

Original Article

Predicting the tendency towards high-risk behaviors based on moral disengagement with the mediating role of difficulties in emotion regulation: A Structural Equation Modeling

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Abstract

Types of tendency to high-risk behaviors are common among adolescents. This study aimed to determine predicting the tendency toward high-risk behaviors based on moral disengagement with the mediating role of difficulties in emotion regulation. The method of this study was descriptive-correlational. All secondary school students of Ardabil, who were studying in the year 2018, comprised the population of this research. Two hundred and fifty students were selected from this population through multistage random cluster sampling and they were asked to fill in high-risk behaviors, moral disengagement, and difficulties in emotion regulation questionnaires. The data were analyzed using SPSS and LISREL software. The results showed a role for high-risk behaviors, total moral disengagement score, and its components and the total score of difficulties in emotion regulation. There was also a significant relationship between the difficulties in emotion regulation and the total score of moral disengagement and its components. Also, the proposed model had a good fit, and the fitting indices of the model also confirmed the moral disengagement path to high-risk behaviors with the mediating role of difficulties in emotion regulation. The results indicated that moral disengagement with high path coefficients could be an effective factor in predicting the tendency toward high risk behaviors among students.

Keywords

Emotion regulation
High risk behaviors
Moral disengagement

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Introduction

Adolescence is a period of physical, cognitive, socio-emotional, environmental and a dynamic and emotional period for individuals that includes increased ability to think, start puberty and change in relationships with family, friends, school and community, peer expectations, family and society, family roles, responsibilities, efforts to acquire new emotional and social roles, managing life duties without being too dependent on other people, and creating a new orientation for the future as independent and productive adults (Baltes & Schaie, 2013). Tendency toward high-risk behaviors include manners that make

individuals hurt themselves, and most scholars believe that this harm is not solely related to the person, but the range of harm affects others, too (Ndugwa et al., 2011). Evidence suggests that adolescents tend to be more risk takers than children and adults and this tendency can lead to high-risk behaviors (illegal and dangerous) or positive (socially acceptable and constructive) (Duell & Steinberg, 2019). DiClemente et al. (2013) also developed high risk behaviors to violence and overeating and proposed the tendency toward these behaviors among adolescents. The broad concept of high-risk behaviors contains a hierarchy of behaviors that not only causes serious damage for the person involved in this behavior and the important people of his life, but also causes unintended damage to other

innocent people; there is a tendency towards these behaviors among teenage compared to older age groups. The most common high-risk behaviors include: more consumption of alcohol, drug abuse, smoking, conflict, dangerous sports, gambling, aggression, school leaving, unauthorized acts, and illegal behavior (Boyer, 2006). Research has shown that most risky behaviors, such as smoking, alcohol, drugs and insecure sexual behaviors begin before the age of 18 (Smith & Wessel, 2011). Research in Iran also indicates the prevalence of high-risk behaviors such as smoking, hookah, alcohol, and drug use among adolescents aged 14 to 18 (Ahmadabadi, 2009). In other words, studies conducted in Iran indicate that high risk behaviors among adolescents have increased in recent years. The growth of high-risk behaviors has been so high that it has become one of the serious health threats over the past years, and because of its importance has been considered by health organizations, law executives and community policymakers (Adibnia, Ahmadi, & Mousavi, 2016). It seems that one of the factors that can contribute to the tendency towards high-risk behaviors is the ethical unwillingness.

Moral disengagement is a cognitive process in which individuals apply justifications for behaviors that violate ethical standards (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). According to theoretical foundations, moral disengagement is not a fixed trait, but a cognitive orientation towards the world that grows over time and is influenced by the social context in which one acts (Moore, 2008). Researchers have shown that those with high moral disengagement tend to be more involved in delinquent behaviors, higher levels of aggression, and lower levels of sin and social benefit tendency (Bandura et al., 1996). Research evidence among the juvenile offenders shows that moral disengagement anticipates aggressive behaviors (Kiriakidis, 2008) delinquency (Mulford, 2004) and re-arresting (Cardwell et al., 2015). Newton et al. by a research on juvenile reported that moral disengagement is one of the risk-making factors for individuals in alcohol and cannabis among adolescents (Newton, Andrews, Champion, & Teesson, 2014). Also, moral disengagement is a dangerous critical mechanism for antisocial behavior (Luke, Shaw, & Moilanen, 2010) and is associated with aggressive behaviors (Kokkinos, Voulgaridou, Mandrali, & Parousidou, 2016). Page, & Pina (2015). Showed that moral disengagement plays an important role in facilitating and enhancing sexual harassment. Moral disengagement anticipates alcohol consumption among adolescents (Barnes, Welte, Hoffman, & Dintcheff, 1999). and is a risk factor for drinking alcohol among adolescents (Newton, Havard, & Teesson, 2012). Also, a predictor of aggressive behavior is (Gutwiller-Helfenfinger, 2015).

