

## The Role of Social Skills in the Prevention of Drug Addiction in Adolescents

### Abstract

**Background:** Substance abuse has turned into a great problem in the worldwide. Considering the increased prevalence of addiction in this study, we tried to assess the role of social skills aspects in tendency to addiction among the adolescents. **Materials and Methods:** This cross-sectional study was conducted on 600 high school students studying in the Isfahan City, Iran, from 2016 to 2018. The studied population was assessed using addiction tendency questionnaire and Matson's social skills questionnaire. Data were analyzed by Statistical Package for the Social Sciences software and independent *t*-test, Pearson and Spearman correlation, and linear regression test. **Results:** Social behavior ( $P = 0.002$ ,  $r = -0.124$ ), high self-esteem ( $P < 0.001$ ,  $r = -0.381$ ), and peer-communication ( $P < 0.001$ ,  $r = -0.361$ ) were inversely associated with a tendency to addiction and were independent predictors of it ( $P < 0.05$ ). Aggression was associated with increased tendency to the addiction ( $P = 0.01$ ,  $r = 0.103$ ) but not a predictor. **Conclusion:** We found that appropriate social behaviors, inappropriate assertiveness, and functional communication were factors associated with less tendency to substance abuse in the adolescent.

**Keywords:** Adolescent, social skills, substance abuse, substance-related disorders

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### Introduction

Substance dependence and addiction has turned to a great problem in worldwide considering its destructive effect on the development and prosperity of the communities.<sup>[1]</sup> This problem is widespread to all socioeconomic levels without any limitation to a specific social class.<sup>[2]</sup> This issue has become a serious problem in the society of Iran as well and has increasing trend in this developing country.<sup>[3]</sup> Another problem in the Iran is the age of onset of substance abuse that has dramatically decreased and results of a research presented the age of 9 year as the start age of substance abuse.<sup>[4]</sup>

Addiction affects a person's life economically, culturally, and behaviorally.<sup>[5]</sup> Varieties of factors have been presented based on the age and culture to attract a person's attention toward addiction.<sup>[6]</sup> In early ages factors such as intimacy to friend who are addict or living with parents who are addict may lead the adolescents to substance abuse.<sup>[7,8]</sup> Some of the adolescents try to bridge the gap of

their loneliness with substances and some others try to fill their free-time by them.<sup>[9,10]</sup>

Recent investigations have shown that up to 19% of high school students in Iran tend to use cigarettes, alcohol or substances for at least once. Further assessments revealed that stress, depression, anxiety, family conflicts, and attitudes toward substances have made this population prone to try substances.<sup>[11]</sup>

Regarding the spread of substance dependence and the barriers for the treatment of addiction, the factors related to this social and health problem should be concisely identified and modified.<sup>[11]</sup> Various studies have assessed the role of social skills for the prevention and/or treatment of substance dependence, some studies have positive results and some have failed.<sup>[9,12-14]</sup>

Social skills as one of the most impressive parts help adolescents improve their self-care and psychological comfort. Furthermore, social skills provide the conditions to modulate the emotions, control the violence, improve the individual and social competencies, make the appropriate decisions and resist against the social conflicts.<sup>[15,16]</sup>

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Considering the increased prevalence of addiction in adolescent and the role of social skills in interpersonal relationship, the purpose of this study was to investigate the tendency to addiction in adolescents and determine the role of social skills aspects on it among high school students of Isfahan province, center of Iran.

## Materials and Methods

This cross-sectional study was conducted on 600 high school students in the Isfahan City, center of Isfahan Province, Iran, from May 2016 to July 2018.

The inclusion criteria were having ages 15–18 years, high school education, living with a parent or both, willingness of students, and their parents to participate in the study. The exclusion criteria was not completing more than 10% of the questionnaire information and both parental illiteracy. This study was approved by the Ethic Committee of Isfahan University of Medical Sciences with project number of 396315.

Out of all girls' and boys' high schools in Isfahan's five education districts, one girls' high school and one boy high school was selected by convenience method. From each school, 60 female students and 60 male students were selected by simple random sampling methods. They were randomly selected from ninth, tenth, eleventh and twelfth grades.

