Full length article

Alcohol use disorders in Iran: Prevalence, symptoms, correlates, and comorbidity

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ARTICLE INFO

ABSTRACT

Background: For nearly four decades, alcohol production and consumption has been banned in the Islamic country of Iran. However, little is known about the extent of alcohol use and associated problems in the country. The paper aims to present findings on the 12-month prevalence, symptoms, severity, correlates, and comorbidity of alcohol use disorders in the Iranian population.

Methods: This report is based on the 2011 Iranian household Mental Health survey (IranMHS), a nationally representative face-to-face household survey with a multi-stage, cluster sampling design. A total of 7840 individuals aged 15–64 responded to the alcohol section. We assessed 12-month alcohol use disorders according to DSM-IV and DSM-5 criteria and harmful use according to the ICD-10 criteria.

Results: Weighted prevalence of using alcohol at least once in the past 12 months was 5.7%. The prevalence of 12-month alcohol use disorders was 1% according to DSM-IV criteria and 1.3% according to DSM-5. Harmful use was reported in 0.6%. Alcohol use disorders were markedly more common in men than women with an odds ratio (OR) of 13.3. It was also more prevalent in never-married versus married individuals (OR = 2.5) and in those living in urban versus rural areas (OR = 2.4). Among those with alcohol use disorders, 46.3% had a concurrent mood or anxiety disorder. Aggressive behaviors and injuries were more likely in those with alcohol use disorders.

Conclusion: Although Iran has a low level of alcohol use, its adverse consequences including use disorders, aggression, and injuries are moderately common and raise serious public health concerns.

1. Introduction

Globally, close to 5% of the burden of disease is attributable to alcohol consumption (World Health Organization, 2014). However, there is a wide geographical variation in the proportion of the disability-adjusted life years (DALYs) attributed to alcohol. The lowest alcohol-attributable fractions of DALYs are found in the East Mediterranean Region where the prevalence of alcohol consumption and alcohol use disorders are also quite low (World Health Organization, 2014). This is mainly due to the Muslim majority in this region. Alcohol use is strictly prohibited in Islam; moreover, there is an under-reporting due to stigma associated with alcohol use and weak surveillance systems.

Muslim majority countries have a variety of controlling policies, from total prohibition to some restrictions and regulations (Al-Ansari et al., 2015) and the extent and pattern of alcohol use differs,

accordingly. Consumption of alcohol drinks as well as alcohol production and distribution are totally banned in Iran (Islamic Parliament of Iran, 1996, 2013). Almost all alcohol consumed in Iran is either smuggled from outside borders, homemade, or produced for medical or industrial purposes. Therefore, no official data exists regarding the production or sales of alcoholic products, and unrecorded alcohol is close to 100% of total alcohol use.

Until recently, there was a general belief that alcohol use and the associated harms are extremely rare. This belief, as well as serious religious and legal prohibitions regarding alcohol, has led to neglect and denial of alcohol use and associated health consequences. Stigma and the legal sanctions may have acted as barriers to scientific investigation of the prevalence and patterns of alcohol use in the community and public health planning to combat its harmful effects (Lankarani and Afshari, 2014). Overall, alcohol use is an under-studied area in Iran (Rahimi-Movaghar et al., 2015; Sharifi et al., 2008). More specifically, there are few general population studies of alcohol use and use disorders, and a number of previous reports remain unpublished. Responding to this gap in information, in the 2011 general population survey of mental health in Iran, the Iranian Mental Health Survey (IranMHS), we included modules to specifically investigate alcohol use and use disorders.

The aims of this study were to provide detailed data on the prevalence of alcohol use and alcohol use disorders, correlates and severity of alcohol use disorders, as well as symptoms and comorbid conditions. These data would be useful for investigating the need for prevention and treatment of alcohol use disorders and identifying groups who are at greatest risk for these conditions.

2. Material and methods

2.1. Participants

The Iranian Mental Health Survey (IranMHS) is a household survey of a representative sample of Iranian population aged 15–64 years. The study was carried out between January and June 2011. A three-stage probability sampling was applied to select a representative sample of the non-institutionalized population. In first stage, according to the latest national census database (Statistical Center of Iran, 2006), we selected 1525 blocks proportional to the size of the 31 provinces. Secondly, we applied systematic random sampling to select six households from each block. Thirdly, we randomly selected the individuals to be interviewed, applying a method described by Kish (Kish, 1949). Those who could not comprehend Persian (the official and widely used language in Iran) and those who had severe physical or mental disability, making them unable to participate in the study, were excluded. A total of 9150 individuals were approached. Details of the study design are described elsewhere (Rahimi-Movaghar et al., 2014).