Individuals with high unwillingness justify their aggressive and violent behaviors as being logically (Wang

et al., 2018). In their research, Fida et al. reported that there is a relationship between the difficulty of regulating negative emotions and the use of moral disengagement justifications (Fida et al., 2018). Rubio-Garay et al., in their studies, showed the role of negative emotional regulation in increasing the likelihood use of moral disengagement mechanisms (Rubio-Garay, Carrasco, & Amor, 2016). One of the factors that today has received considerable attention from the researchers as an intermediate variable is the difficulty in regulating emotions. The pattern of difficulty in regulating emotions is used in a broad sense, including the difficulty in identifying and describing emotions, emotional regulation and behavior (Spence & Courbasson, 2012). Social, emotional and behavioral problems have a significant effect on the life, education and psychological well-being of adolescents, one of the main aspects of emotions growth is emotional regulation. Emotional regulation is a central factor in the evolution and survival of social, emotional and behavioral problems (Bullemor-Day, 2015). The low level of emotions regulation that is caused by the inability to deal effectively with emotions and management contributes to the beginning of drug use (Garofalo & Wright, 2017). Tull et al., in their studies have shown that difficulty in regulating the emotions predicts high-risk behaviors (drug use and sexual behavior) (Tull, Weiss, Adams, & Gratz, 2012). In fact, young people with greater self-regulation ability participate in social behaviors (Carlo, Crockett, Wolff, & Beal, 2012), tend less to high risk behaviors such as rape and delinquency (Doan, Fuller-Rowell, & Evans, 2012), alcohol consumption and sexual risk behaviors (Quinn & Fromme, 2010). Therefore, self-regulation is an important part of compatible psychological performance (Hardy, Bean, & Olsen, 2015). Many researches today study the simple relationship among variables, but researches with intermediate variables can be effective in creating new insights in the targeted fields (Lindberg & Zeid, 2017). Accordingly, it can be said that moral disengagement and difficulty in regulating emotions are of effective factors in the tendency toward high-risk behaviors, and also studying these variables together can be a solution for some ambiguities in the tendency toward high-risk behaviors; therefore, the present study was conducted with the purpose of modeling the tendency toward high-risk behaviors based on moral disengagement with the role of mediating difficulty in emotional regulation. This study aimed to determine predicting the tendency towards high-risk behaviors based on moral disengagement with the role of the mediator difficulties in emotion regulation (Chart 1).

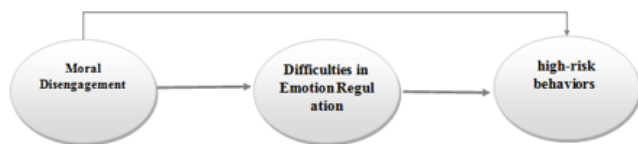


Figure 1. Conceptual model of research

Method

Participants

This is a descriptive-correlational research. The sample of this study consisted of all male students of second grade of public high schools in Ardabil province in the academic year of 2019. A total of 260 individuals were selected was selected through cluster random sampling. Considering that the methodology of Structural Equation Modeling is largely similar to some aspects of multivariate regression, one can use the principles of determining the sample size in multivariate regression analysis to determine the sample size in the modeling of structural equations, and select 10 to 20 samples for each measured variable (Hooman, 2005), therefore, given the fact that there are 3 measured variables in the proposed model, the acceptable sample size is up to 60 participants. Also, since many researchers believe that the minimum required sample size in structural models is 200 (Habibi, 2012), in the present study, considering the probability of dropping of the research subjects, at least 260 subjects completed the required questionnaires, which after the deletion of corrupted data, 250 questionnaires were entered into the statistical analysis.

Instrument

Moral Disengagement Scale

This scale was a 32-item questionnaire for assessing the person's talent for moral disengagement (Bandura et al., 1996). It evaluates eight mechanism of moral disengagement including moral justification, euphemistic labeling, advantageous comparison, displacement responsibility, responsibility diffusion, distorting consequences, dehumanization, and documents blame. Each of these mechanisms is evaluated by four items. The participants should respond to the items in a five-part Likert format from absolutely disagree (1) to absolutely agree (5). Higher numbers in each subscale indicates the higher extent of that mechanism. Higher scores in all of the mechanisms also show higher disengagement. The questionnaire showed a high correlation in the moral judgment test and its reliability was difficulties in emotion regulation scale. The difficulties in emotion regulation scale reported to be 0.82 (Bandura et al., 1996).