The demographic data including age, gender, educational grade, parents' occupation, and parents' educational level were collected. The data collection tools were Matson's social skills completed by the participants' parents and self-reported addiction tendency questionnaire.

The Matson's social skills questionnaire was developed by Matson *et al.*, in 1983, to measure social skills of adolescents aged 14–18 years. This questionnaire consists of 55 parents' questions which consist of five subscales of main social skills. The first factor includes appropriate social behaviors such as having a visual connection with others, being polite, using other people's names, and a desire to interact with others in a useful and effective way. The second factor is inappropriate social behavior, which includes behaviors such as lying, beating, making abnormal and upsetting sounds, and not adhering to commitments. The third factor is the impulsiveness of action and rebelliousness, which includes behaviors such as: easily getting angry, or a stubbornness. The fourth factor is to have high self-confidence and includes behaviors such as self-loathing, pretending to know everything, and seeing oneself as superior to others. The fifth factor is isolation/jealousy and communication, which includes loneliness and jealousy. Parents should read each question and answer based on the Likert scale (1 = never, 5 = always). Parents should read each question and answer based on the Likert scale (1 = never, 5 = always). In general, the least score of this questionnaire was 55 and the highest score was

275 scores. The higher scores for all subscales (except appropriate social skills) represent worse conditions while the highest score of social behavior represents the best condition. The Persian version of this questionnaire was evaluated by Yousefi *et al.* in 2003 with Cronbach's alpha of 0.86.<sup>[17]</sup> The addiction tendency questionnaire contains 16 questions evaluating the tendency to addiction in three dimensions of individual, environmental, and social. The Persian version of this questionnaire was evaluated by Mir Hesami in 2009 had the Cronbach's alpha value of 0.79. Questions number 1–5 assesses the environmental aspects of tendency to addiction including familial effects. The individual and social aspects are assessed thorough questions number 6–9 and 10–16, respectively. This questionnaire is responded based on Likert scale (very low = 1, low = 2, occasionally = 3, high = 4, and very high = 5) as well. The score range is 16–80.<sup>[18]</sup>

The data were entered into the Statistical Package for the Social Sciences software version 16 (SPSS Inc., Chicago, Ill., USA). Descriptive information was presented in mean and standard deviation, absolute numbers, and percentages. For analytics, independent *t*-test, Pearson and Spearman correlation test and linear regression test were used.  $P < 0.05$  was considered as the significant level.

## Results

Six hundred students with the mean age of  $16.3 \pm 0.9$  (range of 15–18 years old) participated in this study. Demographic data are presented in Table 1. There was no significant statistical difference in the demographic characteristics of girls and boys.

Independent *t*-test showed no significant difference between the boys and the girls social skills mean score ( $P > 0.05$ ) but the mean score of tendency to addiction was remarkably higher among the boys ( $P < 0.001$ ) [Table 2]. Pearson coefficient correlation showed no association between total score of tendency to addiction and dimension of inappropriate social behavior while it had statistical reverse correlation with appropriate social behaviors, inappropriate assertiveness, and functional communication aspects of social skills and direct correlation with impulsiveness ( $P < 0.05$ ). Table 3 presents the correlations in details. The Spearman correlation test showed reverse association of tendency to addiction with mothers' and fathers' educational level ( $P < 0.001$ ,  $r = -0.251$  and  $P < 0.001$ ,  $r = -0.248$ ) while it was in direct association with the grade that the students were studying in ( $P = 0.01$ ,  $r = 0.101$ ). The total social skill score was directly associated with the mothers' and fathers' educational level ( $P < 0.001$ ,  $r = 0.192$  and  $P < 0.001$ ,  $r = 0.184$ ) but no association was found with the students' grade ( $P = 0.06$ ,  $r = -0.077$ ).

