

Modeling Attitudes Toward Delinquency Based on Identity Styles, Perceived Social Support, and Cognitive Emotion-Regulation Strategies Among Generation Z Students: The Mediating Role of Agreeableness

Alireza. Lotfalinezhad¹, Seyed Davoud. Hoseini Nasab^{2*}, Alinaghi. Aghdasi²

1 Department of psychology, Ara.C., Islamic Azad University, Tabriz, Iran

2 Department of Psychology, Ta.C., Islamic Azad University, Tabriz, Iran.

*Correspondence: d.hosseinasab@iaut.ac.ir

Article type:
Original Research

Article history:

Received 07 April 2026

Revised 16 July 2026

Accepted 22 July 2026

Initial Publish 23 July 2026

Published online 01 March 2027

ABSTRACT

The present study aimed to test a structural model predicting attitudes toward delinquency based on identity styles, perceived social support, and cognitive emotion-regulation strategies, with the personality trait of agreeableness as a mediator among Generation Z university students. In terms of purpose, this was an applied study, and in terms of methodology, it employed a descriptive-correlational design using a structural equation modeling approach. The statistical population consisted of undergraduate students aged 18–25 years enrolled at the Islamic Azad University, Tabriz Branch, during the 2024–2025 academic year. From this population, 306 students were selected through cluster random sampling. Data were collected using standardized questionnaires assessing identity styles, perceived social support, cognitive emotion regulation, personality traits, and attitudes toward delinquency and were analyzed using path analysis and structural equation modeling. The results indicated that the proposed model demonstrated a satisfactory fit to the data, $\chi^2/df = 2.79$, CFI = .98, GFI = .94, AGFI = .90, and RMSEA = .062. Informational identity style, perceived social support, and adaptive cognitive emotion-regulation strategies had significant positive relationships with negative attitudes toward delinquency, whereas diffuse-avoidant identity style and maladaptive cognitive emotion-regulation strategies were associated with positive attitudes toward delinquency. Moreover, agreeableness played a significant mediating role in the relationships between the predictor variables and attitudes toward delinquency. Overall, the findings indicate that attitudes toward delinquency among Generation Z students are simultaneously influenced by identity-related, social, emotional, and personality factors. Strengthening agreeableness, social support, informational identity processing, and adaptive emotion-regulation strategies may therefore contribute to reducing positive attitudes toward delinquency.

Key words: attitudes toward delinquency, identity styles, perceived social support, cognitive emotion regulation, agreeableness, Generation Z

How to cite this article:

Lotfalinezhad, A., Hoseini Nasab, S.D., & Aghdasi, A. (2027). Modeling Attitudes Toward Delinquency Based on Identity Styles, Perceived Social Support, and Cognitive Emotion-Regulation Strategies Among Generation Z Students: The Mediating Role of Agreeableness. *Mental Health and Lifestyle Journal*, 5(2), 1-20. <https://doi.org/10.61838/mhlj.285>

Introduction

Delinquency constitutes a multidimensional psychosocial phenomenon encompassing attitudes, beliefs, intentions, and behavioral tendencies that legitimize or facilitate violations of legal and social norms. Although delinquent behavior is often examined during adolescence, attitudes toward delinquency remain highly relevant during emerging adulthood because university students continue to undergo important transformations in identity, autonomy, peer relationships, emotional regulation, and moral decision-making. Attitudes toward delinquency do not necessarily indicate actual offending; rather, they represent an evaluative orientation through which individuals interpret unlawful, aggressive, antisocial, or norm-violating conduct as acceptable, unacceptable, justified, or inconsequential. Such attitudes may shape behavioral intentions, reduce psychological resistance to rule-breaking, and increase receptivity to delinquent peer norms. Longitudinal criminological evidence indicates that delinquency develops through the interaction of individual dispositions, family experiences, social relationships, and cumulative life-course processes rather than through a single isolated cause (1). Accordingly, an adequate explanation of attitudes toward delinquency among university students requires an integrative framework that simultaneously considers identity-related, interpersonal, emotional, and personality mechanisms.

This issue is particularly important among members of Generation Z, who have reached adolescence and emerging adulthood within rapidly changing social, technological, educational, and cultural environments. Generation Z students experience extensive digital connectivity, frequent exposure to diverse value systems, changing family relationships, increased academic and occupational uncertainty, and intensified comparison with peers. These conditions can expand opportunities for identity exploration while also creating confusion, social pressure, emotional vulnerability, and weakened attachment to conventional norms. University attendance does not eliminate these risks; rather, the transition to higher education may involve separation from family supervision, exposure to new peer groups, greater behavioral independence, and the need to make autonomous moral and social decisions. Research on school connectedness and identity-oriented interventions has shown that strengthening identity, self-efficacy, and attachment to educational environments can promote healthier adjustment among young people who are experiencing academic or psychosocial difficulties (2). Therefore, understanding how Generation Z students form attitudes toward delinquency is important not only for criminological prevention but also for promoting psychological adjustment, social responsibility, and constructive participation within university settings.

Identity development is one of the most salient psychological processes through which young people organize their beliefs, values, goals, and social commitments. Identity provides a framework for interpreting experience and determining which behaviors are consistent with one's self-concept. From an identity-style perspective, individuals differ in the strategies they use to process identity-relevant information and respond to developmental demands. An informational identity style is characterized by active exploration, critical evaluation of alternatives, openness to corrective information, and deliberate revision of personal commitments. A normative identity style involves reliance on expectations, beliefs, and standards transmitted by significant others or established social groups. In contrast, a diffuse-avoidant identity style is associated with procrastination, situational decision-making, avoidance of identity conflict, and delayed commitment. These processing orientations may have different implications for attitudes toward delinquency because they influence moral reasoning, self-regulation, susceptibility to peer pressure, and

adherence to social norms. Structural research among university students has already demonstrated that identity styles are meaningfully related to attitudes toward crime and that identity-related processes should be treated as central explanatory factors rather than peripheral correlates (3).

An informational identity style may protect against favorable attitudes toward delinquency by encouraging reflective decision-making and consideration of the long-term consequences of behavior. Individuals who actively evaluate information are more likely to question antisocial peer norms, compare immediate rewards with future costs, and integrate legal and moral standards into their self-concepts. Prosocial identities can reduce violence by making socially constructive conduct central to the individual's sense of self and by increasing the psychological inconsistency associated with aggressive or unlawful behavior (4). Moral identity similarly appears to function as a protective factor by connecting moral principles to self-definition and increasing internal motivation to avoid delinquency (5). A normative identity style may also discourage delinquency when the individual's family, community, and cultural reference groups strongly support lawful behavior. However, its consequences may vary according to the norms of the group to which the person conforms. Diffuse-avoidant identity processing may be especially problematic because avoidance of commitment and reliance on situational pressures can make individuals more vulnerable to immediate rewards, delinquent peers, and emotionally driven decisions. Identity processes are also embedded within social categories and institutional experiences, as research on ethnic and racial identity and school discipline has shown that identity-related outcomes may differ across social subgroups and contexts (6). Thus, identity styles should be examined in conjunction with the relational and environmental resources available to students.

