

# Determinants of Risky Behaviors in Youth: A Gender-Based Study

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## Abstract

**Background:** Gender differences play an important role in risky behaviors such as drug use, of the youth. Despite having a substantial youth population in the Middle East North Africa (MENA) region there are limited studies on this issue.

**Objectives:** The present study explores the parental and individual factors related to risky behaviors of boys and girls.

**Patients and Methods:** This cross-sectional study used a multistage cluster sampling method. The five main areas of Kerman were classified as clusters. Within the clusters, a systematic random sampling was used to select the street, where five houses were examined for eligible candidates. A self-administered questionnaire (created by the author) assessed the 500 candidates (aged 15 - 29 years) on parental styles, level of education, social capital, modern leisure activities, and risky behavior in 2013. Data were analyzed using logistic regression with SPSS 19 (statistical package of social sciences) at a significance level of 5%.

**Results:** Parental styles affecting the risky behaviors of both girls and boys were as follow: neglecting parental styles increased the risk of drug use (OR = 8.63, P = 0.04 and OR = 33.44, P = 0.001 in boys and girls, respectively). In addition, having a stay-at-home mother reduced the risk of drug use (OR = 0.09, P = 0.002) in boys, and reduced the risk of drug use and smoking in girls (OR = 0.34, P = 0.03 and OR = 0.38, P = 0.04, respectively). Also, engaging in modern leisure activities raised the risk of all risky behaviors for boys and girls (eg, alcohol drinking: OR = 1.23, P = 0.000). In boys, higher level of education reduced the risk of drug use (OR = 0.13, P = 0.05), whereas it increased the risk of sexual behaviors (OR = 2.03, P = 0.03). In girls, higher level of education was related to an increase in alcohol use (OR = 2.44, P = 0.05).

**Conclusions:** Parental style could play a different role in conducting risky behaviors among girls and boys. Therefore, appropriate parental styles should be used in bringing up children based on their gender.

**Keywords:** Sexual Behaviors, Parents, Gender, Iran

## 1. Background

High-risk behaviors such as drug use, smoking, and alcohol use cause many social and health problems worldwide. Iran is a Middle Eastern country with a high percentage of young population (about 32%) (1), and a growing rate of high-risk behaviors have raised many concerns among policy makers. Based on the statistics, the prevalence of alcohol drinking and drug use was 17.4% and 21%, in males, respectively (2, 3), and prevalence of alcohol drinking in girls was 2.6% (4). The resident of Kerman province, which is a city located close to Afghanistan and Pakistan borders, have been substantially involved in these risky behaviors. Statistics show that the prevalence of risky behaviors such as alcohol use among women and men was 0.44% and 8.68%, respectively, and the prevalence of drug use was 0.07% and 3.02% in women and men, respectively (5).

Worldwide, men tend to show more risky behaviors than women (6, 7). This difference can be partly explained by social expectations and norms, which play a significant role in shaping gender stereotype. According to the social

role theory, men and women behave as per normative expectations (8). Based on this theory, men are more likely to practice drug use because of their masculinity and women might get into unwanted unprotected sex because of different factors such as inadequate decision-making power (9). The style that parents choose for raising their children play a crucial role on shaping social norms and standards in their children (10). In general, parents are more likely to encourage boys to take risks, while girls will be trained to avoid risks (11).

Choosing warm, supportive, and effective parental styles is a key factor for protecting children from risky behaviors (12). Parental styles are defined as follow: "Authoritarian parents", "Rejecting or Neglecting parents", "Permissive or nondirective parents". Authoritative parents are demanding and responsive, and they establish clear guidelines and standards for their children. They use "supportive disciplinary methods rather than punitive" (13). "Authoritarian parents" fail to explain the reasons behind the rules. They have high demands but are not responsive to their children. "Rejecting or Neglect-

ing parents” do not monitor their children and are not supportive, but may be actively rejecting or neglecting their child-rearing responsibilities altogether. “Permissive or nondirective parents” have relatively low expectations (13).

Based on the social control theory, social bonds are important factors for engaging adolescents in delinquent behavior. For instance, people who have strong social bonds with friends and parents are at low risk to expose or involve in the delinquency (14).

The pattern of relationship between parents and children has an indirect social effect; any difficulty in this relation could contribute to children’s alienation from the society (15), and alienation in itself is related to the social capital (16).

Other protective factors against risky behaviors are community association and tie networks. In addition, young population spending more time on leisure activities such as going to night parties, recreational centers, shopping centers, and coffee shops have more probability of engaging in risky behaviors. Since Iran is a traditional society, the aforementioned leisure activities are considered modern activities (17). Also, in such activities, young population may come in contact with peers that are disapproved by social norms (18).

