



Mediating Role of Differentiation of Self in the Direct Relation Between Parental Bonding and Risky Behaviors Among Adolescents and Youths in Shiraz

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Abstract

Background: Prevalence of risky behaviors among various classes of society, especially adolescents and youths, is a major social problem, which inevitably slows down the societal progress.

Objectives: We aimed to investigate the mediating role of differentiation of self between parental bonding and risky behavior among adolescents and youths in Shiraz.

Methods: This study included 560 adolescents and youths (aged from 15 to 35 years, average = 25.7, SD = 7.1; 67.7% males) with risky behaviors who were attending drop in center and Voluntary Counselling and Testing centers, those incarcerated, and those kept in the correctional and rehabilitation facilities 2013 - 2014. Questionnaires about parental bonding, self-differentiation, and risky behaviors were completed by the participants on a voluntary and confidential basis.

Results: No significant correlation was found between parental bonding and risky behaviors in the adolescents and youths ($t=1.87$). There was also no significant correlation between parental bonding and DS ($t=0.68$). Moreover, there was no significant correlation between the differentiation of self and risky behaviors ($t=0.77$).

Conclusions: Differentiation of self hadn't a mediating role between parental bonding and risky behaviors among the adolescents and youths in our study.

Keywords: Adolescent, Health Risk Behaviors, Parents, Role

1. Background

The prevalence of risky behaviors among various social classes is a serious health problem, and due to rapid social changes in recent years, it has been considered a major social problem by health organizations, law enforcement officials, and social policy-makers (1).

Studies have shown that majority of risky behaviors, including tobacco smoking, alcohol abuse, and unsafe sexual behaviors begin before the age of eighteen (2).

Majority of adolescents and youths who commit crime have experienced

an extremely emotionless, cold, rejection, and unbearable world during their adolescence (3). Parenting style is an important familial mechanism, which influences the high-risk behaviors in children (4). Parental bonding (PB)

refers to the type of child-parents' interaction, which extensively overlaps attachment (5). The studies on child-parents' relationship generally refer to two fundamental aspects of parental behaviors, including parental overprotection and care. Over protective parents control, inhibit, and restrict their children's freedom, whereas, parental care involves showing love, warmth, and responsiveness to physical and emotional needs of a child (6).

There is a relationship between drug abuse and familial relationship, parental overprotection, and close parent-child relationship (7).

Studies have shown that certain personality traits can also significantly affect exhibiting high-risk sexual behaviors (8).

Self-esteem is an important protective factor against

risky behaviors. Adolescents with a positive self-image as well as a sense of pride and worthiness are able to cope with developmental and social challenges of their adulthood and tend to be more successful in achieving a constructive autonomy, harmonious personal self-identity, and independence (9).

Differentiation of self (DS) is another personality trait, which plays an important role in the quality of interpersonal emotional relationships. DS refers to individuals' capability in differentiating themselves from their biological families at emotional and intellectual levels (10).

DS includes four elements: Emotional reaction, I-position, emotional cut-off, and fusion with others.

Emotional reaction (RE): A psychological state in which the individual's feelings prevail over his/her intellect and logic; interestingly, personal decision-making is primarily based on emotional reactions.

I-position (IP): Having certain individual personal beliefs and opinions in life. Distinguished people have strong self-identity or I-position, and do not misrepresent, switch, or manipulate their beliefs and behaviors to please the others.

Emotional cut-off (EC): Children involved with familial projection employ different strategies to escape from unresolved emotional bonds in their family, usually during or even before adulthood. These strategies can include keeping distance from family or creating psychological barriers such as not to talk to a certain family member.

Fusion with others (FO): Those exhibiting FO have an extreme need for other peoples' support and approval and their behaviors are affected by the emotional pressure from their interpersonal environment and by reactions of those close to them or around them (11).

A healthy family helps its members to achieve DS. Through this process, each family member learns to differentiate between his/her own and the other family members' intellectual and emotional needs and function as well (12).

Researchers showed that self-regulation problems are associated with the weakness in controlling substance and alcohol abuse (13).