Perceived social support is one of the most important relational resources that may shape attitudes toward delinquency. It refers to an individual's belief that emotional, informational, and practical assistance is available from family members, friends, and significant others. The protective value of perceived support lies not only in the actual provision of assistance but also in the expectation that one is valued, understood, and able to seek help during stressful situations. Supportive relationships can strengthen belonging, reduce alienation, facilitate emotional disclosure, and provide corrective feedback when individuals encounter antisocial opportunities or peer pressure. Comparative evidence has shown that non-delinquent adolescents tend to report more favorable social support, metacognitive functioning, mental health, and vitality than delinquent adolescents, indicating that relational resources are closely connected to psychosocial adjustment (7). Social support may also moderate the relationship between maladaptive personality characteristics and delinquent behavior, thereby reducing the extent to which dispositional risk is expressed behaviorally (8). In university populations, perceived support may therefore influence attitudes toward delinquency both directly, by reinforcing conventional norms, and indirectly, by contributing to more adaptive personality functioning.

The family is a particularly influential source of social control, emotional security, and moral socialization. Consistent parental monitoring can reduce opportunities for misconduct, communicate behavioral expectations, and strengthen young people's awareness of accountability (5). Conversely, family disruption, emotional unavailability, and persistent conflict may undermine attachment and increase vulnerability to delinquent attitudes. Research comparing siblings has associated father absence with adolescent depression and delinquency, although the magnitude of these relationships may depend on the family context and the

processes accompanying paternal absence (9). Longitudinal findings further indicate that parental emotional distress may contribute to adolescent delinquency through marital conflict and parent–child conflict, suggesting that the emotional climate of the family affects antisocial development through interconnected relational pathways (10). Studies of neglected children have similarly emphasized a cycle in which inadequate caregiving, disrupted attachment, and family dysfunction contribute to the development of antisocial personality patterns and continued delinquency (11). These findings support the inclusion of perceived family support in explanatory models of delinquency-related attitudes.

Friends and significant others are also influential, particularly as young people gain independence from their families. Supportive peers may promote adaptive coping and conventional participation, whereas association with delinquent peers can normalize offending and provide reinforcement for antisocial behavior. The impact of peer relationships may depend on personality and family processes. For example, callous–unemotional traits have been found to predict self-reported offending partly through involvement with delinquent peers, while parenting practices can alter the strength of this pathway (12). This indicates that peer influence does not operate in isolation but interacts with personality characteristics and the quality of socialization. For Generation Z students, whose social networks may include both face-to-face and digital relationships, perceived support from friends and significant others may reduce loneliness and strengthen social integration. However, social affiliation may become a risk factor when support is sought primarily from peers who approve of aggression, substance use, or rule-breaking. The meaning and source of social support should therefore be considered alongside the individual’s identity and personality organization.

Emotion regulation provides another central mechanism in the development of delinquency-related attitudes. Cognitive emotion regulation refers to the thoughts and interpretive strategies individuals use to manage emotional responses following stressful, threatening, or adverse experiences. Adaptive strategies include acceptance, positive refocusing, refocus on planning, positive reappraisal, and putting events into perspective. These strategies can reduce emotional intensity, facilitate problem-solving, and prevent impulsive reactions. Maladaptive strategies, including self-blame, rumination, catastrophizing, and blaming others, may prolong distress, intensify anger, and produce rigid or hostile interpretations of social situations. Emotional dysregulation is repeatedly identified as a pathway linking adverse experiences to delinquent or harmful behavior. Among adolescents in foster care, childhood trauma, attachment insecurity, emotional dysregulation, and substance abuse have been identified as predictors of delinquent behavior, demonstrating that emotional difficulties may translate relational adversity into behavioral risk (13). Similarly, research involving prisoners and members of the general population has linked adverse childhood experiences to emotional-regulation problems and substance use, highlighting the enduring criminogenic implications of poorly regulated emotional responses (14).

Specific emotional processes may be particularly relevant to the formation of delinquent attitudes. Emotional numbing following trauma can produce detachment, diminished empathy, and the belief that consequences no longer matter, thereby linking trauma exposure to callousness in delinquent youth (15). Impulsivity, sensation-seeking, and emotional neglect have also been associated with delinquent behavior among young people who use electronic cigarettes, suggesting that behavioral risk may emerge when emotional deprivation combines with reward sensitivity and limited inhibitory control (16). Clinical research on male juvenile delinquents has documented the relevance of intermittent explosive disorder, underscoring

the role of poorly controlled anger and aggressive impulses in delinquency (17). Delinquent girls have likewise been found to differ from non-delinquent girls in emotional insight, self-esteem, and depressive symptoms, showing that deficient emotional awareness and negative self-evaluation may coexist with antisocial vulnerability (18). These findings suggest that adaptive cognitive emotion regulation may strengthen negative attitudes toward delinquency, whereas maladaptive regulation may make delinquent conduct appear more acceptable as a means of expressing anger, escaping distress, assigning blame, or obtaining immediate relief.

Personality traits provide a relatively stable psychological foundation through which identity, social support, and emotion regulation may influence attitudes toward delinquency. Within the five-factor model, agreeableness reflects compassion, trust, cooperation, empathy, concern for others, and a tendency to avoid interpersonal hostility. Individuals high in agreeableness are generally more attentive to the welfare of others and more willing to comply with interpersonal and social expectations. By contrast, low agreeableness is associated with antagonism, suspiciousness, hostility, and reduced concern for the consequences of one's behavior for other people. Research on inconsistent and angry parenting has shown that low agreeableness and low conscientiousness can mediate associations between adverse parenting and delinquency, indicating that personality traits may represent developmental mechanisms through which relational environments become translated into antisocial outcomes (19). Findings from Iranian adolescents also show that delinquent and socially vulnerable groups differ from their peers in personality traits, family conditions, mental health, and cognitive capacities (20). These observations provide a strong basis for examining agreeableness as a mediator rather than merely as an independent correlate of attitudes toward delinquency.

Agreeableness may mediate the effects of identity styles because identity processing contributes to the development of interpersonal orientations. Informational identity processing requires openness to dialogue, reconsideration of personal assumptions, and acknowledgment of alternative viewpoints, all of which may reinforce cooperative and empathic tendencies. In contrast, diffuse-avoidant processing can weaken stable commitments and increase responsiveness to situational pressures, potentially contributing to less consistent concern for social obligations. Agreeableness may also mediate the effects of perceived social support. Individuals who experience their relationships as supportive may develop greater interpersonal trust, emotional security, and reciprocity, whereas those who perceive rejection or neglect may become defensive, hostile, or suspicious. Research grounded in criminal psychology has emphasized that personality and psychological characteristics interact in delinquent adolescents and that preventive approaches should address both individual traits and environmental influences (21). Therefore, agreeableness may represent a personality-based pathway through which identity and social relationships become connected to evaluative orientations toward delinquency.

