

Prevalence of High Risk Behaviors among Women in Tehran



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Behrouz Dolatshahi¹, Imaneh Abasi^{2*}, Hajar Pahlavani³

1. Department of Clinical Psychology, Substance Abuse and Dependence Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.

2. Department of Clinical Psychology, University of Social Welfare & Rehabilitation Sciences, Tehran, Iran.

3. Iran Psychiatric Institute, School of Behavioral Sciences, Iran University of Medical Sciences, Tehran, Iran.

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ABSTRACT

Objective: High risk behaviors among women can have detrimental consequences on this critical group of society and its increasing rate expose them to more serious dangers. In the light of these issues, the present study aimed to assess the prevalence of high risk behaviors of women living in Tehran. Hopefully, the study results may help take some measures to decrease high risk behaviors and solve some obstacles in preventing them.

Methods: The present study was a cross-sectional research. The statistical population of the study was all women residing in Tehran, Iran. A total of 403 participants were recruited through multistage cluster sampling from 5 zones of Tehran with the mean(SD) age of 21.75(2.43) years. Six parts of each zone and then 1 avenue from each part were selected randomly for completing the questionnaires. At each part after gaining participants' informed consents, they were asked to fill in risky behavior survey questionnaire.

Results: The obtained data were analyzed using SPSS-20. Result indicated that the prevalence of driving without license, speed driving, using phone while driving, being under the influence of alcohol and substance abuse while driving, using motorcycle without helmet, and using a public transportation which driver is under the influence of drug or alcohol ranges from 2% to 7.7%, 3.2% to 6.7%, 2.7% to 9.7%, 0.7% to 2%, 0.5% to 6%, and 0.7% to 6.7% respectively in the last year. In regard to the prevalence of behaviors related to aggression, results demonstrated the prevalence of carrying cold weapon at university or workplace in the last month, carrying cold weapon for protecting oneself in the last year, physical contact in last year, avoiding going to university or workplace because of feeling unsafe in the last year, exposing to bullying or be bullied in the last year ranged from 0.5% to 3.5%, 0.5% to 4.2%, 1.2% to 10.9%, 1% to 9.9%, and 1.2% to 8.2%, respectively. The prevalence of other high risk behaviors, including suicidal thoughts in the last year, unsafe intercourse, alcohol use, cigarette, narcotics, stimulants and illegal drugs were 20.6%, 18.4%, 34.5%, 45.4%, and 14.1%, respectively.

Conclusion: Results demonstrating that the prevalence of high risk behaviors among women was almost similar to studies in European, American, other parts of world studies and also Iranian studies done before which show increasing rate of high risk behaviors especially addiction in women. As women are among the most vulnerable and at high risk groups, especially in Eastern societies, paying attention to their problems and searching for their causes, as well as developing solutions to help them is crucially important.

Keywords:

High risk behaviors,
Epidemiology, Women,
Addiction, Tehran

* Corresponding Author:

Imaneh Abasi, PhD

Address: Department of Clinical Psychology, University of Social Welfare & Rehabilitation Sciences, Tehran, Iran.

Tel: +98 (917) 5749076

E-mail: emaneabassi@yahoo.com

1. Introduction

High risk behaviors such as substance abuse, risky sexual behaviors, risky driving, and suicidal behaviors are a worldwide problem. Unhealthy behaviors are increasing, which is a critical concern for mental health clinicians and policymakers (Zack, Moriarty, Stroup, Ford, & Mokdad, 2004). Seriousness of this issue is manifested in high prevalence of aforementioned risky behaviors and their indispensable harsh consequences. For instance, the average prevalence rate of malaria and HIV during the 3 periods of 2005–2007 (439 samples), 2008–2010 (273 samples), and 2011–2013 (155 samples) has been 1.85% (Rattana-punya, Kuesap, Chaijaroenkul, Rueangweerayut, & Na-Bangchang, 2015). An investigation on Iranian population with the mean age of 17.41 years showed that 12% of women used substance at least once or more and 3.5% reported alcohol use (Ahmadi & Hasani, 2003). Another study demonstrated the rate of substance abuse among women in Iran as 15.6% (Najafi, Zarrabi, Shirazi, Fekri, & Mohseni, 2009).