Moreover, girls and boys could be differently influenced by parental style. For example, in a study on parental style in relation to gender, girls were found to benefit from having authoritarian parents. This makes them more independent; however, this was not the case with boys (19).

Another factor related to the risky behaviors is education. People with lower education and economic status may engage in unprotected sex, However higher level of education “in some cases was associated positively with risky sexual behavior” (1).

As norms, social interactions, gender stereotypes, and human behaviors are shaped in the cultural context (20-22), to understand these issues, it is important to have consolidated evidence in the context of each culture. To the best of our knowledge, current literature inadequately covers the risky behaviors with relation to parental style in the Middle East North Africa (MENA) region. We aim to explore the relationship between parental and individual factors, such as parental styles, level of education, and modern leisure activities, with risky behaviors of boys and girls.

### 1.2. Research Hypothesis

Based on previous studies, we hypothesized that all parental styles would play independent and significant roles in the involvement of adolescents in risky behaviors, and this effect would be different for boys and girls.

## 2. Objectives

In the present study, we explored the parental and individual factors that are related to risky behaviors of youths, both boys and girls. Parental factors included styles of parenting (authoritative, authoritarian, neglecting, and permissive), and parents’ occupation. Individual factors were social capital, level of education, modern leisure activities, and risky behaviors (drug use, smoking, alcohol drinking, and sexual behavior).

## 3. Patients and Methods

### 3.1. Sampling and Data Collection

The target population of this study included residents of Kerman aged 15 to 29 years in 2013. According to the latest census statistical center of Iran (2012), the percentage of this population was 30% (235,484). For estimating the sample size of this survey, we used Lin’s table (23). For population between 100,00 to 500,000 and by the presence of a population parameters of 50% at 99% confidence level and reliability of  $\pm 5\%$ , the sample size was estimated to be 340 (with a response rate of 80%); ultimately 500 participants (193 boys and 307 girls) were recruited. Through a cross-sectional study, a multistage cluster sampling was used. Kerman was divided into five main areas (based on municipality divisions) to create clusters for the study. Within clusters, a systematic random sampling was used to select the street, and then five houses were surveyed to recruit eligible subjects. If residents of a house were not available, the next five houses were approached. In each house, we interviewed only one eligible person. To all eligible candidates, the aim of the study was explained, and if the participants consented to participate, they were recruited. The personal identities of the participants were not recorded to ensure anonymity.

### 3.2. Measures

A self-administered questionnaire, designed by the author, included questions on demographic characteristics such as age (in years, one question), gender (boy and girl, one question), level of education (one question), marital status (one question), parental styles (76 questions based on Buamrind dimensions (13)), social capital (seven questions), modern leisure activities (four questions), parent’s job (one question), and risky behaviors (four questions). The reliability of attitude-related items was measured by Cronbach’s alpha (80%). Content validity was tested through expert opinion. Participants’ views were sought on any problem related to questions such as difficulty and ambiguity through a pilot study. The data collected via the questionnaire were analyzed using SPSS v.19.

### 3.3. Statistical Analyses

After data cleaning, missing data was imputed. Descriptive analysis was followed by univariate and multivariate logistics regression to explore the effects of covariants on risky behaviors. The level of significance was considered 5%.

## 4. Results

Participations were aged between 15 to 29 years (mean  $\pm$  SD:  $19.50 \pm 4.97$  and  $19.06 \pm 4.41$  for boys and girls, respectively). The proportion of girls and boys was 61.4% and 38.6%, respectively. Most participants, 92% boys and 84.4% girls, were not married. Boys had greater modern leisure activities than girls (mean  $\pm$  SD:  $8.9 \pm 7.7$  and  $5.92 \pm 4.23$ , respectively). Most participants were in high school (54.9% boys and 62.9% girls). Both males and females had mainly a homemaker mother (58.5% and 68.1%, respectively).

Most prevalent parental styles for boys were authoritarian and permissive (27.5% and 26.9%, respectively). That was for girls authoritarian and authoritative parents, (31.8% , 25.2%, respectively). The most prevalent risky behavior for boys and girls was alcohol drinking (39.1% and 17.4%, respectively), more details in [Table 1](#).

### 4.1. Drug Use

Compared with authoritative parental style (ref group), the odds ratio for permissive and authoritarian parental styles was 4.36 and 5.23 ( $P = 0.18$  and  $P = 0.13$ ), respectively, and that for neglecting parents was 8.63 ( $P = 0.04$ ). Among girls, compared with the authoritative style (ref group), permissive, authoritarian, and neglecting style increased the risk of drug use (OR = 5.33,  $P = 0.13$ ; OR = 4.13,  $P = 0.2$ ; OR = 33.44,  $P = 0.001$ , respectively; [Table 2](#)).

