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The Psychometric Properties of the Drug Abuse Screening Test

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Original Article

Abstract

Background: Substance abuse is a critical problem in most countries, especially in developing ones. Early detection is the pre-requisite of early control, for which reliable and valid tools are required. In the present study, we aimed at measuring the psychometric properties of the 10-item Drug Abuse Screening Test (DAST-10) in Iranian individuals.

Methods: After translation and back-translation of the questionnaire, 244 adults were recruited from Tehran Megacity, Iran, and completed the questionnaires. Participants were recruited by a multistage randomized cluster sampling method. Reliability was determined by Cronbach's alpha. Also, construct validity was evaluated using confirmatory factor analysis (CFA) and exploratory factor analysis (EFA).

Findings: The internal consistency using Cronbach's alpha coefficients for the total score of the Persian version of DAST-10 was 0.93. EFA evoked only one factor for DAST-10. The CFA for 1-factor models for DAST-10 indicated an acceptable fit for the proposed models.

Conclusion: The results prove desirable reliability and validity of the Persian version of the DAST which can be utilized as a screening instrument for drug abuse among Iranian adults.

Keywords: Substance abuse detection; Validation Studies; Psychometrics

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Introduction

One of the major current social dilemmas and public health challenges in Iran and worldwide is substance abuse.[1,2] It is particularly prevalent among young people in developing countries[3] and is often accompanied by undesirable social and economic consequences. In 2015, the Iranian Drug Control Headquarters reported that 2.8 million of Iranians aged 15-64 years were illegal drug users; the average age was 32 years and the average starting age was the early 20s.[1,4] In the United States (US), it is reported that 35% of men and 18% of women aged between 15 to 54 years meet the diagnostic criteria of substance abuse, at least once in their lifetime.[5] Opioid narcotics can result in intoxication, medical and social problems,[6,7] mental, and occupational disabilities,[8] and even infertility.[9-12] Alcohol consumption in parents has a negative effect on children's psychological welfare, irrespective of the intensity of other psychiatric disorders, the parents' level of education, economic difficulties, or living conditions.[13] Studies have shown that substance abuse in either parent (mother or father) can equally result in alcohol use disorders (AUDs) in the child.[14]

For the first time, Skinner designed a number of tools with the aim of screening for drug abuse.[15] These included the self-report 10-item screening test which he called the Drug Abuse Screening Test (DAST-10). DAST is a short screening tool which can be used at clinical settings. It is also applicable for evaluating the outcomes of treatment. DAST is mainly concerned with evaluating drug abuse consequences and severity in the past year.[16] All versions of the test including DAST-28, DAST-20, and DAST-10 have been shown to have excellent validity and reliability and are widely used worldwide.[17]

DAST has been evaluated in terms of different psychometric properties in various communities worldwide (US, Canada, India, Turkey, and China),[18,19] all of which have reported high internal consistency. Estimated internal consistency for DAST-28 ranged from 0.92 to 0.94 in the study conducted by El-Bassel et al.,[20] for DAST-20 from 0.74 to 0.95 in the study conducted by Cocco and Carey,[21] and for DAST-10 it was reported to be 0.86 to 0.94 in the study conducted by Carey et al.[19]

This study was performed with the aim of evaluating the psychometric properties of the Persian version of the tool, in order to provide an appropriate instrument for the early detection of drug abuse in the Iranian population with the ultimate aim of providing early and more effective and efficient treatment.

Since no one had previously attempted to do so in Iran, and since DAST-10 is shorter and thus easier to use and has also comparable sensitivity and specificity to the 28-item and 20-item versions in this study, we decided to translate and then assess its validity and reliability in the Iranian population living in Tehran City. We are hoping that this will help provide a simple and useful substance abuse screening test for clinicians, researchers, and families in the Iranian society, as well as in other Persian-speaking and culturally similar societies, and thus will help in the early detection and early intervention of substance abuse in this vulnerable population.

Methods

Ethical approval: The Ethical Committee of the University of Social Welfare and Rehabilitation Sciences, Tehran (IR.USWR.REC.1398.008) approved the study. All participants agreed to participate and signed the informed consent form before completing the questionnaire.

Procedure: Before starting the psychometric process, the tool needed to be translated. This process started with two independent and professional translators, who discussed any disparities in their translation and agreed upon a single Persian version. The re-translation to English was carried out by two other independent interpreters who were by no means related to the first group of translators. After resolving inconsistencies between the translators, the ensuing English version was checked with the original version and the weak points in translation were detected and corrected.

