

Predicting High-Risk Behaviors in Adolescents Based on the Parenting and Decision-Making Styles

Alireza Agha Yusefi, *Ph.D.*

Department of psychology and associate professor in Qom Payamenur University

Roghaye Zera'ati Idelu,

Ph.D. Students of educational psychology in Qom Payamenur University

Corresponding author

Shahrzad Saravani, Fatemeh'Sadat Razeghi

Ph.D. students of educational psychology in Qom Payamenur University

ABSTRACT— Due to the importance of adolescence and the high probability of high-risk behavior in adolescents, the role of parenting styles and decision making style in the behavior of adolescents, researchers decided to do a research with the aim of predicting high risk behaviors in adolescents (boys and girls) based on parenting styles and decision making styles. The present study is a correlation one. The sample consisted of 167 female and 216 male high school students in Tehran. The tools of the study contain Scott and Bruce's public decision making style and Brener, Conins & Kannl's Young's high-risk behaviors Scale (YRBSS) and Diana Bamrynd's parenting style questionnaire. The regression method was used for data analysis and the following results were obtained: permissive parenting style can predict high-risk behaviors in students. Authoritative parenting style cannot predict risky behaviors. Authoritarian parenting style among male students can be expected to be high-risk behavior, while in female students does not have this ability. Rational decision making styles cannot predict high-risk behavior of both boys and girls. Instant and intuitive thinking styles cannot predict high-risk behaviors in girls but in boys, they can. Avoidant and dependence decision-making styles have the ability of predicting high-risk behaviors in both groups.

KEYWORDS: high risk behaviors †parenting styles †decision making styles †adolescents

Introduction

According to World Health Organization, adolescence is defined as the age group of 10-19 years when is the transition period from childhood to maturity. This transition, includes biological, psychological, social and emotional dimensions that adolescents are exposed to many pressures (Sadeghi & Gilani Pour, 1388). These changes in adolescence offer countless developmental opportunities for adolescent to involve in behaviors that are implicitly important in making lifestyle with health or endangering health care (Harris et al., 2002). This stage of life, is a critical period for the onset of risky behaviors or in other words, the anti-social behaviors. On the one hand because of egocentrism, adolescents doesn't get the correct results from their risky behaviors (Boyer, 2006). And on the other hand, tend to explore risk-taking situations have raised their capacity for not having long life and even the death (Stoiber and Gad 1995). Stansfield & Kirsteim (2005) suggest that adolescence is the period of high risk behaviors and increasing exploration. This development period is known with increase in possibility of high-risk behaviors such as tend to drug abuse. This period is when an adolescent accepts new roles and responsibilities and learns social skills to take those roles (Harris, Duncan and Boisjoly 2002); but since an accurate, clear and full model or pattern hasn't been defined for him, he begins to evaluate behaviors, test roles, represent the distinction with adults and in some cases, to ignore the rules (Sheferz, 2004) and finally this growth is associated with high-risk behaviors. Thus, adolescence and early youth often are synonymous with risk-taking and the individual is defined as risk-taker. Car Greg and Grover (2003) refer risk-taking to behaviors that enhance the probability of negative and destroyer physical, psychological and social outcomes.

