Alcohol and drug abuse in post-conflict Iraq

Nesif J. Al-Hemiary*   MBChB, FIBMS
Mushtaq T. Hashim*   MBChB, CABPsych;
Jawad K. Al-Diwan**   MBChB, MSc, DCN, FIBMS;
Emad Abdul Razzaq***   MBChB, FIBMS

Abstract:

Background: The 2006-2007 Iraqi Mental Health survey (IMHS) reported surprisingly low prevalence of alcohol and drug abuse in the Iraqi population. Since then anecdotal and clinical reports have suggested that abuse of alcohol and drugs in Iraq has increased. To investigate this possibility, we conducted a survey of drug and drug abuse at youth centers in Baghdad.

Objective: To investigate this possibility, we conducted a survey of drug and drug abuse at youth centers in Baghdad.

Patients and methods: A total of 2678 persons were included in this survey with male to female ratio of 3.8:1. They were randomly selected from youth centers located in different sectors in Baghdad (Sader city, Al-Rusafa side and Al-Karkh side). Composite International Diagnostic Interview was used to generate diagnosis. The interviewers were youth center staff who were trained by psychiatrists. Demographic data, age of onset and crowding index were obtained. Data collection was carried out on Dec. 2009.

Results: A total of 16.7% met criteria for alcohol abuse and 7.02% met criteria for drug abuse. In those below 18 years of age, 2.1% reported alcohol abuse and 1.1% reported drug abuse. The peak age for alcohol and drug abuse was at 24-35 years. No female reported alcohol and substance abuse. The age of onset of alcohol was 21.7 ± 3.6 years and for drug abuse was 22 ± 5.8 years. Alcohol abuse was significantly associated with high crowding index, but drug abuse was not associated with crowding index. Low educational level was associated significantly with both alcohol and drug abuse.

Conclusion: High rates of alcohol and drug abuse were recorded. A tendency for early age of onset in alcohol and drugs was observed. High household density and low educational level are important factors in alcohol and drug abuse.

Keywords: Iraq, conflict, alcohol and drug abuse, war

Introduction:

Substance use disorders (SUDs) are chronic relapsing conditions 1. Formally diagnosed by signs and symptoms such as repeated failure to meet commitments, use in physically dangerous circumstances, legal problems due to use, and recurrent personal conflict due to use need to be found in a 12- month period 2.

A number of risk factors for the development of SUDs have been established including age, family history of a SUDs, ethnicity and psychiatric disorders 3,4. In addition, potentially, traumatic events such as sexual abuse, physical abuse, as well as post-traumatic stress disorder (PTSD), consistently have been shown to confer increased risk for SUDs 5,6. It is thus not surprising that trauma of war is a risk factor 11-13. One would, therefore, expect a high rate for SUDs 7-10. Iraqis faced Gulf wars in the last 3 decades and a widespread violence post 2003. However, Iraq Mental Health survey (IMHS) reported a prevalence of < 1% for both alcohol and drug abuse disorders. IMHS was an effort to obtain basic descriptive data on the prevalence and correlates of mental disorders in Iraq. It was carried out by Iraqi Ministry of Health in collaboration with Ministry of Planning and World Health Organization (WHO). IMHS was a part of WHO World Mental Health (WMH) survey initiative in 28 countries that use consistent measurement and field procedures to generate cross- national comparative data. Since then, there have been growing anecdotal and clinical reports of increasing abuse of drugs in the population 15. It is also likely that substances are more available as the number of alcohol shops have increased and the borders of country have become more opened. Therefore, this study was carried out. The purpose of this study was to update information about SUD in Baghdad, Iraq.

Material and methods:

A total of 2678 persons in Baghdad was included in this survey selected from youth centers in Baghdad (Al-Sader city, Al-Rusafa side and Al-Karkh side). They were randomly (all those attend the health centers were the target population (the selction was daily). Those who were selected were excluded

* Dept. of Medicine, Unit of Psychiatry, College of Medicine, Baghdad University.
** Correspondence:Dr. Jawad K. Al-Diwan Dept.of Community Medicine, College of Medicine,Baghdad University.
e-mail: Jawadkadhim.aldiwan876@gmail.com
***Advisor for Mental health, Ministry of Health.

from the selection on next day. Activities in youth centers were sport, social and youth skill building. Since 2006, youth centers were dominating by religious leaders when Iraq was convulsed into sectarian violence 11-13. The study was carried out at time that extremists ruled youth centers.

