

Study of High-Risk Behaviors of Students and Their Related Factors (Case Study: Tabriz University of Medical Sciences)

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Abstract

Background and Objectives: The awareness of status of high risk behaviors among students and the identification of their associated factors are of paramount importance. They can help university authorities and planners to perform effective interventions in order to prevent these behaviors. The aim of this study was to evaluate the relationship between the quality of life, psychological well-being, adherence to religious, and the use of modern media and high risk behaviors among students of the Tabriz University of Medical Sciences.

Methods: This correlational study was conducted among 300 students, 150 of whom were female, in Tabriz University of Medical Sciences, Tabriz, Iran. The subjects were selected through convenience sampling method. Data were collected using Risk-Taking Scale, Quality of Life Scale, the short form of Ryff's Scales of Psychological Well-being (18 items), and the adherence to religious values scale. Data analysis was performed using Pearson correlation coefficient, independent samples t-test, and multiple regression analysis.

Results: Regarding the results, there was a significant correlation between gender, marital status, and place of residence of students with their high risk behaviors. Additionally, there was a significant indirect relationship between adherence to religious values, quality of life, and psychological well-being with these behaviors. However, no significant correlation was found between the use of modern media and high risk behaviors. The variables of quality of life, psychological well-being, and adherence to religious values explained 33% of the variations in high-risk behaviors.

Conclusion: The improvement of adherence to religious values, psychological well-being, and quality of life led to reduced rate of high risk behaviors.

Keywords: Risk-Taking, Quality of Life, Psychological Well-Being, Spirituality, Communication Media.

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Introduction

Recently, threats to human health compelled the healthcare planners to make the physical, mental, and social health of individuals the priority. Despite the efforts made over the past two decades, studies have shown that high risk behaviors, as serious threats to community well-being, have increased among adolescents and young people (1).

High risk behaviors are described as the behaviors that endanger the health and well-being of adolescents, young people, and other people in the community (2). In fact, such behaviors expose the person to negative and destructive physical, psychological, and social consequences (3). Drinking alcohol, drug

abuse, smoking, hookah consumption, suicide, stealing, and sexual abuse are considered as the most important high risk behaviors (4).

Although, several studies have been conducted on high risk behaviors, a few studies have focused on high risk behaviors of students, especially medical students. Findings of a study performed by Atadokht et al. demonstrated an indirect relationship between psychological well-being and high-risk behaviors. In addition, they revealed that high risk behaviors exist in male students and students living in dormitories more than the others (5).

Parvin et al. showed that cigarette smoking, watching region-blocked sites and videos, and

hookah consumption were the most prevalent risky behaviors among students (6). The results of the hypothesis test indicated a significant correlation between social pressure and social adjustment with and risk behaviors ($r=0.15$, $r=0.31$, respectively) (7).

Moreover, Mohamadi et al. showed that the quality of life had a reverse effect on students' risky behaviors both directly and via mediation of self-esteem. The results of the study carried out by Afshani et al. indicated that the high risk behaviors diminished by increasing the attention to religion (8). The findings obtained by Naemi and Faghihi presented that there was an indirect correlation between the general health of students and their high risk behaviors (9).

The results of the studies performed by Topolski et al., Strine et al., Zahran et al., and Li et al. expressed that there was a significant and indirect relationship between the quality of life and high risk behaviors (10-13). Furthermore, Koenig et al., Wallace et al., Nonnemaker et al., and Tucker et al. stated that there was a significant indirect relationship between religiosity and smoking and high risk behaviors; that is, by increasing the level of religiosity of individuals, they are less likely to smoke, and the prevalence of high risk behaviors decreased (14-17).

In addition, Escobar et al. showed that teenagers who watched sexually explicit programs tended to have extreme sexual behaviors and expressed positive attitudes toward premarital sex (18). In this regard, Mohseni Tabrizi and Hoveyda demonstrated that Internet addiction disorder, which is one of the components of high risk behaviors, led to academic failure, weakness, social isolation, and disinclination toward interpersonal interactions among students (19).