Research on people with substance abuse showed that those who experienced more social constraints had less control of their life and were less self-regulated and more anxious. People with higher self-regulation personality traits are more capable of protecting themselves against stressful conditions and psychological helplessness. Insufficiencies in self-regulation make people vulnerable to drug- and alcohol abuse and subsequently impairs their self-regulating performance (14).

Several studies showed the mediator factors between parental bonding and taking risky behaviors among ado-

lescents (15, 16).

2. Objectives

To the best of our knowledge, no research was conducted on the mediating role of DS in a direct relationship between parental bonding and risky behaviors among high-risk adolescents in Shiraz. Therefore, we decided to investigate this role among adolescents and youths from drop in center (DIC) and Voluntary Counselling and Testing (VCT) centers as well as those who were kept in the correctional and rehabilitation facilities in Shiraz, Iran.

3. Methods

This is a cross-sectional study on adolescents and youths who regularly attended DIC and VCT centers and those who were imprisoned or kept in the correction and rehabilitation centers from 23rd Oct 2013 until 19th Feb 2014. The sampling method was census; hence, all the people who met the inclusion criteria were enrolled in our study and totally 560 individuals participated in this study. The inclusion criteria were age 15 - 35 years, and a history of risky behaviors, such as drug abuse, unsafe sexual behavior, and/or of behaviors that led to their incarceration. The adolescents and youths who did not respond appropriately due to mental or emotional dysfunction were excluded from our study.

The people participated voluntarily and they were given the assurance that their information would be kept confidential. After obtaining their written informed consent, we asked them to complete the research questionnaires.

3.1. Statistical Technique

Data analysis was performed using structural equations and correlation methods with PLS2 SMART. Research instruments included Parental Bonding Inventory (PBI), Differentiation of Self Inventory (DSI), and Risky Behaviors Inventory.

3.2. Parental Bonding Inventory

Parental Bonding Inventory was developed by Parker (1979) to assess parental bonding styles. It is a strong reliability test (6). This questionnaire consists of 25 questions. Questions 1, 23, 5, 6, 8, 9, 10, 11, 12, 13, 17, 19, 20 were scored as follow: Very like = 3, moderately like = 2, moderately unlike = 1, very unlike = 0. Questions 2, 3, 4, 7, 14, 15, 16, 18, 21, 22, 24, 25 scored in opposite direction.

It evaluated two important dimensions of parents-child relations. Parental bonding scales, including care

and overprotection, were accompanied by dimensional development of a group of psychological disorders in adulthood. In this questionnaire, care was regarded as the expression of emotions, and overprotection was known as encouraging the child to or suppress him/her from discovering the surrounding environment. This questionnaire determined four parenting styles: Low affection, optimal parenting, emotionless and kindles control, and indulgent parenting. Care and overprotection are the main parenting dimension both practically and theoretically (17). Behzadi and Parker showed that the Persian version of this inventory has a high internal consistency and test-retest reliability. The Cronbach alpha coefficients were reported from 0.79 to 0.88 for the maternal and the paternal forms (18).

3.3. Differentiation of Self Inventory

It is a questionnaire developed by Skowron and Friedlander. They showed Cronbach's alpha coefficient of self-differential inventory ($= 0.86$). It includes 46 items scored based on the Likert scale from strongly disagree (1) to strongly agree (6). Its four subscales consist of emotional reactivity, I-position, emotional cut-off, and emotional fusion with others. High-score reflects differentiation and low-score indicates no differentiation. The reliability of this inventory was reported in Iran (Cronbach's alpha coefficient $= 0.81$) (19, 20).

3.4. Risky-Behavior Inventory

This instrument was developed by the Health Deputy of Shiraz University of Medical Sciences. It contains 40 items, in which questions are as follow: 5 demographic questions, 3 questions about incarceration history, 13 questions about drug abuse, and 19 questions address sexual relationship. The reliability and validity of this researcher-made inventory were measured during its implementation in a previous study with Cronbach's alpha coefficient of 0.85 (21).