In this cross-sectional descriptive-analytical study, participants were recruited by multistage randomized cluster sampling method from Tehran City. In order to cover various cultural socio-economic classes, sampling was performed in four geographic regions in the north, south, east, and west of Tehran, serving as different sampling strata. Sample size in each region was calculated proportional to its population size. In

this study, we only included normal individuals, and participants with psychological disorders were excluded by the General Health Questionnaire (GHQ), using score 6 as the overall cut-off point for this questionnaire and score 2 as the cut-off point for each subscale.[22] In the beginning, the project was explained and its aims were clarified for participants, in person. If they agreed to participate, the consent form would be signed. The researcher tried to gain the participants' confidence in providing the correct answers to the questions. Then, the DAST questionnaire was offered to participants to complete it. In addition, questions regarding demographic data (gender, the geographic region of residence in Tehran, education, and occupation) were obtained.

If there were any questions or ambiguities in completing the questionnaire, the researcher would try to answer and solve them, taking care not to guide the participants towards any specific answer. The researcher then monitored for any unanswered questions. If participants showed undesirable psychological conditions according to the GHQ, were dissatisfied with continuing to cooperate, or left one or more questions unanswered, they would not be included.

Measures: In the DAST-10, each question answered "yes" is scored 1 point. The resulting score plus '1' (coming from the positive answer to question number 1 in the introductory section of the questionnaire screening for marijuana, illegal and/or prescription drug use in the recent year) arrives at the total score. A total score of 1-2 is considered "at risk" and requires brief intervention; a total score of 3-5 refers to "moderate" drug abuse and requires brief treatment; and a total score of ≥ 6 indicates "severe" drug abuse and requires referral for treatment.[23]

For numeric and categorical variables, the data were summarized by mean ± standard deviation (SD) and frequency and percentage, respectively.

Intraclass correlation coefficient (ICC) and Cronbach's alpha were assessed in order to evaluate the reliability and internal consistency of the tool, respectively. Cronbach's α values ≥ 0.70 were considered as sufficient, 0.60-0.70 as medium, 0.50-0.60 as poor, and Cronbach's α values smaller than 0.50 were considered unacceptable.[24]

In order to assess validity, exploratory factor analysis (EFA) was carried out. This analysis determines the latent (or underlying and dormant) relationships between the variables. Principal axis factoring (PAF) extraction method and varimax rotation with Kaiser normalization were used to carry out the EFA. The number of extractable factors was derived from the scree plot. In order to evaluate the sufficiency of the model, the adequacy of sampling was measured by the Kaiser-Meyer-Olkin (KMO) test, and the Bartlett's test of sphericity and the Total Variance Explained were measured. When KMO values are high, that is more than 0.70, this generally indicates the usefulness of a factor analysis. The Bartlett's test of sphericity determines whether a correlation matrix is an identity matrix, as a result of which variables would be unrelated and thus structure detection would not be recommended. Construct validity was assessed by confirmatory factor analysis (CFA) using the method of weighted least squares (WLS) with a weighted matrix of asymptomatic covariance for estimation.

In the present study, when the significance probability resulted in small values, that is less than 0.05, this was considered as a satisfactory factor analysis. Factor loading values of 0.30 or higher signified an important relationship between items and factors.

The indices and values considered as fit and reasonable in the present study consisted of: χ^2/degree of freedom (df), Root Mean Square Error of Approximation (RMSEA) 0.08, and also Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Adjusted GFI (AGFI) 0.90.[25] Data analysis was carried out using SPSS software (version 22, IBM Corporation, Armonk, NY, USA) and AMOS24 for CFA. P-values ≤ 0.05 were considered as statistically significant.

Results

Socio-demographic profile of the population: A total number of 251 individuals were recruited, of whom 244 participated by completing and returning the questionnaires (response rate = 97.2%). The education level of 150 (63.03%) and 88 (36.97%) participants was high school diploma and university level, respectively. According to table 1, the range of "yes" response to DAST items was 0.8% to 4.3%.

DAST Psychometric properties

Reliability: The Cronbach's alpha coefficient for the DAST-10 Persian version was 0.93. This demonstrates excellent (> 0.70) reliability of the tool.