One thousand persons were selected from each sector (Al-rusafa, Al-Kakch and Sader city). They aged 11 to > 35 years with male to female ratio of 3.8:1

Composite international diagnostic Interview 2nd edition (CIDI-2) was used. It is fully structured, standardized instrument for the assessment of SUD according to DSM-IV. In epidemiological studies, CIDI demonstrated good reliability and validity for diagnosis of SUD. It was used in IMHS 14.

Retrospective age- of- onset (AOO) reports were obtained in the questionnaire designed to avoid the implausible response pattern. Independent variables included age, sex, and education (illiterate, primary, intermediate, secondary, university graduate and postgraduate), crowding index (measured as persons in the household / number of rooms in the house), and marital status. Lifetime prevalence was estimated as the proportion of the respondents who had ever met criteria for alcohol or drug use disorder up to their age at interview.

Supervisors in the youth centers were trained to hold interview and data collection. They were psychologists, social workers and sport trainers. Two day interview training was given by psychiatrist and took place in 10 separate youth centers. Training covered general interview techniques, procedures, interview administration and post-interview editing. Data collection was carried out on Dec. 2009.

Chi- square test was used to examine the association between lifetime prevalence (dependent variable) and age, crowding index, and education (independent variables). P value < 0.05 considered as significant.

Results:
The response rate was 89.3%. . No alcohol and drug abuse were reported among females. The reported figures were among males only. Lifetime prevalence for alcohol and drug abuse were 447 (16.7%) and 188 (7.02%), respectively. Out of those below 18 years of age, 15 (2.1%) reported alcohol abuse, and 8 (1.1%) showed drug abuse. Lifetime prevalence of alcohol and drug abuse were significantly associated with age ($\chi 2$ =36.7, d.f.=4, p= 0.0001 and $\chi 2$ =13.7, d.f.=4, p= 0.0001, respectively). In alcohol and drug abuse, a peak of lifetime prevalence noticed at 24-35 years. (Table 1).

The mean age of onset of alcohol and drug abuse were 21.7 ± 3.6 and 22.0 ± 5.8 years, respectively. Peak of AOO in both abuses was at 17 - 24 years (Fig.1).

Fifty nine (73.7%) of illiterates were alcohol abusers. Sixty nine (15.5%) of illiterates and primary school education were drug abusers. Alcohol and drug abuse prevalence was significantly varied with education ($\chi 2$ =26.6, d.f.=6, p= 0.001 and $\chi 2$ =16.3, d.f.= 6, p = 0.012, respectively) (Table 2).

Association of crowding index with alcohol and drug abuse is shown in table 3. Out of those reported alcohol abuse, there were 282 (23.7%) had high crowding index. Alcohol abuse was

significantly associated with high crowding index ($\chi 2$ =4.9, d.f.=1, p= 0.026). Drug abuse was not significantly associated with crowding index ($\chi 2$ =1.8, d.f.=1, p= 0.17).

Table 1. Age and sex distribution of alcohol and substance abuse

Variable	Total	Alcohol abuse		Substance abuse	
		No.	%	No.	%
Age					
< 18	725	15	2.1	8	1.1
18 – 23	792	86	10.8	39	4.9
24 – 29	554	154	27.7	63	11.4
30 – 35	338	99	29.3	55	16.2
>35	269	93	34.5	23	8.5
Total	2678	447	16.7	188	7.02
Statistical test		$\chi 2$ =36.7, d.f.=4, p= 0.0001		$\chi 2$ =13.7, d.f.=4, p= 0.0001	

Table 2. Alcohol and substance abuse according to level of education

Education	total	Alcohol abuse		Substance abuse	
		No.	%	No.	%
Illiterate	80	59	73.7	8	10.0
Primary	361	95	26.3	61	16.8
Intermediate	636	69	10.8	39	5.9
Secondary	868	72	8.3	15	1.7
Institute	329	77	23.4	49	14.8
Graduate	351	68	19.3	16	4.5
Postgraduate	53	7	13.2	0	0.0
	2678	447	16.7	188	7.02
Statistical test		$\chi 2$ =26.6, d.f.=6, p=0.001		$\chi 2$ =16.3, d.f.=6, p=0.012	