Linear regression analysis showed that inappropriate assertiveness, functional communication, gender,

Mothers' educational level, Fathers' educational level, and appropriate social behaviors were respectively the predictive factors of tendency to addiction ( $P < 0.05$ ) also, age, fathers' occupation, inappropriate social skills, and impulsiveness were not respectively the predictive factors of tendency to addiction [Table 4].

**Table 1: Demographic information of the study population**

Variable	Number(percent)
Gender	
Male	300 (50)
Female	300 (50)
Educational grade	
Ninth	166 (27.6)
Tenth	204 (34)
Eleventh	127 (21.2)
Twelfth	103 (17.2)
Mothers' occupation	
Homemaker	293 (48.8)
Employee	100 (16.7)
Teacher	121 (20.2)
Other	86 (14.3)
Fathers' occupation	
Employee	208 (34.7)
Worker	67 (11.2)
Self-employed	313 (52.2)
Jobless	12 (2)
Mothers' educational level	
Illiterate	2 (0.3)
Under diploma	81 (13.5)
Diploma	233 (38.8)
Advanced diploma	194 (32.4)
Bachelor of sciences and more	90 (15)
Fathers' educational level	
Illiterate	1 (0.2)
Under diploma	36 (6)
Diploma	203 (33.8)
Advanced diploma	198 (33)
Bachelor of sciences and more	162 (27)

## Discussion

This study showed appropriate social behavior, inappropriate assertiveness, functional communication in students had significant relationship with tendency to addiction. Poor social skills can increase the adolescent's vulnerability to social influences for experiential or regular use of drugs.<sup>[19]</sup> Poorasl *et al.* reported low social skills scores were significantly related to the risk of being a daily smoker and starting regular smoking between the ages of 13–16 years.<sup>[20]</sup> These findings have been presented in other studies as well.<sup>[21,22]</sup> In this study, the social skills were not statistically affected by gender but boys had considerable higher tendency to addiction. This higher rate was in all entities including individual, social, and behavioral matters. These findings about higher rate of tendency to addiction among boys are in accordance with other studies in various locations of Iran and also different agents such as cigarette, opium, alcohol, and stimulants.<sup>[19-21]</sup> Ziaaddini *et al.* presented 26.5% of tendency to addiction among boys versus the rate of 11.5% for girls among junior and senior high school students in the Kerman Province.<sup>[22]</sup> The other study by Momtazi *et al.* represented higher rates among boys versus girls as 18.9% versus 7.7%.<sup>[21]</sup> Another study in Zanjan revealed similar outcomes regarding smoking, alcohol use, and water pipe.<sup>[19]</sup> Diversity in the gender tendency to substance abuse is less in other countries.<sup>[6,23]</sup> This may have occurred due to the limitations for females in Iran while it seems that factors prohibited females from substance abuse are getting weak.<sup>[19,22]</sup>

In this study, those students whose parents were more educated had less addiction tendency and also better social skill status. Jalilian *et al.* study showed that factors including mother's educational level, living in dormitory, and history of parents' divorce as risk factors for addiction.<sup>[24]</sup> In accordance with the findings of this study, Amini *et al.* showed that the cases with the history of substance abuse were remarkably less educated, unemployed.<sup>[25]</sup>

The other study assessing the association of addiction tendency and sociodemographic factors showed that

**Table 2: The mean score of social skills and tendency to addiction considering the genders**

Score	Dimension	Mean±SD		P
		Boy	Girl	
Social skill	Appropriate social skills	83.2±6.3	83.1±5.8	0.95
	Inappropriate social skills	47.6±5.8	47.9±3.9	0.42
	Impulsiveness	45.5±6.4	45.9±5.3	0.31
	Inappropriate assertiveness	20.7±4.6	21.3±4.01	0.10
	Functional communication	34.2±6.3	34.1±5.6	0.80
	Total score	231.5±17.6	232.5±15.5	0.51
Tendency to addiction	Environmental	8.1±2.3	7.1±1.9	<0.001
	Individual	8.7±2.1	7.8±2.7	<0.001
	Social	14.2±3.3	12.9±3.4	<0.001
	Total	31.1±5.9	28.01±5.04	<0.001