Table 1. The frequency of answers to Drug Abuse Screening Test (DAST) questions

Questions	No	Yes
	%	%
Have you used drugs other than what you required for medical reasons?	97.9	2.1
Do you abuse more than one type of drug at a time?	98.8	1.2
Are you unable to stop using drugs when you want to?	95.7	4.3
Have you passed out or had flashbacks as a result of drug use?	97.0	3.0
Have you felt guilty or other bad feelings as a result of drug use?	96.9	3.1
Has your spouse (or parents) complained about your drug use?	96.0	4.0
Have you neglected your family due to your drug use?	97.6	2.4
Have you ever gotten involved in illegal activities in order to obtain drugs?	97.6	2.4
Have you experienced withdrawal symptoms (feeling sick) when you stopped using drugs?	97.6	2.4
Have you had medical problems because of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?	99.2	0.8

EFA: In this analysis, the relationship between items with related constructs as well as the relationship between the constructs and the concept of the whole questionnaire was examined. Considering the sharp slope of the first factor's graph and the flatness of the graph of the rest of the factors, the scree plot confirmed the single-factor structure of the scale (Figure 1-A).

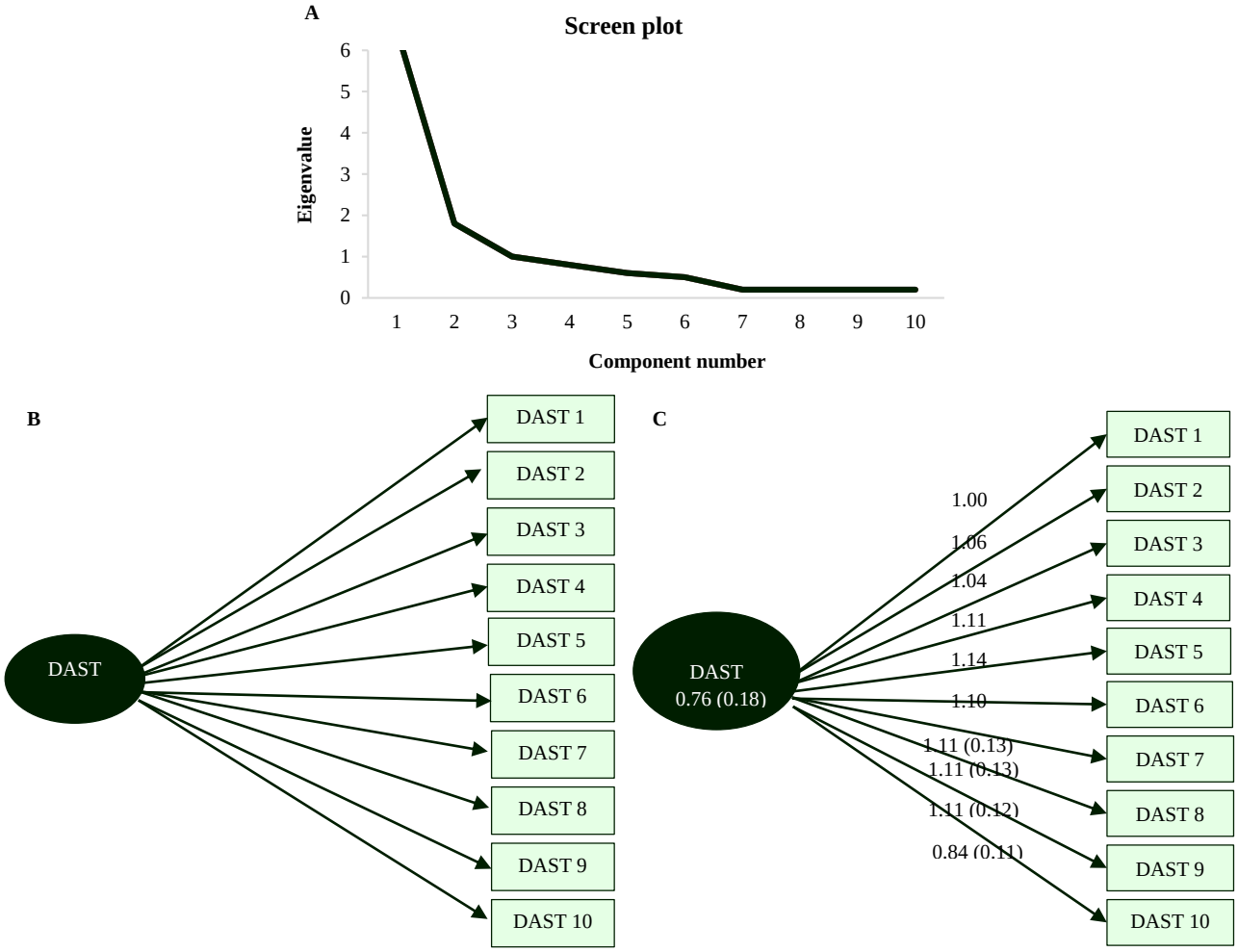

Figure 1. The scree plot confirming the single-factor structure of the scale (A); Conceptual model of relationships between items and Drug Abuse Screening Test (DAST) scale (B); Path diagram for the DAST scale coefficients (standard error) (C)

Table 2. Exploratory factor loadings for Drug Abuse Screening Test (DAST)

	DAST scale
Have you used drugs other than what you required for medical reasons?	0.583
Do you abuse more than one drug at a time?	0.774
Are you unable to stop using drugs when you want to?	0.701
Have you ever had blackouts or flashbacks as a result of drug use?	0.810
Have you ever felt bad or guilty about your drug use?	0.894
Has your spouse (or parents) ever complained about your involvement with drugs?	0.854
Have you neglected your family because of your use of drugs?	0.887
Have you engaged in illegal activities in order to obtain drugs?	0.836
Have you ever experienced withdrawal symptoms (feeling sick) when you stopped taking drugs?	0.887
Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?	0.774

DAST: Drug Abuse Screening Test

The data supported the adequacy of the EFA model (KMO = 0.88 > 0.70, Bartlett P-value < 0.05). The KMO value was 0.88 (optimum level), while variance was determined to be about 65%. The results of Bartlett's test confirmed the adequacy of EFA for this scale.

