

Original Paper

Relationship Between Aggression and Addiction Tendency Among University Students



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ABSTRACT

Introduction: The bio psychosocial phenomenon of substance abuse in adolescents is one of the most critical issues in today's society. One of the most important concerns regarding social and health policies is the increasing prevalence of addictive behavior, especially smoking in this age group.

Objective: To assess the relationship between aggression and addiction tendency among students of Guilan University of Medical Sciences (GUMS) in Iran.

Materials and Methods: In this analytical cross-sectional study, 280 students of GUMS were randomly selected. Data collection tool had three parts: demographic characteristics survey, Ahvaz Aggression Questionnaire (AAQ), and addiction tendency inventory in Persian. Data analysis was performed using descriptive statistics and the Pearson correlation coefficient test.

Results: The mean±SD age of the students was 21.75±2.90 years [range 18-38 years]. About 14.3% of the students had addiction tendency, and 32.5% had high aggression levels. There was a significant statistical relationship between addiction tendency and aggression with age, sex, marital status, educational level, housing location, employment, education and occupation of parents, monthly income, and socializing with friends (P=0.0001, r=0.52).

Conclusion: The results of this study indicated an association between aggression and addiction tendency in students. The counseling centers of universities can provide student training on how to control aggression in different situations, and thereby prevent them from abusing drugs.

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Introduction

Today, the problem of addictive substances has become a major crisis which threatens the health, prosperity, political and economic stability and social structure of the country [1]. The world bears considerable cost for damage caused by substance abuse [2]. The bio- and socio-psychosocial phenomenon of substance abuse in adolescents is one of the most critical issues in societies [3]. In Iran, the prevalence of high-risk behaviors in adolescents such as robbery, opium consumption and low-risk such as smoking and alcohol consumption varies from 20% to 25%. Various factors such as personal, family, social, economic, political and cultural factors play an important role in this problem [4]. The results of a study in teens showed that risk factors like anger outburst, impulse control, tendency and curiosity to test new substances and drinking alcohol are higher among smokers than non-smokers [3]. Also, family instability, divorce, conflicts and tensions within the family, working mothers, and parental disputes are some of the related family risk factors; along with the inadequate family atmosphere and lack of intimacy among the family members cause children to make friends on their own and they are inclined to drug abuse while being overlooked by parents [5]. Adolescents who use drugs lack coping skills and, in the stress, their parents use escape-avoidance coping styles such as smoking, alcohol, and drugs [3]. Overconsumption of alcohol is a chronic problem in academic environments across countries and has been a major public health concern [6].

The drug users have personality weaknesses that make them vulnerable to drug abuse and addiction. Aggression is a personality trait in individuals committing high-risk actions like tendency to addiction [1]. Aggression and violence appear at an early age. People who are more vulnerable may feel more anger and frustration, so they are more likely to use drugs to cope with their emotions. This can continue over time in adolescence and adulthood [7, 8]. The adolescence is a sensitive age for development of coping behavior and responding to environmental needs. This period is accompanied by a huge amount of problems due to rapid physical, psychological, social, cultural and cognitive changes. Many risk factors for health and high-risk behaviors start progressively during this period [9].

Aggressive behavior is an important problem in youth and in educational settings [10]. It has many potential negative outcomes such as fear, loss of control, feelings of guilt, parting from human emotions, people hated,

and poor health, and even threatens the comfortable and safe life of the aggressive person [11]. Aggressive behavior is the root cause of many psychological problems in adolescents [12]. It leads to aggression in adulthood as well and paves the way for delinquency, conduct disorder, conflicts in school, and most importantly, addiction [13]. Consequences of drug dependence on individual and social structures of human beings, especially on the student population as the future influential community of a country, are very obvious. It is costly and difficult to treat. Therefore, the prevention can avoid heavy costs to the community. Increasing students' awareness of the destructive effects of drugs on physical, psychological and social health can help them and their families. Identifying the risk factors for this problem in different population, especially students, is a very important task. The fundamental and scientific knowledge and needed to deal with these problems is considered very important. Also, the rapid expansion of drugs and related problems among the students, and availability of laboratory materials such as crystal meth necessitates planning and development of preventive intervention strategies at universities.

In this study, we aim to investigate factors related to addiction tendency with emphasis on aggression among undergraduate students of Guilan University of Medical Sciences (GUMS).

Materials and Methods

This is an analytical cross-sectional study conducted in male and female students of GUMS in 2013. Of the 7 faculties of the university, 4 faculties (Shahid Beheshti School of Nursing and Midwifery, Langroud School of Paramedical Sciences, Langroud School of Nursing and Midwifery, and School of Health) were considered as the research environments due to the similarity of the field of study. Participants were selected by stratified random sampling method. Based on a similar study conducted by Hajjhasani et al. [8] that reported correlation based on the calculated Pearson coefficient between the aggression and addiction tendency variables ($r=0.63$), the sample size was obtained as 258. Considering 10% potential dropouts, the final sample size was 290. The inclusion criteria were the willingness to participate in the study and studying in first to fourth years.