Table 3. Distribution of crowding index in alcohol and substance abuse

Crowding index	Total	Alcohol abuse		Substance abuse	
		No.	%	No.	%
>2	1190	282	23.7	119	8.0
<2	1487	165	11.1	69	4.6
	2678	447	16.6	188	7.02
Statistical test		$\chi 2$ =4.9, d.f.=1, p=0.026		$\chi 2$ =1.8, d.f.=1, p=0.17
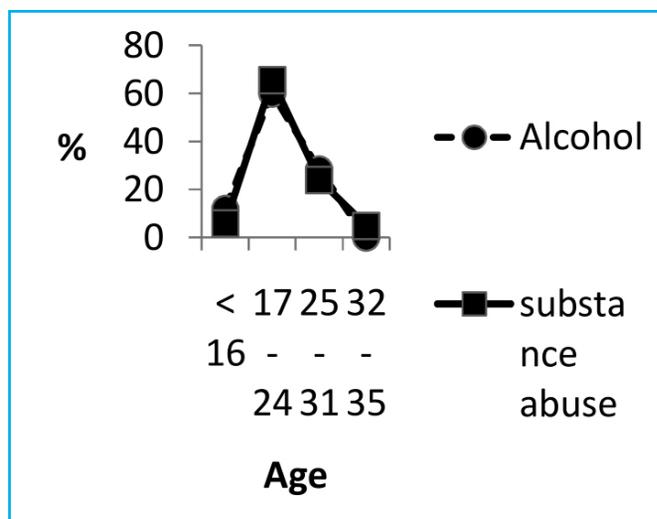
Fig.1 Distribution of AOO in the studied sample

Discussion:

Lifetime prevalence of alcohol and drug abuse were 16.7% and 7.02%, respectively, which are much higher than that reported in IMHS 14 (0.9% and 0.7%, respectively). The difference might be attributed to limitations in IMHS (exclusion of internally displaced people, those who migrated out of Iraq, residents of area deemed too dangerous, and completion of the survey during the period of ongoing violence 2006 - 2007). Questions regarding alcohol and drug abuse are sensitive in Muslim countries such as Iraq. Muslim cultures forbid the use of these substances; therefore, probably rates of alcohol and drug use were under-reported in IMHS 14. In Iraq,the stigma attached to alcohol and drug abuse was greater than that for mental disorder, especially at years of civil war 13 at which IMHS 14 was carried out. That situation might have contributed to the low estimates in IMHS. This study was carried out at the end of 2009 after the militants control was reduced and secular social life returned to normal 15. This change has brought open sale of alcohol to Baghdad. All over the Iraqi capital, liquor stores, which closed their doors in early 2006 when sectarian strife was raging, have slowly, began to reopen which might be contributed to the high figure reported in this study. The observed prevalence of SUDs (7.02%) is higher than that reported from Lebanon 16 (1.3%). This high figure might be related to the Iraq's tragic recent history. The situation in Iraq is unique considering instability and stressful conditions for the last 3 decades (Iraqi- Iranian war, invasion of Kuwait, 1991 Gulf war, sanctions, 2003 Gulf war and lastly civil war). Alcohol and drug abuse are highly correlated with PTSD and other disorders that might be developed after exposure to wars and violence 17-19. Exposure to wars and civil war in the last 3 decades might lead to high prevalence of PTSD. IMHS 14 reported low prevalence of PTSD (2.5%), however, other

