Pattern of Alcohol Consumption among Men Consumers in Kerman, Iran

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Original Article

Abstract

Background: Alcohol consumption is a potential risk factor with acute and chronic health consequences and social impacts, which is more prominent among men. There is no precise statistics on the scope of alcohol consumption in Iran; however, there is some evidences showing an increasing trend, particularly among young generation. In order to evaluate the scope of this issue in Kerman, a large city in the south-east of Iran, this exploratory study was designed to approach a group of people having an experience of alcohol use in 2014.

Methods: Samples were recruited to the study using a snowball sampling. 200 eligible subjects were questioned about the type of alcohol consumed, frequency of use, and other factors associated with alcohol consumption. In order to maximize the validity of responses, data were collected through self-administered questionnaires.

Findings: The main alcoholic drinks consumed by individuals were the homemade distillates (46%), wine (22%), beer (14%), distilled spirits (11%), and medical alcohol (7%), respectively. The majority of individuals participating in the study (73%) used mostly homemade drinks; moreover, 63%, 26%, 9%, and 2% of subjects took monthly or less, two to four times a month, two to three times a week, and at least four times a week, respectively. Only 2% of the subjects were heavy consumers of alcoholic beverages.

Conclusion: Due to the lack of control over homemade alcoholic beverages, its high levels can be a huge potential risk. Furthermore, it seems that both factors of access and price to be very effective in the amount of alcoholics taken by individuals. Therefore, further studies in this area will help to reduce the harm caused by alcohol consumption.

Keywords: Consumption patterns; Consumer; Alcoholic beverages; Men; Iran

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Introduction

Alcohol consumption is associated with a wide range of physical, psychological, and social harmful effects. In 2012, about 3.3 million deaths, or 5.9% of all global deaths (7.6% of men and 4.0% of women) and 139 million disability-adjusted life years (DALYs), or 5.1% of the global burden of disease and injury were attributable to alcohol consumption.[1] Alcohol consumption was the eighth and fifth of the global burden attributable to disease risk factors in 1990 and 2010, respectively. Alcohol consumption is estimated to account for 20-50% of liver cirrhosis, anesthesia, poisoning, road accidents, violence, and several types of cancers.[2]

It is worth noting that the physical and physiological effects of alcohol consumption have deeply impacted the community. Moreover, consumers influence other people, in addition to social adverse impact on family members, relatives, friends and colleagues, including victims of road accidents by a drunken driver or someone who is being attacked by a drunk person. As a result, alcohol-related problems can have devastating effects on individuals and their families as well as on community life.[3]

The relationship between alcohol consumption and its complications depends on the pattern of drinking and its amount. The amount and pattern of consumption lead to three mechanisms that have a direct impact on injuries and diseases. These mechanisms include the poisoning and other effects of alcohol on organs and tissues of the body, drunkenness, and dependence. In addition, the quality of alcoholic beverages may affect health and mortality, like illegal or homemade alcoholic beverages contaminated with methanol or lead.[4]

7.6% of all deaths among men and 4.0% of deaths among women were attributed to alcohol worldwide in 2012. In addition, the burden of alcohol-related diseases among men is several times that of women (7.4% for men and 2.3% for women). Furthermore, men are much less likely to avoid drinking alcohol than men.[1,2]

Global consumption of pure alcohol in 2010 was equal to 6.2 liters per individual aged 15 years or older, equivalent to 13.5 grams of pure alcohol per day. A quarter of this amount (24.8%) was unrecorded, i.e., homemade alcohol, was illegally produced or sold outside normal government controls. However, there is wide variation in total alcohol consumption across World Health Organization (WHO) regions and Member States. The highest consumption levels continue to be found in the developed countries, in particular in the WHO European Region (EUR) and the WHO Region of the Americas (AMR), however, the lowest consumption levels are found in the WHO South-East Asian Region (SEAR) and particularly in the WHO Eastern Mediterranean Region (EMR).[1]

According to the WHO, the overall rate of alcohol dependencies in Iran (over 15 years) was equal to 0.2% (0.3% for men and 0.1% for women) among the adult population in 2010.[1]

There were also a few studies in the pattern of consumption. In the study by Attar et al., which examined the alcohol consumption in hospitalized patients in Hazrat-E Rasoul hospital, the current most common alcohol consumption pattern was the weekly consumption pattern.[5]

In addition, in the study by Haghdoost et al. on the epidemic alcohol poisoning in Rafsanjan, Iran, in 2013, based on the quantitative results, all the drinkers were men and 90% had a history of alcohol abuse. In addition, 90% of them stated that they had taken alcohol because of unemployment and lack of entertainment.[6]

There is little information on the side effects and drug use in Iran and this is much more limited for alcohol due to its legal and religious prohibitions, so that unfortunately, there is no accurate statistics on alcohol consumption among general population of Iran. However, monitoring and care is essential in order to reduce alcohol abuse.[7] In order to evaluate the scope of alcohol consumption in Kerman, a large city in the south-east of Iran, this exploratory study was designed to approach a group of people having an experience of alcohol use.

