

## Prevalence of Alcohol Use among Medical College Students in Hawler Medical University

Dr Sirwan Kamil Ali \*

Dr Jwan Mohammed Sabir \*\*

### ABSTRACT

**Background:** Moderate and Heavy/binge alcohol drinking among medical college students have become a major public health problem. There is consistent evidence suggesting that young adults in college are drinking more than their non-college-attending peers, but it is still not clear whether they are more likely to suffer from clinically significant alcohol use disorders. This article reports the first national assessment of patterns of drinking habit among Medical Colleges. The aim of this study was to monitor the use of alcohol and to search for intervention and prevention strategies in Medical college communities.

**Methods:** This is a cross-sectional study. Young adults students (n = 342) in four Medical College in Hawler Medical University were studied from the period between 20th Feb 2007-20th April 2007 regarding use of alcohol, they were between 17-29 years old, 36% female, 64% male. A semi structured Questionnaires were distributed to students living in the four Medical colleges. The questionnaires asked for information on age, residency (how long they had lived in the college) and what substances they had used in the 6 months prior to the study (cigarettes, alcohol). The students also asked about academic and social activities. The data were expressed as descriptive frequencies and percentages.

**Results:** 19.3% of college students (18, 4% of men, 0.9% of women) has occasional alcohol drink in the in the past 6 month, 4.4% has moderate to binge drinking which was completely among male students, students from College of Medicine form the higher rate of alcohol users (12.8%), while College of Nursing form the lowest rate (0.6%). Bars and restaurant form the major drinking context for the students (44.5%)

**Conclusions:** The problem of alcohol use is increasing among students from medical college / Hawler University. College-based interventions seem desirable, especially in boys.

### INTRODUCTION:

Alcohol use and abuse among college students form a growing concern for researchers and clinicians for many years now. Several researchers have begun examining relationships among students' drinking patterns and problems consequent to alcohol use. National surveys of adolescents, college students, and other young adults in many countries reveal high rates of alcohol use among these age groups as well as high rates of dangerous drinking practices such as binge drinking and daily drinking. Additional health-compromising behaviors such as tobacco use and drinking and

driving often co-occur with alcohol use in these populations<sup>1</sup>. Studies from different parts of the world have shown that college students have a higher prevalence of alcohol drinking and alcohol-use disorders, than non-college youth. This could be attributed to the well established developmental phase college students go through, in which they are away from home, family and longstanding friendships. Throughout their college years, students pass through a phase of vulnerability (intellectually, emotionally and socially), in a new environment characterized by considerable peer influence, and often aggressive promotion of

\* Lecturer, College of Medicine, Department of Psychiatry.

\*\* Lecturer, College of Medicine, Department of Medicine (Community Medicine).

alcoholic beverages)<sup>2</sup>. Early and contemporary theorizing about college drinking is still unclear as to whether the quantity, frequency or problems associated with drinking either replicates the patterns established by the student's gender, religion, parental social class and other demographics variables<sup>3</sup>. Four major categories were developed that reflected students' comments: <sup>1</sup> ideas, beliefs and patterns of alcohol consumption are socially defined and enforced on the college; <sup>2</sup> drinking peaks on the weekends and subsides during the middle of the week in order to balance consumption with student's concerns over academics; <sup>3</sup> alcohol was not found to be used as a mechanism to deal with anxieties, but rather to allow one to "loosen up" and to "relax", and <sup>4</sup> alcohol was used as a means of celebration and as an expression of group solidarity<sup>4</sup>. Research has shown that both individual and environmental factors are associated with increased risk for alcohol use and misuse. Among college students, individual factors such as a person's family history of alcoholism, cognition (i.e., alcohol expectancies, drinking motives, perceived norms), and personality (i.e., impulsivity, extraversion, emotionality) are associated with alcohol use<sup>5</sup>. Although the problem of alcohol use is evident in most countries of the world, there is a comparatively small amount of research from a few European countries. Until recently little was known about the patterns of college student drinking in many parts of the world, most notably in the Arab region, where cultural and religious affiliations of students have theoretically an important impact on alcohol use: not only does the religion of Islam (most common in the Arab region) forbid the use of alcohol, but in addition many Arab countries forbid alcohol use by law. Despite these norms and legal restrictions, studies have revealed the presence of problems related to alcohol use among college students in Arab countries, especially in men, such as the use of other substances, unsafe sex, low academic achievements and conduct problems<sup>6</sup>.