In both girls and boys, fathers' job level and drug use were not related ( $P > 0.05$ ). Also, having a stay-at-home mother was associated with a reduction in the risk of drug use in both boys and girls (OR = 0.09  $P = 0.002$  and OR = 0.34,  $P = 0.03$ , respectively). Similarly, boys and girls reporting modern leisure activities were more likely to use drugs (boys: OR = 1.14  $P = 0.005$ , girls: OR = 1.15  $P = 0.001$ ). Social capital was not significantly associated with drug use in either boys or girls (OR = 0.82,  $P = 0.69$  and OR = 1.95,  $P = 0.08$ , respectively). Furthermore, for boys, in the adjusted model, stay-at-home mothers (OR = 0.03,  $P = 0.001$ ), modern leisure activities (OR = 1.15,  $P = 0.03$ ), and college degree (OR = 0.05,  $P = 0.02$ ) remained statistically significant. Regarding girls, neglecting parental style (OR = 53.15,  $P = 0.001$ ), having a stay-at-home mother (OR = 0.16,  $P = 0.01$ ), and modern leisure activities (OR = 1.14,  $P = 0.01$ ) were statistically significant variables.

### 4.2. Smoking

Compared with authoritative parents (ref group), the odds ratio of permissive and authoritarian parental styles were 12.30 and 4.27 ( $P = 0.01$  and  $P = 0.19$ ), respectively, and that for neglecting parents was 17.93 ( $P = 0.07$ ). With regard to girls' authoritative parents (ref group), permissive, authoritarian, and neglecting parents showed an increased risk of cigarette smoking (OR = 6.78,  $P = 0.08$ ; OR = 8.37,  $P = 0.04$ ; OR = 35.67,  $P = 0.001$ , respectively; [Table 3](#)).

Smoking in boys showed no association with fathers' job ( $P > 0.05$ ). Having a father in the mid-level job category reduced the risk of cigar smoking in girls (OR = 0.45,  $P = 0.03$ ).

In addition, having a stay-at-home mother was associated with an increased risk of cigarette smoking in boys (OR = 3,  $P = 0.03$ ), and a decreased risk of cigarette smoking in girls (OR = 0.38,  $P = 0.04$ ). Also, boys and girls were more likely to smoke cigarette when they were more likely to experience modern leisure activities; in boys, this association was borderline significant (boys: OR = 1.07,  $P = 0.06$ ; girls: OR = 1.20,  $P = 0.000$ ). Social capital did not show a significant association with cigarette smoking in either boys or girls (OR = 0.56,  $P = 0.15$  and OR = 1.43,  $P = 0.29$ , respectively).

Furthermore, for boys, the adjusted model showed that permissive and neglected parental styles (OR = 8.58,  $P = 0.05$  and OR = 17.29,  $P = 0.01$ , respectively) and diploma degree (OR = 3.46,  $P = 0.05$ ) remained statistical significant. For females, permissive parents (significant borderline level; [OR = 9.73,  $P = 0.06$ ]), neglecting parents (OR = 68.45,  $P = 0.000$ ), father with a mid-level job (OR = 0.28,  $P = 0.01$ ), modern leisure activities (OR = 1.26,  $P = 0.0000$ ), and diploma degree (OR = 3.97,  $P = 0.01$ ) were statistically significant variables.

### 4.3. Alcohol Consumption

Compared with authoritative parents (ref group), the odds ratio for permissive and authoritarian parental styles was 5.35 and 1.25 ( $P = 0.000$  and  $P = 0.04$ , respectively), and that for neglecting parents was 4.25 ( $p = 0.03$ ). For girls, compared with authoritative parents (ref group), permissive, authoritarian, and neglecting parents increased the risk of cigarette smoking (OR = 2.06,  $P = 0.07$ ; OR = 1.51,  $P = 0.43$ ; OR = 5.91,  $P = 0.000$ , respectively; [Table 4](#)).

In boys, having a father with a mid-level job was associated with reduction in the risk of alcohol drinking (OR = 0.49,  $P = 0.02$ ). Girls, in contrast with boys, showed no association between fathers' job and alcohol drinking ( $P > 0.05$ ). In addition, having a stay-at-home mother was associated with a reduction in the risk in boys (OR = 0.21,  $P = 0.001$ ), whereas no such association was observed for girls ( $P > 0.05$ ).