The interviewers were experienced and trained regarding these issues. Due to the type of questionnaire and the effect of probable shame from a face-to-face interview, the questionnaires were completed by the participants themselves. It is worth mentioning that adequate explanations were given to them prior to the interviews.

4. Results

4.1. Descriptive Findings of Research Variables

The mean age of the participants was 25.68 ± 7.13 years; (range from 15 to 35) in addition, 346 (67.7%), 165 (32.3%) of the subjects were male and female, respectively. In terms of

educational level, subjects with basic literacy level (writing and reading) and those with academic degree accounted as the minority (2.2%) and the majority (29.2%) of the participants, respectively. Moreover, widow/widower and bachelor/bachelorette participants accounted for the minority (1.4%) and the majority (54.4%) of the participants, respectively (Table 1).

Table 1. Demographic Information of the Adolescents and Young Adults with Risky Behavior, Visiting DIC and VCT Centers, and Imprisoned Ones

Demographic Information	Values ^a
Age	
Mean \pm SD	25.68 \pm 7.13
Range	15 - 35
Gender	
Male	346 (67.7)
Female	165 (32.3)
Marital status	
Never married	280 (54.4)
Married	161 (31.3)
Getting divorce	9 (1.7)
Divorced	38 (7.4)
Widow	7 (1.4)
Concubine	20 (3.9)
Source of income	
Full-time job	78 (16.7)
Part-time job	48 (10.3)
Seasonal jobs	74 (15.8)
Family allowances	167 (35.7)
Drug dealing	32 (6.8)
Prostitution	2 (0.4)
Other	67 (14.3)
Educational level	
Illiterate	14 (2.7)
Writing and reading literacy level	12 (2.3)
Primary school degree	61 (11.6)
Secondary school degree	145 (27.5)
High school degree or diploma	142 (26.9)
Academic	154 (29.2)

^a Values are expressed as No. (%) unless otherwise indicated.

4.2. Analytical Results

In order to investigate the mediating role of DS in a direct relationship between parental bonding and risky

behaviors, data analysis was conducted in three sections: Model fit, structural model fit, and hypothesis testing.

First, the model fit was assessed using factor loading. Results showed that in the designed model (Figure 1), the factor loading of all calculated values were lower than the expected minimum (0.4), indicating a lack of model's reliability.

To investigate and resolve this problem, construct estimator indices were studied. After removing the unfavorable indices, the model was implemented and investigated once again, nevertheless, did not lead to any change in the results, which supported the lack of model's reliability.

Calculation of the Cronbach's alpha, which showed the correlation between the construct and its constituent indices, resulted in the following main constructs: All the values of DS, parental bonding and risky behaviors were in a suitable range from 0.6 to 0.7.

The composite reliability index of the constructs, which measured the explained variance of a construct and its indices relative to the variance plus measurement error, was suitable in this model. It was measured 0.74 and 0.755 for parental bonding and DS, respectively.

After investigating and removing model's reliability, multicollinearity between the indices was the probable cause of lack of reliability. To examine the multicollinearity between the indices, variance inflation factor was used. The low values for DS (0.006) and risky-behavior (0.054) constructs indicated the lack of such problem in endogenous constructs.

The next stage was the assessment of discriminant validity through cross loading calculation. Results showed that in all constructs, low values indicated a low correlation of the constructs with indices (reliability).

To determine the fit of the structural model, and to test the research hypotheses at the same time, the following measures were used:

(1) Significant coefficients of t-value were 1.867, 0.68, and 0.765 for parental bonding and risky behavior path, parental bonding and DS path, DS and risky behaviors path, respectively, indicating that none of the research items were implemented at the confidence level of 95%.

(2) The estimated fit measures for the two endogenous constructs of the model, including DS and risky-behavior, were 0.006 and 0.055, indicating weak fit of the structural model.

(3) Effect Size Measure or f^2 : The t-value only confirms or rejects the presence or absence of a relation, and does not display the intensity of such relationship. This measure is calculated for a construct that is affected by more than one endogenous variable (risky behavior).