Drug and alcohol abuse among university students is a major cause for concern. Use of illegal substances may be associated with deterioration in personal and social life. Drug and alcohol use also disrupts other students who are not themselves users; one study in North America showed that 60.5% of college students had their study or sleep interrupted by others who drink alcohol, 53.6% had taken care of a drunken student, 29.3% had been insulted or humiliated, 18.6% had had a serious argument or quarrel, 13.6% had property damaged and 9.5% had been pushed, hit or assaulted<sup>7</sup>. Heavy or "binge" drinking for this age group could result in broken relationships, academic difficulties, accidents (related to driving and otherwise) and legal and administrative problems, which could affect the student's future<sup>8</sup>. The purpose of this study is to encourage the development of science guided college policy. To accomplish this goal, we will examine the prevalence and characteristics of alcohol -related policies in a scientifically selected sample of Hawler Medical Colleges (HMC) colleges. We will not include illicit drug policies in this analysis because illicit drug use is illegal for both adults and young people; these illegal behaviors fall under the purview of state and law that supersedes college policy.

#### **MATERIALS AND METHODS:**

**PARTICIPANTS:** Participants in this study were students currently enrolled at Hawler Medical University including four colleges: College of Medicine, Dentistry, Pharmacy, and Nursing). A study was administered to various classes at the college in the period between 20th Feb 2007 - 20th April 2007. Total number of subjects was 360; (110 college of Medicine, 85 college of Dentistry, 85 college of Pharmacy, 80 college of Nursing), 342 of them completed the questionnaire; 219 subjects were male and 123 subjects were female. The median age of the study sample was 21 (range 17-29) years.

**PROCEDURE:** The administrator of the test informed students that the primary goal of the research project was to identify drinking patterns among College students. Participants were told that their participation and responses would be completely anonymous, and confidential; there were no identifying questions on the questionnaire. Participants were asked to carefully read the instructions written at the top of the questionnaire and were given a verbal reminder by the administrator. Participants were asked to keep in mind that their answers should reflect their own personal beliefs and practice. Upon completion of the questionnaire, participants were asked to bring their questionnaire to the front of the room and place it face down on the table. Questionnaires were distributed to students living in the four colleges. The questionnaire used a number of multiple-choice questions in order to reduce the answering time, to elicit more objective responses and to preserve confidentiality. The questionnaire asked for information on age, residency (how long they had lived in the college) and what substances they had used in the 6 months prior to the survey (cigarettes, alcohol). The survey also asked about academic and social activities. Regardless of whether they used substances or not, the participants were asked about whether they have problems in the college environment. Students were given clear instructions about the goals of the research and how to complete the questionnaire. To encourage them to answer more openly, they did not write their name or any symbols showing their identity and they were assured about the responses being kept confidential. The data were expressed as descriptive frequencies and percentages.

### RESULTS:

Out of 360 questionnaires distributed, only 342 (95%) were returned completed. The mean age of participants was 21.3 years. Participants were from both genders; Male comprised 219 (64%), while female were 123 (36%) of the study sample, (Table 1).

Most students were between 21-24 years (57%), 17-20 years form (34.2%), and although there were older students aged 24-29 years (8.8%), (Table 2). Majority of the study sample were unmarried 317 (92.7%), while married students comprise only 25 (7.3%) with no drinking habit ,(Table 3). The results for alcohol use shows that 261 participants (76.3%) reported that they had not drunk alcohol in the last 6 months, whereas 66 students (18.5%) had tried alcohol at least once in this period, while 15 participants (4.4%) indulge in moderate to binge drinking behaviour in the past (6) months period, (Table 1). Table 4 shows the distribution of the sample on the four colleges; college of Medicine, Dentistry, Pharmacy and Nursing (104, 84, 82, 75) respectively, with variable rate of alcohol use among them, the highest rate detected among students from college of Medicine (12.8%) and the lowest rate (0.6%) were noticed among students from college of Nursing. Table 5 shows the response of the participants regarding the reason of alcohol use, (51.9%) was to get pleasure and enjoyment, while (44.4%) was to get relief from stress. Table 6 revealed the relation ship between the context and pattern of drinking; Bars or restaurant form the most suitable place for 36 (44.5%) of the alcohol users, out door setting comprise (25.9%), while home only comprise for 6 (7.6%) for them.