Recent statistics demonstrate the annual global burden of 627000 deaths from malaria which is mostly in Africa and Southeast Asia, emphasizing more drastic outcomes for third-world countries (World Health Organization, 2013). Furthermore, substance and alcohol abuse is prevalent among adolescents, who pass through a developmental period with physical and emotional changes that make individuals prone to use more substances (Thatcher & Clark, 2008). Moreover, the rate of substance abuse in women is increasing dramatically, especially smoking that is a dangerous pathway to use other drugs and doing risky behaviors (Gallimberti et al., 2015; Greenfield, 2002).

The relationship among high risk behaviors, mental health aspects, and quality of life needs a subtle approach as the literature shows this high relationship. For example, alcohol use has been associated with greater sexual risk taking behaviors (Stueve & O'Donnell, 2005), delinquent behavior, academic problems, and other substance abuse (Ellickson, Tucker, & Klein, 2003), that may continue to adulthood and later stages of life.

Besides, the prevalence of high risk behaviors among women have more noxious effects on society as women play a crucial role in many aspects of life. As a result of comorbidity of substance abuse, other unhealthy behaviors, and psychiatric problems, all life domains get almost impaired (Bizzarri et al., 2005). Children of women with high risk behaviors are at risk for maltreatment and poor development (Copello, Templeton, & Powell, 2010; Kyzer, Connors-Burrow, & McKelvey, 2014). Pregnant women are

exposed to the most risk when they engage in high risky behaviors because of more horrible consequences for the health of them and their fetuses (Benningfield et al., 2010; Denton, Adinoff, Lewis, Walker, & Winhusen, 2014).

High prevalence of risky behaviors among women and their dreadful outcomes on mental and physical health and society as well as changing knowledge and beliefs about these behaviors over time and new and various opportunities for engaging in these actions bring up this main issue of evaluating the prevalence of high risk behaviors in Iranian women. Showing the high prevalence of aforementioned behaviors can help professional clinicians and politicians to decide why they should act on preventing risky behaviors among women. Furthermore, the hurtfulness of risky behaviors among women highlight the issue and its noxious consequences awaken more authorities to take some steps. In this regard, the present study aimed to assess the prevalence of high risk behaviors among women living in Tehran, a big multicultural city and capital of Iran.

2. Methods

The present study is a cross-sectional research. The statistical population of the present study was all Tehran resident women. The sampling method was multistage cluster sampling from 5 zones of Tehran. A total of 430 individuals at 5 different zones of Tehran volunteered to complete the questionnaire. Of them, 27 participants dropped from the study due to failure to answer all questions, resulting in a sample of 403 individuals.

Risky behavior survey questionnaire (Bakhshani, Lashkaripour, Bakhshani, & Hoseinbore, 2007) is an Iranian made questionnaire that assesses a range of high risk behaviors, including risky driving, using alcohol and substances, carrying cold weapons, suicide action or planning, intercourse, and physical aggression in adolescents and youths. It is a 32-item questionnaire. This questionnaire was developed by Bakhshani et al. (2007) based on risky behavior survey questionnaire developed by Berner (Brenner et al., 2002). Reliability and validity of Persian version of this questionnaire has been reported to be acceptable and test-retest reliability in 2 weeks has been showed as greater than 85 (Bakhshani et al., 2007).

Five zones of Tehran were selected for gathering data, including north, south, east, west, and center of Tehran. Six parts of each zone and then 1 avenue from each part were randomly selected for distributing and completing the questionnaires. At each part, several researchers who were taught well about the questionnaire and the procedure of sampling asked people for participating in the study. The researchers chose people randomly. After explaining the

purpose of the study and assuring about the confidentiality of their information as well as freedom for participating in the study and obtaining informed consent, researchers asked the participants to complete questionnaire.

3. Results

The sample consisted of 403 females with mean (SD) age of 21.75(2.43) years. In terms of education, 1.7% had under diploma, 32.8% had diploma, and 65.5% had academic degrees (including BS and MS degree). Descriptive analysis was done using SPSS-20 for reporting the frequency of high risk behaviors. Tables 1, 2, 3, 4, and 5 show the frequency of different high risk and unhealthy behaviors among the participants.

Table 1 shows that the prevalence of unhealthy behaviors related to sleep hours, exercising, and weighting. Table 2 shows the prevalence of high risk behaviors related to driving. Result indicates that the prevalence of driving without license in the last year among the participants ranged from 2% to 7.7%.

The prevalence of speed driving in a last year among them ranged from 3.2% to 6.7%, and the prevalence of using phone while driving ranged from 2.7% to 9.7%. The prevalence of being under the influence of alcohol and substance abuse while driving ranged from 0.7% to 2%. The prevalence

of using motorcycle without helmet ranged from 0.5% to 6%, and prevalence of using a public transportation which driver is under the influence of drug or alcohol ranged from 0.7% to 6.7%.

