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Knowledge of Male High School Students in Yazd and Rafsanjan (IRAN) Regarding Illicit Drugs Use as a Social Problem: A comparative study

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ABSTRACT

Background: Substance misuse is often a destructive social and familial problem that can extremely damage the health and well-being of a country's national assets; namely, its adolescents. Since high school is the riskiest period regarding the potential exposure to illicit drug use, this study aimed to determine and compare the depth of knowledge in male high school students. In order to generate the components of an effective and targeted education program, the two cities of Rafsanjan and Yazd, Iran were investigated.
Methods: In this cross-sectional study, male high school students (n = 1913) from cities of Yazd (n = 1024) and Rafsanjan (n = 889) were selected through random stratified systematic cluster sampling. Data were collected using self-reported questionnaire surveying the students' knowledge about illicit drugs. Data were analyzed by $SPSS_{16}$ through descriptive (mean and relative frequency) and inferential statistics (Chi-square test, ANOVA, and t-test).
Results: The mean (SD) of the students' knowledge about drugs in Yazd was 17.38 (11.39); in Rafsanjan it was 11.68 (8.68) (out of a possible total of 64) which showed a significant difference between the two cities (P-value < 0.0001). The mean (SD) score of knowledge about opiates (total possible score of 8) in Yazd was 5.4 (11.3) and in Rafsanjan was 5.92 (3.28), which was again statistically significant (P-value < 0.0001).
Conclusion: Illicit drugs consumption remains a serious problem among Iranian adolescents. There is the need to implement preventive measures and counselling approaches in schools. Regarding the role of an addict in the family, increasing the knowledge of people about the negative effects of drugs use (especially opiates) might lead to the better prevention of this social problem and promotion of health.

Keywords: High School Students, Knowledge, Social Problem, Illicit Drugs, Opiates

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Introduction

In the resent years, substance misuse has been responsible for numerous social and psychological problems worldwide. The prevalence of this phenomenon in Iran has led to a wide range of psychological, social, and familial damages.[1] Drug dependence is a social problem and destructive phenomenon that like other social deviations, destroys the most valuable assets of a country, which are youths and teenagers. This disaster threatens the health of millions of people every year and destroys many moral values of the society.[2] The United Nations Office for Drug Control and Crime Prevention estimated the number of substance abusers as 200 million people or 5% of the world's population. Among this population, 16 million people or 4% of abusers are consumers of opium. Iran has the world's highest proportion of heroin and opium addicts. According to this report, one out of every 17 people is addicted to these drugs in Iran. Furthermore, 20% of Iran's 15 - 60 years old population has an affiliation with substance abuse.[3]

It is believed that the massive production of drugs in neighboring Afghanistan can be responsible for the high rate of drug dependence in Iran.[4] The rate of drug use in Iran is one of the highest in the world.[5] Official statistics state that the rate of drug use has risen from 2 million in 1998 to 3,700,000 in 2005.[6] This is the case when approximately 11 million people including drug users and their families are suffering from the problem.[7]

High school is a crucial period since the health habits and lifestyles are chosen in it.[8] Adolescence is the most risky period of life for starting drug abuse. Attempts to gain personal and social identity, pleasure seeking, reduced confidence, and lack of skills to communicate with others lead the prone adolescents to abuse substance. Acknowledgment of the teenagers makes them aware of the process, which leads to changes in mental process and eventually their function. On the other hand, the most important factor in preventing from drug abuse is evaluation of their educational needs and increasing their level of knowledge.[9] Unfortunately Iran is adjacent to Afghanistan and Pakistan as the two main narcotics producing countries in the world.[6]

Considering the geographical and strategic location of Yazd and Rafsanjan, as the two cities located on the international drug trafficking route, drugs are easily available in these areas. The age for onset of drug use is also very low; it often starts during the early years at school. Considering the important role of family and necessity of prevention among this group of individuals, training programs are recommended. However, the students' level of awareness about drugs should be evaluated first. So, this study was conducted to compare the knowledge of male high school students in the two cities of Rafsanjan and Yazd regarding abuse of illicit drugs. The results can therefore be used to plan educational programs for prevention of drug dependence in Iran's society.

Methods

This cross-sectional study was conducted on high school male students of Yazd and Rafsanjan (two cities in the center of Iran). In this regard, 889 students from Rafsanjan and 1024 students from Yazd were enrolled in this study through random stratified systematic cluster sampling method. The research samples were studied in senior high school level and in the morning schools.

A questionnaire was designed specifically for the study that consisted of two sections; demographic characteristics and knowledge. The demographic questions dealt with participants' age, history of drug abuse among family members, their parents' occupation, and education. Knowledge items focused on students' knowledge level regarding illicit drugs, which were derived from the international literature.[10-12] In fact, the second part includes questions about drug awareness in terms of seeing the substance, form, mode of use, and the existence or absence of dependence.

