance
Single	26	16	42	7.6	0.06
Married	5	12	17		
Divorced	1	2	3		
Widowed	0	2	2		
Total	32	32	64		

Level of significance is at $p < 0.05$

Mean values of cognitive emotional, somatic causes and total scores of substance abuser causes questionnaire were not significantly different between Egyptian and Saudi samples, t-test were 0.1, 1.6, 1.1 and 1.2 respectively, p = 0.9, 0.1, 0.3 and 0.3 relatively. The mean values of total scores of the questionnaire for Egyptian and Saudi samples were 8.5 ±6.2 and 10±3.6 relatively, the 95% confidence for the difference was 01.1 to 4. (Table 5).

Table (5): Comparison of cognitive emotional somatic and total mean scores-constitutes of substance abuse causes questionnaire-between an Egyptian and Saudi samples

	Egyptian sample No = 32	Saudi sample No = 32	t- test	Significance	95% confidence interval
	Mean ± SD	Mean ± SD			
Cognitive causes	3.1± 2.9	3.1±2.1	0.1	0.9	-1.2-1.3
Emotional causes	3.2±2.0	3.9±1.5	1.6	0.1	-0.2-1.6
Somatic causes	2.2±3.2	2.9±1.6	1.1	0.3	-0.6-2
Total	8.5±6.2	10±3.6	1.2	0.3	-1.1-4

Level of significance is at $p < 0.05$

The Egyptian sample showed a significant abuse of opioids than Saudi sample (X^2 = 24.5, p = 0.00001). Twenty one Egyptian abusers out of 32 substance abusers were abusing different types of opioids in the form of heroin, opium, codeine and pethidine. Only two of the Saudi sample were abusing opioids. Eight Egyptian abusers were abusing cannabinoids in the form of cannabis and Bango while 3 Saudi abusers were abusing cannabis. The difference

between Egyptian and Saudi samples was not statistically significant regarding to cannabinoids abuse (X^2 = 2.7 and p = 0.09). Three Egyptian abusers were abusing alcohol while 4 Saudi patient were abusing it. The difference as regards to alcohol abuse between 2 samples was statistically not significant (X^2 = 0.2 and p = 0.7). Twenty one Saudi were abusing benzodiazepines while only 2 Egyptians were abusing them. The difference between Egyptian and Saudi samples regarding to benzodiazepines abuse was statistically significant (X^2 = 28.0 and p = 0.000001). Nine females were abusing benzodiazepines from the Saudi sample. Twelve Saudi patients were abusing stimulants mainly in the form of amphetamines (Pemoline magnesium). They call it "white". Two Egyptians were abusing "Maxitone forte" which contains amphetamines. There was a statistically significant difference between Egyptian and Saudi samples regarding to amphetamine abuse (X^2 = 9.0, p = 0.005) (Table 6).

Table (6): Comparison of occupations between an Egyptian and Saudi substance abusers' samples.

Individuals	Egyptian samples		Saudi sample		Total	X^2	Significant
Substance	Abusers	Not-abusers	Abusers	Not-abusers			
Opioids	21	11	2	30	64	24.5	0.00001*
Cannabinoids	8	24	3	29	64	2.7	0.09
Alcohol	3	29	4	28	64	0.2	0.70
Benzodiazepines	2	30	21	11	64	28	0.000001*
Stimulants	2	30	12	20	64	9	0.005*

Level of significance is at p < 0.05

Discussion:

Many studies have shown that there is indeed an increased incidence of personality disorder among substance abusers for example application of MMPI to opiate abusers showed that they scared higher than expected for psychopathic deviance (Cami J et al 1991). However, when Eysenck personality inventory was applied to opiate abusers, they scored higher on neuroticism than normal (but lower than neurotic or alcoholic patients). Moreover, it was found that 73-90% of opiate addicts were diagnosed as having some sort of personality disorders. For the above mentioned reasons, we could not exclude neurotic and personality disorders co-morbid with substance abusers who participated in this study (Graig RJ, 1982).

A problem which faced us in the present study was that, we selected sub-groups of substance abuse subjects from governmental and private hospitals. These abusers are probably unrepresentative of the drug dependent population as a whole (Iqbal N, 2001). Moreover, the sample of substance abusers from Saudi Arabia did not include abusers from specialized hospitals for addiction i.e. (Al-Amal

Hospitals). Not only this, but also a relatively small number of substance abusers in both Egyptian and Saudi samples should be considered.

A replication of this study by using larger samples may be needed in the future to understand, assess the problem of substance abuse in these 2 different cultures in a better way, and to prepare suitable programs which will help in combating the dangerous problem of substance abuse.