Extraction method: PAF: The values of loading all were above 0.30 indicating the considerable item-scale relationship.

According to table 2, factor loadings were above 0.30 (the criterion for selecting items) for all items, confirming the relationship of each item with the scale.

CFA for verifying instrument validity

Conceptual model: The conceptual model considered for the DAST scale is demonstrated in figure 1-B.

Assessing the model's adequacy for application of CFA: Because of the binary nature of the items, generalized CFA (GCFA) was performed, using the MPlus software (Version 8.4).

Fit indexes: The GFIs for assessing the fitness of the CFA model defined for the DAST questionnaire are listed in table 3:

Considering the values of the indexes proposed for this questionnaire, as may be seen in table 3, the normed chi-square (χ^2/df) is lower than 5 and the value of RMSEA index is lower than 0.08. This approves the model validity. Moreover, the fit indexes of Tucker-Lewis Index (TLI) and CFI are above 0.90. Therefore, the model has achieved an optimal level of fitness and the factor structure may be confirmed based on this.

Path diagram with standard coefficients for the DAST questionnaire: *The* standard CFA coefficients for this questionnaire are presented in figure 1-C. Based on table 4, all CFA coefficients for the DAST were significant (P < 0.05).

Discussion

The present study was the first to evaluate the psychometric properties of DAST-10 in a normal Iranian sample. DAST-10 is a highly reliable tool for screening substance abuse. Cronbach's alpha coefficient for the Persian version of DAST-10 was 0.93 which indicates that the internal consistency reliability of the scale was excellent. The EFA and CFA confirmed the validity of the model.

The only other study conducted in Iran regarding DAST psychometric properties was carried out by Sayed Alitabar et al. However, they assessed the psychometric properties of the longer version of the DAST (DAST-20). Their samples were recruited from a drug rehabilitation center in Iran. Good internal consistencies were found for the DAST-20 (α = 0.92). Also CFA was confirmed.[24]

In a study conducted in 1998 in Washington, US, the factor structure of the DAST-10 suggested that 64% of the variance could be accounted for with a 3-factor structure, consisting of general problems, and one item constituting each of the two remaining factors, that is item 5 for the second factor and item 7 for the third factor.[21]

Table 3. Goodness of fit indices (GFIs) for comparative fit index (CFI) models

Model	χ^2	df	P	χ^2/df	TLI	CFI	RMSEA (95% CI)
Measurement	29.62	35	0.725	0.84	0.99	0.99	< 0.001 (< 0.001-0.040)