(DERS) Gratz and Roemer is a self-report measure that evaluates individuals' levels of difficulties in regulating emotions. The instrument presents 36-item on a 5-point Likert scale of frequency (from 1 = almost never, to 5 = almost always). DERS provides a total scoring of overall difficulties where higher scores correspond to greater difficulties, and other six different subscales: no acceptance of emotional responses (6 questions), difficulty engaging in goal-directed behavior when distressed (5 questions), impulse control difficulties when distressed (6 questions), lack of awareness of emotions (6 questions), limited access to strategies for regulation (8 questions), lack of emotional clarity (5 questions). These dimensions were obtained through exploratory factor analysis in a sample of 357 university students. Research supported the scale's adequate construct and predictive validity and good test-retest reliability over a period of 4–8 weeks (RI = 0.88) (Gratz & Roemer, 2004). The alpha value of this questionnaire was 0.92 reported by Azizi, Mirzaei, & Shams, (2010).

High-risk Behaviors Scale

Risk-taking behaviors inventory questionnaire: risk-taking behaviors questionnaire by Zadeh Mohammadi and Ahmad Abadi (2008) to evaluate valid instruments in terms of risk taking such as adolescent risk-taking questionnaire (Gullone & Moore, 2000) and a control system questionnaire of high-risk behaviors of youth (Brenner et al., 2004), and considering cultural conditions and social limits of Iran. This scale includes 28 items for assessing the vulnerability of adolescents against 6 high-risk behaviors such as high-risk driving tendency (questions 1-6), violence (questions 7-11), smoking (questions 12-16), drug use (questions 17-21), alcohol consumption (Questions 22-24), the tendency towards the opposite sex (Questions 25 to 28), which respondents express their agreement or disagreement with these items on a scale of five-score from fully agree (5) to fully disagree (1). The high score in each of the factors indicates the high risk of adolescents in that factor. The reliability of Iranian adolescents' risk-taking scale was investigated using internal consistency method and Cronbach's alpha coefficient and its validity was studied using exploratory factor analysis and principal components analysis method. The reliability of this questionnaire and its subscales were at the appropriate and desirable level, so that the Cronbach's alpha for the total scale of 0.94, the tendency towards high risk driving 0.93, smoking 0.94, drug use 0.90, alcohol consumption 0.90, sexual relationship and behavior 0.86, and tendency to opposite sex 0.81 (Zadeh Mohammadi & Ahmad Abadi, 2008).

Procedure

The data collection method was in such a way that we referred to the Education Department of Ardabil province after obtaining a license from the university. After

approval by the education department and providing the necessary permission for cooperation, four schools were selected from Ardabil public boys' high schools by cluster random sampling. Then, the researcher distributed the questionnaires by attending the schools and coordinating with the school principals and teachers.

The collected data were analyzed using descriptive statistical instruments such as mean and standard deviation and Pearson correlation tests using SPSS and analysis path was done using LISREL.

Results

A total of 250 male students with an average age of 15.88 and a standard deviation of 1.37 participated in this study..

Table 1. Mean and SD participants' scores in each of moral disengagement, Difficulties in Emotion Regulation and high-risk behaviors

Variables	mean	SD	Variables	Mean	SD
Difficulties in Emotion Regulation	100.40	18.28	Displacement Responsibility	11.47	1.03
Nonacceptance of emotional responses	16.57	3.61	Responsibility Diffusion	11.23	2.36
Difficulty in goal-directed behavior	14.07	2.73	Distorting Consequences	11.37	2.31
impulse control	16.83	3.13	Documents Blame	11.00	2.24
lack of awareness	16.65	3.25	Dehumanization	11.07	2.25
strategies for regulation	22.43	4.45	Driving high-risk	12.83	2.84
lack of emotional clarity	25.00	5.33	Violence	11.00	2.53
moral disengagement	88.97	16.74	Smoking	10.70	2.65
Moral Justification	10.60	2.42	drug use	11.03	2.51
Euphemistic Labeling	11.13	2.31	alcohol consumption	6.13	1.75
Advantageous Comparison	11.00	2.71	Tendency to opposite sex high-risk behaviors	8.63	2.24
				60.43	12.13

Table 1 shows the mean and standard deviation of the variables studied.