Considering the young age structure in Iran, paying attention to the problems of youth and students, especially health and reducing high risk behaviors is of paramount importance. Additionally, students are under more pressure due to their type of activity and role, being in demand, and the responsibilities they take. Moreover, the incidence of high risk behaviors

among students is one of the effective factors in their success.

To the best of our knowledge, a few studies evaluated the high risk behaviors among students (especially medical students). Therefore, the present study aimed to assess the prevalence of risky behaviors among students and its relationship with the quality of life, psychological well-being, adherence to religious values, and the use of modern media.

Methods

This quantitative study was conducted among 5000 students of the Tabriz University of Medical Sciences, Tabriz, Iran, in 2017. The sample size was estimated to be 300 using the Lin method (95% confidence level with a 5% margin of error). In this study, 300 students, 150 of whom were women, were selected through convenience sampling method and based on the facilities of the research team.

The goals of the study were explained to the participants and an informed consent was obtained from them. Furthermore, they were assured that the completion of the questionnaire did not cause any harm to them and the obtained data were kept secure. The subjects were allowed to answer the questionnaires completely anonymously, and full privacy was observed regarding the obtained information.

A total of 28 students responded incompletely to the questionnaire and their responses were excluded from the analysis, and 28 questionnaires were recompleted. Data analysis was performed by comparing the means and using Pearson correlation coefficient and regression tests in the SPSS 21 software.

Risk-taking Scale: This scale, made and coded by Zadeh Mohammadi et al., has 38 categories with five-choice answers from completely disagree (score 1) to completely agree (score 5). This scale does not have a specific cutoff point for distinguishing normal from abnormal people, and the higher scores indicate a higher tendency to risky behaviors. The high risk behaviors are evaluated in seven areas of drug abuse, alcohol drinking, cigarette smoking, violence, and sexual behaviors, as well as a general area of high risk behaviors.

Table 1. Percentage distribution of risky behaviors among the students of Tabriz University of Medical Sciences

Risky behaviors (Percent)	No distribution	Very low	Low	Medium	High	Very high	Mean
I have been smoking over the past year	79.2	8.6	3.5	2.7	1.6	4.4	1.52
I have been consuming hookah over the past year	75.4	7.6	5.7	5.4	1.1	4.9	1.64
So far, I have used drugs including opium, heroin, etc.	93.8	3	0.5	1.4	0.5	0.8	1.17
So far, I have consumed alcohol (e.g., wine, whiskey, etc.).	85.7	3.8	4.3	4.1	1.4	0.8	1.30
So far, I have used psychedelic drugs (e.g., ecstasy, amphetamine, etc.).	94.3	3	1.6	0.3	0.5	0.3	1.15
So far, I have left a store without paying.	90.5	4.9	2.4	0.8	0.5	0.8	1.19
So far, I have taken my friends' money and equipment without their permission.	71.9	16.5	6.2	2.4	1.6	1.4	1.48
So far, I have committed suicide.	87.3	6.8	3	2.4	0	0.5	1.20
I engaged in several physical encounters with my peers and threatened and beaten them.	60	25.1	5.7	5.7	1.6	1.9	1.70
So far, I have had serious family conflicts.	55.7	22.4	11.1	6.8	2.2	1.9	1.84
I have broken or destroyed many things in a fit of rage.	60.8	20.5	8.9	5.1	3.2	1.4	1.77
So far, I have threatened to beat someone.	62.2	20.3	9.2	5.4	0.8	2.2	1.69
So far, I have carried weapons and knives with me.	81.9	10.5	3.5	1.6	1.6	0.8	1.39
So far, I have had premarital sex.	78.4	11.4	3.8	4.9	0.8	0.8	1.44
I have had a same-sex relationship.	89.5	5.1	2.4	2.4	0	0.5	1.29
So far, I have participated in mixed-gender friendly parties.	80.5	10.8	3	2.7	0.8	2.2	1.37
I have ridden motorcycle without wearing a helmet over the past year.	68.4	8.6	5.4	5.4	3	9.2	1.98
I have ridden a car without fastening a seatbelt over the past year.	24.9	20.3	14.1	15.1	14.1	11.6	3.12
Over the past year, I have exceed the speed limit.	58.9	13.8	8.6	8.6	4.4	5.7	2.14
I like driving stunt (dragging, wheelie, etc.)	55.1	18.1	9.7	8.9	3	5.1	2.11

