



Journal of Substance Use

ISSN: 1465-9891 (Print) 1475-9942 (Online) Journal homepage: <http://www.tandfonline.com/loi/ijsu20>

Social factors in Iranian medical students' drug use

Ahmad Ghanizadeh, Mohammad Ali Ghanizadeh-Zarchi, Hamid Ashkani & Hossein Sanaei-Zadeh

To cite this article: Ahmad Ghanizadeh, Mohammad Ali Ghanizadeh#Zarchi, Hamid Ashkani & Hossein Sanaei#Zadeh (2005) Social factors in Iranian medical students' drug use, Journal of Substance Use, 10:5, 263-271

To link to this article: <http://dx.doi.org/10.1080/14659890412331318921>



Published online: 12 Jul 2009.



Submit your article to this journal [↗](#)



Article views: 17



View related articles [↗](#)

Full Terms & Conditions of access and use can be found at
<http://www.tandfonline.com/action/journalInformation?journalCode=ijsu20>

ORIGINAL ARTICLE

Social factors in Iranian medical students' drug use

AHMAD GHANIZADEH¹, MOHAMMAD ALI GHANIZADEH-ZARCHI²,
HAMID ASHKANI¹, & HOSSEIN SANAEI-ZADEH³

¹Department of Psychiatry, Hafez Hospital, Shiraz University of Medical Sciences, Shiraz, Iran,
²Medical School, Shahid Sadooghi University of Medical Sciences, Yazd, Iran, and ³Department of
Forensic Medicine, Iran University of Medical Sciences, Iran

Abstract

Background: There is an increasing concern about youth drug use in Iran.

Aim: This survey investigated the association between variables in social control theory and social learning theory (having a drug-using friend) with students' self-reported drug use.

Design: Self-reporting of the use of cigarettes, cannabis, alcohol and opioids (opiate, heroin). Students responded to the question: "If you have ever used the drug, when was the last time?" The dependent (drug-using) and independent variables were examined in an association model.

Participants: One hundred and seventy-three Shiraz Paramedical University Students were selected randomly and asked to complete a questionnaire.

Finding: Although the model of drug use for each of the drugs was different, their similarities were more than their differences.

Conclusion: There was a significant correlation between social learning theory variables and drug use. Some of social control theory variables had significant correlation with drug use, such as religious attachment in the use of alcohol—but its association with use of other drugs was indirect. The social control theory was not a better explanation than social learning theory.

Keywords: *Drug use, social factors, Iran, students.*

Drug use has an upward trend in Iran. Some youths never use cigarettes and illegal drugs, others experiment with them, and some others use and abuse drugs extensively. Understanding those factors that impact on the development of illegal drug use and attempting to turn them into factors that protect against illegal drug use would be useful in a drug prevention programme. The conversion of these factors into protective factors is even more important when one considers that an accumulation of these factors appears to have a more powerful effect than an accumulation of protective factors. All mental health preventative planning programmers involved with youth drug use need to be knowledgeable of the factors relating to youth drug use and addressing them is important in a drug prevention programme. Overall, programmes that had an informational or affective

Correspondence: Ahmad Ghanizadeh, Department of Psychiatry, Hafez Hospital, Chamran St. Shiraz, Iran. Tel. and Fax: +98 711 6279319. E-mail: Ghanizad@sina.tums.ac.ir

ISSN 1465-9891 print/ISSN 1475-9942 online © 2005 Taylor & Francis
DOI: 10.1080/14659890412331318921

component had very little effect, whereas those that used a social influence approach were most effective (Hansen, Johnson, Flay, Graham, & Sobel, 1988). A prior study in Iran showed that social influences were a less popular reason for stopping cigarette smoking than intrapersonal psychological values (Ghanizadeh, Ashkani, Ghanizadeh-Zarchi, & Nakhaee, 2003).