One of the outstanding findings in this study is the significantly higher mean age of Saudi substance abusers. This may be the effect of extended families which are common in Saudi communities. The grand parents and parents are controlling the young adult and this may be one explanation of this phenomenon. Another explanation is that a good number of Saudi abuses stimulants, which are expected to be abused in an elder age where the sleep is induced by benzodiazepines at night and stimulants are used to increase activities and prevent sleeping and keeping awake during wedding nights and driving for a long distance for some abusers (Amir T, 2001). Some of them abuse stimulants to increase their sexual drives (AL-Nahedh N, 1999). In the Egyptian sample, the absence of extended family, the absence of the role of grand parents and even the weak control of parents in some nuclear families may be behind the younger mean age of substance abuse among the Egyptian abusers (Anthony JC et al, 1995).

Another strange finding in this study is the significantly higher number of female in Saudi sample. This may be due to the bias in selecting the samples as we mentioned above. Another explanation is that all 9 substance abusers' Saudi females were benzodiazepines' users. They use them mainly as sleeping pills. Tolerance to them occurred with running the time. A previous study in Jeddah, showed the presence of heroin dependence complications among 3 females (Othman A and Shawoosh M, 2003).

This is consideration an iatrogenic benzodiazepines abuse, which is common in developed countries like France and USA. The weather in Mecca is very hot nearly during the whole year, overcrowded; noisy and shopping is continuous for 24 hours around Al-Harm -due to Hajj and Omrah. Because of all the previously mentioned reasons, insomnia is common and drive to abuse sedatives and hypnotics (Mohit A, 2001). According to Roth, approximately "70%" of the prescriptions for benzodiazepines and sedatives are written for women Moreover, women are twice as likely as men to be addicted to prescription drugs in combination with alcohol" (Roth, 1991). Alcohol is prohibited in Islamic religion, that is whey a few number of abusers, abused. Alcohol in both Egypt and Saudi Arabia.

A large number of abusers in the present study were students (more than one third of the whole samples). In any community students are the real future of its. So, this study gives us an alarm against the dangerousness of substance abuse in our developing countries.

The drives, the causes or the motives for substance abuse were similar in Egyptian and Saudi communities. For this reason, the programs and the planning for future prevention and management of this hot and dangerous topic can be shared between the responsible governments and authority figures in both Egypt and Saudi Arabia.

Opioid abuse is more significantly common among the Egyptian sample than the Saudi one. This might be due to the selection of Saudi sample from governmental general hospitals and not from specialized hospitals in substance abuse like (Al Amal Hospitals) where, opioids abusers especially heroin are admitted there for detoxification. This again reminds us that in future studies we have to take larger samples to represent abusers from different cities and different types of hospitals, schools, universities, institutes, factories and even prisons.

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إن دراسة أسباب و دوافع أسباب الإدمان من الأمور الهامة في الثقافات المختلفة. لذا كان الهدف من هذه الدراسة هو المقارنة بين عينتين، واحدة من المجتمع المصري، و أخرى من المجتمع السعودي من حيث البيانات الاجتماعية-الوبائية لدى مرضى الإدمان في هذين البلدين

و كانت الوسيلة لذلك هي الاختيار العشوائي لعدد ٣٢ من المرضى المدمنين المترددين على العيادات النفسية بمكة و جدة بالسعودية، و كان متوسط أعمارهم هو ٣٣،٤ ±١٣،٤ عاما كما تم نفس الاختيار العشوائي لنفس العدد من المدمنين من عيادات نفسية بمدينة الإسكندرية بمصر، و كان متوسط أعمارهم هو ٢٥،٣ ±٤،٤ عاما. و كان هناك ٩ إناث سعوديات لديهن سوء استخدام للمهدئات الصڤرى، و لقد تم تطبيق مقياس أسباب الإدمان على كل المرضى المدمنين المشاركين في هذه الدراسة. و كان من الملحوظ في هذه الدراسة أن أكثر من ثلث المرضى المدمنين طلاب، و كان الفرق بين متوسط قيم مقياس أسباب الإدمان: الأسباب المعرفية و الانفعالية و الجسمية و كذلك الفرق بين متوسط قيم المجموع الكلي للمقياس بين العينتين المصرية و السعودية؛ حيث ت = ١، و ١،٤ و١،١ و١،٢ على الترتيب، و كانت درجات الدلالة الإحصائية هي ٠،٩ و ٠،١ و ٠،٣ و ٠،٣ على الترتيب، و قد أظهر المرضى المدمنون المصريون سوء استخدام أكثر للڤيونات، مربع كاي = ٢٤،٥، و ب = ٠،٠٠٠٠١ ، بينما أظهر المرضى المدمنون السعوديون سوء استخدام أكثر للمهدئات الصڤرى و المنشطات من المرضى المدمنين المصريين ، مربع كاي = ٢٨ و ٩ على التوالي، و ب = ٠،٠٠٠٠٠١ و ٠،٠٠٥على الترتيب، و نستنتج من هذه الدراسة أن أسباب الإدمان متشابهة بين المصريين و السعوديين، و قد أظهر المرضى المدمنون المصريون ميلا أكبر لإدمان الأفيونات، بينما أظهر المرضى السعوديون ميلا أكبر لإدمان المهدئات الصڤرى و المنشطات من المرضى المصريين.