workers reported higher rate 20,21. PTSD might be further contributed for the observed high figures for SUDs. This study revealed no alcohol and drug abuse among females which might be attributed to the fact that females were frightened to report such abuse. The sample was drawn from youth centers which in turn were politically dominated by religious leaders (fashion police) 22. Stigma might be contributing to this finding also. A large proportion of people with alcohol and other drug disorder have a history of mental disorder 23,24, and the reasons for this co morbidity are unclear 25. High rates of mental disorders were reported in the recent IMHS 14, although it was stated that the rates were underestimated. The high prevalence of mental disorders might be further contributed for the reported high figures of alcohol and substance abuse. Globally alcohol and drug abuse are not distributed evenly. In general USA is among highest levels of use of all drugs. Much lower levels were observed in lower income countries in Africa and Middle East. These variations cannot be regarded as static; there was greater alcohol and drug use among younger than older adults in all countries, suggesting a change over time 25. In this study, AOO distributions are consistent with trends documented in literature 25,26. In most countries, the period of risk for initiation of use was concentrated in the period from the mid to late teenage years. There was a slight older and more extended period of risk for alcohol and drug abuse, and in more recent cohorts, the period of risk was extended further into adulthood. In IMHS, AOO for substance related disorders was not estimated. That was because of low prevalence 14. The findings revealed that lifetime prevalence of alcohol abuse was significantly associated with crowding index i.e. high lifetime prevalence was associated with high household density. High household density has long been viewed as both an indicator of low socioeconomic status and as stressful situation of low socioeconomic status associated with high morbidity and mortality risks 27. Several decades of research have correlated a high crowding index with socioeconomically deprived urban communities and wide range pathological health outcomes 27. Socioeconomic status affects the lifetime prevalence of mental disorders 28. Lifetime prevalence of drug abuse was not significantly associated with crowding index. More analyses are needed to challenge this finding. It might be attributed to prohibition of alcohol in early years after change of regime. In contrast to that of other studies 29, an association between low education and high prevalence of SUDs was observed. This point up the fact that while some aspects of Iraqi's alcohol and drug problems might be due to the unique features of the country's culture and recent history, generic factors present in all societies also likely play a role. The observed significant association of own low education with alcohol and substance abuse is surprising on the ground of previous studies 30.

Conclusion:

High prevalence rates were noticed for alcohol and drug abuse. The high rates might be attributed to trauma experienced, availability of substances and more willing to looking for alcohol and drug. Added stressors of low education and high household density might further contributed to the high observed figures.

Author contributions:

Nesif Al-Hemiary:MB ChB, FIBMS suggested the project, participation in training of the interviewer, and sharing in interpretation of data

Mushtaq T. Hashim:MB ChB, CABPsych recruiting interviewers, training of interviewers and shared in selection of sample

Jawad K. Al-Diwan: MB ChB, MSc, DCN, FIBMS suggesting the project, design of the study, analysis of data and writing manuscript.

Emad Abdul Razzaq:MB ChB, FIBMS participation in training, participation in discussion.

References:

1. McLellan AT, Lewis DC, O'Brien CP et al. Drug dependence, a chronic medical illness: implications for treatment, insurance, and outcome evaluation. JAMA 2000;284: 1689-1695.

2. Geppert CMA, Bagenschutz P. Substance realted disorders. In: Roberts LW, Hoop JG, Heinrich TW (edititors). Clinical Psychiatry Essentials. 1st edition. William and Wilkins. 2010. P. 150.

3. Danielson KC, Amstader BA, Dangelmier RE. Trauma-related risk factors for substance abuse among male versus female young adults. Addict Behav 2009; 34: 395-399.

4. Kilpatrick DG, Acierno R, Saunders B, Resnick HS, Best CL, Schaurr PP. Risk factors for adolescents substance abuse and dependence: Data from a national sample. J Consul Clin Psychol 2000; 68: 19-30.

5. Breslau N, Davis GC, Schults LR. Posttraumatic stress disorder and the incidence of nicotine, alcohol, and other drug disorders in persons who have experienced trauma. Arch Gen Psychiat 2003; 60: 289- 294.

6. Simpson TL, Miller WR. Concomitance between childhood sexual and physical abuse and substance use problem: a review. Clin Psychol Review 2002; 22: 27-77.

7. Ouimette PC, Ahrens C, Moos RH, Finney JW. Posttraumatic stress disorder in substance abuse patients: relationship to one year posttreatment outcomes. Psychol Addict Behav 1997; 11: 34-47.

8. Stewart SH, Pihl RO, Conrod PJ, Dongier M. Functional associations among trauma, PTSD and substance related disorders. Addict Behav 1998; 23: 797-812.