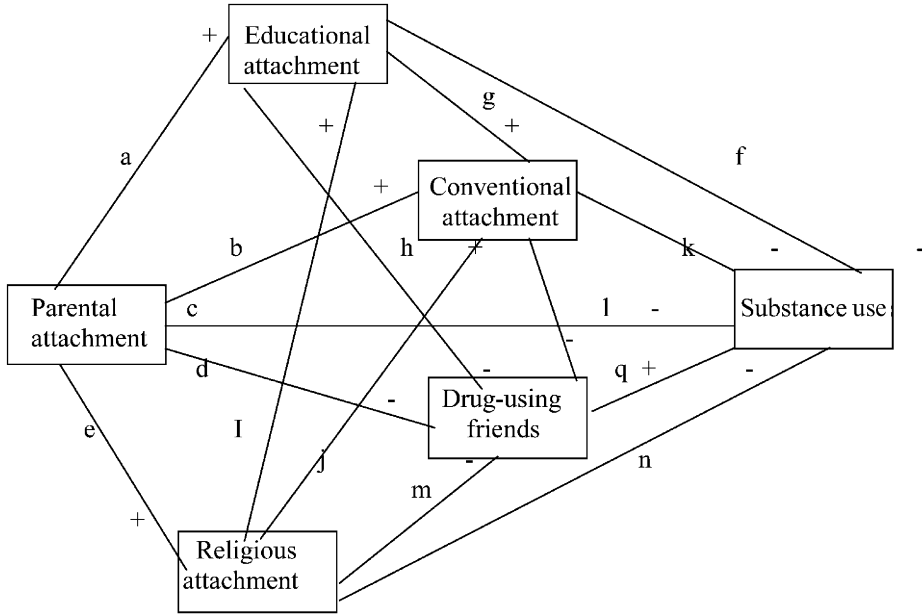
The two most promising theoretical perspectives seeking to explain adolescent substance use in the USA have been those of social learning and social control (Marcos & Bahr, 1995; Marcos, Bahr, & Johnson, 1986). Social control theory is based on the assumption that all human beings have the innate potential to violate social norms and that there are plenty of opportunities for committing deviant acts. On the basis of social learning theory, people learn by observing others. The current study surveyed the social forces that might control drug use in the Iranian culture. Four variables of social control theory and one variable of social learning theory were included, similar to those used in a prior study (Marcos & Johnson, 1988). All of the variables have predicted drug use in the west (Marcos & Bahr, 1995; Marcos et al., 1986; White, Johnson, & Horowitz, 1986). Drugs are typically offered (Ghanizadeh, Ashkani, Ghanizadeh-Zarchi, & Sanaei-Zadeh, 2003) and obtained from peers (Ghanizadeh, Ashkani, & Maany, 2000), and seeking pleasure is the major reason for drug use in Iran (Ahmadi & Ghanizadeh, 2001). Motivation for substance use among Iranian opioid addicts was quite different from motivation described in a study carried out in the west (Ahmadi & Ghanizadeh, 2000), but co-morbidity of psychiatric disorders was similar to those noted in the west (Ghanizadeh et al., 2000). A simplified association model of drug use is presented in Figure 1, which has been delineated and applied to American and Greek students (Marcos & Johnson, 1988). This survey investigates this model in a culture different from that of the west.

Method

On the basis of a prior study, a questionnaire was developed and, after a pilot study, a final questionnaire was made (Marcos & Johnson, 1988). Items required self-report on multiple-choice questions; only one answer per question was required. The subjects were 173 randomly selected paramedical science students of Shiraz University of Medical Sciences. No identifying questions were asked. They were also thanked for their cooperation and were assured their responses would be kept confidential. It was assumed that religious, educational, conventional and parental attachments (social control theory variables) have negative correlations with drug use, and having a drug-using friend (social learning theory variable) has a positive relation to it. The questions regarding conventional attachment concerned sneaking into a movie without paying, stealing something, trying to follow rules and obeying the law. The response categories were assigned in the following manner: strongly agree (0), agree (1), undecided (2), disagree (3), strongly disagree (4).

There were four dependent variables: use of cigarettes, alcohol, cannabis and opioids. These were measured by asking the question: "What was the last time of drug use, if you have ever used it?" The subjects chose one of the following options in response: (1) never, (2) more than 1 year ago, (3) 1–12 months ago, (4) 2–3 weeks ago, (5) 2–7 days ago, (6) yesterday, or (7) today.

