Comparison of High-Risk Behaviors, Early Maladaptive Schemas, and Self-Conscious Affect (Shame and Guilt) in Delinquent and Normal Adolescents

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Abstract
This study aimed to compare high-risk behaviors, early maladaptive schemas, and self-conscious affect (shame and guilt) between delinquent and non-delinquent adolescents in Shiraz, Iran. The sample consisted of 140 participants (70 delinquent adolescents from a correctional center and 70 normal adolescents from the general population), selected via purposive sampling (delinquent group) and multistage cluster random sampling (normal group). Data were collected using the Iranian Adolescent Risk-Taking Scale (IARS), Young Schema Questionnaire (YSQ), and Tangney's Self-Conscious Affect Scale (SCAS) and analyzed using multivariate analysis of variance (MANOVA).
Results indicated that delinquent adolescents scored significantly higher ($p < 0.05$) in most high-risk behaviors (except dangerous driving) and in maladaptive schemas (particularly Disconnection/Rejection, Other-Directedness, Impaired Autonomy, and Impaired Performance domains). However, no significant differences were found in the Overvigilance/Inhibition and Insufficient Self-Control/Self-Discipline schemas, nor in shame and guilt levels. These findings highlight the role of maladaptive schemas and high-risk behaviors in delinquency, suggesting the need for psychological interventions targeting schema modification and risk behavior reduction in at-risk youth.

Key Words: High-risk behavior, maladaptive schemas, self-conscious affect, delinquent.

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Introduction

Adolescence is considered a sensitive age for the development and expansion of coping behaviors and responses to environmental needs. During this period, adolescents face a multitude of health-compromising issues due to rapid physical, psychological, social, cultural, and cognitive changes. To establish themselves and their place in society and the family, and to gain a role and standing, adolescents may resort to destructive and high-risk behaviors. They engage in these actions to prove themselves and to become the center of attention (Zomer, 2009).

The uncontrolled increase in crimes and social anomalies among adolescents is a severe problem in most societies. Generally, social delinquencies, in addition to creating insecurity and distrust, inflict heavy psychological, physical, and financial damages on citizens. More importantly, the occurrence of crimes, the pursuit and punishment of offenders, and the confrontation with anomalies entail exorbitant financial costs for extensive judicial and law enforcement organizations, vast resources, and expenditures by the government and, generally, the public sector of society. Undoubtedly, identifying criminogenic factors is the first step in combating social deviance, so that by eliminating these factors or reducing their effects, the occurrence of crimes can be prevented, or at least their incidence in society can be reduced (Greenberg & Rouhi, 1385).

One of the behaviors that seems to be prevalent among delinquent adolescents is high-risk behaviors. High-risk behaviors refer to actions that increase the likelihood of negative and destructive physical, psychological, and social outcomes for an individual. In other words, these are behaviors that disrupt the lives of others and may cause harm to individuals or their property. They are typically categorized as juvenile delinquency, including breaking the law such as property damage, theft, violence, or the use of cigarettes, alcohol, drug consumption, truancy, arson, rape, or threats (Sadeghi & Gilanipour, 1388).

Adolescence is an age where individuals most need parental affection and attention. If this period, with its inherent difficulties, is not navigated properly, it can lead to problems that might persist throughout the individual's life. These issues can be rooted in whether childhood schemas were formed correctly. If these schemas are well-formed, the individual will cope better with problems, have higher tolerance, and won't lose hope for resolving current and future difficulties.

Early maladaptive schemas are pervasive and deep-seated themes or patterns about oneself and others, consisting of memories, emotions, cognitions, and bodily sensations. They emerge during childhood or adolescence and become more complex throughout life. These schemas, as part

of human drives, fight for their own survival and play a major role in how individuals think, feel, and relate to others. When individuals encounter environments reminiscent of their childhood, their schemas are triggered, and as soon as this happens, the individual is overwhelmed and dominated by negative emotions. Unmet core emotional needs are considered the fundamental source of early maladaptive schemas, and unpleasant childhood experiences are regarded as the developmental root of these schemas (Poorafkari, 1392).

