



Original Article

A study of the mediating role of resilience in personality characteristics and attitudes toward delinquency

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Abstract

Introduction: Adolescence is one of the most sensitive, critical and important periods of development in human lifespan. Adolescents may make decisions that lead to risky and inefficient behaviors such as delinquency because of the instability in their mental status. The aim of the present study is to study the mediating role of resilience in personality characteristics and attitudes toward delinquency.

Materials and Methods: The sample of this descriptive study included 400 female high school students in secondary schools in Kerman in the second semester of the 2012-2013 academic year, selected by random sampling method. Attitude toward Delinquency scale, Resilience Scale, and NEO five-factor inventory were used as instruments. The data were analyzed with path analysis method by Mplus-5 software.

Results: The analysis showed that conscientiousness ($P < 0.001$) and neuroticism ($P < 0.001$) could predict negative attitude toward delinquency via resilience both directly and indirectly, while extraversion ($P < 0.01$) could only predict negative attitude toward delinquency indirectly. Also, conscientiousness ($P < 0.001$) had a negative and significant effect on positive attitude toward delinquency.

Conclusion: According to the results, since adolescents are more exposed to social and psychological risks, it seems that we can prevent them from delinquency by enhancing their conscientiousness and resilience.

Keywords: Adolescents, Delinquency, Personality, Resilience

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Introduction

Adolescence is one of the most sensitive and important period of human growth. In this period, the person matures, and seeks his/her identity and independence from childhood reliance; therefore, during adolescence, teenagers have unstable mental conditions (1). Although, it is the time for making big decisions for the future, it should be said that the decisions made by teenagers are still unstable and sometimes may result in ineffective and even risky behaviors (2). Delinquency is among the risky behaviors and problems of adolescence. It has always been an unpleasant phenomenon in the social life of human beings (3). Annual statistics published by international entities confirm that the international community is facing with the explosive issue of crime, such that the number of criminals is ever

increasing (4). The problem of deviance and delinquency in teenagers has been attracted human society specialists since long time ago. This issue becomes more serious when it comes to women, as a large part of every society, because of their vital status in family and social structures, as well as their impact on others' life (5). Although, different social, economic, political, and cultural aspects of this phenomenon should be investigated, undoubtedly its psychological dimensions, including personality traits, are of the most important aspects that affect other dimensions (3). In the majority of recent studies, the effect of personality traits on criminal behaviors has been illustrated (6-12). Jolliffe attributed some reasons of tendency towards criminal behaviors to personality traits. In a relevant study, he concluded that less conscientious and agreeable people tend more to show criminal behaviors (6). In addition, results from a study by Ebrahimi-Nasab, Noori, and Molavi showed that teenage boys were significantly more extravert, neurotic, and psychotic than normal ones. Results from studies by Mark and

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colleagues showed that high sense of conscientiousness in girls inhibits them from involvement in very risky behaviors (13). Conscientiousness is a personality trait usually shaped as an attitude in one's psychological and behavioral structure (14), and lead to a tendency towards order, progression, persistence, reliability, and to compliance with ethical principles and rules (15). In fact, people with the sense of responsibility are less involved in risky behaviors, because of such personalities as ability to control impulse and desires, to manage their behavior for achieving their objectives, and to be careful, cautious, flexible, punctual, and reliable (16).