First, the model fit measure was assessed with both endogenous variables (in the first section), and the balance fit

measure of $R^2 = 0.05$ was obtained for the two endogenous variables (namely parental bonding and differentiation of self). Then, after the removal of the model's independent variable (parental bonding), the model was implemented again and R^2 value (0.077) was computed. Afterward, the effect size (F^2) was calculated using the below formula.

$$F^2 (P\beta Lapse) = \frac{R^2 Lapse (P\beta oncluded) - R^2 Lapse (R Lapse (P\beta excluded))}{1 - R^2 Lapse (P\beta included)}$$

$$F^2 = \frac{0.055 - 0.077}{1 - 0.055} = -0.023$$

Results indicated a very small and negative effect size.

Finally, the amount of Q^2 that calculates predictive power of the endogenous constructs showed the values of 0.0003 and 0.001 for DS and risky-behavior, respectively, indicating low predictive power of the model and its deficiency.

Hypothesis testing did not show any significant correlation between parental bonding and risky behaviors in adolescents and youths in Shiraz ($t = 1.867$). In addition, there was no significant correlation between parental bonding and DS ($t = 0.68$). This indicated that parental bonding did not affect DS in adolescents and youths with risky behaviors.

Moreover, there was no significant correlation between DS and risky behaviors ($t = 0.765$). Results from this research showed that DS had no effect on the exhibition of risky behaviors.

5. Discussion

Differentiation is one of the main factors to get through adolescent. Positive parental style creates skills in children by the way of differentiation (20).

In this study, we investigated the mediating role of differentiation of self in a direct relationship between parental bonding and risky behaviors among high-risk adolescents and youths in Shiraz.

The assumption of a correlation between parental bonding and risky behavior was rejected among our participants. Although the role of the family in taking risky behaviors among high school students was shown in other studies (22-24), the relationship between alcohol and drug abuse in families and dysfunctional attachment styles was scarcely shown (25).

DS is one of the main mental factors that empowers adolescent to manage psychological issues and practice effective problem solving, resulting in less risk taking (26). Attachment and DS style theories highlight the primary relations in family environment, with an effect on the other