Social science and health scholars define **high-risk behaviors** as "any action, habit, or activity that exposes an individual to the risk of disease or health-related problems." These behaviors generally include: smoking, initiating unsafe sexual relationships at an early age, having multiple sexual partners, domestic violence, alcohol consumption, drug use, not using seat belts while driving, not wearing helmets while riding motorcycles and bicycles, and consuming high-fat foods (Morris, as cited by Ghahramani, 1391).

These behaviors increase the risk of premature mortality, disability, and the prevalence of chronic diseases, which have been rapidly increasing in developing countries like ours over the past two decades. Given the importance of the physical and mental health of students, who are considered one of the most vulnerable main groups susceptible to these behaviors, extensive research has been conducted both domestically and internationally (Hajian, Kheirkhah, & Habibi, 1388).

Harmful **high-risk behaviors** are divided into two groups: high-risk behaviors that primarily cause problems for others, and high-risk behaviors that mostly victimize the individual engaging in them. High-risk behaviors for others are those that primarily affect others. Generally, they refer to behaviors whose victims are people, objects, and the surrounding environment, although the perpetrator of the behavior will also face the consequences of such actions. In sources related to these types of high-risk behaviors, five behaviors have gained more importance and priority: anti-social behaviors, aggression, bullying, vandalism, and delinquency (Barraco, Shama, Malhotra, 2010).

Many high-risk or hazardous behaviors directly cause more trouble for the perpetrator than for others. In any case, major high-risk behaviors that annually cause millions of young deaths and impose billions of dollars in heavy costs on human societies include: alcohol consumption, smoking, drug use, unsafe sexual relations, vandalism, and delinquency (Barraco, Shama, Malhotra, 2010).

Family factors such as divorce, parental death, a large number of children, lack of psychological support, neglect of children's emotional needs, family indiscipline, the presence of a delinquent or socially maladjusted individual,

infidelity of a spouse, family conflicts, family rejection, lack of suitable upbringing environments in the family, inadequate housing in terms of physical space, and poverty play a role in reinforcing or controlling adolescent and youth delinquency (Nejati, 1390).

Regarding the subject of this study, numerous studies have been conducted, including: Patricia, Averill, Gretchen, and Diefenbach (2002) investigated the relationship between shame and guilt and psychopathology criteria in 82 healthy individuals using TOSCA and PFQ. The results showed that both shame and guilt scales were positively associated with psychopathology criteria. Furthermore, the PFQ scale showed a positive relationship with psychopathology. These findings confirmed previous findings and indicate that TOSCA and PFQ assess different aspects of guilt.

A study by Brooks, Harris, Theall, and Woods (2002), conducted to examine the relationship between high-risk behaviors and some psychological symptoms in 2224 high school students from grades nine to twelve in Massachusetts, USA, showed a significant correlation between the reported levels of depression and stress by the subjects and an increase in their high-risk behaviors over the past month. Multivariate regression results indicated that feelings related to depression and being under stress were associated with increased tobacco use, increased violence and physical altercations, unsafe sexual behavior, and an unhealthy diet.

Benson and Parker (2004) also conducted a study on 99,462 high school students and showed that the presence of strengths and advantages that individuals feel within themselves can predict the occurrence of high-risk behaviors in them. According to the results of this research, an increase in positive characteristics in adolescents (such as self-esteem, sense of integrity, resilience, purposefulness in life, positive peer relationships, etc.) reduces the incidence of high-risk behaviors in them, such as alcohol consumption, drug use, antisocial behaviors, etc.

Bakhshaei, Lashkaripour, and Bakhshaei (1386) conducted a study titled: "Investigating the Prevalence of High-Risk Behaviors Related to Intentional and Unintentional Injuries among High School Adolescents in Sistan and Baluchestan Province." The study involved completing a questionnaire using a multi-stage sampling method. This questionnaire evaluated high-risk behaviors related to unsafe driving, aggression, carrying weapons, and suicidal ideation and attempts.

Research findings by Kazemi (1389) indicated that **Disconnection and Rejection** schemas, **Other-Directedness**, and the **maladaptive schemas** of abandonment, social isolation, defectiveness/shame, dependence/incompetence, and vulnerability to harm and illness were more prevalent among substance abusers than healthy individuals.