**Table 1.** Characteristics of Study Participants<sup>a</sup>

	Boys	Girls	P Value
<b>Gender</b>	38.6	61.4	
<b>Age</b>	19.50 ± 4.97	19.06 ± 4.41	0.01 <sup>b</sup>
Min		15	
Max		29	0.18
<b>Modern leisure activities</b>	8.9 ± 7.7	5.92 ± 4.23	
Min		0	
Max		15	
<b>Marital status</b>			0.06
Single	92.2	84.4	
Married	7.3	12.7	
Divorced	0.5	2.9	
<b>Education</b>			0.26
High school	54.9	62.9	
Diploma	14	15	
College	31.1	22.1	
<b>Job status of mother</b>			0.13
Low-level	14	14	
Middle-level	18.1	8.1	
High-level	6.2	5.9	
Housewife	58.5	68.1	
Retired	3.2	3.9	
<b>Job status of father</b>			0.1
Low-level	51.9	51.2	
Middle-level	40.9	42.3	
High-level	6.7	2.6	
Retired	0.5	3.9	
<b>Social capital</b>			0.001
Low	50.8	48.9	
Middle	49.2	51.1	
<b>Parental styles</b>			0.22
Authoritative	21.8	25.2	
Permissive	26.9	19.3	
Authoritarian	27.5	31.8	
Neglecting	23.8	23.7	
<b>Risky behaviors</b>			
Drug use	10.4	10.9	0.86
Cigarette smoking	16.5	12.4	0.21
Alcohol drinking	39.1	17.4	0.00
Sexual behaviors	34.3	17.1	0.00

<sup>a</sup>Values are expressed as mean ± SD or %.<sup>b</sup>P < 0.05.

Similarly, boys and girls were more likely to drink alcohol when they were more likely to experience modern leisure activities (boys: OR = 1.13, P = 0.003; girls: OR = 1.23, P = 0.000). Social capital did not show a significant association with alcohol drinking in either boys or girls (OR =

0.67, P = 0.19 and OR = 1.37, P = 0.3, respectively).

Furthermore, for boys, in the adjusted model, permissive and neglected parents (OR = 4.02, P = 0.02; OR = 4.46, P = 0.02), having a father with a mid-level job (OR = 0.35, P = 0.01), having a stay-at-home mother (OR = 0.26, P = 0.02),

**Table 2.** Factors Related to Drug Use Among Youth Based on Gender, Using Univariate and Multivariate Regression Analysis

	Boys				Girls			
	Crude		Adjusted		Crude		Adjusted	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
<b>Parental styles</b>								
Authoritative	1 (ref)				1 (ref)			
Permissive	4.36	0.18	2.41	0.49	5.33	0.13	6.68	0.11
Authoritarian	5.23	0.13	7.44	1.49	4.13	0.2	5.31	0.15
Neglecting	8.63	0.04	1.8	0.64	33.44	0.001	53.15	0.001
<b>Job status of father</b>								
Low-level	1 (ref)				1 (ref)			
Middle-level	1.47	0.44	1.29	0.69	1.28	0.69	0.55	0.46
High-level	3.45	0.10	1.76	0.60	1.97	0.3	0.93	0.94
Retired	0	1	0	1	0.34	0.03	0.16	0.01
<b>Job mother</b>								
Low-level	1 (ref)				1 (ref)			
Middle-level	0.72	0.61	0.19	0.29	1.28	0.69	0.55	0.46
High-level	1.75	0.44	0.38	0.32	1.97	0.3	0.93	0.94
Housewife	0.09	0.002	0.03	0.001	0.34	0.03	0.16	0.01
Retired	0.7	0.76	0.34	0.44	1.02	0.97	0.43	0.43
<b>Leisure activities</b>	1.14	0.005	1.15	0.03	1.15	0.001	1.14	0.01
<b>Social capital</b>								
Low	1 (ref)				1 (ref)			
Middle	0.82	0.69	0.82	0.86	1.95	0.08	2.28	0.08
<b>Education</b>								
High school	1 (ref)				1 (ref)			
Diploma	2.74	0.06	2.68	0.19	0.99	0.99	0.92	0.82
College	0.13	0.05	0.05	0.02	0.79	0.63	0.66	0.51

modern leisure activities (OR = 1.19, P = 0.000), and a college degree (OR = 4.63, P = 0.003) remained statistically significant.

For girls, neglecting parental styles (OR = 6.78, P = 0.001), modern leisure activities (OR = 1.27, P = 0.000), diploma degree (OR = 3, P = 0.02), and college degree (OR = 2.44, P = 0.05) were statistically significant variables.