A similar mediating process may operate between cognitive emotion regulation and attitudes toward delinquency. Adaptive strategies can reduce anger, facilitate perspective-taking, and enable individuals to evaluate interpersonal conflicts without resorting to antagonism. Reappraising a stressful event or placing it in a broader perspective may strengthen patience and empathy, which are central features of agreeableness. Conversely, catastrophizing, rumination, and blaming others may maintain resentment and hostile attribution patterns, thereby weakening cooperative tendencies. Personality characteristics associated with delinquency are not limited to overt aggression; they also include emotional instability,

reduced empathy, poor behavioral control, and diminished responsibility. Studies of adolescent delinquency have accordingly emphasized the mutual effects of personality and psychological characteristics in both the emergence and prevention of antisocial conduct (21). The inclusion of agreeableness as a mediator can therefore clarify how cognitive strategies used in emotionally difficult situations are transformed into relatively stable attitudes toward other people, social obligations, and delinquent behavior.

Despite considerable research on risk factors for delinquency, several conceptual gaps remain. First, many studies have focused on actual delinquent behavior among incarcerated, correctional, socially vulnerable, or high-risk adolescents, whereas less attention has been paid to attitudes toward delinquency among university students who may not have committed offenses. This distinction is important because favorable attitudes can precede behavior and may provide an early target for prevention. Second, identity styles, social support, emotion regulation, and personality are often examined separately, even though contemporary developmental and criminological perspectives emphasize interactions among these domains. Third, studies among Iranian populations have documented differences between delinquent and non-delinquent youth in personality, family functioning, emotional insight, mental health, and social support (7, 18, 20), but integrated structural models focusing specifically on Generation Z university students remain limited. Finally, although previous research has examined identity styles and attitudes toward crime (3), the indirect role of agreeableness in connecting identity processing, perceived support, and cognitive emotion regulation to both positive and negative attitudes toward delinquency requires further empirical examination.

Developing such an integrated model has practical implications for university counseling, educational planning, and delinquency prevention. A model that identifies both direct and mediated pathways can indicate whether prevention should primarily target students' attitudes, emotional strategies, relational networks, identity development, or personality-related interpersonal functioning. Interventions that promote prosocial identity commitments, strengthen family and peer support, teach cognitive reappraisal and planning, and cultivate empathy and cooperation may be more effective than programs addressing only rule compliance. Preventive approaches should also recognize that delinquent attitudes can arise through different pathways: some students may be vulnerable because of diffuse identity processing, others because of perceived relational deprivation, and still others because of maladaptive emotional responses or antagonistic personality tendencies. Integrating these pathways within a structural equation model can provide a more comprehensive account of why some Generation Z students maintain strong negative attitudes toward delinquency whereas others become more accepting or indifferent toward it.

Accordingly, the present study aimed to model attitudes toward delinquency based on identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies, with agreeableness as a mediating personality trait among Generation Z students at the Islamic Azad University, Tabriz Branch.

Methods and Materials

Study Design and Participants

The present study was applied in terms of its purpose and employed a descriptive-correlational design in terms of data-collection methodology, using a structural equation modeling approach. The principal objective was to explain and model attitudes toward delinquency among Generation Z students based on

perceived social support and cognitive emotion-regulation strategies, with personality traits serving as mediating variables among students at the Islamic Azad University, Tabriz Branch. Quantitative data were collected using standardized questionnaires.

The statistical population comprised all Generation Z undergraduate students aged 18–25 years who were enrolled at the Islamic Azad University, Tabriz Branch, during the 2024–2025 academic year. In terms of demographic and psychological characteristics, this group corresponded to individuals born approximately between 1999 and 2006 and was therefore categorized as Generation Z. Based on the Krejcie and Morgan sample-size table, the required sample size was estimated at 306 participants. Cluster random sampling was employed. First, several faculties were randomly selected from among the active faculties of the Islamic Azad University, Tabriz Branch. Next, one academic major was randomly selected from each faculty, and finally, all students attending the selected classes were invited to participate in the study. Given the analytical approach and the requirements of structural equation modeling, this sample size was considered adequate for testing the structural relationships and evaluating model fit.

The study was conducted at the Islamic Azad University, Tabriz Branch, in coordination with the Office of Student Education and the university's Office of Cultural Affairs. After the necessary authorizations had been obtained, the questionnaires were administered collectively to the participants in classrooms or public areas of the university, with the cooperation of faculty administrators. The researcher was present during questionnaire administration to provide the necessary explanations and answer any questions raised by the participants. Participation was entirely voluntary, and written informed consent was obtained from all participants before data collection began.

Data Collection

The first research instrument was the Identity Style Inventory (ISI), originally developed by Berzonsky (1989). This questionnaire was designed to assess identity-processing styles. The version used in the present study consisted of 40 items measuring four dimensions: informational identity style, normative identity style, diffuse-avoidant identity style, and identity commitment. Items are rated on a 5-point Likert scale ranging from strongly disagree to strongly agree. In the Persian version, Vaziri et al. (2014) examined the instrument among 3,245 Iranian university students and confirmed its validity and reliability. Cronbach's alpha coefficients were reported as .833 for informational identity style, .721 for normative identity style, .565 for diffuse-avoidant identity style, and .841 for identity commitment. Significant correlations with relevant criterion measures also provided evidence supporting the instrument's criterion-related and construct validity among Iranian university students.

The second instrument was the Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet, Dahlem, Zimet, and Farley (1988). This scale was designed to assess perceived social support received from three sources: family, friends, and significant others. It consists of 12 items distributed across three four-item subscales. Responses are recorded on a 7-point Likert scale ranging from strongly disagree to strongly agree, and the total score is calculated by averaging the item scores. In Iranian studies, Rostami et al. (2010) reported reliability coefficients ranging from .76 to .89 for the subscales. Salimi, Jokar, and Nikpour (2009) also reported Cronbach's alpha coefficients of .89, .86, and .82 for support received from

family, friends, and significant others, respectively. These findings indicate that the Persian version of the MSPSS possesses satisfactory validity and reliability in Iranian populations.

The third instrument was the Cognitive Emotion Regulation Questionnaire (CERQ), developed by Garnefski, Kraaij, and Spinhoven (2001). This instrument assesses the cognitive strategies individuals employ when confronting stressful or threatening events. The original version contains 36 items across nine subscales: acceptance, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, self-blame, rumination, catastrophizing, and other-blame. Each subscale contains four items, which are rated on a 5-point Likert scale ranging from almost never to almost always. In a study of the short Persian version of the CERQ, Mohsenabadi and Fathi-Ashtiani (2021) reported Cronbach's alpha coefficients ranging from .76 to .89 across the subscales. Confirmatory factor analysis supported the questionnaire's nine-factor structure. Significant correlations with clinical indicators also provided evidence supporting its criterion-related and construct validity in the Iranian population.

The fourth instrument was the NEO Five-Factor Inventory (NEO-FFI), developed by Costa and McCrae (1992). This questionnaire measures the five principal personality dimensions of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. The original version contains 60 items, with each subscale consisting of 12 items. Responses are recorded on a 5-point Likert scale ranging from strongly disagree to strongly agree. Mohsenabadi and Fathi-Ashtiani (2021) examined the psychometric properties of the short Persian version of the NEO-FFI and reported Cronbach's alpha coefficients ranging from .76 to .89 for its subscales. Confirmatory factor analysis supported the instrument's five-factor structure, and significant correlations with criterion measures supported its construct and criterion-related validity in the Iranian population.