**Table (1):** Relationship between age of study sample and alcohol use

Age of sample	Never drink		Occasional drink		Moderate- Binge drink		Total	
17-20Years	102	29.8%	9	2.6%	6	1.8%	117	34.2%
21-24 Years	132	38.6%	54	15.8%	9	2.6%	195	57%
25-29 Years	27	7.9%	3	0.9%	0	0	30	8.8%
<b>Total</b>	<b>261</b>	<b>76.3%</b>	<b>66</b>	<b>19.3%</b>	<b>15</b>	<b>4.4%</b>	<b>342</b>	<b>100%</b>

**Table (2):** Relationship between marital status and Alcohol use

Marital status	Never drink		Occasional drink		Moderate- Binge drink		Total	
Un-married	236	69%	66	19.3%	15	4.4%	317	92.7%
Married	25	7.3%	0	0	0	0	25	7.3%%
Total	261	76.3%	66	19.3%	15	4.4%	342	100%

**Table (3):** Relationship between Gender and Alcohol use

Gender	Never drink		Occasional drink		Moderate- Binge drink		Total	
Male	143	41.8%	63	18.4%	13	3.8%	219	64%
Female	118	34.5%	3	0.9%	2	0.6%	123	36%
Total	261	76.3%	66	19.3%	15	4.4%	342	100%

**Table (4):** Relationship between Reason and pattern of alcohol use

Reason of alcohol use	Occasional drink		Moderate- Binge drink		Total	
Search for high	0	0	3	3.7%	3	3.7%
Pleasure & enjoyment	36	44.5%	6	7.4%	42	51.9%
Relief from stress	30	37%	6	7.4%	36	44.4%
Total	66	81.5%	15	18.5%	81	100%

**Table (5):** Relationship between college and alcohol use

Gender	Never drink		Occasional drink		Moderate- Binge drink		Total	
College of Medicine	57	16.7%	36	10.5%	8	2.3%	101	29.5%
College of Dentistry	70	20.5%	12	5.3%	2	0.6%	84	24.6%
College of Pharmacy	61	17.8%	18	3.5%	3	0.9%	82	24%
College of Nursing	73	21.3%	0	0	2	0.6%	75	21.9%
Total	261	76.3%	66	19.3%	15	4.4%	342	100%

**Table (6):** Relation ship between drinking context and pattern of alcohol use

Drinking context	Occasional drink		Moderate- Binge drink		Total	
Home *	6	7.4%	0	0	6	7.4%
Bars or restaurant outdoor settings **	33	40.8%	3	3.7%	36	44.5%
Non specific	18	22.2%	3	3.7%	21	25.9%
Total	9	11.1%	9	11.1%	18	22.2%
	66	81.5%	15	18.5%	81	100%

\* Home include family home, homes of friends or acquaintances .

\*\* parks, beaches, sports stadiums....etc.

### DISCUSSION:

The results of this study regarding students' use of alcohol shows wide variations in comparison with other studies. Our research relied on self-reported answers about socially unacceptable and illegal behaviours, so the validity and reliability can be questioned. However, efforts were made to assure students about confidentiality, and multiple choice questions were used in order to obtain valid responses. We also cannot generalize the findings of this research for all students, as the students were a group living in similar colleges and were not randomly selected from all students in Erbil city. In our study nearly one fourth of respondents (23.7%) had tried addictive substances (alcohol) in the previous 6 months. On the other hand, a study previously conducted in the Islamic Republic of Iran reported that 24% of students had used at least 1 illicit drug at least once in their life and 75% had never used drugs, alcohol was among the top list of used substances<sup>9</sup>, while a similar research in Iran revealed that 16% of male students living in campus in Tabriz University had used alcohol in the previous 6 months and 9% said they were abusing alcohol<sup>9</sup>. A study by the Centre for Addiction and Mental Health in Canada showed that out of 7800 undergraduate students in 16 universities across Canada, 62.8% reported 5 or more drinks on a single occasion at least once since the beginning of the college year (10), probably