In recent decades, studies have shown that risk-seeking behaviors in adolescence are very common and frequent (Essau 2004; Johnston, O'malley, Bachmann and Schulenberg 2006) and many of these studies have focused on the negative consequences of risk-taking behavior (Hodgson 2000). Krcmar & Greene (2000) consider risk-taking as tendency to engage in behaviors that are intimidating or are harmful for mental and physical health. Psychologists, have studied parenting nurturing styles that reinforce the adolescent's social competence level, and in many studies it has been pointed to the importance of effect of family functioning on adolescent growth and they have examined parenting processes including management and governance role of parents (Santrock 2005. Huebner & Howell, 2003. Goudarzi, Zamaghash, 1381), family solidarity (Conger 1975. Rostami, 1381), communication of parents and adolescent and parenting style (Golchin et al, 1380; Shahsavari, 1382) and many other factors. Parenting styles are both a developing factor and a deterring factor for anti-social behaviors in adolescents. The meaning of the parents' nurturing styles is a set or system of defined behaviors that describes the parent-child interactions over a wide range of situations and it is assumed that it creates an interactive and effective atmosphere. Parenting style is a determining and effective factor that plays an important role in psychopathology and child development (Alizadeh & Andries 2002). Parenting style is composed of two elements: Parental demanding (control) and parental responding (warmth or reception). From combination of these two elements, four parenting styles are developed, including: 1. Authoritative parenting style (high demanding and high responding) 2. Authoritarian parenting style (high demanding and low responding) 3. Permissive parenting style (low demanding and high responding) and 4. Neglecting parenting style (low demanding and low responding). (Baumrind, 1999). Based on this definition, some research have shown that high level of parent-adolescent relationship and conversation is associated with low level of risky sexual relationship (Rogers 1999), and drug abuse (Seddigh Sarvestani, 1382). Fergusson, Swain-Compbell and Horwood 2004 suggested that family problems such as family instability is related to risky behaviors in school or out of school. Poor relationships between adolescent and parents, explain the correlation of risky sexual behaviors and antisocial behaviors (Ramrkha and others, 2007). In addition, researchers found that a combination of parental emotions and severe parental inhibitions can increase antisocial behaviors of adolescents (Lanyado and Horne 1999). Along approving the relationship of parents and adolescents, they also point out that if parental inhibition seems logical to adolescent and there be a warm and friendly atmosphere, no problem will occur, but if inhibition be associated with apathy, it may enhance the anti-social behaviors in adolescents. Most adolescents who commit criminal acts, experience an extremely heartless, cold, repulsive and unbearable world. In addition to parenting styles, other factors also affect the development and expression of high-risk behaviors in adolescence including decision making styles. Irwin in 1999 considers risk-taking as a voluntary behavior which results in uncertainty and negative consequences, and adolescence growth stage as most appropriate stage for studying decision-making proficiency. Some important decisions are made in adolescence. For example, choosing university and the education field or engaging in some behaviors that lead individual to addiction. These decisions can affect all one's life (Tuinstra, Sonderen, Groothoff, van den Heuvel and Post,2000). Although adolescence is an important stage throughout people's life, but at the same time there are risky and uncontrolled conditions that lead adolescent to the direction that make decisions and experience the consequences of these decisions (Baillie, Lovato, Johnson, Kalaw 2005, D'Alessio, Baiocco and Laghi 2006). However, rather little research has been done on the decision making at this stage. (Crone, Vendel and Van der Molen, 2008). Decision making serves many cognitive processes such as information and processing it, problem solving, judgment, memory and learning. Decision-making is the process between different alternatives to achieve a certain goal (Heidari, Bagherian, Fathabadi, Shahyad and Asadi, 2011). The researchers have focused on the relationship between character and decision-making. These patterns offer different styles of decision-making (Brew, Hesketh & Taylor 2001, and Franken & Muris, 2005). Decision-making style of people represents a habitual pattern that they use during decision-making (Zare' and Arab Shaibani, 1390). In dividing different styles of decision-making there are different patterns that one of them is Scott and Bruce's (1995) pattern that have explained five directors' decision making styles, including rational, intuitive, avoidance, instant and dependence decision-making, and they believed these five styles are affected by internal and personality attributes that is examined as pattern in this research. Adolescence is a period in which people are in close interactions with their peers in contexts that involve risky behaviors. For example, parties, sporting venues and sightseeing. Probably in these interactions, adolescents don't have the ability to cope with the demands and pressures of peers and these interactions lead adolescent to a peers-dependent decision-making. This in turn may facilitate participating in risk-taking behaviors (Engels, Scholte, Lieshout, De Kemp, Overbeek 2006). The aim of this study is to predict risky behaviors in adolescents (male and female) based on the parenting and decision-making styles.

Research method:

This study is a descriptive-correlation one. The statistical society of this investigation selected all boy and girl high school adolescents of region 2 in Tehran that their number is 17000. By stratified sampling between 8900 girls and 8100 boys using the Morgan formula 375 ones were chosen. Given the possibility of defects in some of the data collected, finally 390 ones including 186 girls and 204 boys were chosen. Because of the data deficiency, some participants were excluded and finally 167 females and 216 males, were examined for instance.