Participants were asked whether they have ever seen the drug or know anything about its form,

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using method, and if it causes dependence or not. The scoring process was as the following: naming the drug correctly 2 scores, seen it before 2 scores, knowing about its form, using method, and causing physical or mental dependence, each had 1 score. So the range of obtainable score was 0 - 8 for each of the eight types of drugs including Opium, burned, concentrated, Heroin, cannabis, alcohol, psychedelic drugs, and others like Cocaine, LSD, Marijuana, etc. If students had a comprehensive knowledge about these eight types of drugs, they got 64. Five specialists confirmed that the questionnaire's items were related to the aims of the study and so its validity was checked. The reliability of the questionnaire was also determined by Cronbach's alpha of 0.8. Data were analyzed using $SPSS_{16}$ through descriptive (mean and relative frequency) and inferential statistics (Chi-square test, ANOVA and T-test).

Results

In this study, 1913 male high school students were examined, 1024 of them were from Yazd and 889 were from Rafsanjan. Students were in the age group of 15 to 18 years and most of them were studying in state schools of Rafsanjan and Yazd (60% and 59%, respectively). In Yazd 38.5% and Rafsanjan (30.5%) most of the students' fathers were self-employed. The fathers' educational level was generally at diploma level (27.6% in Yazd and 24.9% in Rafsanjan). The environmental characteristics of participants' drug use between the two cities of Rafsanjan and Yazd (Table 1). It indicates that having contact with an addict 91.6% and presence of a drug user in the family 69.2% were more in Rafsanjan compared to Yazd. The result of chi-square test further showed that the two cities are significantly different in presence of an addicted person in the family, contact with a drug user, and believing that drugs can be beneficial (P-value < 0.0001)

Furthermore, 19.6% of students in Rafsanjan reported that they were offered to use drugs by friends and 23.2% of students in Yazd believed that using drugs can be beneficial.

The knowledge scores of the study population about drugs indicated that the total mean score (8) of knowledge about opium in Yazd 5.4 (3.11) and in Rafsanjan 5.92 (3.28) was more than other drugs (Table 2). Results of t-tests showed that the difference between the two groups was significant (P-value < 0.0001).

The overall knowledge scores of students (64) about different types of drugs also indicate that students in Yazd 17.83 (11.39) had higher total average score than Rafsanjan 11.68 (8.68). As represented the difference between the two cities is significant (P-value < 0.0001) (Table 3).

Table 1. Distribution of environmental characteristics among male high school students of Yazd and Rafsanjan

City	Rafsanjan		Yazd		P-value
Environmental Characteristics	**n**	**(%)**	**n**	**(%)**	
Existence of an addict in the family	88	(10)	66	(6.5)	0.006
Existence of a drug user in the extended family	611	(69.2)	502	(49.4)	0.000
Previous contact with a drug user	814	(91.6)	749	(73.1)	0.000
Knowing a drug user from the peer group	436	(49)	374	(36.5)	0.000
Being offered to use drugs by friends	174	(19.6)	174	(17)	0.143
Being able to say NO when drugs were offered	788	(88.6)	924	(90.2)	0.167
Belief that drugs are beneficial	62	(7)	238	(23.2)	0.000

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Table 2. Participants' knowledge scores of various drugs based on city

City	Rafsanjan n = 889		Yazd n = 1024		P-value
Drug Name	Mean	SD	Mean	SD	
Opium	5.92	3.28	5.4	3.11	0.000
Burned opium	0.06	0.64	0.1	0.81	0.22
Resin of opium	0.25	1.36	0.35	1.47	0.141
Heroin	2.00	3.18	3.88	3.8	0.000
Cannabis	1.32	2.61	2.56	2.74	0.000
Alcohol	1.8	3.27	2.14	3.3	0.025
Psychedelic Drugs	0.09	0.8	1.51	2.67	0.000
Others	0.24	1.23	1.44	2.53	0.000

* The level of Knowledge of people in this research was divided into 8 groups; 0 - 8.

Table 3. Participants' total knowledge scores of the drugs based on city

city	n	Mean total score	SD	CI 95% Upper Limit	CI 95% Lower Limit	Min	Max
Yazd	1024	17.38	11.39	16.68	18.08	0	55
Rafsanjan	889	11.68	8.68	11.11	12.25	0	40
Total	1913	14.73	10.61	14.26	15.21	0	55

* Total score of knowledge can be within the range of 0-64 (P-value < 0.0001).