Methods

A researcher-made questionnaire was designed to investigate the pattern of consumption. Validity of the researcher-made questionnaire was confirmed by several professors and experts and the reliability of this questionnaire was conducted by Test-Retest method. At first, questionnaires were distributed among 30 alcohol users, and

after two weeks, the questionnaires were redistributed among the first 30 individuals and then collected. A correlation coefficient of r = 0.81 was obtained.

After confirmation of validity and reliability, the questionnaires were distributed among the consumers of alcoholic beverages using snowball sampling method. Therefore, several alcohol-consuming students living in Kerman were identified as the primary focus after justifying, confidence-building, and using incentive packages. The researcher, after building confidence for the individuals introduced, enlisted them as the primary focus.

After access to consumers and acquiring their trust, primary focuses asked them to introduce other consumers among their friends and acquaintances, in addition to completing the questionnaire. Then, their information was gathered with the willingness of individuals, so that the individuals participating in the study, in addition to completing their own questionnaires, distributed the questionnaires among their friends or acquaintances consuming alcoholic drinks and collected them,. This process continued in the form of snowball sampling to reach sample size and saturation level (rather than receiving new results).

Finally, all of the collected data were statistically analyzed by SPSS software (version 16, SPSS Inc., Chicago, IL, USA). Since the individuals were all consumers of alcoholic beverages, the type of alcoholic drink used was considered as a dependent variable in variable analyses as a qualitative variable of two modes [homemade and Industrial (verified supervised) beverages], and the effect of independent factors on these factors were measured by logistic regression method.

Results

The mean ± standard deviation (SD) age of onset of drinking was 16.74 ± 3.32, with the youngest starting age of consumption of 8 years and the oldest starting age of consumption of 28 years. The mean of the current age of the subjects was 24.68 ± 5.01 with the youngest age of 17 and the oldest age of 48 years. 78.5% of the subjects were single, 54.3% were students and 58.5% of fathers of the subjects were self-employed. The frequency distribution of socio-demographic variables of subjects is shown in table 1.

Table 1. Socio-demographic characteristics of the study participants

Variable	n (%)
Marital status	
Single	157 (78.5)
Married	31 (15.5)
divorced	12 (6.0)
Education	
Less than diploma	7 (3.5)
Diploma	83 (41.5)
Graduate and Bachelor	85 (42.5)
Master's degree and higher	25 (12.5)
Occupation	
Unemployed	23 (11.6)
Student	108 (54.3)
Employee	15 (7.5)
Self-employed	53 (26.6)
Father's occupation	
Unemployed	8 (4.0)
Worker	6 (3.0)
Employee	28 (14.0)
Self-employed	117 (58.5)
Retired	39 (19.5)
Other occupations	2 (1.0)

The main alcoholic drink was homemade drinks, wine, beer, distilled spirits, and medical alcohol, respectively. The majority of study participants (73%) used mostly homemade drinks; moreover, 63% of subjects usually used monthly or less and 80% of the subjects used alcoholic beverages once a day. Only 2% of the subjects were heavy consumers of alcoholic beverages. Characteristics of alcohol consumption pattern among the individuals participating in the study are shown in table 2.

There was no statistically significant relationship between marital status, place of residence, individual's occupation and individual's education with the type of drinks (homemade and industrial beverages), however, there was a significant relationship between the individual's income with the type of drinks (homemade and industrial beverages) (P = 0.002).

These tests were initially performed as univariate and then multivariate (in the presence of all variables) by logistic regression method. The results of this test are shown in table 4.14. As can be seen from the results of crude regression, the odds in consumption of industrial beverages among individuals with monthly income of more than US$700 was 7.25 times higher than that of those without income, and the adjusted model (in the presence of other variables) also confirms this significant increase (Table 3).

Table 2. Characteristics of alcohol consumption pattern among the individuals participating in the study

Variable	n (%)
The main alcoholic drink consumed	
Homemade distillate	92 (46)
Wine	44 (22)
Beer	28 (14)
Distilled spirits	22 (11)
Medical alcohol	14 (7)
The main alcoholic drink consumed	
Homemade	146 (73)
Industrial	54 (27)
Rate of consumption	
Monthly or less	126 (63)
Two to four times a month	52 (26)
Two to three times a week	18 (9)
At least four times a week	4 (2)
Rate of consumption per day	
Once	160 (80.0)
Twice	27 (13.5)
Three to five times	9 (4.5)
More than three to five times	4 (2.0)
Amount of consumption (cc)	
Less than 60	22 (11.0)
60-100	36 (18.0)
100-200	42 (21.0)
200-300	45 (22.5)
300-500	41 (20.5)
More than 500	14 (7.0)
Heavy consumer* of alcohol	
Yes	4 (2)
No	196 (98)