#### 4.4. Sexual Behavior

Compared with authoritative parents (ref group), the odds ratio for permissive and authoritarian parental styles was 4.28 and 1.97 (P = 0.004 and P = 0.18), respectively, and that for neglecting parents was 5 (P = 0.002). For girls, compared with authoritative parents (ref group), permissive and authoritarian parents were found to increase the risk of sexual behaviors (OR = 2.33, P = 0.08 and OR = 1.7, P = 0.25, respectively). Similarly, neglecting parents raised the risk of sexual behaviors (OR = 4.31, P = 0.001; Table 5).

Boys' sexual behavior showed no association with fathers' job (P > 0.05), whereas for girls, having a father with

a mid-level job increased the risk of sexual behaviors (OR = 4.28, P = 0.05). In addition, having a stay-at-home mother was associated with a reduction in the risk of sexual behavior in boys (OR = 0.26, P = 0.003); however, girls showed no such significant association (P > 0.05).

Similarly, boys and girls were more likely to engage in sexual behaviors when they were more likely to have modern leisure activities (OR = 1.19, P = 0.000 and OR = 1.19, P = 0.000, respectively). Social capital was not significantly associated with sexual behaviors in boys (OR = 0.63, P = 0.13), but for girls, the odds ratio of social capital was 2.29 (P = 0.006).

Furthermore, for boys, in the adjusted model, neglecting parents (borderline association [OR = 3.25, P = 0.06]), a stay-at-home mothers (OR = 0.27, P = 0.02), and modern leisure activities (OR = 1.28, P = 0.000) remained statistically significant.

For girls, neglecting parents (OR = 3.94, P = 0.007), modern leisure activities (OR = 1.21, P = 0.000), and social capital (OR = 3.01, P = 0.002) remained statistically significant.

**Table 3.** Factors Related to Cigarette Smoking Among Youth Based on Gender, Using Univariate and Multivariate Regression Analysis

	Boys				Girls			
	Crude		Adjusted		Crude		Adjusted	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
<b>Parental styles</b>								
Authoritative	1 (ref)				1 (ref)			
Permissive	12.30	0.01	8.58	0.05	6.78	0.08	9.73	0.06
Authoritarian	4.27	0.19	4.52	2	8.73	0.04	17.18	0.01
Neglecting	17.93	0.07	17.29	0.01	35.67	0.001	68.45	0.000
<b>Job father</b>								
Low-level	1 (ref)				1 (ref)			
Middle-level	1.03	0.93	0.91	0.84	0.45	0.03	0.28	0.01
High-level	1.57	0.52	0.61	0.62	1.66	0.58	0.41	0.41
Retired	0	1	0	1	1.25	0.78	0.68	0.75
<b>Job status of mother</b>								
Low-level	1 (ref)				1 (ref)			
Middle-level	2.06	0.21	2.11	0.27	1.09	0.88	0.69	0.65
High-level	1.16	0.84	1.09	0.92	2.78	1	3.72	12
Housewife	3	0.03	0.39	0.17	0.38	0.04	1	0.34
Retired	7	0.76	0.78	0.85	0.87	0.87	0.61	0.66
<b>Leisure activities</b>	1.07	0.06	1.03	0.4	1.20	0.000	1.26	0.000
<b>Social capital</b>								
Low	1 (ref)				1 (ref)			
Middle	0.56	0.15	0.67	0.41	1.43	0.29	1.5	0.31
<b>Education</b>								
High school	1 (ref)				1 (ref)			
Diploma	2.74	0.06	3.46	0.05	2.27	0.05	3.97	0.01
College	2.16	0.07	1.73	0.36	1.09	0.84	1.38	0.57

## 5. Discussion

We hypothesized that there will be a positive association between parental styles and risky behaviors in both girls and boys. We supposed that boys had higher probability of being involved in risky behaviors than girls. The results from regression analyses supported our hypotheses. We found that parental styles were associated with a higher level of risky behavior in both boys and girls. In this regard, effective monitoring and building up relationship with children could have a positive effect and prevent the youth from risky behaviors (6). Having neglecting parents might increase the risk of all types of risky behaviors in girls more than in boys. This could underline that in a neglected family, the values and norms of society might be overlooked by parents. Therefore, their children are less likely to be brought up based on such values and social expectations (24). On the other hand, authoritarian parents might create family environment without care, support, and love, this could lead to having adolescents with higher

chances of practicing risky behaviors (22). However, there is controversy in the literature on the role of authoritarian parents (24,25). This controversy could stem from the different effects of cultural and social contexts on parental styles and risky behaviors.