Research Tools:

In this study there are three variables including a criteria variable (high-risk behaviors) and predictor variable (Parenting and decision-making styles). That all three have been assessed by using a questionnaire and information have been collected by researcher. Two questionnaires have been collected by adolescents (high-risk behaviors, decision-making styles) and a questionnaire (parenting styles) by parents. Decision-making styles: to evaluate decision-making styles of adolescents the questionnaire of Scott and Bruce's public styles were used. The questionnaire consists of 25 questions with Likert scale that assess 5 styles of decision-making (rational , intuitive , avoidant , instant and dependence) In order to calculate each of decision-making styles in this questionnaire 5 questions are assigned. Scores range in this questionnaire is from 25 to 125. The validity of the general styles of decision-making abroad was calculated By Scott and Bruce (1991) and they reported a very high validity for that and its reliability factor for each of subscales was calculated by Cronbach's alpha which is: 0.85 rational, 0.84 intuitive, 0.86 avoidance, 0.94 instant, 0.87 dependence. The scale of assessing high-risk behaviors (YRBSS¹): for assessing high risk behaviors the scale of Brener, Conins& Kanml was used. These researchers have designed and set this questionnaire by adopting the Control Disease Center (CDC) questionnaire of high-risk behaviors in 1989. This questionnaire consists of 21 items that assess the intensity of high-risk behaviors during the most recent quarter in these areas: violence (bearing cold arms and involvement in physical fighting), smoking, drinking alcohol, abusing drugs and psychotropic drugs, high-risk sexual relationships, insufficient nutrition and physical activity and socializing with wrong friends. Responding to 6 items of this questionnaire is yes / no (with score 0 and 1) and other items in Likert scale are from never to very much (a score of 0 to 4). Its score range is from 0 to 54. Brener , Kann L& McManus (2002) have calculated reliability of all its items 0.23 to 0.85. In Iran also Bakhshani, Lashgari pour, Bakhshani and Hosseini bar (1387) have reported its reliability 0.85. Also Mehrabi, Kajbaf and Mojahed (1389) have reported the reliability of this questionnaire 0.79 and its content validity as good. In this study, the questionnaire's reliability was obtained 0.84 using Cronbach's Alpha method. Parenting styles: For this purpose the parenting styles' questionnaire of Diana Bamrynd was used. This questionnaire was designed in 1972 by Diana Bamrynd. 30 questions of this questionnaire measures three parenting styles including: 10 questions for authoritative style; 10 questions for authoritarian style, and 10 questions for permissive style. The pattern of responses to questions is based on a 5 degrees Likert scale. This questionnaire has been examined in several studies and its reliability and validity have been well reported. Buri (1991), using retesting method, has reported the reliability of this tool in mothers and fathers for permissive style 0.81 and 0.77; for authoritarian style 0.86 and 0.85, and for authoritative style 0.78 and 0.88, respectively. He also has reported the diagnostic validity of the questionnaire valid. According to that the authoritarian style of father is associated inversely with his permissiveness (-0.38) and authoritative (-0.48) style, and being an authoritarian mother is related inversely to her permissiveness (-0.50) and authoritativeness (0.52). In Iran, Esfandiari (1374) has reported reliability and validity of the questionnaire desirable.

Results:

The results of questionnaires of high-risk behaviors, parenting styles and decision-making styles of 383 high school students, including 167 girls and 216 boys, were studied. These results were analyzed after a brief examination of descriptive statistics (Table 1) to study the relationship between research variables, using statistical inference and regression analysis (Tables 2 to 3).

A) Descriptive findings : Table 1 shows the summary of descriptive statistics of the studied group:

Table 1 - Descriptive statistics related to high-risk behaviors, parenting styles (authoritative, authoritarian, permissive) and decision-making styles (rational, intuitive, avoidant, instant and dependence).

Group	Variables Indexes	Parenting Styles			Decision Making Styles					High-Risk Behaviors
		Authoritative	Authoritarian	Permissive	Rational	Intuitive	Avoidant	Instant	Dependence	
Girl	Number	21	18	22	21	20	21	22	22	167
	Average	38.20	27.50	31.15	15.75	16.65	12.70	14.40	14	91.40
	Standard Deviation	6.21	5.03	6.81	2.29	2.20	2.43	2.16	2.02	24.36
Boy	Number	26	30	34	30	27	30	33	26	216
	Average	38.13	34.26	34.13	15.36	14.60	12.96	13.66	14.10	35.76
	Standard Deviation	8.15	16.75	15.95	5.17	4.93	4.50	4.55	4.90	1.02