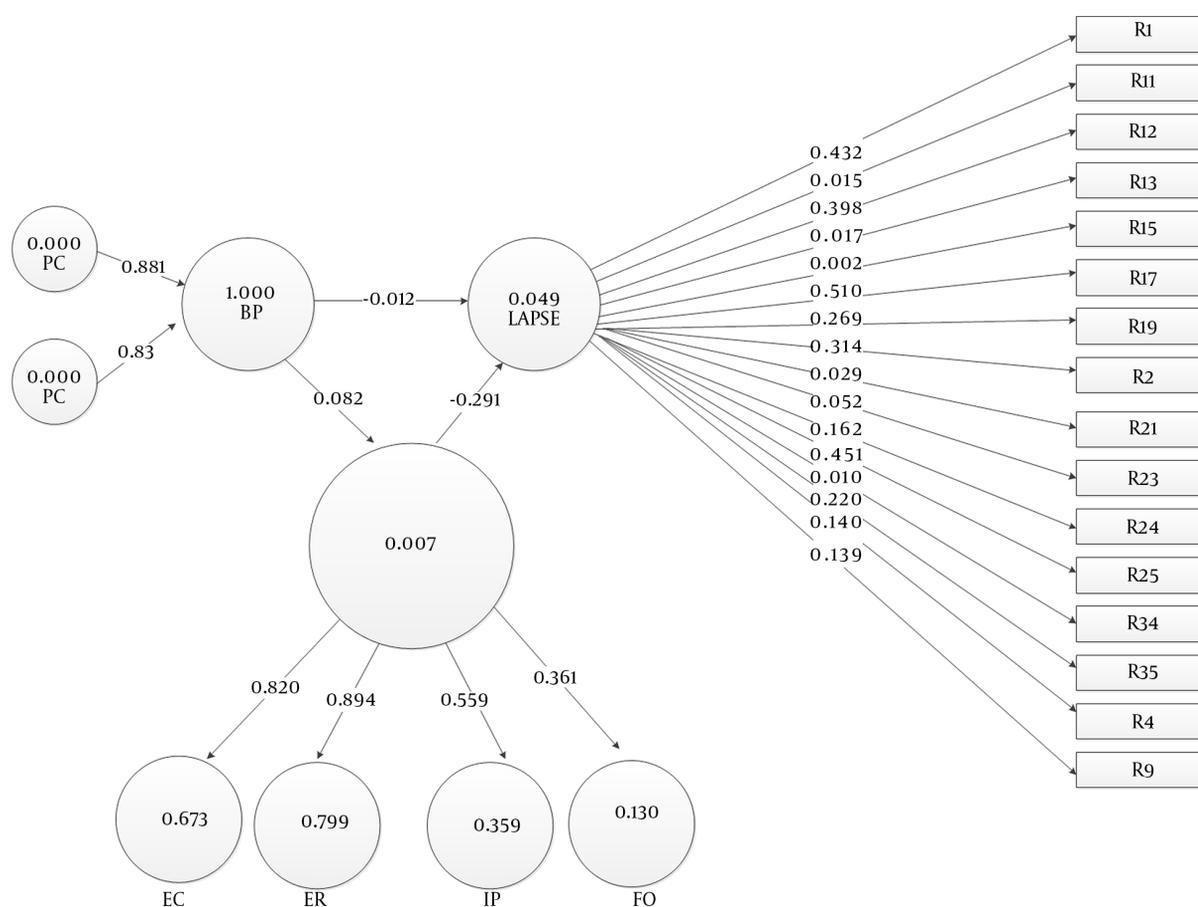


Figure 1. The unmodified model of mediating role of DS between parental bonding and risky behaviors. Abbreviation: IP, I position; PB, parental bonding; EC, emotional cut off; DS, differentiation of self; FO, fusion with others; OP, over protection, ER; emotional reactions; PC, parental care.

relationships. Such styles as the sustainable and multi-generational factors show how biological family can affect one's future life (27).

The mediator role of DS in authoritarian and democratic parenting style and identity diffusion was shown among male adolescents (28). A study amongst 834 married clients at Tabriz counselling centers reported that persons with appropriate self-differentiation in their lives would be less vulnerable to psychological disorders (12).

However, in our study, we could not find the relationship between DS and risky behavior among our participants. Also, another study did not find a mediating role for self-esteem and dating identity exploration in association with adolescent risky sexual behavior and parenting performance (29).

This result might be due to the cursory answers, misinterpretation of the questions, and a high number of questions. Data collection was also influenced by the environ-

ment (DIC, VCT centers, and prison).

Several factors were involved in risk-taking behaviors, such as emotional and social factors (presence of peers). Some adolescents spend more time with their peers; hence influenced by them. Other factors, such as genetic factors, hormonal balance, psychological stress, gender, maturity, responsibility, self-reliance, perspective, anxiety, and avoidance play pivotal roles in decision-making process (30). Other studies pointed to the role of environment and parents. Adolescents who grow up in high-risk environment need more monitoring to protect them from risky behaviors because easy access to alcohol or illegal drugs is another important factor (31, 32). Also, the environmental stressors, social and cultural factors should be considered.

There was a controversy between our results and other studies, which might be due to the proposed model. Reporting risky behavior or parental style in Iran might not be reliable, leading to unrepeatability of answers.

There are several limitations that should be addressed. First, the cross-sectional nature of this study could not determine the causal effect. Hence, it is recommended to implement qualitative or perspective design in future studies.

Second, information about the differentiation of self in our study was adolescent's self-reports, which might not be an accurate representation. A worthy solution is through the interview (parents, peers, and teacher) in order to get more reliable results.

5.1. Conclusions

The proposed model and instruments were not appropriate for adolescents and youths with high-risk behaviors, such as drug abuse, unsafe sexual behavior, and/or of behaviors that resulted in their incarceration. On the other hand, risky behavior is a complex issue, influenced by genetic factors and environmental factors (family, home, neighborhood, school, work). These factors should be studied together as a whole.

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Footnotes

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