The fifth instrument was the Attitudes Toward Delinquency Questionnaire, developed and validated by Abbaszadeh, Hosseini, and Moeini (2018). The questionnaire was designed to assess adolescents' and young adults' attitudes toward delinquent and deviant behaviors. It contains 22 items across three components: positive attitudes toward delinquency, negative attitudes toward delinquency, and indifference or neutrality toward delinquency. Responses are recorded on a 5-point Likert scale ranging from strongly disagree to strongly agree. Some items are reverse-scored to reduce response bias. In the original validation study, Cronbach's alpha was reported as .86 for the total questionnaire and ranged from .75 to .83 for its subscales. Three-week test-retest reliability was .79, and exploratory and confirmatory factor analyses supported the instrument's three-dimensional structure. Significant correlations with variables such as a tendency toward rule-breaking and low self-control provided further evidence of criterion-related validity. This questionnaire was used to assess attitudes toward delinquency among the university students participating in the present study.

Data Analysis

Structural equation modeling was used for data analysis. First, descriptive statistical indices, including the mean, standard deviation, skewness, and kurtosis, were calculated. Statistical assumptions, including normality, the absence of outliers, and the absence of multicollinearity, were subsequently examined. The measurement model was then evaluated using confirmatory factor analysis to assess convergent validity, discriminant validity, and factor loadings. Subsequently, the structural model was estimated to test the

research hypotheses. Model fit was evaluated using indices such as χ^2/df , the comparative fit index (CFI), incremental fit index (IFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), and root mean square error of approximation (RMSEA). Bootstrapping with an appropriate number of resamples was also used to test direct and indirect effects and evaluate the mediating role of personality traits, thereby providing more accurate confidence intervals for the estimated effects. All analyses were performed using specialized statistical and structural equation modeling software.

Findings and Results

An examination of the demographic characteristics of the study sample ($N = 306$) indicated that, in terms of marital status, the majority of participants were unmarried students, comprising 263 individuals (85.9%), whereas 43 participants (14.1%) were married. The mean age of the sample was 21.40 years ($SD = 1.83$). The largest age group consisted of participants aged 20–22 years, with 147 students (48.0%), whereas the smallest age group consisted of participants aged 23–25 years, with 68 students (22.2%). In addition, 91 participants (29.7%) were between 18 and 19 years of age. Because undergraduate enrollment was an inclusion criterion, all participants were undergraduate students. The highest frequency was observed among students in the second and third years of study, who together accounted for 198 participants (64.7%). Table 1 presents the means and standard deviations of the study variables, including cognitive identity-processing styles—informational, normative, and diffuse-avoidant identity styles; perceived social support from family, friends, and significant others; adaptive cognitive emotion-regulation strategies—acceptance, positive refocusing, refocus on planning, putting into perspective, and positive reappraisal; maladaptive cognitive emotion-regulation strategies—self-blame, other-blame, rumination, and catastrophizing; the Big Five personality traits—neuroticism, extraversion, openness, agreeableness, and conscientiousness; and attitudes toward delinquency—positive and negative attitudes toward delinquency.

Table 1. Descriptive Statistics for the Study Variables Among the Participants

Variable domain	Dimension	Mean	Standard deviation
Identity styles	Informational identity style	38.45	4.22
	Normative identity style	29.96	4.09
	Diffuse-avoidant identity style	24.56	5.15
Perceived social support	Family	21.24	5.51
	Friends	18.95	5.80
	Significant others	21.08	5.23
Adaptive cognitive emotion-regulation strategies	Acceptance	13.50	3.24
	Positive refocusing	13.69	2.55
	Refocus on planning	14.79	3.03
	Putting into perspective	13.45	2.79
	Positive reappraisal	15.58	2.46
Maladaptive cognitive emotion-regulation strategies	Self-blame	11.78	3.37
	Rumination	13.70	2.87
	Catastrophizing	11.28	3.22
	Other-blame	10.27	3.50
Personality traits	Neuroticism	22.33	8.59
	Extraversion	21.90	6.07
	Openness	29.24	4.65
	Agreeableness	27.71	5.63
	Conscientiousness	13.98	6.65
Attitudes toward delinquency	Positive attitudes toward delinquency	9.12	4.52
	Negative attitudes toward delinquency	32.11	5.83

As shown in Table 1, informational identity style had the highest mean among the identity styles, whereas diffuse-avoidant identity style had the lowest mean. Within perceived social support, support received from family had the highest mean, whereas support received from friends had the lowest mean. Among cognitive emotion-regulation strategies, positive reappraisal had the highest mean among the adaptive strategies, and rumination had the highest mean among the maladaptive strategies. Among the Big Five personality traits, openness had the highest mean, whereas conscientiousness had the lowest mean. Finally, the mean score for negative attitudes toward delinquency was higher than that for positive attitudes toward delinquency, indicating that negative attitudes toward delinquency predominated among the participants. Table 2 presents the correlations among the study variables.

Table 2. Correlation Matrix of the Study Variables

Variable	1	2	3	4	5	6	7	8	9
1. Informational identity style	1								
2. Normative identity style	-.40**	1							
3. Diffuse-avoidant identity style	-.50**	.49**	1						
4. Perceived social support	.45**	-.39**	-.41**	1					
5. Adaptive cognitive emotion-regulation strategies	.40**	-.30**	-.39**	.40**	1				
6. Maladaptive cognitive emotion-regulation strategies	-.48**	.40**	.43**	-.35**	-.41**	1			
7. Agreeableness	.46**	-.31**	-.41**	.50**	.32**	-.42**	1		
8. Positive attitudes toward delinquency	-.43**	-.42**	-.39**	-.44**	-.47**	.49**	-.38**	1	
9. Negative attitudes toward delinquency	.46**	-.31**	-.41**	.49**	-.50**	-.50**	.39**	-.50**	1

The results presented in Table 2 indicate that informational identity style, perceived social support, and adaptive cognitive emotion-regulation strategies were significantly and positively correlated with conscientiousness, agreeableness, openness, and negative attitudes toward delinquency, while they were significantly and negatively correlated with neuroticism, extraversion, and positive attitudes toward delinquency. The findings also indicated that diffuse-avoidant and normative identity styles and maladaptive cognitive emotion-regulation strategies were significantly and negatively correlated with conscientiousness, agreeableness, openness, and negative attitudes toward delinquency, while they were significantly and positively correlated with neuroticism, extraversion, and positive attitudes toward delinquency. Furthermore, conscientiousness, agreeableness, and openness were significantly and positively correlated with negative attitudes toward delinquency and significantly and negatively correlated with positive attitudes toward delinquency. Finally, neuroticism and extraversion were significantly and negatively correlated with negative attitudes toward delinquency and significantly and positively correlated with positive attitudes toward delinquency.