Table 3 shows the prevalence of high risk behaviors related to aggression. Result demonstrates that prevalence of the argument in the last year among the participants range from 9.4% to 21.6%.

Furthermore, the prevalence of carrying cold weapon at university or workplace in the last month, carrying cold weapon for protecting oneself in the last year, physical contact in last year, avoiding going to university or workplace because of feeling unsafe in the last year, exposing to bullying or be bullied in the last year ranged from 0.5% to 3.5%, 0.5% to 4.2%, 1.2% to 10.9%, 1% to 9.9%, and 1.2% to 8.2%, respectively.

Table 4 shows the prevalence of other high risk behaviors, including suicidal thoughts in the last year, unsafe intercourse, alcohol use, cigarette, narcotics, stimulants and illegal drugs which are 20.6%, 18.4%, 34.5%, 45.4%, and 14.1%, respectively.

Table 5 shows the prevalence of drug use in the last year. including cigarette, hookah, alcohol, cannabis,

Table 1. Prevalence of unhealthy behaviors related to quality of life.

Unhealthy behaviors	Percentage
Sleeping hours in holidays	
More than 10 hours	6.9%
8 To 10 Hours	30.8%
6 To 8 Hours	46.7%
Less than 6 hours	13.9%
Regular schedule for sleeping and waking	41.4%
At least 30 minutes exercise in a week	
1 Day	18.6%
2 To 3 Days	31.3%
4 To 5 Days	17.6%
More than 6 days	14.1%
Weight changing in a last 6 months	
No change	40.4%
Gain	19.6%
Lose	39.7%

Table 2. Prevalence of high risk behaviors related to driving.

Dangerous driving	Percentage
Driving without license in the last year	
1 Time	7.7%
2 to 3 Times	4.5%
4 to 5 Times	2%
More than 6 Times	6.5%
Driving with illegal speed in the last year	
1 Time	5.7%
2 to 3 Times	6.5%
4 to 5 Times	3.2%
More than 6 times	6.7%
Using phone while driving	
1 Time	7.2%
2 to 3Times	7.9%
4 to 5 Times	2.7%
More than 6 times	9.7%
Being under the influence of alcohol and substance abuse while driving	
1 Time	1%
2 to 3 Times	0.7%
4 to 5 Times	0.7%
More than 6 times	2%
Using motorcycle without helmet	
1 Time	2.2%
2 to 3 Times	4%
4 to 5 Times	0.5%
More than 6 times	6%
Using a public transportation which its driver was under the influence of drug or alcohol	
1 Time	6.7%
2 to 3 Times	4%
4 to 5 Times	0.7%
More than 6 times	3%

Ritalin, opium, heroin, crack, glass, tramadol, diazepam, methadone, codeine.

4. Discussion

Results show that sleeping schedule, weight change, and other factors related to the quality of life is lower among

women living in Tehran, which are consistent with the notion that weight related concerns are a motivation for drug abuse among women, also eating pathology is more prevalent among women with addicted problems (Warren, Lindsay, White, Claudat, & Velasquez, 2013). The results of high risk behaviors related to driving are not the same as other studies so that our results show a much lower

Table 3. Prevalence of high risk behaviors related to aggression.

Aggressive behavior	Percentage
Carrying cold weapon at university or workplace in the last month	
1 Time	2.5%
2 to 3 Times	1%
4 to 5 Times	0.5%
More than 6 times	3.5%
Carrying cold weapon for protecting oneself in the last year	
1Time	3.5%
2 to 3 Times	2.2%
4 to 5 Times	0.5%
More than 6 times	4.2%
Physical contact in last year	
1 Time	10.9%
2 to 3 Times	4.2%
4 to 5 Times	2.2%
More than 6 times	1.2%
Avoiding going to university or workplace because of feeling unsafe in the last year	
1 Time	9.9%
2 to 3 Times	6%
4 to 5 Times	1%
More than 6 times	5%
Argument in the last year	
1 Time	18.9%
2 to 3 Times	21.6%
4 to 5 Times	9.4%
More than 6 times	18.1%
Exposing to bullying or be bullied in the last year	
1 Time	8.2%
2 to 3 Times	6.7%
4 to 5 Times	1.2%
More than 6 times	3.5%

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rate of aforementioned behaviors (Ansari-Moghaddam, Bakhshani, Hoseinbore, & Sanavi, 2015; Bakhshani et al., 2007). This difference may be due to different age group of participants as the present study participants are almost young women whose mean age is 21.75 years. Other studies were mainly conducted on adolescents which are at a

critical stage of their lives and high rate of risky behaviors can be expected from them.