¹ Young's Risk Behaviors Scale

As it can be seen in the table, average and (the standard deviation of) parenting styles' scores (authoritative, authoritarian and permissive) of girls are respectively: 38.21 (and 6.21), 27.50 (and 5.03), 31.15 (and 6.81); average and (the standard deviation of) parenting styles' scores (authoritative, authoritarian and permissive) of boys are respectively: 38.13 (and 8.15), 34.26 (and 16.75), 34.13 (and 15.95). Average and (the standard deviation of) decision-making styles (rational, intuitive, avoidant, instant and dependence) of girls, are respectively: 15.75 (and 2.29), 14.40 (and 2.16), 12.70 (and 2.43), 14.40 (and 2.16), 14 (and 2.02); Average and (the standard deviation of) decision-making styles (rational, intuitive, avoidant, instant and dependence) of boys, are respectively: 15.36 (and 5.17), 14.60 (and 4.93), 12.96 (and 4.50), 13.66 (and 4.55), 14.10 (and 4.90). Average and (the standard deviation of) high-risk behaviors in girls, are respectively: 91.40 (and 24.36); Average and (the standard deviation of) high-risk behaviors in boys, are respectively: 35.76 (and 1.02). According to the table above, it appears that groups of girls and boys in the average scores of authoritarian parenting style (27.50 against 34.26) and high-risk behaviors (91.40 against 35.76) are different.

B) Findings related to the study's hypothesis:

In this part due to tables 2 to 3, we examine each of the main research hypotheses. The hypothesis of this research are:

1- There is a significant relationship between parenting styles (authoritative, authoritarian, permissive) with high-risk behaviors.

Table 2 - multiple regression analysis of parenting styles and high-risk behaviors of girl and boy adolescents (Enter method)

Criteria Variable	Predictor Variables	Subscales	R ² (Adjusted)	R	F Ratio P Level	Regression Coefficients		Significance Level
						B	β	
High Risk Behaviors	Parenting Styles (Girls)	Authoritative	0.01	0.23	F=1.48, P=0.23	0.95	0.23	0.63
		Authoritarian	-0.04	0.014	F=0.005, P=0.94	0.17	0.08	0.09
		Permissive	0.52	0.72	F=27.72, P=0.0001	2.54	0.72	0.0001
	Parenting Styles (Boys)	Authoritative	0.15	0.42	F=6.31, P=0.18	1.87	0.74	0.01
		Authoritarian	0.44	0.66	F=23.4, P=0.0001	1.43	0.66	0.0001
		Permissive	0.59	0.77	F=44.19, P=0.0001	1.7	0.77	0.0001

According to table above in the confidence level of $p < 0.05$, it can be concluded that: permissive parenting style in both groups of girls and boys can predict high-risk behaviors: (sig = 0.000, $\beta = 0.72$) for girls and, (sig = 0.000, $\beta = 0.77$) for boys. And authoritative parenting style in any of the two groups cannot predict high-risk behaviors (Sig = 0.63 and $\beta = 0.23$) for girls and (sig = 0.01 and $\beta = 0.74$) for boys. But authoritarian parenting style in boys (sig = 0.000 and $\beta = 0.66$) can predict high-risk behaviors in boy students while not in girls (Sig = 0.09 and $\beta = 0.08$).

Hypothesis 2: There is a significant relationship between the styles of decision-making (rational, intuitive, avoidant, instant and dependence) and high-risk behaviors of adolescents.

Table 3 - Regression analysis of decision-making styles (rational, intuitive, avoidant, instant and dependence) and high-risk behaviors in adolescents (Enter method).

Criteria Variable	Predictor Variables	Subscales	R ² (Adjusted)	R	F Ratio P Level	Regression Coefficients		Significance Level
						B	B	
High Risk Behaviors	Decision Making Styles (Girls)	Rational	0.01	0.35	F=0.09, P=0.75	0.41	0.004	0.75
		Intuitive	-0.007	0.001	F=0.001, P=0.99	0.003	0.0001	0.99
		Avoidant	0.14	0.38	F=0.25, P=0.0001	3.6	0.38	0.0001
		Instant	0.0007	0.02	F=0.001, P=0.098	0.028	0.002	0.098
		Dependence	0.11	0.34	F=18.61, =0.0001	4.3	0.34	0.0001
	Decision Making Styles (Boys)	Rational	0.002	0.04	F=0.33, P=0.56	0.02	0.02	0.71
		Intuitive	0.14	0.38	F=34.88P=0.0001	2.75	0.38	0.0001
		Avoidant	0.32	0.58	F=106.21,P=0.0001	4.63	0.58	0.0001
		Instant	0.24	0.5	F=68.44,P=0.0001	3.94	0.47	0.0001
		Dependence	0.08	0.30	F=20.87,P=0.0001	2.21	0.30	0.0001