Parents' job status was associated with low-risk behaviors in respondents, for example, stay-at-home mothers reduced the risk of some types of risky behaviors. A possible explanation could be spending more time with their children which in turn increase supervision with decrease risky behaviors in youth (26).

Modern leisure activities had a noticeable effect on involvement in risky behaviors in boys and girls. Modern leisure activities take place in special venues in which youths have more social communication with their peers, and they may be influenced by them and get involved in risky behaviors (17). Also, these activities mentioned as unstructured leisure activities, ie, having the freedom to choose the type of activities, which can increase the probability of risky behaviors (15).

**Table 4.** Factors Related to Alcohol Drinking Among Iranian Youth Based on Gender, Using Univariate and Multivariate Regression Analysis

	Boys				Girls			
	Crude		Adjusted		Crude		Adjusted	
	OddsRatio	P Value	OddsRatio	P Value	OddsRatio	P Value	OddsRatio	P Value
<b>Parental styles</b>								
Authoritative	1(ref)				1(ref)			
Permissive	5.35	0.000	4.02	0.02	2.06	0.07	2.2	0.2
Authoritarian	1.25	0.4	2	0.3	1.51	0.43	1.78	0.3
Neglecting	4.25	0.03	4.46	0.02	5.91	0.000	6.78	0.001
<b>Job status of father</b>								
Low-level	1(ref)				1(ref)			
Middle-level	0.49	0.02	0.35	0.01	0.73	0.33	0.67	0.3
High-level	2.03	0.2	0.92	0.92	2.56	0.21	0.79	0.8
Retired	0	1	0	1	0.47	0.49	0.13	0.13
<b>Job status of mother</b>								
Low-level	1(ref)				1(ref)			
Middle-level	1.31	0.6	0.94	0.92	0.81	0.72	0.87	0.85
High-level	0.96	0.95	1.54	0.61	1.64	0.4	3.35	0.1
Housewife	0.21	0.001	0.26	0.02	0.009	0.35	0.63	0.38
Retired	0.13	0.08	0.15	0.17	0.51	0.43	0.64	0.65
<b>Leisure activities</b>	1.13	0.003	1.19	0.000	1.23	0.000	1.27	0.000
<b>Social capital</b>								
Low	1(ref)				1(ref)			
Middle	0.67	0.19	1.08	0.83	1.37	0.3	1.36	0.4
<b>Education</b>								
High school	1(ref)				1(ref)			
Diploma	2.01	0.12	2.36	0.14	2.01	0.08	3	0.02
College	4.38	0.000	4.63	0.003	1.81	0.09	2.44	0.05

Social capital has a controversial role in risky behaviors such as sexual behaviors among females; some studies, including ours, showed that higher level of social capital could increase the level of risky behaviors, although other studies found opposite results (27). The negative role of social capital could be because of adolescents are expected to behave in accordance with the members of the network to gain their acceptance. This may include attempting to certain risky behavior such as substance use (28). Some studies have highlighted the role of peers in tempting to conduct risky behaviors such as drug use and alcohol consumption (18, 29-32).

On the contrary, people with a higher level of social capital who have a lower level of risky behavior are more likely privileged with large social networks, being an indicator of social capital and, therefore, more likely to be monitored when compared with an individual with no or small social network (28).

Regarding the level of education, our findings show controversial results in boys and girls: whereas it reduced

the risk of drug use in boys, it increased the risk of alcohol consumption in girls and sexual behaviors in boys. Such a finding could be because of other confounding factors.

Furthermore, the results of our study showed that girls are less likely to be involved in risky behaviors. This different pattern could be due to either social norms and expectations or femininity (11). Modern leisure activities showed the same effect for boys and girls, indicating that even in a traditional society such as Iran when both male and female have similar activities, they have a similar probability of engaging in risky behaviors.

There are several limitations of our study. As engaging in certain risky behaviors such as high-risk sexual behaviors, for example, having multiple partners, is a crime for women and drug use is highly stigmatized particularly in women, some respondents refused participation. Those who did refuse might have a different pattern of attempting risky behaviors. We also failed to measure other variables addiction of family and friends that might have influenced the results. Another limitation is that owing to

**Table 5.** Factors Related to Sexual Behavior Among Iranian Youth Based on Gender, Using Univariate and Multivariate Regression Analysis