Overall, a significant difference is observed in early maladaptive schemas and mental health between the two groups of substance abusers and normal individuals.

Shahamat (1389), in their research titled "Predicting General Health Symptoms Based on Early Maladaptive Schemas," showed a significant relationship between early maladaptive schemas and the three symptoms of somatization, anxiety, and depression. Among these, the maladaptive schema of **defectiveness/shame** was a significant predictor in relation to all three symptoms of depression, somatization, and anxiety.

Shakeri's research (1390) indicated that when **early maladaptive schemas** are activated, levels of emotion are released, directly or indirectly leading to various forms of psychological distress such as anxiety, depression, occupational inability, substance abuse, and interpersonal conflicts. Given that these cognitions are formed within the family and in interactions with others, especially parents, it can be concluded that a cold relationship, accompanied by rejection or even insult and violence towards children, leads to resentment towards the family. Consequently, they may resort to various destructive behaviors and **delinquency**, including addiction.

In a study conducted by Sadeghi (1389) on four hundred high school students in Babol city, it was shown that the absence of positive stimuli, the presence of negative stimuli, and negative emotional states in adolescents have a positive relationship with delinquency. A direct and significant relationship was also found between the variables of not achieving valuable positive goals, the presence of negative stimuli, and negative emotional states in adolescents.

Research conducted in various societies indicates that **juvenile delinquency**, particularly in recent years, is on the rise. Moreover, the rate of increase in offenses among adolescents is twice that of adults (Keegan, 1370, as cited by Shokorbeygi & Yaseminejad, 1391). If delinquency is considered a social anomaly and harm, then the adolescent demographic, as one of the most vulnerable groups in society, is susceptible to or somehow affected by this condition. Examining the causes of delinquency helps relevant authorities understand how abnormal behaviors are formed, and then seek appropriate and correct methods to combat them. Therefore, given the involvement of today's young generation and families with this phenomenon, conducting research in this area is of particular importance. Consequently, up-to-date reports, psychological research, published books and articles, and how to deal with this issue are essential needs for families and cultural authorities in society, enabling them to prevent the occurrence of this social anomaly by understanding its harms. Hence, such studies and research become necessary to better and more deeply understand deviance and crimes, discover their origins, and ultimately pave the way for the correction and rehabilitation of delinquents.

Undoubtedly, understanding the factors influencing **delinquent behaviors** to provide a foundation for adolescents' individual and social growth and to explain the role of family and personal factors in their behavior (as a necessity for the present research) is worth investigating. It is clear that a correct understanding of parental upbringing methods concerning delinquent adolescents can create the foundation for proper communication with adolescents and prevent social harms, and by being aware of the status of the examined components and their interactive roles in delinquents, the groundwork for changes in their behavior will be established (Atashnafas, Tabatabaei, Ghorbani, 1387).

Research question

Based on the points discussed, the present research aims to investigate the differences in high-risk behaviors, early maladaptive schemas, and self-conscious affect (shame and guilt) between delinquent and normal adolescents in Shiraz. It seeks to test the following hypotheses:

1. There is a significant difference in the dimensions of high-risk behaviors between delinquent and normal adolescents.
2. There is a significant difference in the dimensions of early maladaptive schemas between delinquent and normal adolescents.
3. There is a significant difference in the dimensions of self-conscious affect (shame and guilt) between delinquent and normal adolescents.

Methodology

The present research is descriptive and of the causal-comparative type. The statistical population for this study consisted of all male and female adolescents in Shiraz during the 2017-2018 Shamsi academic year (equivalent to 2017-2018 Gregorian calendar).

The sampling method for the delinquent adolescents group was purposeful sampling from among the delinquent adolescents at the Shiraz Correctional and Rehabilitation Center. For the normal adolescents group, a multi-stage cluster random sampling method was employed. This involved randomly selecting two out of the four educational districts of Shiraz. From each selected district, two female high schools and two male high schools were chosen, and one class was selected from each school. Ultimately, 140 adolescents (70 delinquent adolescents and 70 normal adolescents) formed the sample of this study and completed questionnaires on high-risk behaviors, early maladaptive schemas, and self-conscious affect (shame and guilt).