To collect data, a three-part questionnaire was used: the first section was demographic characteristics (gender, age, field of study, marital status, employment status, parents' job and educational level, socializing with friends, history of drug abuse in family and friends); the

second section included Ahvaz Aggression Questionnaire (AAQ), and the third section was Addiction Tendency Questionnaire (ATQ). ATQ has 60 items with 6 lie-detector questions from Minnesota multiphasic personality inventory. The answers were yes or no that corresponded to scores 0 or 1. The sum of the scores is compared to a standard score, i.e., 26, calculated by statistical indexes. If the final score is 26 or more, the responder is at risk of addiction [14]. The lower scores point to lower tendency toward addiction. AAQ has 30 items, and its content was validated by Zahedyfar and Najariyan [15]. The corresponding scores for the answers were Never=3, Rarely=2, Sometimes=1, Always=0 making a total score of 90. Those with lower than average score (i.e., 45) are considered as less aggressive.

The study was approved by the Ethics Committee of GUMS (Code No. 2930459721), and introduction letter received. Participants' oral consent was required. The researcher visited four faculties to collect data by distributing questionnaires from December 22, 2014, to March 20, 2015. The collected data were analyzed in SPSS v.21 using descriptive statistics such as mean and standard deviation (SD) and performing the Pearson test.

Results

Out of 290 distributed questionnaires, 10 questionnaires were incomplete, so 280 were considered for the analysis. Most study participants were female (53.6%) and single (83.6%). The Mean±SD age of the students was 21.75±2.90 years [Range 18-38 years]. The majority of the participants were at continuous (78.9%) and

Table 1. Demographic characteristics of the study subjects

Demographic Variables	Frequency	
	N (%)	
Age	<20	100(35.7)
	20-30	174(62.2)
	>30	6(2.1)
Sex	Male	130(46.4)
	Female	150(53.6)
Marital status	Single	234(83.6)
	Married	46(16.4)
Educational level	Continuous undergraduate	221(78.9)
	Discontinuous undergraduate	59(21.1)
Field of study	Nursing	64(22.9)
	Midwifery	34(12.1)
	Radiology	28(10)
	Anesthesiology	25(8.9)
	Operating room	28(10)
	Public health	16(5.7)
	Occupational health	24(8.6)
	Environmental health	26(9.3)
	Emergency	8(2.9)
	Laboratory sciences	27(9.)
Housing location	Dorm	135(48.2)
	Student house	5(1.8)
	Independent	10(3.6)
	With parents	94(33.6)
	With wife	36(12.8)

Demographic Variables		Frequency
		N (%)
Employment status	Employed	75(26.8)
	Unemployed	205(79.2)
Mother's education	Illiterate	29(10.4)
	Literacy to read and write	37(13.2)
	Under diploma	54(19.3)
	High school diploma	118(42.1)
	Academic	42(15)
father's education	Illiterate	11(3.9)
	Literacy to read and write	23(8.5)
	Under diploma	38(13.6)
	High school diploma	134(47.9)
	Academic	-(-)
Father's job	Unemployed	3(11)
	Self-employed	104(37.4)
	Worker	18(6.4)
	Employee	101(36.1)
	Farmer	31(11.1)
Mother's job	Retired	22(7.9)
	Housewife	226(78.2)
	Farmer	1(0.4)
	Employee	34(12.1)
Family monthly income (\$)	Retired	19(9.3)
	<100	26(9.3)
	100-300	92(32.9)
	300-500	93(33.2)
History of drug abuse in family	>500	69(24.6)
	Yes	39(13.9)
History of drug abuse in friends	No	241(86.1)
	Yes	81(28.9)
Duration of drug abuse in friends (month)	No	199(71.1)
	<12	32(39.5)
	12-36	33(40.7)
History of friendship with drug abusers	>36	16(19.8)
	Yes	108(38.6)
Duration of friendship with drug abusers (month)	No	172(61.4)
	<12	52(47.3)
	12-36	25(22.7)
	>36	33(30)

Table 2. The frequency of aggression and addiction tendency among students

Agresion	Addiction Tendency	N(%)			Sig.*
		Low	High	Total	
Low		173(72.4)	15(37.5)	188(100)	P=0.0001
High		66(27.5)	25(62.5)	91(100)	
Total		239(100)	40(100)	279(100)	

*The Chi-square test

discontinuous undergraduate level (21.1%). Most of the students (48.2%) were living in the dormitories. Most of their mothers were housewives (80.7%) and had a high school diploma (42.1%) while the majority of fathers were self-employed (37.1%) and had a high school diploma (47.9%). Also, 73.2% of students were unemployed, and 33.2% of families had income between \$100 to 300 monthly. About 86.1% of the participants did not have a history of drug abuse in the family, and 71.1% had no history of drug abuse with their friends. Around 40.7% of drug abuse duration with friends, who had 12 to 36 month drugs used, and in 47.3% cases, friendship duration with drug users was less than 12 months; 61.4% had no history of friendship with drug abusers.