Analysis involved linear regression and coefficient of determination (R^2). The score on the social control scale was the sum of its variables scores, in which an increase in scale value indicates a decrease in social bonding. This means a positive correlation signifying a



R*	The model of cigarette use	The model of alcohol use	The model of opium use	The model of cannabis use
A	0.14	0.14	0.14	0.14
B	0.01	0.01	0.01	0.01
c	-	-	-	0.19
d	0.18	0.18	0.18	0.18
e	-	-	-	-
f	0.29	-	0.29	-
g	-	-	-	-
h	0.29	0.29	0.29	0.18
I	0.17	0.17	0.17	0.17
j	0.16	0.16	0.16	0.16
k	-	-	-	-
l	0.20	0.20	0.20	0.20
m	-	-	-	-
q	0.33	0.49	0.40	0.28
n	-	0.19	-	-
Coefficient of determination (R^2)	0.105	0.182	0.131	0.083

*Significant $p < 0.05$.

- Coefficient that were eliminated by the model owing to no significance.

Figure 1. The association model of drug use (stepwise regression analysis) ($n=173$).

positive linear relationship between the lack of social bonding and the increased use of drugs.

Results

Of 173 subjects, 113 were men and 53 were women and 7 did not identify their sex. The mean age was 21.5 years ($SD=1.7$, range 18–26 years). Figure 1 shows the model of drug use and stepwise regression and the coefficient of determination (R^2) of each drug model separately. The internal consistency measured by Cronbach's alpha exceeded 0.08.

Discussion

Research based on self-reported responses to a questionnaire in relation to substance use are adequately reliable (Barnea, Rahav, & Teichman, 1987; Cooper, Sobel, Sobell, & Mainsto, 1981). The results showed that in all variables, only drug-using friends in this model had a direct meaningful correlation on the use of various drugs. This is consistent with a study that showed that friends' drug use is consistently and strongly related to subjects' use (White et al., 1986). Therefore, the type of friends could play an important role in drug use (Johnson, Marcos, & Bahr, 1987) and the importance of exercising care when choosing friends is indicated (MacDonald & Towberman, 1993). Of course, these data do not mean that the students must use drugs together with their friends, as reasons other than the role of peers are also involved. In addition to friendship problems, such people have shown deficits on social control variables.

Some of the variables that measure control theory often do not have significant relationships to the dependent variable, or, if there is a statistically significant relationship, it is not as strong as the friends' drug-using variable. However, a study in the USA showed that the social control variables often have a relationship to drug use (White et al., 1986). Also, it has been shown that the risk factors most strongly associated with the use of alcohol, cigarettes and marijuana were those derived from the socialization model of substance use (Walter, Vaughan, & Cohall, 1991).

The variables of social control, including parental attachment, religious attachment and conventional attachment did not show any direct relation on cigarette smoking, so cigarette smoking is probably not considered a very deviant behaviour. In the current study, educational attachment is meaningfully associated with cigarette smoking as in a corresponding study that was carried out in the USA but different from a study performed in Greece (Marcos et al., 1986), which showed that, in addition to having drug-using friends, parental attachment also correlated with cigarette smoking.

In fact, there is a popular notion that substance use can be decreased by strengthening adolescents' attachments to their families. However, in the current study, this idea did not receive support, except regarding the use of cannabis. A prior study showed that bonds with family were inversely related to any use of illicit drugs other than marijuana (Ellikson, Collins, & Bell, 1999). Another study showed that weak familial and school attachments fostered use by increasing the likelihood of exposure to offers of illicit drugs (Ellickson & Hays, 1992). Having drug-using friends was related to cannabis use. This is in accordance with a prior study in the west (Hadawy, Elifson, & Petersen, 1984; Johnson et al., 1987). In contrast with the current study, in which parental attachment score occupied the second position in having direct relationship with drug use, in a prior study conventional attachment was ranked second (Johnson et al., 1987).

Among the variables only religious attachment was associated with alcohol use, but not any other drug. This can be explained by religious prohibition of alcohol in Iranian culture (Ghanizadeh, 2001). A prior study showed this association in the USA, while in Greece failed to support it (Marcos & Johnson, 1988).

The general model presented in this study, with variables deriving from the theories of social control and social learning control, was applicable to all types of drugs studied here. The alcohol model has a greater explanatory power than other drug models. In other words, in Iranian culture, the use of alcohol is viewed as a more deviant behaviour than the use of other drugs, and the improvement of social bonds can be useful and effective for reducing or preventing drug use, especially alcohol use, although it has been shown that social control affects substance use more indirectly than directly (Cooper et al., 1981).