such wide variations reflect differences in socio cultural and religious background of the groups studied. Recently use of psychoactive substances among medical students using World Health Organisation criteria among male medical students; the most frequently used substances were alcohol (80.5%), whereas among female students the most frequently used substances were alcohol too (72.6%)<sup>11</sup>, other studies revealed that one third of medical students in United Kingdom indulge in heavy alcohol drinking<sup>12</sup>. Gender differences: in our study male has higher rate of alcohol consumption (22.4%), while female form only (1.5%), this is greatly different from other studies like what we found in The Harvard School of Public Health College Alcohol Study (CAS); which refer to approximately equal percentages of alcohol consumption among both sexes, consumption is generally heavier for males than for females. Core data from 1994 show that about 2½ times as many males (26.4 percent) as females (9.6 percent) consume 10 or more drinks per week (13, 14, and 15). Context of drinking: Bars or restaurant form the most suitable place for 36 (44.5%) of the alcohol users, while home only comprise for 6 (7.6%) for them, while Lee and colleagues (1997) reported that the three most highly endorsed locations for drinking were in another person's home, an outdoor setting, and a moving car or truck, such differences in the results probably due to

family attitude, socio-cultural values in addition to religious prohibition of alcohol use particularly inside home atmosphere<sup>16,17</sup>. The current study revealed that the prevalence of alcohol use among the four medical science colleges (Medicine, Dentistry, Pharmacy, and Nursing) was (12.8%, 5.9%, 4.4%, 0.6%) respectively much consistent with previous findings<sup>18,19</sup>, on the other hand disagree with other studies<sup>20,21</sup>, these differences in the outcome may be due to different types of questionnaires which has been used and the studies conducted in different cultures, with variable socio-economic status, in-addition to religious affect. Finally all medical schools should develop their own policies and implement them effectively. Policies should include the setting of standards (e.g. not drinking alcohol during the working day), education about alcohol and its effects, confidential help for those in difficulty, and procedures for managing individuals with drinking problems<sup>22,23</sup>. Our results suggest that efforts are needed to create a more positive college culture regarding alcohol use in the Kurdistan Region. This could be achieved by emphasizing the importance of academic study, creating a more stress-free environment for students, facilitating a wider range of social and recreational activities, setting up alcohol and drug awareness and counselling programmes, and notifying parents when students engage in serious or repeated violations of alcohol laws or other drug policies.