According to the table above, the confidence level of $p < 0.05$ it can be concluded that: with possibility of 95%, rational decision making style cannot predict high-risk behaviors in both groups: (Sig = 0.75 and $\beta = 0.004$) for girls and (Sig = 0.71 and $\beta = 0.02$) for boys. But intuitive (sig=0.99 and $\beta = 0.0001$) and instant (sig=0.098 and $\beta = 0.002$) decision making styles in girls cannot predict high-risk behaviors while intuitive (sig=0.000 and $\beta = 0.38$) and instant (sig=0.000 and $\beta = 0.47$) decision making styles in boys can predict high-risk behaviors. In addition, avoidant (sig=0.000 and $\beta = 0.38$) in girls and (sig = 0.000 $\beta = 0.58$) in boys and dependence decision making styles (sig=0.000 and $\beta = 0.34$) in girls and (sig = 0.000 $\beta = 0.30$) in boys can predict high-risk behaviors.

Discussion and conclusion:

The aim of current study is to predict high-risk behaviors of students based on parenting styles (authoritative, Authoritarian and permissive) and decision-making styles (rational, intuitive, avoidant, instant and dependence). The results have shown that permissive parenting style can predict high-risk behaviors among students. So that students who have been encountered by permissive parenting style of their parents, have shown more willing to do high-risk behaviors. Authoritative parenting style can't predict high-risk behaviors. In other words, students, who have been enjoyed from authoritative parenting style of their parents, have shown less willing to do high-risk behaviors. Authoritarian parenting style in boy students can predict high-risk behaviors, while in girls it can't. In other words, boy students who have been encountered by authoritarian parenting style are more willing to do high-risk behaviors. While this was not confirmed in the case of girls. This results support the results of research done by Ramrakha and others (2007) which showed that poor relationships between parents and adolescents explain the correlation of risky sexual behaviors and antisocial behaviors, and also the research done by Lanyado and Horne (1999) that found combination of extreme parental emotions and inhibitions can enhance the anti-social behaviors in adolescents. Also, if the parental inhibition seem logical to adolescent and there be a warm and friendly atmosphere, there won't be any problem, but if inhibition be associated with apathy, may enhance the anti-social behavior in adolescents. Permissive parenting style with features of low demanding and high responding in both groups of study showed a relation with the desire to high-risk behaviors; because of low control and high warmth. Special features of adolescence lead to enhancing the need of controlling adolescent, besides much love, when the balance isn't observed, despite enjoying much love, adolescents show desire to high-risk behaviors. The authoritative parenting style according to features of "high demanding and high responding" cannot predict high-risk behaviors in children. It may be claimed that this style, prevent high-risk behaviors in adolescents, because parents have warmth and high acceptance in addition to high control. Probably the authoritarian parenting style (high demanding and low responding) in both groups is associated with increasing high risk behaviors, but in this research, this relation for boys and girls was rejected: probably because of sexual difference and the role of culture in the society. Sex can cause more rebellion in the boy adolescents and our community culture invites girls to obey parents. Decision-making style is another predictor of risk-taking behaviors which in this study its predictive ability was significant. This findings are consistent with other studies (Bechara, Damasio, H., & Damasio, A. 2000; Crone et al, 2003; Baiocco et al, 2009). Rational decision making style in girls and boys, cannot predict high-risk behaviors. In other words, the more students use rational decision- making style, the less they show desire to high-risk behaviors. Intuitive and instant thinking styles in girls cannot predict high-risk behaviors but they have this ability in the case of boys. In other words, girls who use intuitive and instant thinking styles, show less desire to high-risk behaviors; but boys who use these thinking styles are more likely to show high-risk behaviors. Avoidant and dependence styles of decision making in both groups can predict high-risk behaviors. In other words, the more students use avoidant and intuitive thinking styles they are likely to show high-risk behaviors.

Limitations and suggestions:

One of the limitations of this study is the case study. The sample consisted of high school students of region 2 of Tehran, and according to different cultural, social, economic, differences of students in different regions of Tehran, there should be a precaution in generalizing the results to other students. In addition, according to age group of sample of the study, which included high school students, in generalization of the results to other groups we must be cautious. According to the results of the research, it is suggested that researches about methods of reducing high-risk behaviors in adolescents be done. Providing appropriate training programs by educational authorities in these areas is also desirable to improve parenting styles and students' decision-making styles.

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