Some limitations of the study are as follows. (1) The social bond scale used is only one of a number of possible measures that could be used. The study recommended a more precise measuring variable. (2) The subjects were students, so care must be taken in generalizing these results to the general Iranian population. (3) This survey was undertaken cross-sectionally, so we recommend a longitudinal approach. (4) Although the subjects of the study were selected randomly, there were more males than females. It shows that there may be some selection bias. So, caution should be exercised in the interpretation and generalization of the results. (5) There was no specific inclusion or exclusion criterion in the selection. For example, poly-drug users were included in the study and may have influenced our results. However, we think it is so rare that the effect can be ignored overall because many severely substance-abusing adolescents have already dropped out of high school and university and are not included in the survey. The solution is to use studies on the general population, but these studies are expensive and are often under-funded. (6) The study includes only subjects who voluntarily completed the questionnaire. Also, self-reports have limitations, and memory for past events is problematic. In spite of the assurance of confidentiality, some respondents may not have answered the questions truthfully, since drug use is illegal in Iran.

Despite its limitations, however, this is the first study reporting the association between variables in social control theory and in social learning theory (having a drug-using friend) with students' self-reported drug use in Iran.

Conclusion

Drug-using friends provide a better explanation for drug use by medical students than variables of social control theory. Even in alcohol use, although social control theory provides some explanation, social learning theory provides the better explanation.

Acknowledgement

We thank Dr N. Nakhaee for his comments.

References

- Ahmadi, J., & Ghanizadeh, A. (2000). Motivation for use of opiate among addicts seeking treatment in Shiraz. *Psychological Reports, 87*, 1158–1164.
- Ahmadi, J., & Ghanizadeh, A. (2001). Current psychoactive substance use among Iranian medical students. *Indian Journal of Psychiatry, 43*, electronic. <http://www.ijponline.org/April2001/indIJPHome.html>

- Barnea, Z., Rahav, G., & Teichman, M. (1987). The reliability and consistency of self-report on substance use in a longitudinal study. *British Journal of Addiction*, 82, 891–898.
- Cooper, A. M., Sobel, M. B., Sobell, L. C., & Mainsto, S. A. (1981). Validity of alcoholics' self-reports: Duration data. *International Journal of Addiction*, 16, 401–406.
- Ellikson, P. L., Collins, R. L., & Bell, R. M. (1999). Adolescent use of illicit drugs other than marijuana: How important is social bonding and for which ethnic groups? *Substance Use and Misuse*, 34, 317–346.
- Ellickson, P. L., & Hays, R. D. (1992). On becoming involved with drugs: Modeling adolescent drug use over time. *Health Psychology*, 11, 377–385.
- Ghanizadeh, A. (2001). Shiraz University students' attitude toward drugs: an exploratory study. *Eastern Mediterranean Health Journal*, 3, 452–460.
- Ghanizadeh, A., Ashkani, H., Ghanizadeh-Zarchi, M. A., & Nakhaee, N. (2003a). Iranian University students' reason for cessation of smoking and temptation to smoking. *Annals of Saudi Medicine*, 23, 334–336.
- Ghanizadeh, A., Ashkani, H., Ghanizadeh-Zarchi, M. A., & Sanaei-Zadeh, H. (2003b). How a sample of Iranian college students communicate resistance to offers of illegal drugs. *Journal of Substance Use*, 8, 1–4.
- Ghanizadeh, A., Ashkani, H., & Maany, I. (2000). Comorbidity of psychiatric disorders in Iranian treatment-seeking opioid addicts. *Iranian Journal of Medical Sciences*, 25, 25–30.
- Hadawy, K. C., Elifson, K. W., & Petersen, D. M. (1984). Religious involvement and drug use among urban adolescents. *Journal of Scientific Study of Religion*, 23, 109–128.
- Hansen, W. B., Johnson, C. A., Flay, B. R., Graham, J. W., & Sobel, J. (1988). Affective and social influences approaches to the prevention of multiple substance abuse among seventh grade students: Results from project SMART. *Preventive Medicine*, 17, 135–154.
- Johnson, R. E., Marcos, A. C., & Bahr, S. J. (1987). The role of peers in the complex etiology of adolescent drug use. *Criminology*, 25, 323–340.
- MacDonald, R. M., & Towberman, D. B. (1993). Psychosocial correlates of adolescent drug involvement. *Adolescent*, 28, 925–936.
- Marcos, A. C., & Bahr, S. J. (1995). Drug progression model a social control test. *International Journal of Addiction*, 30, 1383–1405.
- Marcos, A. C., Bahr, S. J., & Johnson, R. E. (1986). Test of a bounding/association theory of adolescent drug use. *Social Force*, 65, 135–136.
- Marcos, A. C., & Johnson, R. E. (1988). Cultural patterns and causal processes in adolescence drug use: The case of Greeks versus Americans. *International Journal of Addiction*, 23, 454–572.
- Walter, H. J., Vaughan, R. D., & Cohall, A. T. (1991). Risk factors for substance use among high school students: Implications for prevention. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30, 556–562.
- White, H. R., Johnson, V., & Horwitz, A. (1986). An application of three deviance theories to adolescent substance use. *International Journal of Addiction*, 21, 347–366.