Tendency to addiction was higher in male students (20%), single ones (15.9%), employed (17.3%), public health students (43.8%), at continuous undergraduate level (14.6%), living independently (16.7%), whose mothers had university degree (21.4%), fathers were retired (31.8%), with literacy to read and write (26.1%), family income was between 100 and 300 \$ monthly (19.8%), having a history of drug abuse in family members (30.8%) and friends (27.2%), and friendship with drug abusers (22.2%). Aggression was more frequent among male students (36.9%), employed (40%), laboratory sciences students (55.6%) at continuous undergraduate level (32.7%) with independent living (33.3%), illiterate mother (34.5%) and father (36.5%), but employed

Table 3. Correlation test results between aggression and addiction tendency scores with respect to demographic characteristics

Variable	r*	Sig.*
Age	0.52	0.0001
Sex	0.50	0.0001
Marital status	0.52	0.0001
Field of study	0.51	0.0001
Educational level	0.52	0.0001
Father's education	0.52	0.0001
Father's job	0.51	0.0001
Mother's job	0.52	0.0001
Family monthly income	0.52	0.0001
History of drug abuse in family	0.50	0.0001
History of drug abuse in friends	0.49	0.0001
Duration of drug abuse in friends (month)	0.38	0.0001
Duration of friendship with drug abusers (month)	0.48	0.0001
History of friendship with drug abusers	0.45	0.0001

* Pearson's correlation coefficient

mothers (44.1%) and retired fathers (50%); with family income between \$100-300 (34.8%), and history of drug abuse in family members (48.7%) and friends (43.2%), and friendship with drug abusers (42.6%) (Table 1).

The Mean±SD total score of aggression was 40.98±11.66, [Range 7-74], and the mean (SD) score of addiction tendency was 17.19±7.70 [Range 3-41] (Table 2). Results of correlation coefficient test showed a positive correlation between aggression and addiction tendency variable; with the increase in aggressive behaviors, the tendency to addiction increases ($r=0.52$, $P=0.0001$). Finally, the results revealed that 62.5% of students with high aggression also showed a higher tendency to addiction (Table 3).

Discussion

The findings of this study showed a statistically significant relationship between aggression and addiction tendency, which is consistent with previous studies [8, 13, 16, 17]. Also, Motlagh et al. [7] in the study about the factors associated with aggression among adolescents (15-19 years) in Yasuj, Iran, found that prevalence of aggression was 32%, and there was a significant relationship between aggression and variables of drug abuse, alcohol, drug abuse with friends, parents' divorce, which current study results are consistent with that study. However, the current research is absolutely on adolescent students so it can be said that aggressive people not only use drugs for pleasure but also use them to suppress and overcome their personal and internal problems. People with high aggression usually have less ability to control their impulses; this can cause a tendency to addiction. On the other hand, it is likely that their aggressive behavior is caused by rejection by their friends which may direct them towards deviant groups. This provides a favorable context for drug abuse. A study by Hwang et al. [18] found that aggression was significantly higher among patients with the Internet addiction and alcohol dependence compared to healthy subjects. This means that these patients showed a high level of anger and impulsive behaviors compared to healthy people indicating a significant relationship between addiction and aggression. Hajjhasani et al. [8] in his study about addiction tendency based on violence also reported a significant relationship between aggression and tendency to addiction, but Roberts et al. [19] showed that heavy alcohol consumption is common in students, but it was not related to aggression. On the other hand, Beck and Heinz [20] argued that only a small number of people who drink alcohol show aggressive behavior.

Unfortunately, the spread of aggression in Iran, especially in recent years, has been the most serious

social issue. According to local studies, about 50% of teenagers and young adults show aggressive behavior. The sudden and massive changes in all life aspects of adolescents and young people create a critical stage which naturally brings some problems and incompatibilities. Therefore, given the importance of this period, the basic and scientific knowledge of this stage of life, acquiring the skills necessary to deal with the problems caused by these changes are essential for providing the necessary information to the young people and help them [7]. Based on the study results, students with more aggression tend more to drug abuse, and the favorable environment increases the tendency. This leads to some risky and harmful behaviors such as substance abuse. Therefore, identifying the students at risk of addiction is important. With necessary clinical interventions by psychologists and counselors, students can be made aware of the destructive effects of drugs on their individual and social life. This can reduce their aggression with continuous training and stabilize them.

Since various factors affect substance abuse, further studies are suggested on the effect of factors such as family atmosphere, attachment styles, and social class as predictors of addiction tendency. It can be said that aggressive behavior emerges at a widespread level in many areas of social life. One of the limitations of this study was related to the research topic itself; since addiction in the Iranian community is a taboo, making some students wary of answering or hides information. This makes it difficult to generalize the results.

Ethical Considerations

Compliance with ethical guidelines

The study was approved by the Ethics Committee of GUMS (Code No. 2930459721), and introduction letter received. Participants' oral consent was required.

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Conflict of interest

No conflict of interest has been declared by the authors.

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