Data Collection Instruments

Three questionnaires were used for data collection in this study:

1. Adolescent Risk-Taking Questionnaire (ARQ)

The Iranian Adolescent Risk-Taking Scale was developed by Zademohammadi and Ahmadabadi (1388, which translates to 2009-2010 Gregorian calendar). This was done with the help of valid and prominent tools in the adolescent field, such as the Adolescent Risk-Taking Questionnaire (ARQ) (Gallone, Moore, Moss, & Boyd, 2000) and the Youth Risk Behavior Surveillance System

(YRBSS) (Brener, Kann, Kinchen, Grumbaum, Whalen & colleagues, 2004), while considering the cultural conditions and social limitations of Iranian society.

This scale comprises 46 items to assess adolescents' vulnerability to 7 categories of high-risk behaviors. Respondents expressed their agreement or disagreement with these items on a 5-point Likert scale, ranging from "strongly agree" (5) to "strongly disagree" (1). The Kaiser-Meyer-Olkin (KMO) sample adequacy test was 0.952, indicating a very desirable and satisfactory level, and Bartlett's test of sphericity was statistically significant (Zademohammadi & Ahmadabadi, 1388). The content validity of the added items was confirmed by a group of counseling and psychology professors, and a Cronbach's alpha coefficient of 0.92 indicated high internal consistency for the hookah smoking subscale. The results of the Kaiser-Meyer-Olkin (KMO) sample adequacy test were 0.931, which was a very desirable level, and Bartlett's test of sphericity (13707.143) was statistically significant. The overall Cronbach's alpha value for the entire scale was 0.95 (Karr, 1392, which translates to 2013-2014 Gregorian calendar).

2. Young Schema Questionnaire (YSQ)

The Young Schema Questionnaire (YSQ) (short form, third edition) was developed by Young (2005). It consists of 67 items and 12 subscales: Failure/Dependence (10 questions), Social Isolation/Emotional Inhibition (6 questions), Emotional Deprivation (4 questions), Defectiveness (3 questions), Attention Seeking (6 questions), Enmeshment (7 questions), Abandonment (3 questions), Vulnerability to Harm and Illness (6 questions), Self-Sacrifice (8 questions), Punitiveness/Unfair Standards (5 questions), Entitlement (5 questions), and Mistrust (4 questions). It is used to assess maladaptive cognitive schemas.

The reliability of this questionnaire was reported with a Cronbach's alpha coefficient of 0.94 (Ghiasi, Molavi, Neshatdoust, & Salavati, 1387, which translates to 2008-2009 Gregorian calendar). Furthermore, the reliability of Young's Schema Questionnaire with 75 items was assessed by Sadoughi and colleagues (1387), Waller, Meyer, & Ohanian (2001); Ahi and colleagues (1385, which translates to 2006-2007 Gregorian calendar); Rijkeboer, van den Bergh & van den But (2005), Welburn and colleagues (2002), and Glaser and colleagues (2002). The overall scale reliability ranged from 0.94 to 0.96, and for subscales, it generally ranged from 0.62 to 0.93 (Ghiasi et al., 1390, which translates to 2011-2012 Gregorian calendar).

The questionnaire is scored on a 6-point Likert scale, with points assigned as follows: "Completely false for me" (1), "Mostly false for me" (2), "More true than false for me" (3), "Slightly true for me" (4), "Mostly true for me" (5), and "Completely true for me" (6).

3. Test of Self-Conscious Affect (TOSCA-2)

The "Test of Self-Conscious Affect," developed by Tangney (1992), is a paper-and-pencil self-report instrument that presents 16 everyday life situations (scenarios) to the participant. Respondents rate their emotional, affective, and

behavioral responses, and the likelihood of their response to them. All scenarios in this test consist of items related to feelings of shame and preoccupation with guilt. Some items also include personality defenses such as detachment, indifference, and externalization. The TOSCA is based on the theory and research of Lewis and Lindsay-Hautz. All questions are scored directly. The participant rates their responses on a 5-point Likert scale, ranging from 1 meaning "unlikely" to 5 meaning "very likely." A low score on this questionnaire indicates a negative evaluation of one's self, behaviors, and actions.

