

SCIENTIFIC ABSTRACTS

An Epidemiologic Study on Methyl Alcohol Poisoning in Tehran, Iran

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Background: In Iran, methyl alcohol poisoning rarely occurs accidentally and usually occurs through abuse of contaminated ethanol. However, with proper and timely treatment complications and mortality of methanol poisoning can be prevented. In this study, the epidemiological profile of methanol poisoning in the Iranian society was investigated.

Methods: In this prospective cross-sectional study, 28 methanol poisoned patients referred to the department forensic medicine and toxicology of Loghman Hakim and Baharlu Hospitals were examined and their data were collected.

Results: Most of the patients (82.1%) were men. Mean age of patients was 29.3 ± 4.57 years. The most common cause of poisoning was drinking unknown contaminated alcoholic beverage (82.1%) without knowing the effects and risks. Most patients (57.1%) had mild decreased level of consciousness. 14.3% of patients developed toxic complications (blindness) at discharge and 17.9% of patients died at the hospital despite receiving appropriate treatment.

Conclusion: Considering the high frequency of methanol poisoning in young men without knowing the side effects and risks, it is necessary to educate youths about the effects of alcohol and alcoholic beverages, with special attention recognition of its potential complications. It is also essential to train medical staff, especially emergency physicians about symptoms, diagnostic keys and early treatment of alcohol poisoning to prevent sever complications such as visual loss and brain damage.

Keywords: Alcohols; Methanol; Poisoning; Iran

Evaluation of the Reliability and Validity of Alcohol Use Disorders Identification Test (AUDIT)

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Background: Alcohol consumption is one of the main health problems in most countries. The purpose of the present study is to evaluate the reliability and validity of Alcohol Use Disorders Identification Test (AUDIT).

Methods: By employing the method of available sampling, 70 alcoholic patients were included as case group and 70 normal age, gender and education matched individuals were also included as the healthy group (controls). Both groups filled out the AUDIT questionnaire. Statistical tests, Cronbach's alpha, correlation coefficients and exploratory factor analysis were done to analyze the data.

Results: The internal reliability of the questionnaire was estimated to be 0.84 by employing Cronbach's alpha test, which indicates that approximately 16% of the total variance of the results obtained from the questionnaire was affected by the measurement error. This value was reported to be 0.85 for the cases and 0.84 for the controls. After omitting the second question of the questionnaire the Cronbach's alpha increased, but the amount of the increase was rather limited and thus no change in the questionnaire was required. By omitting each of the questions from the questionnaire, the alpha coefficient changed ranging between 0.8 and 0.85. Moreover, using the method of questionnaire classification the coefficient of internal consistency was reported to be 0.78. The reliability of the questionnaire was determined to be 0.84 by employing Cronbach's alpha. The coefficient of internal consistency for each question was estimated to be 0.18 to 0.74. The consistency between test and after-test results was found to be significant ($P = 0.020$ and $r = 0.710$). Using the ROC curve on cutoff point, sensitivity and trait of the test was determined to be 99% and 89% respectively. By employing exploratory factor analysis and varimax rotation, the test examines two key factors I and II that respectively accounted 35% and 34% and overall 56% of the total variance to them.

Conclusion: The AUDIT questionnaire has favorable psychometric properties and therefore can be used as a valid tool to carefully sift through patients for alcohol use.

Keywords: Alcohol-Induced Disorders; Mass Screening; Psychometrics; Substance Abuse Detection