Before conducting the structural analysis, the fundamental assumptions were examined in accordance with Kline's (2005) recommendations. The results indicated that the skewness and kurtosis values for all variables fell within the acceptable range of -2 to +2, supporting the assumption of univariate normality (Garson, 2007). Mardia's coefficient was 4.59, which, according to Byrne's (2010) criterion, supported the assumption of multivariate normality. Regarding multicollinearity, tolerance values greater than .10 and variance inflation factor values below 10 indicated that no problematic overlap existed among the variables (Kline, 2015). Finally, visual inspection of probability-probability plots and residual scatterplots confirmed

the assumptions of linearity and homoscedasticity for the attitude-toward-delinquency variables (Brace et al., 2016). The alignment of the points along the diagonal line and the uniform distribution of residuals confirmed the adequacy of the data for structural equation modeling. Table 3 presents the fit indices for the structural model.

Table 3. Goodness-of-Fit Indices for the Hypothesized Research Model

Model	χ^2	df	χ^2/df	GFI	AGFI	CFI	RMSEA
Proposed model	223.74	80	2.79	.94	.90	.98	.062

The results presented in Table 3 concern the fit indices for the structural model testing the mediating role of agreeableness in the relationships of identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies with attitudes toward delinquency. The indices recommended by Meyers et al. (2016), including the chi-square statistic (χ^2), normed chi-square statistic (χ^2/df), comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), and root mean square error of approximation (RMSEA), were 223.74, 2.79, .98, .94, .90, and .062, respectively. These values indicated an acceptable fit between the proposed model and the observed data.

Figure 1 presents the results for predicting attitudes toward delinquency based on identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies, with agreeableness as the mediating personality trait. In this model, 74% of the variance in agreeableness scores was explained by identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies. Furthermore, agreeableness and the other predictor variables included in the structural equations explained 30% of the variance in positive attitudes toward delinquency and 64% of the variance in negative attitudes toward delinquency. In the hypothesized partial mediation model, all path coefficients between the variables were statistically significant, with the exception of the direct effects of informational and normative identity styles on positive and negative attitudes toward delinquency, the direct effect of perceived social support on negative attitudes toward delinquency, and the direct effects of adaptive and maladaptive cognitive emotion-regulation strategies on positive attitudes toward delinquency ($p > .05$).

Table 4 presents the direct effects in the model examining the mediating role of agreeableness in the relationships of identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies with positive and negative attitudes toward delinquency.

Table 4. Direct Path Coefficients in the Agreeableness Mediation Model

Path	β	B	SE	t	p
Informational identity style → Agreeableness	.12	.34	.13	2.63	.001
Normative identity style → Agreeableness	-.14	-.10	.037	-2.68	.001
Diffuse-avoidant identity style → Positive attitudes toward delinquency	.39	.25	.031	7.86	.001
Diffuse-avoidant identity style → Negative attitudes toward delinquency	-.08	-.14	.026	-5.18	.001
Diffuse-avoidant identity style → Agreeableness	-.11	-.051	.025	-1.99	.050
Perceived social support → Positive attitudes toward delinquency	-.32	-.30	.12	-2.55	.010
Perceived social support → Agreeableness	.41	.40	.086	4.67	.001
Adaptive cognitive emotion regulation → Negative attitudes toward delinquency	.21	.55	.19	2.88	.001
Adaptive cognitive emotion regulation → Agreeableness	.21	.59	.20	2.95	.001
Maladaptive cognitive emotion regulation → Negative attitudes toward delinquency	.32	.52	.11	4.85	.001
Maladaptive cognitive emotion regulation → Agreeableness	-.17	-.27	.093	-2.91	.001

Table 5 presents the indirect effects of identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies on attitudes toward delinquency through the mediating role of agreeableness.

Table 5. Bootstrap Results for the Indirect Paths in the Agreeableness Mediation Model

Indirect path	95% CI lower bound	95% CI upper bound	p
Informational identity style → Agreeableness → Positive attitudes toward delinquency	-.20	-.007	.030
Informational identity style → Agreeableness → Negative attitudes toward delinquency	.01	.18	.030
Normative identity style → Agreeableness → Positive attitudes toward delinquency	.001	.032	.050
Normative identity style → Agreeableness → Negative attitudes toward delinquency	-.029	-.002	.050
Diffuse-avoidant identity style → Agreeableness → Positive attitudes toward delinquency	.004	.05	.007
Diffuse-avoidant identity style → Agreeableness → Negative attitudes toward delinquency	-.047	-.008	.003
Perceived social support → Agreeableness → Positive attitudes toward delinquency	-.177	-.016	.010
Perceived social support → Agreeableness → Negative attitudes toward delinquency	.036	.165	.001
Adaptive cognitive emotion regulation → Agreeableness → Positive attitudes toward delinquency	-.158	-.105	.050
Adaptive cognitive emotion regulation → Agreeableness → Negative attitudes toward delinquency	.109	.213	.050
Maladaptive cognitive emotion regulation → Agreeableness → Positive attitudes toward delinquency	.012	.128	.008
Maladaptive cognitive emotion regulation → Agreeableness → Negative attitudes toward delinquency	-.016	-.123	.006

The bootstrap results indicated that the indirect effects of most paths through agreeableness were statistically significant. Informational, normative, and diffuse-avoidant identity styles, perceived social support, and cognitive emotion-regulation strategies were significantly associated with attitudes toward delinquency through agreeableness. In general, the indirect effects of informational identity style, perceived social support, and adaptive cognitive emotion regulation on positive attitudes toward delinquency were negative, whereas their indirect effects on negative attitudes toward delinquency were positive. Significant indirect effects were also observed for normative and diffuse-avoidant identity styles and maladaptive cognitive emotion regulation. Accordingly, agreeableness played a significant mediating role in the relationships between the predictor variables and attitudes toward delinquency.