*Drinking alcohol, at least once a week, more than 3-5 times per day

Discussion

Based on the results of this study, 78.5% of the participants were single. In addition, the results of the study by Mardani et al. indicated that the rate of single individuals is higher than that of married ones on drug use (cigarettes, hubble-bubble, alcoholic beverages, and opium).[8] Furthermore, Akbari Zardkhaneh et al.[9] and Hamdieh et al.[10] in their studies concluded that marriage is one of the factors contributing to reducing the prevalence of drug use, alcohol, cigarette, and psychotropic drugs. The study of the role of marital status on alcohol consumption in the study by Kretsch and Harden[11] showed that the incidence of consumption in single and divorced individuals was significantly higher. This study showed that divorced men tend to be more alcoholic.[11] Therefore, marriage can be a preventative factor in drinking alcohol and other drugs.

Among drug and alcohol consumers, the most vulnerable groups are young individuals and students that are more exposed to alcohol and drug use than other social groups because of the identity crisis, psychological crises due to social problems, adventure, pleasure, and variety-seeking.[12]

Table 3. Logistic regression* in relation to the type of alcohol consumed (homemade and industrial) and socioeconomic characteristics among the individuals participating in the study

Variable	Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
Marital status				
Single	R	-	R	-
Married	1.66 (0.73-3.77)	0.223	1.67 (0.50-5.60)	0.401
Divorced	1.51 (0.43-5.29)	0.517	0.76 (1.48-3.89)	0.743
Place of residence				
City	R	-	R	-
Village	0.29 (0.06-1.30)	0.108	0.48 (0.09-2.37)	0.370
Occupation				
Unemployed	R	-	R	-
Student	4.62 (1.02-20.85)	0.047	3.23 (0.67-15.65)	0.144
Employee	7.00 (1.18-41.53)	0.032	1.66 (0.14-19.00)	0.683
Self-employed	3.41 (0.70-16.56)	0.128	0.63 (0.80-4.69)	0.659
Education				
Less than diploma	R	-	R	-
Diploma	0.79 (0.14-4.41)	0.792	0.53 (0.07-3.97)	0.543
Graduate and Bachelor	0.92 (0.16-5.11)	0.931	0.60 (0.01-4.62)	0.629
Master's degree and higher	1.40 (0.22-8.78)	0.715	0.67 (0.06-6.58)	0.736
Income (per month)				
No income	R	-	R	-
Less than US$200	1.95 (0.07-5.43)	0.200	3.40 (0.70-16.50)	0.120
US$200 to US$350	0.94 (0.36-2.42)	0.898	2.21 (0.63-7.77)	0.213
US$350 to US$700	1.29 (0.42-3.95)	0.650	2.60 (0.41-16.30)	0.306
More than US$700	7.25 (2.01-26.14)	0.002	19.52 (2.89-131.80)	0.002

*Univariate and multivariate analyses using the Enter Method
OR: Odds ratio; CI: Confidence interval; R: Reference = 1

Based on the results, the mean age of the participants was 24.68 and the mean age of the start of alcohol consumption was 16.74. These results indicated a low age of start of alcohol drinking in men. Mohammad Khani[13] and Sohrabi et al.[14] in their studies also mentioned the age of starting to consume any type of drug to be 13 to 18 years. In the study of Ziaaddini et al., which examined the substance abuse among high school students in Kerman, the mean age of participants consuming alcohol was 14.7 years.[15] Moreover, the study by Momtazi and Rawson on drug abuse in Iran indicated that the highest age of start of alcohol consumption was among high school students and individuals under 22 years of age.[16]

Findings of a research by Mardani et al. also reported the highest drug use among students aged 16 to 25 years. Therefore, it can be concluded that the likelihood of drug use increases among students in this range of age.[8] On the other hand, entry into a young age and university, without having any necessary knowledge about drugs, followed by the wrong choice of group of friends, leads to the consumption of drugs and alcohol among students in many cases. Many students face unclear circumstances after entering the university. They consider themselves adult, independent, and free from the constraints of home, so they sometimes tend to express this feeling through drug use, thus living in student environments and engaging with friends and peers who encourage them to drug use, can expose students to substance abuse.

Based on the results, more than half of the subjects studied in the present study were students with university degrees. The results of Melchior's study also showed that consumption of alcohol, smoking, and hubble-bubble was higher than other drugs among students.[12] Furthermore, the findings of the research by Taremian et al.[17] and Serajzadeh and Feyzi[18] were consistent with the results of our study, suggesting that alcohol consumption is more common than drug use among students. Drug use and alcohol consumption among young people can seriously damage their health and quality of life (QOL), so there are many concerns about this issue.[19]

According to the results, 73% of the individuals participating in the study used mainly homemade drinks. The main alcoholic drink was homemade drinks, wine, beer, distilled spirits, and medical alcohol, respectively.