Discussion

According to the findings of this study, the total mean score for the knowledge of male high school students regarding the drugs in Yazd was more than the students of Rafsanjan. The highest level of knowledge was about Opium followed by the knowledge about Heroin and Cannabis. These findings perhaps can be related to the longstanding use of opium in Iran. Barook (1996) and Zarezadeh et al. (2001) studies also confirmed this finding.[13, 14]

As mentioned before, students in Rafsanjan got higher scores regarding their level of knowledge about Opium. This can be justified by the fact that this city is closer to smugglers traffic (pathway) in Kerman province towards the borders of Sistan and Baluchestan. In general, except for Opium, Yazdi students had higher knowledge scores about other drugs compared to students of Rafsanjan. Regarding burned opium and opium resin, there was little knowledge and no significant difference between the two groups of participants. The results of this study show that 6.5% of students in Yazd have at least one family member who is drug dependent, this ratio was 10% in the city of Rafsanjan. There was a significant difference between the two cities regarding the ratios. In the city of Yazd, 73.1% of students had contact with a drug user, while this rate was 91.6% in Rafsanjan and the difference between the two cities was significant. This high ratio indicates that Rafsanjan's students are at higher risk of using drugs. Moreover, the two cities were significantly different regarding the presence of a drug dependent in the family. These results were in the same line with the results reported by Babaie Asl (2008),[9, 15] saying that the level of a student's knowledge is higher in a family where drug is used, than in students whose family do not use drugs. Being offered to use drugs by friends in Rafsanjan was 19.6% and 17% in Yazd. The presence of drug dependent friends and inability to refuse the offer of using drugs were the most effective factors for narcotics dependence.

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Controlling the surrounding factors and increasing the students' self-esteem are the two important factors that can help effectively to control drug use in the young population.[16] But believing that using drugs can be beneficial was 23.2% in Yazd, while in Rafsanjan it was 7% (P-value = 0). Probably students in Rafsanjan witnessed more bad consequences of addiction. So, the most important point is that if a student who believes that using drugs can be beneficial be offered to use them, the process of drug dependence can start. In this regard, Osman et al. (2016), stated that students' awareness of substances and their harmful consequences should be raised by incorporation of health education in the curriculum.[17]

The results of this study revealed that there was no significant difference between scores of students in Rafsanjan and Yazd in terms of parents' level of education and their occupation. Thus, considering the fact that there is no difference between high and low educated families and the students' knowledge scores, probably there is an obstacle between parents and their kids in talking about drugs. Zolfaghari et al. (2011) found a significant relationship between students' knowledge and father's education level.[18] Moreover, with higher amounts of income, access to substance was easier. However, Micheli et al. (2004) observed no significant relationship between socioeconomic status and performance of participants, which indicated that all social classes are at risk of drug dependence at this period.[19]

Swadi et al. (1998) also believed that the family and the way through which parents deal with their children is the most effective preventive factor of drug use.[20] Conditions like lack of communication in the family, parents' indifference to the future of their children, and contact with inappropriate people are important to prevent drug abuse by adolescents. There has always been a meaningful correlation between parents-children relation and children's tendency to use drugs: children who are close to their parents and enjoy their spiritual and psychological support are less liable to us drugs. Even parents' physical presence at home affects children's liability to abuse drugs. The family is the main place for monitoring an individual's behavior; however, in the case of being corrupt, it can encourage drug dependence. Children whose parents have severe problems or are divorced are more prone to use drugs.[21, 22] Parents have a significant role in curtailing substance use that should be addressed in any potential control strategy.[17]

In general, the level of individuals' knowledge about drugs increases with age. Therefore, if students do not receive correct information by the right person, they will develop false knowledge and false belief by the false person. The risk of drug dependence is high in high school students, because they are surrounded by many addicts in the family and society, they are offered drugs by friends, and believe that drugs can be beneficial. So, educational courses should be conducted and serious steps must be taken in this regard.

Conclusion

Illicit drugs consumption remains a serious problem among Iranian adolescents. A successful strategy is to implement preventive measures and counselling approaches in schools. Regarding the role of an addict in family, increasing the knowledge of individuals about the negative effects of using drugs (especially opiates) may also lead to better prevention of this social problem and promotion of health.

Conflicts of Interest

The Authors declare that there is no conflict of interest in this work.

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This study was approved by Shahid Sadoughi University of Medical Sciences, Yazd, Iran. All

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participants in the study were assured about the confidentiality of their personal information and there were no constraints to participate in the study. Participants entered the study with their consent and desire. The questionnaires did not contain individuals' name or identification. Further, in the current study all ethical issues were observed base on the Helsinki Declaration.

Authors' Contribution

Conceptualization, Z.P., S.M.Y.A., and S.S.M.M.; Methodology, S.M.Y.A. and Z.P.; Investigation, Z.P., S.M.Y.A., S.S.M.M., B.R. and N.Y.; Writing – Original Draft, S.M.Y.A., Z.P. and B.R.; Writing – Review & Editing, S.M.Y.A. and Z.P.; Funding Acquisition, S.M.Y.A.; Supervision, S.M.Y.A., S.S.M.M. and Z.P.

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