Indeed, the big five-factor of personality traits act as a constant, stable, and very powerful predictor of many features and behaviors of people. In addition, resilience is a protective factor affected by personality traits, such that Secombe introduces following three important supportive factors for resilience: personality traits, intra-family supportive factors, and social factors (17). Campbell and colleagues put that resilient people are capable of creating and expanding series of coping skills that support them in challenging circumstances (18). In addition, it has been shown that the selected type of coping strategy depends on people's personality traits (19), as the personality traits affect resilience. A study by Fayombo showed that highly neurotic children, namely, those with more negative emotions including sadness, anger, and discomfort, are probably less resilient to difficult and disastrous situations. In contrast, highly conscientious people have more resilience because they are capable of enhancing their intrinsic ability in coping with stress and tension (20). In addition, Besharat has reported that extroverted people tend towards positive emotions, and thus develop attachment to others easily and look for social interactions, which both positive emotions and social support have positive relationship with resilience (cited in 21). In addition, resilience plays a role in avoiding criminal behaviors. Many researchers have regarded resilience as the ability in coping and transitioning from tragic accidents, and as a protective factor against future risky circumstances (22,23). In general, the term "resilience" is attributed to the factors and processes that disconnect growth continuity from risky, problematic, and psychologically devastating behaviors, and despite adverse conditions resilience directs such behaviors towards adaptive outcomes (24). Although there are various definitions for resilience, Kroger and Green believe that resilient people have commonalities in

similar factors. Some of these factors are as follows: higher intelligence, novelty seeking, less attachment to delinquent peers, and substance abuse and delinquency avoidance (cited in 25). Results from the studies by Allen and colleagues indicate that the development of resilience in children living under crisis is essential to minimize the risk of long-term delinquency in them and to turn them into committed adults (26). In addition, findings of recent studies generally showed that resilient people were less prone to risky behaviors like delinquency (27,28).

As mentioned before, different researches have separately investigated the effect of such variables as personality traits and resilience on the attitude towards delinquency. Yet, the direct relationship in personality traits and resilience, and indirect relationship between the latter and the attitude towards delinquency have not been investigated. Moreover, regarding the multidimensional role of women in the society and family, paying attention to their problems significantly affects families, and has widespread impacts and reflections within the society. It is obvious that physical and psychological health of today's young generation guarantee the health of future society. Regarding these, the present study is done with a causal design to inspect the direct and indirect effects of personality traits and resilience on the attitude towards delinquency.

Materials and Methods

It is a correlational-descriptive study. The statistical population includes all female high school students studying in the second half of the school year 2012-2013 (approximately 20,000 students). The total number of selected samples was 400 participants. They were selected regarding the sample size and according to the Kerjcie and Morgan's table. The investigated participants were high school students, ranging from 15 to 18 years. They were selected using stratified random sampling, by which three schools were selected from each of the two regions of Kerman. Then, three classes from each school were chosen. In total, eighteen classes (each with 30 students, on average) were investigated. Before the administration of the questionnaire and after the development of an effective relationship with the students, the nature and objective of the questionnaires were explained to the students, and they were guaranteed regarding confidentiality and anonymity. These were done to gain their satisfaction and trust to cooperate in the research honestly. The ethical consideration of this study was confirmed by the Security Unit of

Kerman's Educational Office.

In this study, Mplus-5 was used to determine the relationship between personality traits and resilience with positive and negative attitudes towards delinquency, based on the path analysis method. To investigate the model, one-way paths from five variables namely personality traits, extraversion, neuroticism, agreeableness, conscientiousness, and openness to resilience were considered. In addition, one-way paths from resilience to positive and negative attitude towards delinquency have been placed. In addition, associations between personality variables were also taken into consideration. The provided model is presented in Figure 1. In addition, some indicators were investigated to fit the model: The comparative fit index (CFI) (29), Tucker-Lewis index (TLI) (29), root mean square error of approximation (RMSEA) (30), square root mean residual (SRMR) (31). For CFI and TLI, the values higher than 0.95 (32) and for RMSEA and SRMR, the values lower than 0.05 (30) indicated a good fit.