The Cronbach's alpha value of the whole scale was 0.94 and those of the subscales were reported to be 0.44 and 0.93 (20). In this study, the reliability coefficient of the test was $\alpha=0.88$.

The Quality of Life Scale: In this study, the questionnaire developed by Rabani Khorasgani and Kianpour was used to evaluate the quality of life of the participants (21). The questionnaire consists of four dimensions including the sense of well-being and satisfaction, citizenship requirements, and individuals functional statuses in the society. These variables were measured based on a 5-point Likert scale (completely agree, agree, no idea, disagree, and completely disagree) ($\alpha=0.78$).

Psychological Well-being Scale: The short form of the Ryff's Psychological Well-being Scale (18 items) was designed by Ryff in 1989 and revised in 2002. This version consists of six factors, namely, independence, environmental domination, personal growth, having positive relationship with others, living a purposeful life, and self-acceptance. The total score of these six factors was considered as the total score of psychological well-being. This self-assessment test was responded based on a 6-point scale from totally agree to completely disagree. In addition, high scores indicated

improved psychological well-being ($\alpha=0.90$) (22).

Adherence to Religious Values Scale: To evaluate the adherence to religious values, a questionnaire was used developed by Rasoulzadeh Aghdam et al. ($\alpha=0.82$), which consists of 14 items scored based on a 5-Likert scale (fully agree, agree, no idea, disagree, and completely disagree) (23). In addition, the participants were asked about the amount of time a person uses the Internet and virtual social networks within a week.

Result

In this study, 50% of the subjects (150 individuals) were male; additionally, 68% of the participants were single. Moreover, 25% of the students were living in dormitory, while the others were native to Tabriz, Iran. The mean age of the subjects was 21 years old. As demonstrated in Table 1, the rate of high risk behaviors among the students of Tabriz University of Medical Sciences was lower than average level in all cases except for fastening seat belt.

The information of Table 2 reveals that there was a significant correlation between gender, marital status, the place of residence of the students and the rate of high risk behaviors. The average risk of committing high risk

behaviors among men and single students was more than women and married ones. Furthermore, these behaviors were more prevalent among the students living in dormitories.

Table 2. Comparison of the mean rate of high risk behaviors regarding the gender, marital status, and place of residence

Variable	Group	Mean	Standard deviation	t	df	P-value
Gender	Male	38.90	15.49	8.61	200.80	0.000
	Female	28.25	7.79			
Marital status	Single	33.39	11.44	3.25	48.90	0.005
	Married	29.31	15.60			
Place of residence	Living in dormitory	29.15	10.40	4.41	49.84	0.002
	Native	25.35	14.50			

There was a significant indirect relationship between the quality of life, psychological well-being, and adherence to religious values of the students and the rate of high risk behaviors (Table 3). However, no significant relationship was observed between the use of modern media and high risk behaviors.

Table 3. The relationship between independent variables and high risk behaviors

Variables	Pearson correlation coefficient	P-value
Quality of life	-0.40	0.003
Psychological well-being	-0.33	0.002
Adherence to religious values	-0.44	0.000
Use of modern media	0.07	0.091

Regression analysis ($r^2 = 0.58$, $p < 0.001$) was performed in order to determine the effect of each independent variable on the dependent variables (Table 4).