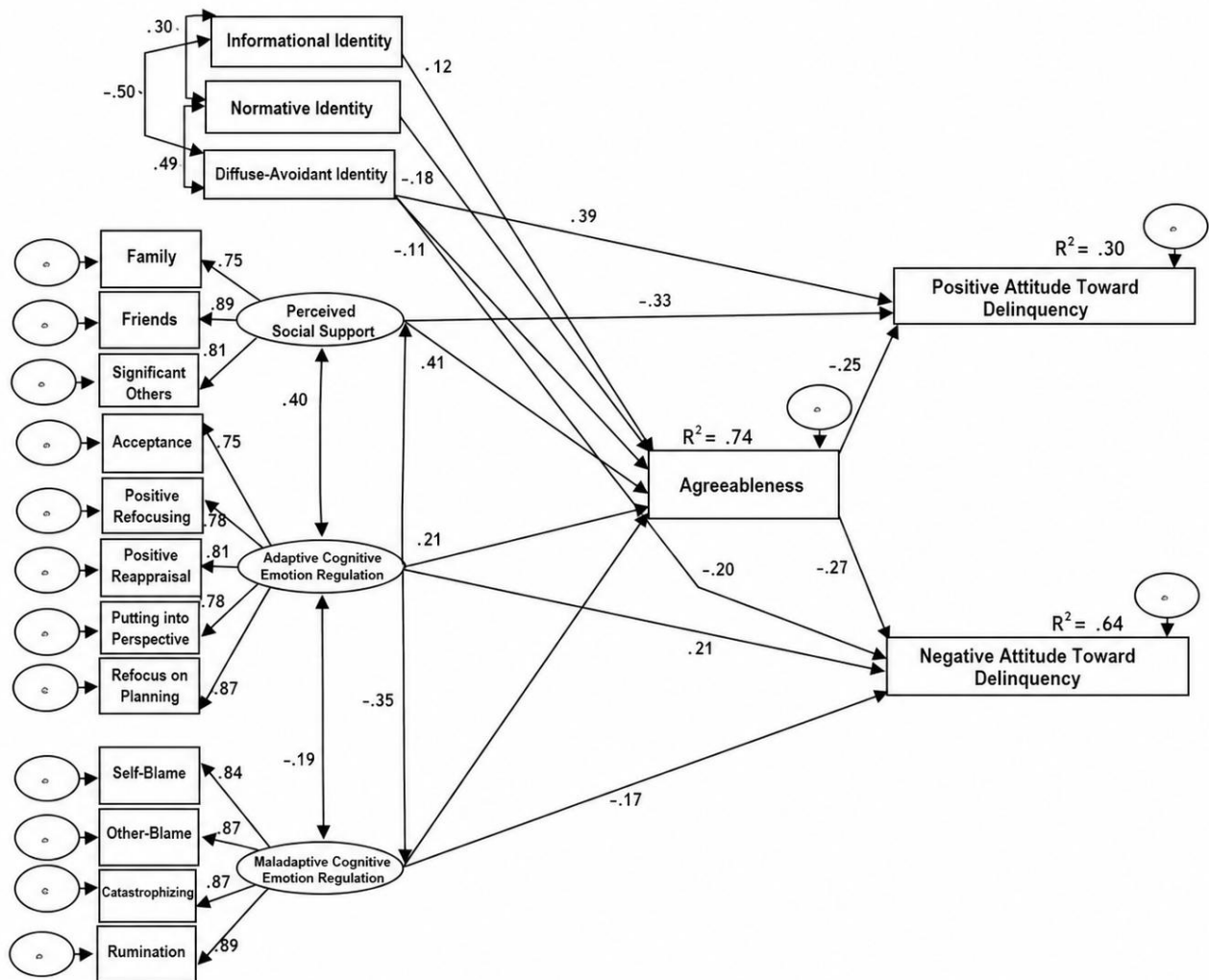


Figure 1. The mediating role of agreeableness in the relationships of identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies with attitudes toward delinquency.

Discussion and Conclusion

The present study examined a structural model of attitudes toward delinquency based on identity styles, perceived social support, and adaptive and maladaptive cognitive emotion-regulation strategies, with agreeableness as a mediating personality trait among Generation Z students. The findings indicated that the proposed model adequately represented the observed data. The values obtained for the normed chi-square, comparative fit index, goodness-of-fit index, adjusted goodness-of-fit index, and root mean square error of approximation were all within acceptable ranges, demonstrating that the hypothesized relationships among identity processing, social support, emotion regulation, agreeableness, and attitudes toward delinquency were theoretically and statistically plausible. The model explained 74% of the variance in agreeableness, 30% of the variance in positive attitudes toward delinquency, and 64% of the variance in negative attitudes toward delinquency. These proportions indicate that attitudes toward delinquency among Generation Z students cannot be attributed to a single psychological or social factor. Instead, they emerge from the combined

influence of identity-related orientations, perceived interpersonal resources, cognitive responses to emotional experiences, and relatively stable interpersonal personality tendencies.

The results showed that informational identity style was positively associated with agreeableness and negative attitudes toward delinquency and negatively associated with positive attitudes toward delinquency. Its indirect effects on both dimensions of delinquency attitudes through agreeableness were also significant. These findings are consistent with the view that informational identity processing involves active exploration, critical evaluation of alternatives, openness to new evidence, and deliberate commitment formation. Students who use this style may be more likely to consider the interpersonal, legal, and long-term consequences of delinquent behavior rather than responding primarily to immediate peer pressure or situational rewards. The findings align with research demonstrating a meaningful relationship between identity styles and attitudes toward crime among students (3). They are also compatible with evidence indicating that prosocial identities reduce youth violence by making socially constructive conduct a central component of self-definition (4). When lawful, cooperative, and morally responsible behavior is integrated into the self-concept, delinquent conduct becomes inconsistent with the individual's identity and is therefore more likely to be evaluated negatively. The relationship between moral identity and reduced youth delinquency similarly supports the protective role of identity commitments in guiding behavior under conditions of social pressure (5).

The significant mediating role of agreeableness in the relationship between informational identity style and attitudes toward delinquency suggests that identity processing may influence delinquency-related evaluations partly by shaping interpersonal orientations. Informational processing requires individuals to listen to alternative perspectives, revise assumptions, and tolerate ambiguity. These characteristics may strengthen empathy, cooperation, trust, and concern for others, which are central components of agreeableness. In turn, agreeable students may be less likely to approve of conduct that harms others or violates shared expectations. This interpretation is consistent with findings showing that low agreeableness can function as a mechanism linking problematic socialization experiences to delinquency (19). Therefore, the informational identity style may not merely increase cognitive reflection; it may also foster an interpersonal disposition that makes delinquent behavior less acceptable.

Normative identity style showed a more complex pattern. It was negatively related to agreeableness and negative attitudes toward delinquency in the correlation analysis, and its indirect effects through agreeableness indicated greater positive and lower negative attitudes toward delinquency. Although normative identity processing is sometimes considered protective because it involves commitment to established values, its effects depend heavily on the norms adopted from significant groups. If students internalize prosocial family and institutional expectations, normative commitments may discourage delinquency. However, when identity is based on uncritical conformity, individuals may become vulnerable to the standards of peer groups or social environments that normalize aggression, substance use, or rule-breaking. Evidence that identity-related outcomes differ across social and cultural subgroups supports the importance of context in determining whether identity commitments function adaptively or maladaptively (6). The present findings imply that normative identity should not automatically be interpreted as a uniformly protective style. Its consequences may depend on the moral quality of the group norms to which the student is committed.

Diffuse-avoidant identity style was associated with lower agreeableness and a more favorable orientation toward delinquency. It had significant direct and indirect relationships with positive and negative attitudes toward delinquency. Individuals with a diffuse-avoidant style tend to postpone decisions, evade identity conflicts, and allow immediate circumstances to determine their behavior. Such individuals may possess weaker internal commitments and may therefore be more susceptible to peer approval, emotional impulses, and situational opportunities for rule-breaking. The findings correspond with previous research showing that identity styles are associated with students' attitudes toward crime (3). They also align with evidence that prosocial identities protect against violence, whereas weak or poorly consolidated identities may leave young people more vulnerable to antisocial influences (4). Programs that strengthen identity, school connectedness, and self-efficacy have shown potential for improving adjustment in young people experiencing academic and psychosocial difficulties (2). Accordingly, diffuse identity processing may represent an important target for prevention before favorable delinquency attitudes become translated into behavior.