The obtained values indicate that the greater the access to the substance, the more it will be used,[20] and it seems that every alcoholic drink that is easier to access will be more consumed in our country due to legal and religious restrictions on the consumption of alcohol.

In this study, the odds of using industrial beverages in individuals with a monthly income of over $700 were much higher than those without income ($P < 0.05$). Based on several studies, the price of alcohol is one of the factors affecting alcohol consumption among young people and adults.[21] Alcohol consumption seems to be affected by the variety in prices of alcoholic beverages. Since the price of industrial beverages is higher than homemade drinks in our country, individuals with a high economic level have more financial power to buy industrial beverages. Since there is a potential for contamination in homemade alcoholic drinks, it is natural that individuals with a high economic level take industrial beverages (which are mostly more expensive and less likely to be contaminated) rather than homemade drinks. Therefore, it seems that two factors of access and price are very effective in the type of alcoholic drink consumed.

Conclusion

Finally, further studies on the pattern of alcohol consumption will help interventions to reduce the damage caused by alcohol consumption, in addition to obtaining more knowledge in this field.

The most important limitation of this study can be the sampling method. Snowball sampling is one of the methods used for sampling of hidden populations. In order to get information from a hidden population, this sampling method provides access to the population. However, this sampling method is non-random and primary sampling units may introduce their similar units; therefore, the results of the study cannot be generalized as in the case of random methods. However, the results of this study provided detailed information on the pattern of consumption of drinking alcohol, on which less studies have been addressed.

Conflict of Interests

The Authors have no conflict of interest.

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بررسی الگوی مصرف مشروبات الکلی در بین مصرف کنندگان مرد شهر کرمان

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مقاله پژوهشی

چکیده

مقدمه: مصرف الکل علاوه بر اثرات بهداشتی حاد و مزمن بسیار زیاد، عوارض عاطفی، روانی و اجتماعی گسترده‌ای نیز به همراه دارد و به طور ویژه یک تهدید جدی برای مردان به شمار می‌رود. از آن‌جایی که آمار دقیقی از مصرف الکل در جمعیت عمومی ایران وجود ندارد و برخی شواهد نشان دهنده افزایش مصرف الکل در میان نوجوانان و جوانان می‌باشد، پایش و مراقبت به منظور کاهش سوء مصرف الکل ضروری به نظر می‌رسد. بنابراین، مطالعه حاضر با هدف بررسی الگوی مصرف مشروبات الکلی در بین مصرف کنندگان مرد شهر کرمان در سال ۱۳۹۳ صورت گرفت.

روش‌ها: این تحقیق اکتشافی به روش نمونه‌گیری گلوله برفی انجام شد. ۲۰۰ نفر واجد شرایط در مورد تعداد دفعات مصرف الکل، نوع الکل مصرفی و سایر عوامل مرتبط با مصرف آن مورد بررسی قرار گرفتند. بعد از اعتبارسنجی ابزار، داده‌ها از طریق یک پرسش‌نامه خودایفا جمع‌آوری گردید.

یافته‌ها: عمده‌ترین مشروب مصرفی افراد به ترتیب عرقیات دست‌ساز (۴۶ درصد)، شراب (۲۲ درصد)، آب‌جو (۱۴ درصد)، مشروبات سنگین صنعتی (۱۱ درصد) و الکل سفید (الکل طبی) (۷ درصد) بود. بیشتر افراد مورد مطالعه (۷۳ درصد) از مشروبات دست‌ساز و خانگی استفاده می‌کردند. از بین نمونه‌ها، ۶۳ درصد اغلب به صورت ماهیانه یا کمتر، ۲۶ درصد دو تا چهار بار در ماه، ۹ درصد دو تا سه بار در هفته و ۲ درصد حداقل چهار بار در هفته مشروبات الکلی مصرف می‌نمودند. فقط ۲ درصد افراد مورد بررسی مصرف کننده سنگین مشروبات الکلی بودند.

نتیجه‌گیری: با توجه به عدم کنترل بر روی مشروبات الکلی دست‌ساز، افزایش مقدار مصرف آن می‌تواند یک خطر بالقوه بزرگ محسوب گردد. همچنین، به نظر می‌رسد دو عامل دسترسی و قیمت، در نوع مشروب مصرفی افراد تأثیرگذار است. بنابراین، انجام مطالعات بیشتر در این زمینه جهت کاستن از آسیب‌های ناشی از مصرف الکل کمک کننده خواهد بود.

واژگان کلیدی: الگوهای مصرف، مصرف کنندگان، مشروبات الکلی، مردان، ایران

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