	Boys				Girls			
	Crude		Adjusted		Crude		Adjusted	
	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value	Odds Ratio	P Value
<b>Parental styles</b>								
Authoritative	1 (ref)				1 (ref)			
Permissive	4.28	0.004	2.90	0.07	2.33	0.08	2.09	0.17
Authoritarian	1.97	0.18	1.64	0.56	1.7	0.25	1.74	0.28
Neglecting	5	0.002	3.25	0.06	4.31	0.001	3.94	0.007
<b>Job status of father</b>								
Low-level	1 (ref)				1 (ref)			
Middle-level	0.74	0.35	0.63	0.25	0.92	0.8	0.68	0.28
High-level	2.74	0.09	2.09	0.34	4.28	0.05	2.68	0.28
Retired	0	1	0	1	2.85	0.12	2.95	0.21
<b>Job status of mother</b>								
Low-level	1 (ref)				1 (ref)			
Middle-level	0.84	0.74	0.43	0.19	0.72	0.49	0.35	0.17
High-level	0.57	0.42	0.36	0.27	1.64	0.4	2.90	0.14
Housewife	0.26	0.003	0.27	0.02	0.53	0.1	0.93	0.88
Retired	0.8	0.8	1.38	0.76	0.51	0.43	0.74	0.75
<b>Leisure activities</b>	1.19	0.000	1.28	0.000	1.19	0.000	1.21	0.000
<b>Social capital</b>								
Low	1 (ref)				1 (ref)			
Middle	0.63	0.13	0.85	0.68	2.29	0.006	3.01	0.002
<b>Education</b>								
High school	1 (ref)				1 (ref)			
Diploma	2.85	0.01	4.82	0.07	1.32	0.47	0.55	1.31
College	2.03	0.03	1.99	0.17	0.99	0.99	0.89	0.80

cultural and geostrategic situation of the study, generalization of the findings to other populations should be with cautious. Despite these imitations, this study is the first to address the difference in risky behaviors between boys and girls and the role of parental styles in this pattern.

The study found that different factors play roles in engaging males and females in risky behaviors. Adopting an appropriate parental style is crucial to prevent the youth from being involved in risky behaviors. Effective monitoring could be more beneficial for girls, while building up a friendly and cohesive relation is more effective for boys. However, the results show that having a stay-at-home mother would be negatively associated with practicing high-risk behaviors. Although we cannot state that being at home is a preventive measure, we believe that any job that could allow parents to spend more time with their children would be critical in preventing the youth, girls and boys both, from engaging in risky behaviors.