In research conducted by Anoushehei, Pourshahriari, and Sanayi Zaker (1385, which translates to 2006-2007 Gregorian calendar) in Iran, the retest reliability of this test after four weeks on students yielded a reliability coefficient of 0.78 for feelings of shame and 0.70 for feelings of guilt. Additionally, the internal consistency coefficient (Cronbach's alpha) for the overall shame and guilt questionnaire was 0.86, and for feelings of shame it was 0.85, and for feelings of guilt it was 0.74. The Cronbach's alpha coefficient of the above questionnaire in this research, conducted on a group of 166 individuals, was 0.78 for feelings of shame and 0.68 for feelings of guilt.

The "Test of Self-Conscious Affect" is a paper-and-pencil self-report instrument that presents 16 everyday life situations (scenarios) to the participant. It has two dimensions: shame and guilt. Each question has two options (a) and (b). The participant rates their responses on a 5-point Likert scale, ranging from 1 meaning "unlikely" to 5 meaning "very likely." A low score on this questionnaire indicates a negative evaluation of one's self, behaviors, and actions.

Research Findings

In the descriptive statistics section, descriptive information and statistical indicators for the variables of **high-risk behaviors**, **early maladaptive schemas**, and **self-conscious affect** were first calculated.

Table1: Mean and Standard Deviation of High-Risk Behaviors and Their Components

Component	Group	Mean	Standard Deviation	Count
Dangerous Driving	Delinquent	22.83	4.47	70
	Normal	21.61	4.20	70
Violence	Delinquent	14.41	4.23	70

	Normal	12.47	4.76	70
Smoking	Delinquent	12.38	5.69	70
	Normal	8.08	4.85	70
Drug Use	Delinquent	19.91	8.42	70
	Normal	13.11	6.28	70
Alcohol Consumption	Delinquent	16.81	6.26	70
	Normal	13.34	7.43	70
Hookah Use	Delinquent	18.93	7.43	70
	Normal	13.98	8.49	70
Opposite Sex Attraction	Delinquent	12.66	4.37	70
	Normal	10.61	5.52	70
Sexual Relations	Delinquent	11.18	4.59	70
	Normal	8.86	4.44	70
Total High-Risk Behaviors	Delinquent	129.13	35.28	70
	Normal	102.08	34.86	70

Table 2: Descriptive Information and Statistical Indicators for Maladaptive Schemas Variable

Domains	Group	Mean	Standard Deviation	Count
Disconnection and Rejection	Delinquent	77.97	18.92	70
	Normal	65.23	14.99	70
Other-Directedness	Delinquent	19.59	6.57	70
	Normal	17.70	4.74	70
Impaired Autonomy and Performance	Delinquent	52.30	16.40	70
	Normal	46.90	12.35	70
Overvigilance/Inhibition	Delinquent	42.43	12.63	70
	Normal	40.29	10.10	70
Insufficient Self-Control/Discipline	Delinquent	30.70	9.72	70
	Normal	28.91	8.41	70
Total Maladaptive Schemas	Delinquent	222.99	55.92	70
	Normal	199.03	40.25	70

Table 3: Descriptive Information and Statistical Indicators for Self-Conscious Affect Variable

Variables	Group	Mean	Standard Deviation	Count
Shame	Delinquent	43.58	9.91	70
	Normal	44.34	7.77	70
Guilt	Delinquent	48.74	10.49	70

	Normal	48.44	12.03	70
Total Self-Conscious Affect	Delinquent	92.33	15.59	70
	Normal	92.78	15.41	70

Hypothesis 1: There is a significant difference in high-risk behaviors between delinquent and normal adolescents.

To examine this hypothesis, a multivariate analysis of variance (MANOVA) was used. However, conducting this test requires adherence to certain assumptions:

The results of Box's test were not statistically significant ($p>0.05$ and $F=1.49$), which confirms the assumption of homogeneity of covariance matrices.

Levene's test was also used to check for homogeneity of variances, with the results presented in Table 4.