Perceived social support was positively associated with agreeableness and negative attitudes toward delinquency and negatively associated with positive attitudes toward delinquency. Its indirect effects through agreeableness were significant for both attitude dimensions. These results indicate that students who believe they can rely on family members, friends, and significant others are more likely to reject delinquent behavior. Perceived support may reduce alienation, enhance belonging, and provide opportunities for emotional disclosure and constructive problem-solving. It may also expose students to corrective feedback when they encounter antisocial peer norms or opportunities for misconduct. The results are consistent with findings that delinquent adolescents report poorer social support, mental health, and psychological vitality than non-delinquent adolescents (7). They are also aligned with evidence that social support can moderate the association between dark personality traits and delinquent behavior (8). Thus, social support may both directly discourage favorable attitudes toward delinquency and reduce the behavioral expression of personality-based risk.

The importance of perceived social support can also be understood in relation to family functioning. Family relationships provide emotional security, behavioral monitoring, and early moral socialization. Parental monitoring has been associated with lower youth delinquency, particularly when combined with a strong moral identity (5). Conversely, father absence has been linked to adolescent depression and delinquency, suggesting that disruption in parental availability may affect both emotional adjustment and behavioral risk (9). Longitudinal evidence further indicates that parental emotional distress contributes to adolescent delinquency through marital and parent-child conflict (10). The cycle of neglect, family dysfunction, and antisocial personality development described among vulnerable children also supports the role of early relational environments in delinquency (11). In the present study, perceived family support had the highest mean among the social-support dimensions, suggesting that the family continued to represent an important psychological resource even though the participants were university students and emerging adults.

The mediating effect of agreeableness in the relationship between perceived social support and attitudes toward delinquency indicates that supportive relationships may contribute to the development or maintenance of cooperative personality tendencies. Individuals who feel accepted and valued may become

more trusting, empathic, and considerate in their interactions. Conversely, repeated perceptions of rejection, neglect, or interpersonal insecurity may foster suspicion, defensiveness, and hostility. The finding corresponds with research showing that personality traits, family conditions, mental health, and cognitive characteristics distinguish delinquent and socially vulnerable adolescents from their peers (20). It is also compatible with criminal-psychological accounts emphasizing the mutual influence of personality characteristics and environmental conditions in the development and prevention of delinquency (21). Agreeableness may therefore represent one of the psychological mechanisms through which supportive social relationships become translated into stronger rejection of delinquent behavior.

Adaptive cognitive emotion-regulation strategies were positively associated with agreeableness and were generally related to stronger negative and weaker positive attitudes toward delinquency. The significant indirect effects through agreeableness indicate that acceptance, positive refocusing, planning, positive reappraisal, and putting events into perspective may influence delinquency-related attitudes partly by promoting cooperative and empathic interpersonal functioning. Adaptive strategies allow individuals to reduce emotional arousal, evaluate stressful situations more accurately, and choose goal-directed responses rather than acting impulsively. These abilities may be particularly relevant when students experience interpersonal conflict, academic pressure, rejection, or provocation. The findings are consistent with evidence that emotional dysregulation predicts delinquent behavior in adolescents exposed to trauma and attachment insecurity (13). They also accord with research linking adverse childhood experiences, emotion-regulation difficulties, and substance use in both prisoners and members of the general population (14). Together, these findings suggest that emotion regulation is not simply an emotional-health variable but a potentially important component of delinquency prevention.

Maladaptive cognitive emotion-regulation strategies were negatively associated with agreeableness and were linked to a more favorable orientation toward delinquency. Their indirect effects through agreeableness were significant, indicating that self-blame, other-blame, rumination, and catastrophizing may weaken cooperative interpersonal tendencies and thereby alter evaluations of delinquent conduct. Rumination can maintain anger and resentment, catastrophizing can intensify perceived threat, and blaming others can reduce personal responsibility. Under these conditions, aggressive or rule-breaking responses may appear justified or unavoidable. The findings are compatible with evidence that emotional numbing links trauma exposure to callousness in delinquent youth (15). They are also supported by research identifying impulsivity, sensation-seeking, and emotional neglect as correlates of delinquent behavior among young substance users (16). The prevalence of intermittent explosive disorder among male juvenile delinquents further illustrates the relevance of poorly regulated anger and impulsive aggression to delinquent behavior (17). Likewise, differences in emotional insight, self-esteem, and depression between delinquent and non-delinquent girls indicate that emotional functioning is closely connected to delinquency vulnerability (18).

Agreeableness itself was positively associated with negative attitudes and negatively associated with positive attitudes toward delinquency. This finding supports the conceptualization of agreeableness as a protective personality factor. Agreeable individuals are more likely to consider the welfare of others, avoid unnecessary conflict, cooperate with social expectations, and experience concern when their actions cause harm. Low agreeableness, in contrast, involves hostility, antagonism, distrust, and limited concern for others, all of which may make delinquent behavior easier to justify. The result is consistent with evidence

that low agreeableness and low conscientiousness mediate the association between inconsistent or angry parenting and delinquency (19). It is also in line with studies demonstrating that personality and psychological characteristics play an important role in delinquent behavior and should be incorporated into preventive interventions (21). Research on callous–unemotional traits has similarly shown that personality-based deficits in empathy can predict offending, partly through affiliation with delinquent peers (12).

More broadly, the findings support an integrative developmental interpretation of attitudes toward delinquency. Long-term criminological research has demonstrated that offending develops through cumulative interactions among individual characteristics, family experiences, peer relations, and life-course circumstances (1). The present model extends this perspective to university students by showing that even in a non-correctional population, delinquency-related attitudes are associated with identity organization, perceived support, emotion regulation, and personality. These attitudes may represent an earlier and more modifiable level of risk than actual offending. The substantial amount of variance explained in negative attitudes toward delinquency suggests that protective psychological and social factors may be especially important in strengthening rejection of antisocial conduct. At the same time, the lower explained variance in positive attitudes indicates that additional influences, such as peer delinquency, moral disengagement, substance use, socioeconomic stress, online socialization, and perceived legitimacy of social institutions, may also need to be considered.

The present study had several limitations. Its cross-sectional and correlational design prevents definitive causal conclusions regarding the direction of the observed relationships. Although structural equation modeling permits the examination of theoretically specified direct and indirect pathways, it does not establish temporal precedence. The data were obtained through self-report questionnaires and may therefore have been affected by social desirability, response biases, inaccurate self-perceptions, or participants' reluctance to disclose favorable attitudes toward delinquency. The sample was limited to undergraduate students aged 18–25 years at one branch of the Islamic Azad University, which restricts the generalizability of the findings to students in other universities, regions, academic levels, and cultural contexts. The study also examined attitudes rather than verified delinquent behavior, and the two constructs should not be treated as equivalent. Moreover, only agreeableness was examined as the personality mediator, although other traits and psychological mechanisms may also contribute to the proposed relationships.

