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The Causal Model of Affiliation with Delinquent Peers Based on Family-of-Origin Health and Adverse Childhood Experiences with the Mediating Role of Psychological Capital in Adolescents

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Abstract

Abstract

Affiliation with delinquent peers is recognized as a crucial risk factor for adolescent maladaptive behaviors, the roots of which may stem from various factors. The present study aimed to predict the affiliation with delinquent peers in students based on Family of Origin Health and adverse childhood experiences, with the mediating role of psychological capitals. This research employed a descriptive-correlational design. The statistical population consisted of all high school students in Parsabad County during the 2023-2024 academic year. A sample of 280 students was selected using a random cluster sampling method. For data collection, the following questionnaires were used: the Family of Origin Scale (FOS) (Hovestadt et al., 1985), the Childhood Trauma Questionnaire (CTQ) (Bernstein et al., 2003), the Psychological Capital Questionnaire (PCQ) (Luthans et al., 2007), and the Adolescent Deviant Peer Scale (ADPS) (Paschall et al., 2003). The research data were analyzed using Pearson's correlation coefficient and the Structural Equation Modeling (SEM) method, with the statistical software packages SPSS-22 and R-4.3.2. The results indicated that adverse childhood experiences had a significant negative and direct effect on psychological capitals and a significant positive and direct effect on affiliation with delinquent peers ($p < .01$). Furthermore, family-of-origin health demonstrated a significant positive and direct effect on psychological capitals and a significant negative and direct effect on affiliation with delinquent peers ($p < .01$). Additionally, the findings revealed that psychological capitals played a significant mediating role in the relationship between both adverse childhood experiences and Family of Origin Health with affiliation with delinquent peers ($p < .01$). Thus, family of origin health and adverse childhood experiences predict affiliation with delinquent peers through psychological capital. The results emphasize the necessity of integrated interventions that simultaneously focus on improving family functioning and strengthening adolescents' internal psychological resources.

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Introduction

Adolescence is associated with an increased desire for independence from family and socialization with peers. Although these interactions are essential for social development, under adverse conditions, they can put adolescents at risk of associating with delinquent peers, which is considered the strongest predictor of juvenile delinquency (Dishion & Tipsord, 2011). Studies have shown that about 20% of Iranian adolescents experience ongoing contact with delinquent peers (Mohammadi, 2021). Based on ecological systems theory and attachment theory, the roots of the tendency towards delinquent peers should be sought in the individual's early family experiences (Anderson et al., 2022). The health of the family of origin, defined by intimacy, support, and an appropriate balance between independence and attachment, can act as a protective factor (Mostafaei et al., 2021). In contrast, adverse childhood experiences, including emotional neglect, physical and psychological abuse, cause disruption in emotional regulation and insecure attachment and increase the likelihood of a tendency towards maladaptive peer groups (Lam et al., 2024; Silva et al., 2024). Meanwhile, psychological capitals, including self-efficacy, hope, resilience, and optimism, as constructs that can be intervened and strengthened, can play an important mediating role in the relationship between early experiences and behavioral outcomes of adolescents (Luthans et al., 2007; Zhou et al., 2023). Despite the importance of the subject, few studies have examined the psychological mechanisms of this phenomenon in border areas and with relative socio-economic deprivation. Therefore, the present study aimed to determine the mediating role of psychological capital in the relationship between the health of the family of origin and adverse childhood experiences with affiliation with delinquent peers in students. The main research hypothesis of the mediating role of psychological capital in these relationships was tested.

Method

The present study was descriptive-correlational using structural equation modeling. The statistical population included all male students in the second grade of high school in Parsabad county in the academic year 2023-2024. Considering the number of model parameters, the minimum sample size was estimated to be 210, but for greater generalizability, 300 individuals were selected using a random cluster sampling method; after removing incomplete questionnaires, 280 questionnaires were included in the analysis. Four instruments were used to collect data: the Family Health Scale of Origin (Hovestadt et al., 1985) with two dimensions of intimacy and independence (Cronbach's alpha of 0.86), the Childhood Trauma Questionnaire (Bernstein et al., 2003) with 25 items and five dimensions (Cronbach's alpha 0.87), the Psychological Capital Questionnaire (Luthans et al., 2007) with 24 items and four components of self-efficacy, hope, resilience, and optimism (Cronbach's alpha of 0.92), and the Association with Delinquent Peers Scale (Paschall et al., 2003) with 8 items (Cronbach's alpha of 0.76). The data were analyzed using Pearson's correlation coefficient and structural equation modeling with the Baron and Kenny approach (Baron & Kenny, 1986) using SPSS (version 22) and R-4.3.2 software. To examine the significance of indirect effects, the bootstrap method with 2000 resamples and a 95% confidence interval was used.