χ^2/df: Normed chi-square

df: Degree of freedom; TLI: Tucker-Lewis index; CFI: Comparative fit index; RMSEA: Root mean square error of approximation; CI: Confidence interval

Table 4. Estimates of model coefficients

DAST	Estimate	SE	Est./SE	P
DAST 1	1.000	0.001	8.999	< 0.001
DAST 2	1.056	0.131	8.085	< 0.001
DAST 3	1.043	0.132	7.898	< 0.001
DAST 4	1.110	0.131	8.459	< 0.001
DAST 5	1.138	0.138	8.262	< 0.001
DAST 6	1.098	0.133	8.255	< 0.001
DAST 7	1.109	0.129	8.603	< 0.001
DAST 8	1.113	0.128	8.674	< 0.001
DAST 9	1.112	0.125	8.862	< 0.001
DAST 10	0.840	0.110	7.641	< 0.001

DAST: Drug Abuse Screening Test; SE: Standard error

Another study evaluating the Spanish version of the DAST found that only one component of the DAST-10 acquired an eigenvalue greater than one (6.48) for retaining components and the variance accounting for this component was 64.83%.[27] They reported that the confirmatory factor model had acceptable fitness and that the results indicated that all item-scale relationships were significant. The findings of the exploratory factor model were supported by confirmatory patterns and thus the scale's validity was confirmed.

Most of the studies that have reported coefficient α for the DAST have found estimate to be near to 0.90. In a study conducted in 2007, the results of KMO and Bartlett's tests confirmed the adequacy of EFA for this scale.[17]

Cocco and Carey (1998) investigated the validity of DAST-20 and reported sensitivity values that ranged from 89% to 74% as the cut-off score was enhanced from 2.3 to 5.6. The specificity for DAST-20 ranged from 68% to 83%.[21] The highest hit rate of 81% was obtained at the cut-off score of 5 or 6 for DAST-10. The sensitivity changed to 95% to 41%, and the specificity changed to 68% to 99%, when cut-off scores from 1.2 to 3.4 were used.

In a study on psychiatric patients in India, the authors reported that if the lowest sensitivity value (41%) and the highest specificity value (99%) derived from the same study were excluded and not accounted for in the data analysis, then the overall sensitivity and specificity values for DAST-10 would be similar and as favorable as that of DAST-28.[19]

Most studies have shown coefficient values close to 0.90 for the DAST which means that DAST is suitable with the highly homogeneous content.[19,28] In these studies, in addition to coefficient α, other measures of the reliability of the DAST such as inter-item and item-total correlations show that DAST is a highly reliable instrument.[17]

Five studies evaluating the reliability of DAST-10 in 5 different communities and languages have shown the following results: The English version in the US was reported to have a Cronbach's alpha of 0.86 and a test-retest kappa of 0.71;[21] the Spanish version had a Cronbach's alpha of 0.94;[27] in India, the Cronbach's alpha was reported to be 0.94;[19] a study in Turkey reported a Cronbach's alpha of 0.92,[29] and the present study conducted in Iran resulted in a Cronbach's alpha of 0.93. This signifies that DAST-10 has been shown to have desirable reliability and good internal consistency. Also, four of the above studies reported a sensitivity in the range of 65% to 90%, and a specificity in the range of 68% to 98%.[19,27,30] Another research indicated that DAST-10 used in a primary care setting had 100% sensitivity [95% confidence interval (CI): 90.6%-100%] and 77% specificity (95% CI: 71.5%-81.9%).[28]

Conclusion

Given that in the analyses carried out for this questionnaire, the confirmatory factor model had acceptable fitness and the results indicated that all item-scale relationships were significant, and also the findings of the exploratory factor model in the previous section were supported by confirmatory patterns, thus the validity of DAST was confirmed.

More studies are necessary to confirm other psychometric properties of the translated version, such as test-retest reliability as well as other measures of validity (i.e., concurrent validity).

Conflict of Interests

The Authors have no conflict of interest.

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Authors' Contribution

PS, Conception and design; the collection and interpretation of data, drafting the article; MS, FS, SH, and RV, conception and design, and critically

revising the article for important intellectual content; AS, MAJ, data analysis, critically drafting and revising the article for important intellectual content. ALL have critically reviewed the content and have approved this version for publication.