SD: Standard deviation

tendency to addiction was higher in male students whose mothers had university degree and fathers were retired, with literacy to read and write.<sup>[26]</sup>

Further investigations showed that except for inappropriate social behaviors other factors including appropriate social behavior, inappropriate assertiveness, and functional communication were correlated with the tendency to addiction. Zhang *et al.* have demonstrated that inappropriate assertiveness may be responsible for early initiation of substance abuse.<sup>[27]</sup>

Impulsiveness is the other aspect that has been assessed. Rounaghi *et al.* presented dramatic direct association between the aggression status of university students and their tendency toward substance use.<sup>[26]</sup> This issue has been confirmed by other authors as well, not only regarding substance dependence but internet addiction as well.<sup>[28-30]</sup> Similar to our findings Roberts *et al.* showed that heavy alcohol consumption was not related to impulsiveness.<sup>[30]</sup>

Functional communication is an important issue, particularly in high school ages. It has been demonstrated that those adolescents who are properly supported by their parents are at lower risk of tendency to addiction in comparison to those who have only powerful peer-communication.<sup>[31]</sup> The other study have shown that previous history of substance use by the friends is completely impressive in the tendency to addiction.<sup>[25]</sup> The significant of friendship role on the substance attraction has been confirmed by Mohammad *et al.*, as well. They presented that an adolescence tending to make remarkable relationship with their friends in

this period of the life, affects the life in both positive and negative manners. One of the most notable negative reactions to unworthy friends is substance abuse.<sup>[32]</sup>

High self-esteem and inappropriate assertiveness were another factor that was inversely associated with tendency to addiction. It has been demonstrated that dangerous behaviors such as reckless driving and sexual activities without preventive supplies are considerably prevalent among adolescents due to the overconfidence,<sup>[33]</sup> while numerous studies have demonstrated that people who tend to addiction or who are addict to substances are resenting from low self-esteem.<sup>[34,35]</sup>

The assessment of senior high school students merely and only in the Isfahan City was the most significant limitations of the current study. Furthermore, due to the responsiveness of parents to social skills questions, there can be no proper recognition of the status of the children's social skills. Therefore, attention should be paid to the generalization of the results.

### Conclusion

In this study, we found that tendency to addiction was higher among the boys as they are more prone to the dangerous behaviors. Furthermore, socioeconomic demographic factors can affect the tendency to addiction. Among the social skills, appropriate social behaviors, inappropriate assertiveness, and functional communication were factors associated with less tendency to substance use while impulsiveness and inappropriate social behavior alone have no effect on the tendency toward addiction.

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**Table 3: Pearson correlation coefficients regarding the tendency to addiction and dimensions of social skills**

Social skills dimensions	Total score of tendency to addiction	
	r	P
Appropriate social skills	-0.124	0.002
Inappropriate social skills	0.065	0.12
Impulsiveness	0.103	0.01
Inappropriate assertiveness	-0.381	<0.001
Functional communication	-0.361	<0.001

**Table 4: Linear regression assessing the predictability of social skill and demographic factors for tendency to addiction**

Dimensions of social skills	Crude coefficient	Standardized coefficient	t	P
Appropriate social behavior	-0.079	-0.078	2.22	0.027
Inappropriate social behavior	0.096	0.077	1.78	0.076
impulsiveness	0.046	0.043	0.96	0.34
inappropriate assertiveness	-0.412	-0.291	7.64	<0.001
Functional communication	-0.259	-0.253	6.90	<0.001
Age	0.389	0.060	1.75	0.08
Gender <sup>a</sup>	-0.282	-0.231	6.80	<0.001
Mothers' educational level <sup>b</sup>	-0.108	-0.161	3.02	0.003
Fathers' educational level <sup>b</sup>	-0.998	-0.147	2.62	0.009
Fathers' occupation <sup>c</sup>	-0.384	-0.060	1.54	0.12

Reference group: <sup>a</sup>Male, <sup>b</sup>Illiterate, <sup>c</sup>Employee

## Conflicts of interest

There are no conflicts of interest.

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