Research instruments

- *Neo Five-Factor Personality Inventory*: It is a Likert based personality assessment questionnaire including 60 items scored on a five-point ranges (strongly disagree, disagree, neutral, agree, and strongly agree). It was developed by Costa and McCrae in 1985 for assessing big five personality traits namely neuroticism, extraversion, agreeableness, openness, and conscientiousness. Every 12-item assesses one trait. Costa and McCrae (1992) reported the Cronbach's alpha coefficient of their scales as follows: 0.93 for neuroticism, 0.90 for extraversion, 0.89 for openness, 0.95 for agreeableness, and 0.92 for conscientiousness (33). This test was translated by Garousi and standardized on the college students. An investigated has reported its validity ranging from 63% to 79%. Criterion reliability of the test has been reported from 45% to 66% based on the correlation method, and between 56% and 87%, using coefficients of Cronbach's alpha [34].

- *Resilience Scale*: It is developed by Connor and Davidson, and includes 25 five-point items based on a Likert scale ranging from "never (1)" to "always

(5)". In a study, they showed the mean scores of 80.7, 71.8, 68, and 62.4 for general population, patients in primary care units, outpatients with psychological problems, and patients with generalized anxiety, respectively; in addition, two populations of patients who had posttraumatic stress scores ranging from 47.8 to 52.8, indicating an appropriate validity for the questionnaires (35). Jowkar has reported the reliability of 0.93 and appropriate validity for this scale, using factor analysis method (36).

- *Delinquency Attitude Scale*: This questionnaire includes 28 items designed in 2009 by Fazli for assessing attitude towards delinquency in teenagers. Each item is scored on a four-point scale ranging from "strongly disagree (1)" to "strongly agree (4)". It includes two components, namely positive and negative attitude towards delinquency. Validity and reliability of it have been investigated by Fazli. To achieve the reliability of the questionnaire, its statements and score range were given to the experts in this field. Then, only the agreed statements were included in the measurement instruments. In other words, from the items used in students' questionnaire, only 28 statements were confirmed by the experts. Using Cronbach's alpha, reliability values of 71% and 77% were achieved for positive and negative attitudes towards delinquency, respectively (37).

Results

In the first stage, the original model included all desired paths of the test. In the second stage, all predictive paths, with no role in overall fit of the model, were considered fixed. It is worth noting that indirect effects of personality variables on the positive and negative attitudes toward delinquency were studied through the resilience, as a mediating variable. It is also noted that the severity of direct and indirect effects was compared. To determine the relationship between the variables, Pearson's correlation was used. Table 1 shows the relationship between the investigated variables. The mean age of the students was 16.09, ranging from 15 to 18 years (with standard deviation of 0.90).

Table 1. The correlation matrix between variables

Variables	1	2	3	4	5	6	7	8
1.Negative attitude toward delinquency	1	-0.438**	-0.63	0.134**	-0.50	0.153**	0.328**	0.281**
2.Positive attitude toward delinquency		1	0.124*	-0.034	-0.024	-0.155**	-0.272**	-0.110*
3.Neuroticism			1	-0.426**	0.02	-0.356**	-0.303	-0.423**

4.Extraversion	1	0.112*	0.303**	0.369**	0.440**
5.Openness		1	-0.071-	-0.013	0.34
6.Agreeableness			1	0.269**	0.274**
7.Conscientiousness				1	0.420**
8.Resilience					1

0.01** 0.05**

In general, results suggested that the final model fitted the data well ($X^2(13) = 14.77$, CFI=0.99, TLI=0.98, RMSEA= 0.02, SRMR=0.02). Results also demonstrated that neuroticism had a negative correlation with resilience ($\beta = -0.24$). It means that neurotic people have lower degree of resilience. In addition, extraversion has a positive correlation with

resilience ($\beta = 0.24$). It means that extroverted people are more resilient than introverted people. In addition, conscientiousness has a positive correlation with resilience ($\beta = 0.26$). In addition, conscientious people are more resilient. Agreeableness and openness traits were not capable of predicting resilience.