Appendix: The summarized form of the questionnaire

Measurements of constructs (with scoring in parentheses)

Parental attachment (0–16)

1. Do you remember any special thing your family has done together that was lots of fun such as trips, holidays, or other activities?

- A. No, nothing (0)
- B. Very few things (1)
- C. Something (2)
- D. Quiet a few things (3)
- E. Very many things (4)

2. When you have problems can you talk to your mother about them?

3. When you have problems can you talk to your father about them?

4. In your free time away from home, does your mother or father know where you are?

Response categories for Questions 2–4 were:

- A. Always (4)
- B. Usually (3)
- C. Sometimes (2)
- D. Seldom (1)
- E. Never (0)

Religious attachment (0–6)

5. To what extent are you committed to do your religious instructions and duties?
 - A. Never (0)
 - B. Less than once a month (1)
 - C. Some times a week (2)
 - D. Daily (3)
6. How important is religion in your life?
 - A. Not important (0)
 - B. A little important (1)
 - C. Quite important (2)
 - D. Very important (3)

Educational attachment (0–21)

7. Some people like university very much while others don't. How do you feel about it?
 - A. I like it very much (4)
 - B. I like it quite a lot (3)
 - C. I like it some (2)
 - D. I don't like it very much (1)
 - E. I don't like it at all (0)
8. How important is it to you to get good grades in College?
 - A. Not important (0)
 - B. A little important (1)
 - C. Quite important (2)
 - D. Very important (3)
9. About how much time do you spend on College work outside of class each day?
 - A. None at all (0)
 - B. Less than 1/2 hour (1)
 - C. About 1 hour (2)
 - D. Between 1 and 2 hours (3)
 - E. More than 2 hours (4)
10. What grades do you receive in College?
 - A. Mostly 18–20 (7)
 - B. Mostly 15–20 (6)
 - C. Mostly 15–17 (5)
 - D. Mostly 12–17 (4)
 - E. Mostly 12–14 (3)
 - F. Mostly 10–14 (2)
 - G. Mostly 10–12 (1)
 - H. Mostly less than 10 (0)

11. How far do you expect to go in College?
- A. I don't expect to finish college (0)
 - B. I would like to complete only my ongoing level (1)
 - C. I would like to enter the next level (2)
 - D. I would like to go to the last level (3)

Conventional Values (0–16)

12. It is okay to sneak into a movie or metro without paying
13. It is okay to steal something if one can do it without getting caught
14. It is important to pay for all things taken from a store
15. It is important to try to follow rules and obey the law

Response categories for Questions 12–15 were:

- A. Strongly agree (0)
- B. Agree (1)
- C. Undecided (2)
- D. Disagree (3)
- E. Strongly disagree (4)

Drug-using friends (0–12)

16. Some people drink while others do not. How many of your best friends drink alcohol?
17. How many of your best friends have used cannabis (marijuana)?
18. How many of your best friends have used opium or heroin?

Response categories for Questions 16–18 were:

- A. None (0)
- B. One (1)
- C. Two (2)
- D. Three (3)
- E. Four or more (4)

Cigarettes (0–6)

19. If you have ever used cigarette, when was the last time?

Alcohol (0–6)

20. If you have ever used alcohol, when was the last time?

Cannabis (0–6)

21. If you have ever used cannabis, when was the last time?

Opium (0–6)

22. If you have ever used opium, when was the last time?

Response categories for questions 19–22 were:

- A. Never (0)
- B. More than 12 months ago (1)

- C. 1–12 months ago (2)
- D. 2–3 weeks ago (3)
- E. 2–7 days ago (4)
- F. Yesterday (5)
- G. Today (6)