Table 2. Correlation matrix of the studied variables

Predictive variables	R	Predictive variables	R
Emotion Regulation Difficulties	0.66**	Moral Justification	0.52**
Nonacceptance of emotional responses	0.53**	Euphemistic Labeling	0.54**
Difficulty in goal-directed behavior	0.52**	Advantageous Comparison	0.42**
impulse control	0.50**	Displacement Responsibility	0.42**
lack of awareness	0.015	Responsibility	0.53**

strategies for regulation	0.50**	Diffusion	
lack of emotional clarity	0.19	Distorting Consequences	0.59**
moral disengagement	0.74**	Documents Blame	0.61**
		Dehumanization	0.52**

Table 2 shows the correlation coefficients of moral disengagement variables, Difficulties in Emotion Regulation and high-risk behaviors

Table 3. Results of the present research hypothesis test

Direct effects	amount of effect	T value	p Value	Result	
moral disengagement	high-risk behaviors	0.63	7.42	0.001	confirmed
moral disengagement	Difficulties in Emotion Regulation	0.70	8.98	0.001	confirmed
Difficulties in Emotion Regulation	high-risk behaviors	0.36	4.44	0.002	confirmed
Indirect effects	amount of effect	T value	Result		
moral disengagement	Difficulties in Emotion Regulation	high-risk behaviors	0.63×0.36=0.23	3.98	confirmed

According to Figure 2 and Table 3, the direct effect of moral disengagement on high-risk behaviors was 0.63; moral disengagement on difficulties in emotion regulation was 0.70, and high-risk behaviors influence on difficulties in emotion regulation was 0.36. Also, according to Table 2, the indirect effect of moral disengagement on high-risk behaviors mediated by difficulties in emotion regulation was 0.23.

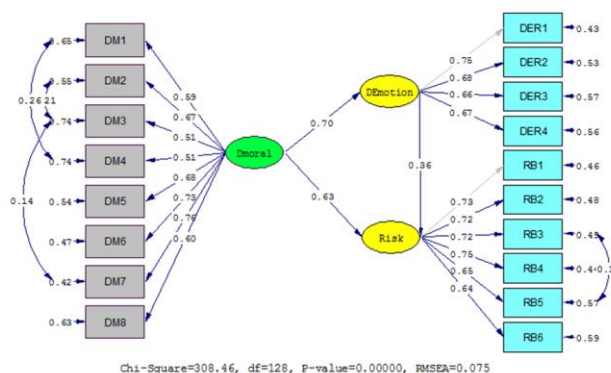


Figure 2. Results of structural relations analysis

According to Figure 3 and the significance of the T-statistic for each of the research variables at the error level

¹ Calculate the T statistic using the Sobel test

of 0.05, the research hypothesis confirms the direct effect of moral disengagement on high-risk behaviors.

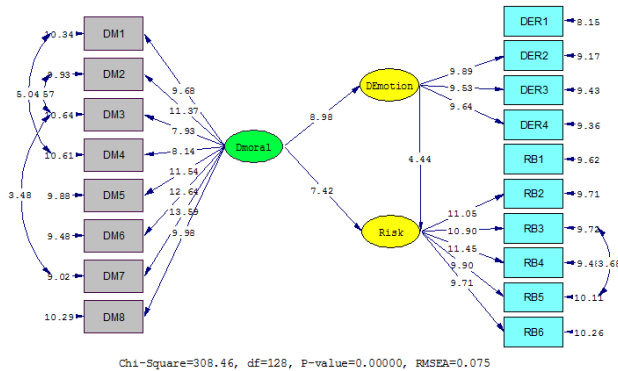


Figure 3. Results of the calculation of T statistics in the structural model

Table 4. General fitting indices of the modified model

Indicator	X ² / df	CFI	GFI	AGFI	RMSEA
Calculated value	2.45	0.97	0.90	0.84	0.075
Acceptable level	1-5	>0.90	>0.90	>0.90	<0.08

According to the qualitative characteristics of fitness, which is reported in (Table4), fitting the prediction model of the research variables is relatively good, and these characteristics indicate that the model is consistent with the theoretical community of research. Therefore, the statistical model of the extant model is meaningful and has the ability to have generalized conclusions.

Discussion

The present research was conducted with the purpose of modeling the tendency towards high-risk behaviors based on moral disengagement with the mediating role of difficulty in emotional regulation.