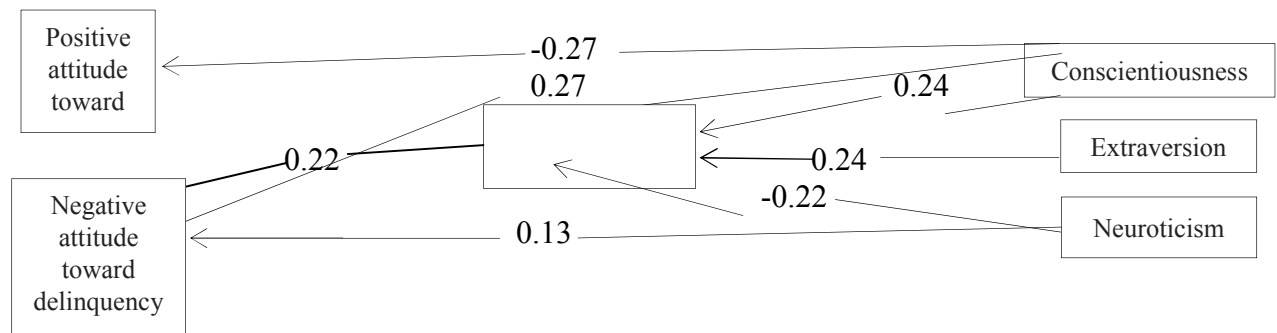


Diagram1. The study of direct effect and indirect effect personality characteristics, resilience on attitude toward delinquency

The direct effects of personal variables on the attitude towards delinquency showed a correlation between neuroticism and negative attitude towards delinquency ($\beta = 0.12$). Moreover, conscientiousness has negative correlation with positive attitude towards delinquency ($\beta = -0.27$) and positive relationship with negative attitude towards delinquency ($\beta = 0.27$). It means that conscientious people have negative attitudes towards delinquency. Resilience was only capable of predicting negative attitude towards delinquency ($\beta = 0.22$). Indirect effects of personality variables on the attitude towards delinquency via resilience showed that only extraversion ($\beta = 0.05$) and conscientiousness ($\beta = 0.06$) were capable of predicting negative attitudes towards delinquency indirectly. Comparison between direct and indirect effects of these variables showed that the direct effect of conscientiousness on negative attitude towards delinquency was stronger than indirect impact of it. In contrast, results suggested that the indirect effect of Extraversion on negative attitude towards delinquency was stronger than indirect impact of it.

None of the variables were capable of predicting positive attitude towards delinquency indirectly.

Table 2. direct and indirect effects of Analytical variables on the positive attitude toward delinquency and negative attitude toward delinquency

Path	Resilience	Positive attitude toward delinquency		Negative attitude toward delinquency	
		direct effect	indirect effect	direct effect	indirect effect
Neuroticism	-0.24	-	-	0.12	-0.5
Extraversion	0.24	-	-	-	0.5
Agreeableness	-	-	-	-	-
Conscientiousness	0.26	-0.27	-	0.27	0.6
Openness	-	-	-	-	-
Resilience	-	-	-	0.27	-

Discussion

Regarding the findings of this research, resilience has a significant mediating role in the relationship between personality traits and attitude towards delinquency. Since this variable acts as a mediator in this study, it is affected by extraversion, conscientiousness, and neuroticism, and affects the negative attitude towards delinquency; therefore, it can be concluded that neuroticism and conscientiousness can affect negative attitude towards delinquency both directly and indirectly via resilience. In addition, Extroversion can indirectly affect negative attitude towards delinquency through resilience.