Table 4. Multivariate regression analysis

Independent variables	B	Beta	t	P-value
Adherence to religious values	-0.59	-0.43	-7.20	0.000
Quality of life	-0.51	-0.39	-6.36	0.000
Psychological well-being	-0.42	-0.23	-4.21	0.001
Use of modern media	0.09	0.07	1.84	0.099

Discussion

According to the results of the present study, the rate of high risk behaviors was among the students of Tabriz University of Medical Sciences was lower than average level. There was a significant relationship between the rate

of risky behaviors and gender, marital status, and place of residence of the students.

The mean rate of risk behaviors among males and single students and those living in dormitory was higher than female, married, and native students. These results were in congruence with the results obtained by Alivardinia, Mohamadi et al., Atadokht et al., Afshani et al., and Ahmadi and Moenei (5,7,9,24).

They indicated that male and single students, who live in dormitories, committed more high risk behaviors in comparison to others. These results might be due to biological and educational differences between males and females, different cultural and social expectations, and greater freedom of boys and single people (5).

In addition, unofficial controls such as parental supervision on students living in dormitories are less than the natives; therefore, high risk behaviors are more prevalent among the native students (5,6). According to the results, there was an indirect relationship between adherence to religious values and the rate of high risk behaviors; therefore, the rate of these behaviors can be diminished by increasing the adherence of students to religion.

These findings were in line with the findings of the studies conducted by Afshani et al., Koenig et al., Wallace et al., Nonnemaker et al., and Tucker et al. They indicated that religious beliefs discourage high risk behaviors (8,14-16). Additionally, adherence to religious values is a significant barrier to committing high risk behaviors through the creation of a moral order and being the basis for the formulation of social laws.

The ethical system based on religious values clearly emphasizes the norms that limit individual and social behaviors. Moreover, our religious values, in the form of malicious and forbidden acts, set the barriers to committing those behaviors that are in contrast to human health. For instance, alcohol drinking and premarital sex are forbidden in Islam.

Regarding the results of the current study, an indirect correlation was observed between the psychological well-being and quality of life of

the students and the rate of risky behaviors. This result was consistent with the findings obtained by Atadokht et al., Mohamadi et al., Topolski et al., Strine et al., Zahran et al., and Li et al. (5,7,10-13).

It can be said that the quality of life and psychological well-being are important factors in accepting social norms that enables a person to avoid undesirable responses. Individuals with high quality of life and psychological well-being can face the challenges of life, confront them, and perform better in society without committing anti-social behaviors.

Given the results, there was no significant relationship between the rate of high risk behaviors and use of modern media. Inconsistent with the results of the present study, Escobar et al., Mohseni Tabrizi and Hoveyda, Wakefield, and Holtz and Appel demonstrated that the excessive usage of modern media leads to the tendency towards anti-social behaviors (18,19,25,26).

Furthermore, we indicated that the independent variables (e.g., adherence to religious values, quality of life, and psychological well-being), which were analyzed by regression test, indirectly affect the rate of risky behaviors among the students. These variables determined 33% of variance of high risk behaviors.

Strengths and Limitations of the Study

One of the main limitations of this study was that sampling was limited to the community of young medical students. Therefore, further studies are recommended to assess the risky behaviors among adolescents, middle-aged children, and elders. In addition, our data were only based on the questionnaires due to the lack of time and manpower, as well as ethical and legal considerations, which means that we did not interview or use the students' records.

Conclusion

The results of the present study were consistent with most of the previous studies. It is worth mentioning that the existence of a significant correlation between the rate of high risk behaviors and quality of life, psychological well-being, and adherence to

religious values does not mean that there is a causal relationship.

It is possible that the relationship between high risk behaviors and the above mentioned variables is a two-way relationship or is due to other factors, which requires a better understanding of the relationship between these variables by performing further studies. It is clear that carrying out a study into the relationship between the quality of life, psychological well-being, adherence to religious values, and the use of new media and risky behaviors is not enough, and the results could not be generalized to other people. Committing Risky behaviors in individuals may change over time and in different situations under the influence of several factors.

Conflict of interest

The author declares no conflict of interest.

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