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## Footnote

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## References

1. Abu-Raddad L, Akala FA, Semini I, Riedner G, Wilson D, Tawil O. Characterizing the HIV/AIDS epidemic in the Middle East and North Africa. ; 2010.
2. Jodati AR, Shakurie SK, Nazari M, Raufie MB. Students' attitudes and practices towards drug and alcohol use at Tabriz University of Medical Sciences. *East Mediterr Health J*. 2007;**13**(4):967-71. [PubMed: [17955780](#)].
3. Ghanizadeh A. Shiraz University students' attitude towards drugs: an exploratory study. *East Mediterr Health J*. 2001;**7**(3):452-60. [PubMed: [12690766](#)].
4. Ahmadi J, Maharlooy N, Alishahi M. Substance abuse: prevalence in a sample of nursing students. *J Clin Nurs*. 2004;**13**(1):60-4. [PubMed: [14687294](#)].
5. Sheikhzadeh K, Baneshi MR, Afshari M, Haghdoost AA. Comparing direct, network scale-up, and proxy respondent methods in estimating risky behaviors among collegians. *J Substance Use*. 2016;**21**(1):9-13.
6. Silveira CM, Siu ER, Wang YP, Viana MC, Andrade AG, Andrade LH. Gender differences in drinking patterns and alcohol-related problems in a community sample in Sao Paulo, Brazil. *Clinics (Sao Paulo)*. 2012;**67**(3):205-12. [PubMed: [22473399](#)].
7. Andrade A, Duarte P, Barroso LP, Nishimura R, Alberghini DG, Oliveira L. Use of alcohol and other drugs among Brazilian college students: effects of gender and age. *Revista Brasileira de Psiquiatria*. 2012;**34**(3):294-305.
8. Vogel DL, Wester SR, Heesacker M, Madon S. Confirming gender stereotypes: A social role perspective. *Sex Roles*. 2003;**48**(11-12):519-28.
9. Klessig J. The effect of values and culture on life-support decisions. *West J Med*. 1992;**157**(3):316-22. [PubMed: [1413777](#)].
10. Chang M. Cultural differences in parenting styles and their effects on teens' self-esteem, perceived parental relationship satisfaction, and self-satisfaction. Carnegie Mellon University; 2007.
11. Booth AL, Nolen P. Gender differences in risk behaviour: Does nurture matter?. *Econ J*. 2012;**122**(558):F56-78.
12. Foster SE, Jones DJ, Olson AL, Forehand R, Gaffney CA, Zens MS, et al. Family socialization of adolescent's self-reported cigarette use: the role of parents' history of regular smoking and parenting style. *J Pediatr Psychol*. 2007;**32**(4):481-93. doi: [10.1093/jpepsy/jsl030](#). [PubMed: [17018553](#)].
13. Baumrind D. The influence of parenting style on adolescent competence and substance use. *J Early Adolescence*. 1991;**11**(1):56-95.
14. Wiatrowski MD, Griswold DB, Roberts MK. Social control theory and delinquency. *Am Sociol Rev*. 1981:525-41.
15. Mancini JA, Huebner AJ. Adolescent risk behavior patterns: Effects of structured time-use, interpersonal connections, self-system characteristics, and socio-demographic influences. *Child Adolescent Soc Work J*. 2004;**21**(6):647-68.
16. Bourdieu P. Distinction: A social critique of the judgement of taste. Harvard University Press; 1984.
17. Shalchi V. Coffee Shop Youth Lifestyle. *Iran J Cultur Res*. 2008;**1**(1):93-115.
18. Shearer CL, Hosterman SJ, Gillen MM, Lefkowitz ES. Are traditional gender role attitudes associated with risky sexual behavior and condom-related beliefs?. *Sex Roles*. 2005;**52**(5-6):311-24.
19. Dornbusch SM, Ritter PL, Leiderman PH, Roberts DF, Fraleigh MJ. The relation of parenting style to adolescent school performance. *Child Dev*. 1987;**58**(5):1244-57. [PubMed: [3665643](#)].
20. Harris-McKoy D, Cui M. Parental control, adolescent delinquency, and young adult criminal behavior. *J Child Fam Stud*. 2013;**22**(6):836-43.
21. Okorodudu GN. Influence of parenting styles on adolescent delinquency in delta central senatorial district. *Edo Journal of Counselling*. 2010;**3**(1):58-86.
22. Ang RP, Goh DH. Authoritarian Parenting Style in Asian Societies: A Cluster-Analytic Investigation\*. *Contemp Fam Ther*. 2006;**28**(1):131-51.
23. Lin N. Foundations of Social Research. New York: Mc Grow Hill; 1978.
24. Patock-Peckham JA, King KM, Morgan-Lopez AA, Ulloa EC, Filson Moses JM. Gender-Specific Meditational Links Between Parenting Styles, Parental Monitoring, Impulsiveness, Drinking Control, and Alcohol-Related Problems\*. *J Stud Alcohol Drugs*. 2011;**72**(2):247-58.
25. Barnes GM, Reifman AS, Farrell MP, Dintcheff BA. The effects of parenting on the development of adolescent alcohol misuse: a Six-Wave latent growth model. *J Marriage Fam*. 2000;**62**(1):175-86.
26. Han WJ, Waldfogel J. Parental work schedules, family process, and early adolescents' risky behavior. *Child Youth Serv Rev*. 2007;**29**(9):1249-66.
27. Bartkowski JP, Xu X. Religiosity and teen drug use reconsidered: a social capital perspective. *Am J Prev Med*. 2007;**32**(6 Suppl):S182-94. doi: [10.1016/j.amepre.2007.03.001](#). [PubMed: [17543710](#)].
28. Lundborg P. Social capital and substance use among Swedish adolescents—an explorative study. *Soc Sci Med*. 2005;**61**(6):1151-8. doi: [10.1016/j.socscimed.2004.12.031](#). [PubMed: [15970227](#)].
29. Hair EC, Park MJ, Ling TJ, Moore KA. Risky behaviors in late adolescence: co-occurrence, predictors, and consequences. *J Adolesc Health*. 2009;**45**(3):253-61. doi: [10.1016/j.jadohealth.2009.02.009](#). [PubMed: [19699421](#)].
30. Santor DA, Messervey D, Kusumakar V. Measuring peer pressure, popularity, and conformity in adolescent boys and girls: Predicting school performance, sexual attitudes, and substance abuse. *J Youth Adolescence*. 2000;**29**(2):163-82.
31. Simons-Morton B, Haynie DL, Crump AD, Eitel SP, Saylor KE. Peer and parent influences on smoking and drinking among early adolescents. *Health Educ Behav*. 2001;**28**(1):95-107. [PubMed: [11213145](#)].
32. Kiuru N, Burk WJ, Laursen B, Salmela-Aro K, Nurmi JE. Pressure to drink but not to smoke: disentangling selection and socialization in adolescent peer networks and peer groups. *J Adolesc*. 2010;**33**(6):801-12. doi: [10.1016/j.adolescence.2010.07.006](#). [PubMed: [20732711](#)].