Investigation into the relationship between personality traits and attitude towards delinquency showed that negative attitude towards delinquency can be predicted through conscientiousness and neuroticism. This finding can be justified by saying that since conscientious people are organized and cautious, they tend more to progression and restraint. People with higher scores in this factor show less risky behaviors and achieve more social success (38). According to the Gaff's theory, dutifulness, conscientiousness, trustworthiness, self-discipline, and believing in the domination of wisdom and reason in life are of relatively sustainable interpersonal and intra-personal personality traits. Gaff believes that although conscientiousness is relatively correlated with socialization and restraint, the role of values and controls as certain and important factors in people's life should be highlighted. A highly conscientious person sacrifices his/her needs for the sake of collective needs. Such a person accepts the consequences of his/her behaviors, and is trustworthy and reliable. He has a sense of commitment to social structures, and although is not necessarily a leader, he/she is honest and keeps his/her promises. According to Gaff, the sociopathic are not conscientious people as they only address their own needs. On the other hand, people with carriers that require being responsive and dutiful are more conscientious. Gaff believes that a responsive person is committed to social, moral, and civic values [39]. It seems that the findings of this research are consistent with the results of studies by Delaram and colleagues (9), Ahmadi and Konani (10), and Ebrahimasab and colleagues (12). Moreover, conscientiousness has a negative significant relationship with delinquency. This can be explained by saying that people who obtained low scores in this personality trait have impulsivity, do not tend to progress, and are reckless, unorganized, and irresponsible (40), and thus are

more prone to the risk of delinquency. These findings are consistent with those of Jolliffe (6) and Markey (13). Also, conscientiousness predicted resilience positively. Fayombo explained this relationship showing that highly conscientious people were capable of coping with stress and tension by improving their intrinsic ability, which finally results in higher resilience (20). This is in agreement with the findings of other studies by Shafiezadeh (21) and Fayombo (20).

Results from this study showed that neuroticism is positively correlated with negative attitude towards delinquency. Obsession, depression, anxiety, sense of sin, fear, sadness, and low self-confidence are the signs of neurosis. It seems that the emergence of these symptoms in a person can affect the one's behavior, impair his/her performance, disrupt his/her environmental adaptability, and finally result in delinquency. In contrast, our study shows that the neuroticism has negative attitude towards delinquency. Therefore, the relationship between neuroticism and delinquency can be explained by saying that the neurotics are anxious people, and thus avoid risky and dangerous behaviors that may increase their anxiety. This is consistent with the findings of Trull and Sher (41). In addition, neuroticism can negatively predict resilience. This may be explained by saying that neuroticism is associated with negative emotions including the sense of sadness, anger and unhappiness. People assessed with high negative emotions are probably less resilient in coping with difficult and disastrous situations (20). This is in agreement with the findings of Campbell and colleagues (18), Shafiezadeh (21), and Fayombo (20).

It was also determined that extraversion could positively and significantly predict resilience. Besharat has reported that extroverted people are more oriented towards outside world, easily adapt to other peoples, achieve prosperity within community, enjoy collective affairs, and generally look for social interactions. These people have positive emotions and develop attachment to others easily. They are passionate, adventurous, and sociable. Studies show that positive emotions and social support are positively correlated with resilience (cited in 21). These findings are consistent with those of Tugade and Fredrickson (42), Hemenover (43), and Fredrickson (44).

A positive relationship between resilience and negative attitude towards delinquency is another finding of this research. It means that more resilient people are less prone to develop disorders and show negative behaviors under difficult situations. Highly

resilient people are recovered to their initial state in the face of difficult and stressful conditions more quickly. They are more flexible and tend less to show risky behaviors and commit crime (27,28). Moreover, Siebert has put that the resilient people can create and expand a set of coping skills, which support them in the challenging situations (cited in 45). Indeed, resilient people display more willingness to use problem-oriented coping strategies (18), which reduces the probable risk of tendency towards delinquent behaviors. Regarding these findings, resilience and personality traits are among the important factors in teenagers' movement towards delinquency, which can be prevented by training them with life skills. It is worth saying that this study has some limitations. For example, it does not address the role of social, economic, family, and

cultural factors, which may have affected the findings of this study.

Conclusion

Resilience and personality traits such as conscientiousness can inhibit risky and delinquent behaviors, and thus are considered as protective factors. Even in a very risky environment, these personality traits can protect one from turning to delinquent behaviors.

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