

High Risk Behaviors and Related Factors Among Addicts Admitted to Rehabilitation Centers in Southern Kerman, 2014

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Dear Editor,

Substance abuse refers to harmful use of psychoactive substances such as alcohol and illicit drugs. Use of psychoactive substances can result in behavioral, cognitive and physiological effects that make it difficult to control its use. According to the world health organization, at least 15.3 million persons have drug use disorders (1). Substance abuse disorders can be a predisposing factor for high-risk behaviors (HRB) (2), and risky sexual behavior and injection drug use (IDU) are common among addicts (3).

It is necessary to have sufficient information about HRB among drug users admitted to substance abuse treatment centers, so that our interventions can be focused on relieving these behaviors. This study was cross-sectional study carried out on 320 addicts admitted to rehabilitation centers in Southern Kerman, Iran, during 2014. Participants were selected through a multistage random sampling method. After obtaining permission, data was collected using recorded documents that contained demographic data such as age, gender, level of education, employment status and data about substance abuse duration, type and method. Data related to risky behaviors, such as history of tattoos, imprisonment, using shared needles and razors, and suspicious sexual relations were collected by phone or in-person interview. Assurance was given to all participants regarding confidentiality. Data was analyzed using the software package SPSS version 19.

Two hundred twenty-one (69.1%) patients were males. The mean age of the participants was 37.50 years \pm 12.67. One hundred thirty two (41.3%) were illiterate and 196 (61.3%) were unemployed (Table 1). The mean usage duration was 5.93 \pm 3.52 years. The minimum duration of treatment was one month.

Opium (64.6%) was the most common abused substance, and smoking (64.3%) was the most common usage method, before admission.

Seventy-one (22.2%) participants had at least one risky

behavior. Thirty-three (10.3%) had a history of tattoos, twenty-five (7.8%) had a history of imprisonment, nine (2.8%) used shared needles, six (1.9%) used shared razors and three (0.9%) reported suspicious sexual relations. There was no significant difference between men and women in the frequency of risky behaviors ($P > 0.05$).

The mean age was 36.77 \pm 12.31 and 40.02 \pm 13.67 in the group with at least one risky behavior and in the group without it, respectively, and this was not significant ($P = 0.06$). The frequency of at least one risky behavior was not significant based on education and employment status, usage duration, type and method. In multivariate analysis, only age had a statistically significant association with risky behavior (OR = 1.02, 95% CI = 1.001-1.043, $P = 0.04$).

We found that about a 25% of addicts had at least one HRB. In a previous study, Dastjerdi et al. found that 63% of addicts who were referred to an academic substance abuse treatment center had HRB (4), which was higher than our study. In the Dastjerdi study, the most commonly used substance was heroin, and it seems that risky behaviors are more prevalent among heroin abusers. We also found that HRB was higher in crack and heroin abusers, but the difference was not significant. Noohi et al. revealed that addicts had more experiences of drug injections, drug overdose and a history of being jailed (5).

Haque et al. found that high-risk sexual behaviors are prevalent among male drug users (6). In the present study, this risky behavior was lower. However, probably because of the stigma, its frequency is underreported.

We found no difference in the frequency of HRB between male and female addicts. Folch et al. also revealed "there were no gender differences in injecting risky behaviors." (7).

In Pakistan, "younger age, fewer education, lower income and having a temporary job were all associated with receptive needle sharing among IDUs." (8). We found that the mean age of the HRB group was lower than the non-

Table 1. Comparison of Risky Behaviors Based on Education, Employment Status Type and Method

Variables	Risky Behavior No. (%)		P Value
	No	Yes	
Level of education			0.81
Illiterate	104 (78.8)	28 (21.2)	
Middle school	58 (77.3)	17 (22.7)	
High school diploma	35 (72.9)	13 (27.1)	
University education	52 (80.0)	13 (20.0)	
Employment status			0.49
Unemployed	155 (79.1)	41 (20.9)	
Employed	94 (75.8)	30 (24.2)	
Drug type			0.23
Opium	113 (75.8)	36 (24.2)	
Resin	121 (81.8)	27 (18.2)	
Heroin	8 (66.7)	4 (33.3)	
Crack	7 (63.6)	4 (36.4)	
Method of use			0.81
Smoked	177 (78.3)	49 (21.7)	
Injection	10 (83.3)	2 (16.7)	
Oral	62 (75.6)	20 (24.4)	

HRB group, but the difference was not significant. Our study revealed that there was no significant relation between education and employment status and HRB.

In conclusion, HRB should be investigated and assistance should be provided to addicts in developing new behavioral skills in order to implement a harm reduction approach (9).

This study had several limitations. First, our study was carried out only on addicts admitted to rehabilitation centers. This could underestimate the frequency of risky behaviors. Also, our study was a cross-sectional study that limits examination of temporal relationships. Another limitation was that data collection was done using the participants' self-reports; this may not provide precise evidence. Lastly, probably because of the stigma of high-risk behaviors, its frequency has been underestimated.

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