References

1. Ghane T, Zamani N, Hassanian-Moghaddam H, Beyrami A, Noroozi A. Lead poisoning outbreak among opium users in the Islamic Republic of Iran, 2016-2017. Bull World Health Organ 2018; 96(3): 165-72.
2. World Health Organization. World Health Statistics 2009. Geneva, Switzerland: World Health Organization; 2009.
3. Humeniuk R, Dennington V, Ali R. The Effectiveness of a Brief Intervention for Illicit Drugs Linked to the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in primary health care settings: A technical report of phase iii findings of the who assist randomized controlled trial. Geneva, Switzerland: World Health Organization; 2008.
4. United Nations Office on Drugs and Crime (UNODC). UNODC Annual Report Covering Activities during 2017 [Online]. [cited 2017]; Available from: URL: https://www.unodc.org/documents/AnnualReport/Annual-Report_2017.pdf
5. Kessler RC, McGonagle KA, Zhao S, Nelson CB, Hughes M, Eshleman S, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. Arch Gen Psychiatry 1994; 51(1): 8-19.
6. Vega WA, Aguilar-Gaxiola S, Andrade L, Bijl R, Borges G, Caraveo-Anduaga JJ, et al. Prevalence and age of onset for drug use in seven international sites: Results from the international consortium of psychiatric epidemiology. Drug Alcohol Depend 2002; 68(3): 285-97.
7. Gousheh A, Ziaaddini H, Baneshi MR, Nakhaee N. Drug use among residents of Juvenile Correctional Center in Kerman, Iran, and its relationship with personality dimensions and self-concept. Addict Health 2014; 6(1-2): 22-9.
8. Regier DA, Farmer ME, Rae DS, Locke BZ, Keith SJ, Judd LL, et al. Comorbidity of mental disorders with alcohol and other drug abuse. Results from the Epidemiologic Catchment Area (ECA) Study. JAMA 1990; 264(19): 2511-8.
9. Amini M, Shirinbayan P, Behnam B, Roghani M, Farhoudian A, Joghataei MT, et al. Correlation between expression of CatSper family and sperm profiles in the adult mouse testis following Iranian Kerack abuse. Andrology 2014; 2(3): 386-93.
10. Nazmara Z, Najafi M, Rezaei-Mojaz S, Movahedin M, Zandiyeh Z, Shirinbayan P, et al. The effect of heroin addiction on human sperm parameters, histone-to-protamine transition, and serum sexual hormones levels. Urol J 2019; 16(3): 289-94.
11. Mohammadzadeh E, Amjadi FS, Movahedin M, Zandieh Z, Nazmara Z, Eslahi N, et al. In vitro development of embryos from experimentally Kerack-addicted Mice. Int J Reprod Biomed (Yazd) 2017; 15(7): 413-22.
12. Rezaei-Mojaz S, Nazmara Z, Najafi M, Movahedin M, Zandieh Z, Shirinbayan P, et al. Evaluation of enkephalin-degrading enzymes in sperm from heroin-addicted men. Int J Fertil Steril 2020; 13(4): 301-6.
13. Raitasalo K, Holmila M, Jaaskelainen M, Santalahti P. The effect of the severity of parental alcohol abuse on mental and behavioural disorders in children. Eur Child Adolesc Psychiatry 2019; 28(7): 913-22.
14. Sorensen HJ, Manzardo AM, Knop J, Penick EC, Madarasz W, Nickel EJ, et al. The contribution of parental alcohol use disorders and other psychiatric illness to the risk of alcohol use disorders in the offspring. Alcohol Clin Exp Res 2011; 35(7): 1315-20.
15. Skinner H. The drug abuse screening test (DAST): Guidelines for administration and scoring. Toronto, Canada: Addiction Research Foundation; 1982.
16. Skinner HA. The drug abuse screening test. Addict Behav 1982; 7(4): 363-71.
17. Yudko E, Lozhkina O, Fouts A. A comprehensive review of the psychometric properties of the Drug Abuse Screening Test. J Subst Abuse Treat 2007; 32(2): 189-98.
18. Martino S, Grilo CM, Fehon DC. Development of the drug abuse screening test for adolescents (DAST-A). Addict Behav 2000; 25(1): 57-70.
19. Carey KB, Carey MP, Chandra PS. Psychometric evaluation of the alcohol use disorders identification test and short drug abuse screening test with psychiatric patients in India. J Clin Psychiatry 2003; 64(7): 767-74.
20. El-Bassel N, Schilling RF, Schinke S, Orlandi M, Sun WH, Back S. Assessing the utility of the drug abuse screening test in the workplace. Res Soc Work Pract 1997; 7(1): 99-114.
21. Cocco KM, Carey KB. Psychometric properties of the Drug Abuse Screening Test in psychiatric outpatients. Psychol Assess 1998; 10(4): 408-14.
22. Noorbala AA, Bagheri Yazdi SA, Faghihzadeh S,

Kamali K, Faghihzadeh E, Hajebi A, et al. A survey on mental health status of adult population aged 15 and above in the province of Chaharmahal and Bakhtiari, Iran. Arch Iran Med 2017; 20(13): S19-S22.