2.2. Instruments

The following instruments were utilized to assess alcohol use, alcohol use disorders, disability associated with mental problems, comorbidities, and other correlated factors.

2.2.1. Alcohol use, use disorders and the comorbidities

Data were obtained in face-to-face interviews using the Persian version of Composite International Diagnosis Interview (CIDI, version 2.1) to assess alcohol use disorders and other psychiatric comorbidities. The Persian translation of CIDI 2.1 has been shown to have adequate psychometric properties (Alaghband Rad, 2003).

Alcohol abuse and dependence were assessed based on DSM-IV and alcohol use disorder was assessed based on DSM-5. These diagnostic assessments were limited to those who reported having ≥12 standard drinks in the past 12 months. We employed the definition of 13 g of pure alcohol for a standard drink. ICD-10 definition was used to assess

harmful use of alcohol. Problem alcohol use in the past 12 months was defined as having at least one symptom of alcohol use disorder (DSM-5), or harmful use of alcohol or use of 5+ drinks in a typical day of alcohol use.

Psychiatric comorbidities were also assessed based on DSM-IV criteria and using CIDI. These included mood disorders (major depressive disorders, dysthymia and bipolar I disorder), anxiety disorders (panic disorders with/without agoraphobia, agoraphobia without panic, social phobia, generalized anxiety disorder, obsessive-compulsive disorder, and post-traumatic stress disorder), and illicit drug use disorders. The illicit drugs included cannabis, opioids, amphetamine-type stimulants, hallucinogens, inhalants and "other drugs".

2.2.2. Disability and severity of alcohol use disorder

Sheehan Disability scale (SDS) was used to measure impairment in functioning in four domains: work role performance, household maintenance, social life, and intimate relationships. The reliability and validity of the Persian translation of the SDS have been established in past research (Amin-Esmaeili et al., 2014). Participants were rated as having severe impairment if they reported severe role impairment in at least two areas on the SDS. We also assessed severity of alcohol use disorder using the DSM-5 guideline based on the number of criteria fulfilled.

2.2.3. Other psychiatric and demographic characteristics

Several short questionnaires were used for assessment of suicidal ideations, plans and attempts, aggressive behaviors, imprisonment and other legal problems in the past 12 months (Rahimi-Movaghar et al., 2014), as well as history of injuries in the past three and 12 months (Sharif-Alhoseini et al., 2012). Socioeconomic status of participants was assessed using a questionnaire used in a previous nationwide survey (Hosseinpoor et al., 2007). The questionnaire ascertained socioeconomic status based on household assets, including accommodations, accessories, and possession of cars. Gender, age, marital status, level of education, current occupation, place of residence, and geographical region were also recorded.

2.3. Field work

Interviews were conducted by 232 interviewers with a bachelor or master's degree in psychology. They were intensively trained in administration of CIDI, using the standard protocols and training materials developed by the World Health Organization (World Health Organization, 1997a,b). All interviews were conducted face-to-face at the participants' places of residence and in privacy. A rigorous quality control protocol was implemented in order to ensure accurate data collection process and ethical considerations. In each province, a local executive manager and a supervisor (a member of research team) were assigned to ensure the quality of the procedures. More details on quality control procedure have been previously reported (Rahimi-Movaghar et al., 2014).

2.4. Statistical analysis

We calculated the prevalence estimates and 95% confidence intervals for alcohol use, harmful use of alcohol based on ICD-10, alcohol use disorders based on DSM-IV and DSM-5 criteria and problem alcohol use. Logistic regression models were used to examine the correlates of these outcomes. All odds ratios were adjusted for sex, age, marital status, education, occupation, place of residence, socioeconomic status and geographic region. Due to the small number of individuals who met the criteria for alcohol use disorder, some of these analyses of correlates were limited to problem alcohol use.

All the analyses were weighted using consolidated weights, which were the joint products of: (w1) inverse probability of unit selection into the sample, (w2) non-response weights and (w3) post-stratification