Table 4: Levene's Test Results for Homogeneity of Variances

Variables	F	df1	df2	Significance Level
Dangerous Driving	0.002	1	138	NS
Violence	0.65	1	138	NS
Smoking	3.19	1	138	NS
Drug Use	2.70	1	138	NS
Alcohol Consumption	3.34	1	138	NS
Hookah Use	1.99	1	138	NS
Opposite Sex Attraction	11.15	1	138	NS
Sexual Relations	0.92	1	138	NS

As shown in Table 4, the assumption of homogeneity of variances is met ($p>0.05$).

After presenting the assumptions, a multivariate analysis of variance (MANOVA) was used to compare the mean scores of high-risk behaviors in the participants. The results are presented in Table 5.

Table 5: Results of Multivariate Analysis of Variance for Comparing Mean High-Risk Behaviors

Effect	Statistic	Value	F	Significance Level	Partial Eta Squared	Statistical Power
Group	Pillai's Trace	0.20	4.15	0.001	0.20	0.99
	Wilks' Lambda	0.80	4.15	0.001	0.20	0.99

Hotelling's Trace	0.25	4.15	0.001	0.20	0.99
Roy's Largest Root	0.25	4.15	0.001	0.20	0.99

As observed in Table 5, the difference between the two groups in **high-risk behaviors** is significant across all four tests ($p<0.01$, $F=4.15$). This means that high-risk behaviors differ between delinquent and normal adolescents.

To examine the effect of group on each component, a univariate analysis of variance (ANOVA) was used, with the results presented in Table 6.

Table 6: Results of Univariate Analysis of Variance

Source of Variation	Sum of Squares	df	Mean Square	F	Significance Level	Eta Squared
Group	Dangerous Driving	51.61	1	51.61	2.74	NS
	Violence	132.11	1	132.11	6.51	0.01
	Smoking	647.15	1	647.15	23.14	0.001
	Drug Use	1618.40	1	1618.40	29.31	0.001
	Alcohol Consumption	421.78	1	421.78	8.94	0.003
	Hookah Use	855.11	1	855.11	13.44	0.001
	Opposite Sex Attraction	146.06	1	146.06	5.88	0.02
	Sexual Relations	189.78	1	189.78	9.30	0.003

As shown in Table 6, there are significant differences between the two groups in all high-risk behaviors except for dangerous driving behavior. Based on the means, delinquent adolescents have higher mean scores compared to normal adolescents. However, no significant difference was observed between the two groups in dangerous driving.

Hypothesis 2: There is a significant difference in maladaptive schemas between delinquent and normal adolescents.

To examine this hypothesis, a multivariate analysis of variance (MANOVA) was used. However, conducting this test requires adherence to certain assumptions:

The results of Box's test were not statistically significant ($p>0.05$ and $F=1.15$), which confirms the assumption of homogeneity of covariance matrices.

Levene's test was also used to check for homogeneity of variances, with the results presented in Table 7.

Table 7: Levene's Test Results for Homogeneity of Variances

Variables	F	df1	df2	Significance Level
Disconnection and Rejection	3.35	1	138	NS
Other-Directedness	2.41	1	138	NS
Impaired Autonomy and Performance	3.21	1	138	NS
Overvigilance/Inhibition	1.09	1	138	NS
Insufficient Self-Control/Discipline	2.05	1	138	NS

As shown in Table 7, the assumption of homogeneity of variances is met ($p>0.05$).

After presenting the assumptions, a multivariate analysis of variance (MANOVA) was used to compare the mean scores of maladaptive schemas in the participants. The results are presented in Table 8 and 9.

Table 8: Results of Multivariate Analysis of Variance for Comparing Mean Early Maladaptive Schemas

Effect	Statistic	Value	F	Significance Level	Partial Eta Squared	Statistical Power
Group	Pillai's Trace	0.15	4.82	0.001	0.15	0.98
	Wilks' Lambda	0.85	4.82	0.001	0.15	0.98
	Hotelling's Trace	0.18	4.82	0.001	0.15	0.98
	Roy's Largest Root	0.18	4.82	0.001	0.15	0.98

As observed in Table 8, the difference between the two groups in **maladaptive schemas** is significant across all four tests ($p<0.01$, $F=4.82$). This means that maladaptive schemas differ between delinquent and normal adolescents.