9. Muser KT, Rosenberg SD, Goodman LA, Trumbetta SL. Trauma, PTSD, and the course of severe mental illness and interactive model. Schizo Research 2002; 53: 123-124.

10. Norman SB, Tate SR, Andreson KG, Brown SA. Do trauma history and PTSD influence addiction relapse context? Drug Alcohol Dependence 2007; 90: 89-96.

11. Iraq Family Health Service Survey Study Group. Violence related mortality in Iraq from 2002 to 2006. N Engl J Med 2008; 358:484-493

12. Burnham G, Lafta R, Doou S, Robert L. Mortality after 2003 invasion of Iraq: a cross- sectional cluster survey. http://www.thelancet.com. Published online Oct. 11/2006.

13. Fearson JD. Iraq's civil war. Foreign Affairs 2007;86: 2-16.

14. Al-Hasnawi S, Sadik S, Rasheed M, Baban A, Al-Alak M, Othman AY et al. The prevalence and correlates of DSM-IV disorders in the Iraqi Mental health Survey (IMHS). Wprld Psychiatry 2009;8: 97-109.

15. The Independent 2009. http://independent.co.uk/news/world/middle-east/alcohol-return-to-baghdad-862969.html. (accessed on 14 July 2014).

16. Karam FG, Mneimneh ZN, Karam AN et al. 12-Month prevalence and treatment of mental disorders in Lebanon: a national epidemiological survey. Lancet 2006;367:1000-1006.

17. Kozaric-Kovacic D, Ljubin T, Grappe M. Co morbidity of posttraumatic stress disorder and alcohol dependence in displaced persons.Croat Med J 2000;41:173-178.

18. Shiphred JC, Stafford J, Tanner LR. Prdicting alcohol and drug abuse in Persian Gulf war veterans: What role do PTSD symptom play? Addict Behav 2005; 30:595-599.

19. Jaeobson IG, Ryan MA, Hooper TI et al. Alcohol use and alcohol related problems before and after military combats deployment. JAMA 2008;300:663-675.

20. Jacoub SM, Al-Diwan JK, Al-Dakhily NM. Posttraumatic stress disorder among emergency ambulance personnel in Baghdad, Iraq. J Fac Med Baghdad 2009; 51:382-384.

21. Al-Shawi A, Al-Hemiary N, Al-Diwan J, Tahir DH. Post-traumatic stress disorder among university in Baghdad: a preliminary report. Iraqi J Comm Med 2011; 24: 287- 290.

22. Edwards A. Iraq religious leader send out the 'fashion police' to stop people dressing too western. Mail Online, 3 Sept. 2012. http://www.dailymail.co.uk/news/article-2197596/Iraq-religious-leaders-send-fashion-police-stop-people-dressing-Western.html (accessed on 14 July 2014).

23. Chan YF, /dennis ML, Funk RR. Prevalence and co morbidity of major internalizing and externalizing problems among adults presenting to substance abuse treatment. J Substance Abuse Treatment 2008;34: 14-24.

24. Grant BF, Stinson FS, Dawson DA, Chau SP, dufour MC,

Compton W, Pickering RP, Kaplan K. Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from National Epidemiologic Survey on Alcohol and related conditions. Arch Gen Psychiat 2004; 61:807-816.

25. Denghardt L, Chiu W, Sampson N et al. Toward a global view of alcohol, tobacco, cannabis and cocaine use: findings from the WHO world mental health survey. PLos Medicine 2008;5: e141.

26. Kessler RC, Berglund P, Demler O, Jin R, Merikangas R. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national co-morbidity survey replication. Arch Gen Psychiatry 2005;62: 593-768.

27. Dell'Orco V, Forastire F, Agabiti N et al. Household and community determinants of exposure to involuntary smoking: a study of urinary continine in children and adolescents. Am J Epidemiol 1995; 142: 419-427.

28. Muntaner C, Eaton W, Miech R, O'Campo P. Socioeconomic position and major mental disorders. Epidemiol Rev 2004;26:53-62.

29. Latrala A, Tunlio-Henriksson A, Perda J, Saarnis S, Aolto-Setala T, Aro H et al. Prevalence and correlates of alcohol and other substance use disorders in young adulthood: a population based study. BMC Psychiatry 2009;9:73.