23. Bentler PM, Bonett DG. Significance tests and goodness of fit in the analysis of covariance structures. Psychol Bull 1980; 88(3): 588-606.

24. Sayed Alitabar SH, Habibi M, Falahatpisheh M, Arvin M. Reliability, validity and factor structure of Drug Abuse Screening Test. Community Health 2015; 2(5): 246-55. [In Persian].

25. Bedregal LE, Sobell LC, Sobell MB, Simco E. Psychometric characteristics of a Spanish version of the DAST-10 and the RAGS. Addict Behav 2006; 31(2): 309-19.

26. Yudko E, Lozhkina O, Fouts A. A comprehensive review of the psychometric properties of the Drug Abuse Screening Test. J Subst Abuse Treat 2007; 32(2): 189-98.

27. Tinsley HEA, Brown SD. Handbook of applied multivariate statistics and mathematical modeling. San Diego, CA: Academic Press; 2000.

28. Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. A single-question screening test for drug use in primary care. Arch Intern Med 2010; 170(13): 1155-60.

29. Evren C, Can Y, Yilmaz A, Ovali E, Cetingok S, Karabulut V, et al. Psychometric properties of the Drug Abuse Screening Test (DAST-10) in heroin dependent adults and adolescents with drug use disorder. Dusunen Adam the Journal of Psychiatry and Neurological Sciences 2013; 26: 351-9.

30. Voluse AC, Gioia CJ, Sobell LC, Dum M, Sobell MB, Simco ER. Psychometric properties of the Drug Use Disorders Identification Test (DUDIT) with substance abusers in outpatient and residential treatment. Addict Behav 2012; 37(1): 36-41.

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بررسی ویژگی‌های روان‌سنجی آزمون غربالگری سوء مصرف مواد (DAST-۱۰)

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مقاله پژوهشی

چکیده

مقدمه: سوء مصرف مواد در بیشتر کشورها به ویژه در کشورهای در حال توسعه، یک مشکل اساسی محسوب می‌شود. تشخیص زودهنگام، پیش‌نیاز کنترل اولیه می‌باشد و برای این منظور ابزارهای معتبری لازم است. پژوهش حاضر با هدف سنجش خصوصیات روان‌سنجی آزمون غربالگری سوء مصرف مواد (Drug Abuse Screening Test یا DAST-۱۰) در افراد ایرانی انجام گردید.

روش‌ها: پس از ترجمه و بازترجمه نسخه ۱۰ سؤالی DAST، این آزمون بر روی ۲۴۴ فرد بزرگسال اجرا شد. نمونه‌ها به روش نمونه‌گیری خوشه‌ای چند مرحله‌ای در شهر تهران انتخاب شدند. پایایی آزمون به روش محاسبه ضریب Cronbach's alpha و روایی سازه‌ای آن به روش تحلیل عاملی اکتشافی و تأییدی محاسبه گردید.

یافته‌ها: ضریب Cronbach's alpha مقیاس مذکور، ۰/۹۳ به دست آمد که همسانی درونی آن را در سطح عالی تأیید نمود. نتایج حاصل از مدل تک عاملی اکتشافی با استفاده از الگوهای مدل تحلیل عاملی تأییدی مورد حمایت قرار گرفت و روایی سازه‌ای مقیاس تأیید گردید.

نتیجه‌گیری: نتایج به دست آمده، اعتبار و روایی مطلوب نسخه فارسی ابزار DAST را نشان می‌دهد که می‌تواند به عنوان ابزار مناسبی جهت غربالگری سوء مصرف مواد در بزرگسالان ایرانی مورد استفاده قرار گیرد.

واژگان کلیدی: تشخیص سوء مصرف مواد، مطالعات اعتبارسنجی، روان‌سنجی

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