Future studies should use longitudinal designs to determine whether identity styles, perceived social support, emotion-regulation strategies, and agreeableness predict changes in attitudes toward delinquency over time and whether these attitudes subsequently predict actual behavior. Replication with students from public and private universities in different provinces would improve external validity and permit comparisons across educational and cultural contexts. Researchers should combine self-report data with peer, parent, counselor, or behavioral assessments and include indicators of actual rule violations where ethically and practically feasible. Future structural models could examine additional mediators and moderators, including conscientiousness, empathy, moral identity, self-control, impulsivity, moral disengagement, peer delinquency, university connectedness, and digital-media exposure. Multi-group analyses based on gender, age, socioeconomic status, field of study, and residential status may also reveal whether the identified pathways differ across student subgroups.

University counseling centers and student-affairs offices should develop preventive programs that jointly address identity development, interpersonal support, emotion regulation, and cooperative personality functioning. Workshops can help students engage in reflective identity exploration, clarify personal values, evaluate peer norms, and form stable commitments consistent with social responsibility. Emotion-regulation training should emphasize acceptance, cognitive reappraisal, planning, perspective-taking, and constructive management of anger and rumination. Universities should also strengthen peer-support networks, mentoring systems, family–university communication, and accessible counseling services for students who experience isolation or conflict. Screening procedures may be used to identify students with diffuse identity processing, low perceived support, persistent maladaptive regulation, or antagonistic interpersonal patterns. Interventions should remain supportive and non-stigmatizing, with the primary aim of improving adjustment, empathy, responsible decision-making, and students’ capacity to resist delinquent peer influence.

Acknowledgments

The authors express their deep gratitude to all participants who contributed to this study.

Authors’ Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

References

1. Farrington DP, West D. The Cambridge Study in Delinquent Development: A Long-term Follow-up of 411 London Males In: *Criminality: Personality, Behavior and Life History*. New York: Springer; 2019. 115-38 p.

2. Mann MJ, Smith ML, Kristjansson AL. Improving Academic Self-Efficacy, School Connectedness, and Identity in Struggling Middle School Girls: A Preliminary Study of the REAL Girls Program. *Health Education & Behavior*. 2014;42(1):117-26. doi: 10.1177/1090198114543005.
3. Ghorbani A, Yazarloo S. Structural Equation Modeling Identity Styles and Self-efficacy With the Attitude to Crime in Students. *Sociology of Education*. 2021;7(1):1-14. doi: 10.22034/ijes.2021.244678.
4. Na C, Paternoster R. Prosocial Identities and Youth Violence. *Journal of Research in Crime and Delinquency*. 2018;56(1):84-128. doi: 10.1177/0022427818796552.
5. Turan Ş, Rahman F. The Effect of Parental Monitoring and Moral Identity on Youth Delinquency. *Jayps*. 2024;5(9):146-54. doi: 10.61838/kman.jayps.5.9.17.
6. Lehmann P, Meldrum RC. Racial and Ethnic Identity, Gender, and School Suspension: Heterogeneous Effects Across Hispanic and Caribbean Subgroups. *Journal of Research in Crime and Delinquency*. 2022;60(2):167-212. doi: 10.1177/00224278221120689.
7. Behroozi N, Mohammadi F, Omidian M. Social Support, Metacognitive Beliefs, Mental Health and Vitality of Normal and Delinquent Adolescent Boys in Correction and Rehabilitation Centers of Ahvaz. *Strategic Research on Social Problems*. 2018;7(1):81-96. doi: 10.22108/ssoss.2018.103836.1072.
8. Zafar T. Relationship of tetrad dark personality traits and delinquent behavior among adolescents: moderating role of social support. *The Critical Review of Social Sciences Studies*. 2024;2(2):303-21.
9. Markowitz AJ, Ryan RM. Father Absence and Adolescent Depression and Delinquency: A Comparison of Siblings Approach. *Journal of Marriage and Family*. 2016;78(5):1300-14.
10. Liu D, Vazsonyi AT. Longitudinal links between parental emotional distress and adolescent delinquency: The role of marital conflict and parent-child conflict. *Journal of Youth and Adolescence*. 2024;53(1):200-16. doi: 10.1007/s10964-023-01921-4.
11. Razavi M, Sadeghi M, Ahmadi R. The Cycle of Delinquency and the Role of Family in the Formation of Antisocial Personality in Neglected Children. *Journal of Psychological Sciences*. 2021;18(4):45-60.
12. Ray JV, Frick PJ, Thornton LC, Myers TDW, Steinberg L, Cauffman E. Callous-unemotional Traits Predict Self-Reported Offending in Adolescent Boys: The Mediating Role of Delinquent Peers and the Moderating Role of Parenting Practices. *Developmental Psychology*. 2017;53(2):319-28. doi: 10.1037/dev0000210.
13. Asiyanbi M, Lawal BF, Umanhonlen SE, Ogunbowale IA. Early childhood trauma, attachment insecurity, emotional dysregulation, and substance abuse as predictors of delinquent behaviour among adolescents in foster care in Ibadan, Nigeria. *Islamic University Journal of Social Sciences*. 2025;4(3):111-22.
14. Girard C, Almeida TC. Tracing the Impact of Adverse Childhood Experiences: Emotional Regulation and Substance Use Among French Prisoners and the General Population. *Crime & Delinquency*. 2025. doi: 10.1177/00111287251335006.
15. Kerig PK, Bennett DC, Thompson M, Becker SP. "Nothing Really Matters": Emotional Numbing as a Link Between Trauma Exposure and Callousness in Delinquent Youth. *Journal of Traumatic Stress*. 2012;25(3):272-9. doi: 10.1002/jts.21700.
16. Qamar F, Qurat-ul-ain A. Impulsivity, Sensation-Seeking, Emotional Neglect, and Delinquent Behavior Among Pakistani E-Cigarette Users. *Journal of Professional & Applied Psychology*. 2023;4(3):400-17. doi: 10.52053/jpap.v4i3.213.
17. Shao Y, Qiao Y, Xie B, Zhou M. Intermittent Explosive Disorder in Male Juvenile Delinquents in China. *Frontiers in Psychiatry*. 2019;10. doi: 10.3389/fpsy.2019.00485.

18. Sharifi-Daramadi P, Ghasemi-Davari L. Comparing emotional insight, self-esteem, and depression between delinquent and non-delinquent girls aged 15-18 in Tehran city in 2010-2011. *Journal of Exceptional Individuals*. 2012;2(7).
19. Walters GD. Punishment and Personality: Low Agreeableness and Low Conscientiousness as Mediators of the Inconsistent/Angry Parenting–delinquency Relationships. *Criminology & Criminal Justice*. 2023;25(3):950-68. doi: 10.1177/17488958231159367.
20. Ahmadi A, Pour Naghash Tehrani S, Saberi M, Arjmand Nia AA. An Investigation of Personality Traits, Family Status, Mental Health, and Intelligence Capacity of Delinquent and Socially Vulnerable Adolescents in Tehran. *Journal of Psychological Sciences*. 2018;17(66):245-28.
21. Mousavi Faraz SMR. Mutual Effects of Personality and Psychological Characteristics of Delinquent Adolescents and Their Prevention with Emphasis on Criminal Psychology Teachings in Police Performance. *Police Criminological Research*. 2021;2(4):1-23.