#### REFERENCES:

- Bachman, J.G.; Wadsworth, K.N.; O Malley, P.M., et al. Smoking, Drinking and Drug use in young Adulthood; The impacts of New Freedoms and Responsibilities. Mahwah, (1997).NJ; Lawrence Erlbaum Associates,
- Knight, J.R.; Wechsler, H.; Meichun, K.; et al. Alcohol abuse and dependence among U.S. college students. *Journal of Studies on Alcohol* 2002.63:263–270,
- Klein, H. College students` attitudes toward the use of alcoholic beverages. *Journal of Alcohol and Drug Education*, 1992. 37, 35-52.
- O'Leary, T.A.; Brown, S.A.; Colby, S.M.; et al. Treating adolescents together or individually? Issues in adolescent substance abuse interventions. *Alcoholism: Clinical and Experimental Research* 26:890–899, 2002.
- Presley, C.A.; Meilman, P.W.; and Leichter, J.S. College factors that influence drinking. *Journal of Studies on Alcohol* 2002 (Suppl. 14):82–90.
- Reproductive, family and community health and population issues. In: The Work of WHO in the Eastern Mediterranean Region. Annual report of Regional Director, January 01–December 31, 1998. Alexandria, WHO Regional Office for the Eastern Mediterranean, 2000:Chapter 4.1.
- Baer, J.S.; Kivlahan, D.R.; Blume, A.W.; et al. Brief intervention for heavy-drinking college students: 4-year follow-up and natural history. *American Journal of Public Health*. 2001. 91:1310–1316,
- Allen, J.P., and Wilson, V.B., eds. *Assessing Alcohol Problems: A Guide for Clinicians and Researchers*. 2003. 2d ed. NIH Pub. No. 03–3745. Washington, DC: U.S. Dept. of Health and Human Services,
- A.R Jodati,<sup>1</sup> S.K Shakurie,<sup>1</sup> M. Nazari<sup>1</sup> and M.B.Raufie<sup>1</sup>. Students' attitudes and practices towards drug and alcohol use at Tabriz University of Medical Sciences. *Health Journal*. 2007. Volume 13 No. 4 July - August,
- Gliksman L et al. *Canadian campus survey 1998*. Toronto, Centre for Addiction and Mental Health, 2000.
- Da Silveira, D. X., Rosa-Oliveira, L., Di Pietro, M., Niel, M., Doering-Silveira, E., & Jorge, M. R.. Evolutional pattern of drug use by medical students. *Addictive Behaviors*, (2008) 33(3), 490-495.
- [www.mdconsult.com/das/news/body/itwj/0/202357/1.html?](http://www.mdconsult.com/das/news/body/itwj/0/202357/1.html?)
- O'Malley, P.M., and Johnston, L.D. Epidemiology of alcohol and other drug use among American college students. *Journal of Studies on Alcohol* 2002 (Suppl. 14):23–39.
- WHITE, H.R., and HUSELID, R.F. Gender differences in alcohol use during adolescence. In: Wilsnack, R.W., and Wilsnack, S.C., eds. *Gender and Alcohol: Individual and Social Perspectives*. New Brunswick, NJ: Rutgers Center on Alcohol Studies, 1997. pp. 176–198.
- Weschler H et al. Trends in college binge drinking during a period of increased prevention efforts. Findings from 4 Harvard School of Public Health College Alcohol Study Surveys: 1993–2001. *Journal of American college health*, 2002, 50:203–17.
- LEE, J.A.; JONES–WEBB, R.; SHORT, B.J.; and WAGENAAR, A.C. Drinking location and risk of alcohol-impaired driving among high school seniors. *Addictive Behaviors*, 1997. 22:387–393,

17. Kerr-Corrêa F, Simão MO, Dalben I, Trinca LA, Cerqueira ATAR, Mendes AA, et-al.. Possíveis fatores de risco para o uso de álcool e drogas entre estudantes universitários e colegiais da UNESP. *J Bras Dep Quím* 2002; 3(1):32-41.
18. DeSimone II, E. M. and Baldwin, J. N. , 2006-07-05 "Alcohol and Other Drug Use Attitudes and Behaviors In Nebraska Health Professions Students" 2008-10-09 from [http://www.allacademic.com/meta/p115705\\_index.htm](http://www.allacademic.com/meta/p115705_index.htm)
19. Substance Abuse and Mental Health Services Administration: *Results from the 2006 National Survey on Drug Use and Health: National Findings*. Office of Applied Studies, Rockville, MD; 2007. NHSDA Series H-32; DHHS Publication No. SMA 07-4293
20. Hughes PH, Brandenburg N, Baldwin DC, et al. Prevalence of substance use among US physicians. *JAMA* 1992;267:2333–9.
21. Charlotte A. Kenreigh, PharmD, and Linda Timm Wagner, PharmD: Substance Use by Pharmacy and Nursing Practitioners and Students in a Northeastern State; *American Journal of Health-System Pharmacy*, May 1, 2004 (Volume 61, Number 9)
22. Gray, J. D., Bhopal, R. S. and White, M. Developing a medical school alcohol policy. *Medical Education*: 1998. 32, 138–142.
23. Royal College of Physicians *Alcohol — Can the NHS Afford It?* Royal College of Physicians of London, 2001 London.