Findings

The descriptive statistics showed that the mean age of the participants was 16.86 years with a standard deviation of 2.3. The distribution of the data was normal (skewness ranged from -0.304 to 0.226 and kurtosis ranged from -0.414 to 1.05). The correlation results showed that affiliation with delinquent peers had a positive and significant relationship with adverse childhood experiences ($r = 0.63$) and a negative and significant relationship with the health of the family of origin ($r = 0.43$) and psychological capital ($r = -0.71$).

The results of the path analysis based on Baron and Kenny's approach showed:

1. Adverse childhood experiences had a positive and direct effect on affiliation with delinquent peers ($\beta = -0.15$, $p < .001$), and the health of the family of origin had a negative and direct effect on it ($\beta = -0.199$, $p < .021$).
2. Adverse childhood experiences had a negative and direct effect on psychological capital ($\beta = -0.163$, $p<.001$), and the health of the family of origin had a positive and direct effect on psychological capital ($\beta = 0.226$, $p<.001$).
3. Psychological capital had a negative and direct effect on affiliation with delinquent peers ($\beta=-0.782$, $p<.001$).
4. In the presence of the mediator variable (i.e., psychological capital), the direct effect of adverse childhood experiences on association with delinquent peers decreased it but was still significant ($\beta = 0.15$, $p < .001$). In addition, the direct effect of the health of the family of origin decreased ($\beta = -0.199$, $p = .021$). Bootstrap results also confirmed the partial mediating role of psychological capital.

Table 1. *Results of the mediation test of psychological capital*

Phases	Predictor variable	Criterion variable	B	SE	p-value	CI 95%
Phase 1	Adverse childhood experiences	Affiliation with delinquent peers	-.15	.031	.001	[0.093, 0.213]
	Health of the family of origin	Affiliation with delinquent peers	-.19	.086	.021	[-0.408, -0.080]
Phase 2	Adverse childhood experiences	Psychological capital	-.16	.015	.001	[-0.194, -0.135]
	Health of the family of origin	Psychological capital	.22	.056	.001	[0.136, 0.355]
Phase 3	Psychological capital (with mediation)	Affiliation with delinquent peers	-.78	.17	.001	[-1.090, -0.436]
Phase 4	Adverse childhood experiences	Affiliation with delinquent peers	.15	.03	.001	[0.213, 0.092]
	Health of the family of origin	Affiliation with delinquent peers	-.19	.08	.021	[-0.083, -0.413]

Conclusion

The present study aimed to examine the mediating role of psychological capital in the relationship between the health of the family of origin and adverse childhood experiences with affiliation with delinquent peers. The findings showed that psychological capital played a partial mediating role in these relationships. These results are consistent with the findings of previous studies, including Shameli et al. (2022), Zhou et al. (2023), and Asghari et al. (2015). In explaining the findings, it can be stated that adverse childhood experiences, by disrupting emotional regulation and weakening neural systems related to decision-making (Teicher et al., 2016) as well as reducing positive psychological characteristics such as self-esteem and resilience (Bethell et al., 2014), make adolescents susceptible to being attracted to delinquent peers. In contrast, the health of the family of origin, by strengthening secure attachment and providing healthy communication patterns (Mathes et al., 2020), provides the basis for the growth of psychological capital, which in turn prevents the tendency towards delinquent peers. Based on the findings, it is suggested that integrated interventions focusing on family empowerment (especially strengthening intimacy and appropriate independence), along with educational programs based on positive psychology, be designed and implemented in schools to strengthen adolescents' psychological capital (self-efficacy, hope, resilience, and optimism). The present study included limitations, such as the use of regional sampling (Parsabad county) that limits the generalizability of the results, the cross-sectional design that did not allow causal inference, and errors due to self-reporting. It is recommended that researchers conduct longitudinal studies and use more diverse samples.

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Conflict of interest

No conflict of interest has been declared by the authors.

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