To examine the effect of group on each component, a univariate analysis of variance (ANOVA) was used, with the results presented in Table 9.

Table 9: Results of Univariate Analysis of Variance

Source of Variation	Sum of Squares	df	Mean Square	F	Significance Level	Eta Squared
Group	Disconnection and Rejection	5683.31	1	5683.31	19.51	0.001
	Other-Directedness	124.46	1	124.46	3.79	0.05
	Impaired Autonomy and Performance	1020.60	1	1020.60	4.84	0.03
	Overvigilance/Inhibition	160.71	1	160.71	1.23	NS
	Insufficient Self-Control/Discipline	111.61	1	111.61	1.35	NS

As shown in Table 9, there are significant differences between the two groups in the schemas of **Disconnection and Rejection**, **Other-Directedness**, and **Impaired Autonomy and Performance**. Based on the means, delinquent adolescents have higher mean scores compared to normal adolescents. However, no significant difference was observed between the two groups in the schemas of **Overvigilance/Inhibition** and **Insufficient Self-Control/Discipline**.

Hypothesis 3: There is a significant difference in the dimensions of self-conscious affect between delinquent and normal adolescents.

To examine this hypothesis, a multivariate analysis of variance (MANOVA) was used. However, conducting this test requires adherence to certain assumptions:

The results of Box's test were not statistically significant ($p>0.05$ and $F=1.81$), which confirms the assumption of homogeneity of covariance matrices.

Levene's test was also used to check for homogeneity of variances, with the results presented in Table 10.

Table 10: Levene's Test Results for Homogeneity of Variances

Variables	F	df1	df2	Significance Level
Shame	2.58	1	138	NS
Guilt	1.88	1	138	NS

As shown in Table 10, the assumption of homogeneity of variances is met ($p>0.05$).

After presenting the assumptions, a multivariate analysis of variance (MANOVA) was used to compare the mean scores of the dimensions of self-conscious affect in the participants. The results are presented in Tables 11 and 12.

Table 11: Results of Multivariate Analysis of Variance for Comparing Mean Dimensions of Self-Conscious Affect

Effect	Statistic	Value	F	Significance Level	Partial Eta Squared	Statistical Power
Group	Pillai's Trace	0.002	0.15	0.86	0.002	0.07
	Wilks' Lambda	0.99	0.15	0.86	0.002	0.07

Hotelling's Trace	0.002	0.15	0.86	0.002	0.07
Roy's Largest Root	0.002	0.15	0.86	0.002	0.07

As observed in Table 11, the difference between the two groups in the dimensions of **self-conscious affect** is not significant in any of the four tests ($p>0.05$, $F=0.15$). This means that the dimensions of self-conscious affect do not differ between delinquent and normal adolescents.

Table 12: Results of Univariate Analysis of Variance

Source of Variation	Sum of Squares	df	Mean Square	F	Significance Level	Eta Squared
Group	Shame	20.06	1	20.06	0.25	NS
	Guilt	3.15	1	3.15	0.02	NS

As shown in Table 12, no significant difference was observed between the two groups in the dimensions of **shame** and **guilt**.

Discussion and conclusion

This research aimed to explain the differences in **high-risk behaviors**, **early maladaptive schemas**, and **self-conscious affect (shame and guilt)** between delinquent and normal adolescents. To test the hypotheses related to this objective, a sample of 70 delinquent adolescents was purposefully selected from the Shiraz Correctional and Rehabilitation Center, and 70 normal adolescents were chosen using multi-stage cluster random sampling.

Each participant completed the Iranian Adolescent Risk-Taking Scale (IARS), Young's Maladaptive Schemas Questionnaire, and Tangney's Test of Self-Conscious Affect. After data collection and extraction, participants' scores were analyzed using multivariate analysis of variance (MANOVA). The results from the MANOVA indicated a significant difference in **high-risk behaviors** and **maladaptive schemas** between delinquent and normal adolescents. However, no significant difference was observed between the two groups in **self-conscious affect**.

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