Again, high risk behaviors related to aggression are lower in women in comparison to a recent study in Iran (Ansari-Moghaddam et al., 2015). It may be due to different age group using in the present study. Prevalence of suicide thoughts is

Table 4. Prevalence of other high risk behaviors.

Other risk behaviors	Percentage
Suicidal thoughts in last year	20.6%
Unsafe intercourse	18.4%
Alcohol use	34.5%
Cigarette	45.4%
Using Narcotics, stimulants, and illegal drugs	14.1%

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Table 5. Prevalence of drug use in the last year.

Drugs	1 to 2 Times	3 to 9 Times	10 to 20 Times	20 to 30 Times	30 to 40 Times	40 to 50 Times	50 to 70 Times	More than 70 times
Cigarette	9.4%	8.7%	3.2%	1.7%	2.7%	1%	0.7%	11.4%
Hookah	12.2%	7.7%	6.7%	3.7%	1.7%	2.7%	2.5%	12.9%
Alcohol	9.9%	6%	3.7%	0.5%	1.5%	0.5%	1.2%	3.7%
Cannabis	1%	0.2%	0.2%	0.2%	0.5%	0.2%	0.5%	1%
Ritalin	0.5%	0.5%	0.2%	0.2%	0.5%	0.2%		0.7%
Opium	1%	0.2%	0.2%		0.2%	0.2%		0.5%
Heroin		0.2%				0.5%		0.5%
Crack						0.2%	0.5%	0.5%
Glass	0.2%			0.2%		0.2%		0.7%
Tramadol	1%	0.2%	0.2%	0.2%		0.2%	0.5%	1%
Diazepam	3%	0.2%	0.5%		0.2%	0.5%	0.2%	0.7%
Methadone	0.2%	0.2%			0.5%		0.2%	0.5%
Codeine	7.8%	8.9%	3.5%	2%	0.5%	0.2%	0.5%	4%

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almost close to worldwide rate of suicide and Iranian study which has been reported to be from 7.2% to 29% (Devries et al., 2011; Ansari-Moghaddam et al., 2015).

Prevalence of smoking in women is almost similar to proportion of smokers aged >15 by sex in European countries in 1987-1989 which is reported as 45% (Graham, 1996). With respect to alcohol abuse, its prevalence among females based on the reports of Monitoring the Future (1999) College Alcohol Study (1999), Core Institute (1994), and National College Health Risk Behavior Survey (1995) was about 40% (O'Malley & Johnston, 2002) that is a little more than the present study prevalence showing cultural differences in tending to use alcohol among females.

High risk behaviors are not just one time problems, but their consequences have more destructive effects on the quality of

life which affect people's tendency to engage in more risky behaviors, as evidence shows lower rate of quality of life in women with substance abuse (Tracy et al., 2012).

Furthermore, there are relations between several high risky behaviors. Involvement in one high risk behavior would increase involvement in other high risky behaviors as evidence indicates that alcohol consumption increases the frequency and intensity of smoking and there may be reciprocal relations between smoking urge and alcohol use (Businelle et al., 2013).

There are many reasons for high prevalence of risky behaviors and their severe consequences in women. Among them, family factors and pathways are the most important ones. Maladaptive family coping behaviors are directly related to alcohol use and disordered eating in college women (Kluck

et al., 2014). Family modeling is another pathway that is related to high risk behaviors among women (Kluck, 2008). Moreover, individuals use unhealthy behaviors as coping mechanism in time of difficulties (Dube, Anda, Felitti, Edwards, & Croft, 2002; Wagener & Much, 2010).

Finally, women as a special group are exposed to multiple high risk behaviors, poor quality of life, high pressure as consequence of their role, family dysfunction, and other factors that affect each other. So paying attention to women and adopting some policies and prevention measures for them who are at higher risk is crucial.

Interpretation of the results must be done with caution because this study has several limitations. First, because of the nature of high risky behaviors, also people's attitude about them and cultural norms, the risky behaviors are reported less and the real rate of aforementioned high risk may be more. Second, the present study was conducted only in Tehran: other areas of Iran may yield different results. Third, more studies comparing different age groups, ethnicities, and socioeconomic groups may reveal more precise findings. Finally, using more advanced analyses techniques could help interpret data in a more effective way.

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