The results of this study showed that moral disengagement has a direct and significant effect on high risk behaviors. The model path also shows that moral disengagement with the mediatory role in difficulty regulating of emotions indirectly affect risky behaviors. These results are consistent with the findings of (Kiriakidis, 2008),(Luke et al., 2010),(Newton et al., 2012),(Newton et al., 2014),(Cardwell et al., 2015), (Gutzwiller-Helfenfinger, 2015), (Kokkinos et al., 2016), (Page et al., 2015) based on the fact that individuals with high unwillingness justify aggressive and violent behaviors as being logical (Wang et al., 2018). In order to explain this assumption, it can be stated that growth psychologists believe that adolescence is a fast-growing period of physical, psychological, social, cultural and cognitive development. Physical changes include the

growth and maturity of various body systems, such as the sex organs and the brain provide bio based for other growth changes (Adams & Berzonsky, 2008).

The brain of the adolescent is completed at this stage and as a result cognitive maturity happens in the early adolescence; that is, when new cognitive ability is combined with life experiences; social judgment is formed, including judgments about risk-taking or caution; it might be due to the fact that risk-taking is considered to be a controllable conscious behavior and is voluntary (DiClemente et al., 2013). In addition, the period of the transition crisis in relation to teenagers is a world of circles and social interactions, the world of work, connecting with peers, enjoying and achieving independence in relation to the removal of demands that changes into the center of the main adolescent focus. Here, the family gets away from adolescence’s attention center and searches his identity out of family; therefore, every fail can be followed by subsequent consequences such as tendency to risky behaviors(Cicchetti & Rogosch, 2002). Teenagers with highly ethical unwillingness, due to lack of interest in ethical issues, cognitive orientations that shape the socialization of these individuals and through moral justification: namely the abnormal justification of their inappropriate behaviors. Euphemistic labeling: pretending their own unimportant actions, advantageous comparison: by comparing their ugly actions with worse actions. Displacement responsibility: escaping from the burden of responsibility and through the responsibility diffusion: doing an ugly act in a group. Distorting consequences: people ignore or distort the damage their actions hurt others. In humanization: Without creating any kind of embarrassment in a person, and blame documents: according to others' statements or actions, negative consequences neglect their addictive behavior and deny the problems associated with the risky behavior. Therefore, as individuals use more mechanisms of ethical unwillingness, there is a dramatic change in their ethical acts, without changing their personality structure or their own assessment systems; these self-excuse processes justify many non-human behaviors (Bandura, 2016), which make adolescents continue their high-risk behaviors, including violence and drug abuse. The model path also shows that moral disengagement indirectly affects the risky behaviors with difficult mediation in regulating emotions. These results are consistent with findings from (Quinn & Fromme, 2010), (Tull et al., 2012), (Doan et al., 2012), (Garofalo & Wright, 2017) and (Carlo G et al., 2012). In order to explain this assumption, it can be said that regulating the emotions is a process that is learned during the growth period. Managing and organizing emotions may be difficult due to the inadequate family environment, lack of proper learning patterns and physical abuse (Cole, Michel,

& Teti, 1994). Difficulty in regulating emotions is the result of a lack of abilities and capabilities to regulate the emotions (Coutinho, Ribeiro, Ferreirinha, & Dias, 2010). People who have difficulty in regulating emotions cannot regain their emotional position, are less able to maintain their relationship and feel that they are in a negative relationship pattern with others, and feel that they are out of control (Abbott, 2005).

When an individual undergoes pressure by peers to use drugs, effective management of emotions reduces the risk of abuse (high-risk behaviors). The ability to manage emotions makes it possible for someone to use coping strategies in situations where the risk of drug consuming is high, people with high emotional regulation have more capability to predict others' demands. They perceive the unwanted pressure of peers and control their emotions and thereby are more resistant to drug use (high-risk behaviors) (Trinidad & Johnson, 2002). In contrast, people with low emotional regulation tend to high risk behaviors to deal with their negative emotions.

Conclusion

In general, the results showed that moral disengagement is directly related to high-risk behaviors and indirectly mediated by difficulties in emotion regulation. The limitation of the present research to a geographic area and its implementation on an academic level is one of the main limitations of this research. Therefore, it is suggested that this research be carried out in other geographic regions and in other educational levels. Practically, considering the role of the importance of mediating difficulty in regulating emotions in the tendency toward high-risk behaviors, holding educational management workshops and emotional adjustment for students is suggested.

Conflict of interest

No potential conflict of interest was reported by the authors.

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