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Article type:  
Original Research

Article history:  
Received 18 July 2025  
Revised 20 April 2026  
Accepted 28 April 2026  
Initial Publish 29 May 2026  
Published online 01 September 2026

#### How to cite this article:

Sadeghi, A., Jahan, J., Ahmadi, A. & Karimi, A. (2026). Developing a Model of the Role of Security and Social Support in Students' Extracurricular Activities (Sports–Leisure) and Its Role in Crime Prevention. *Assessment and Practice in Educational Sciences*, 4(5), 1-14.  
<https://doi.org/10.61838/japes.252>

# Developing a Model of the Role of Security and Social Support in Students' Extracurricular Activities (Sports–Leisure) and Its Role in Crime Prevention

## ABSTRACT

The present study was conducted with the aim of developing a model of the role of security and social support in students' extracurricular activities (sports–leisure) and its role in crime prevention. In terms of purpose, the study was applied research; in terms of nature, it was descriptive; and in terms of implementation, it employed structural equation modeling. The statistical population consisted of students of Payame Noor University in Kermanshah Province. The samples were selected from among students who, according to reports from the university's cultural and sports authorities, spent at least one hour of their leisure time on physical and sports activities (155 participants). The sampling method was multi-stage cluster random sampling. Data were collected from students through a standardized questionnaire based on a five-point Likert scale. The reliability of the questionnaire was calculated using Cronbach's alpha coefficient (0.91), and its validity was confirmed by experts in the field of sports sciences and criminology specialists. The results indicated that security factors and social support significantly influenced the level of students' extracurricular activities (sports–leisure) in the direction of crime prevention. The findings also revealed that the level and type of security and social support differed among the branches of Payame Noor University in Kermanshah Province. Finally, it was determined that different forms of social support (financial, emotional, and instrumental support) increased students' participation in sports and leisure activities for the purpose of crime prevention. Therefore, it is recommended that the government and relevant organizations, including the Ministry of Science, Research and Technology and Payame Noor University, reduce security-related barriers and strengthen various forms of social support, such as reducing student tuition fees and improving free university sports facilities, in order to enhance students' leisure and sports activities.

**Keywords:** Extracurricular curriculum, social environment, crime and delinquency, leisure and sports activities.

## Introduction

Crime prevention has become one of the major concerns of contemporary societies, particularly in academic environments where young adults are exposed to a wide range of social, psychological, cultural, and behavioral influences. Universities are not merely educational institutions; rather, they are social systems in which students' behaviors, interactions, identities, and lifestyles are continuously shaped. In this context, extracurricular activities, especially sports and leisure activities, have gained increasing attention as mechanisms for improving students' physical and psychological well-being and reducing the likelihood

of deviant and criminal behaviors. Modern criminological perspectives emphasize that crime cannot be analyzed solely through legal or punitive approaches; instead, social support systems, environmental security, psychological well-being, and opportunities for healthy social participation should also be considered in the analysis of crime prevention (1, 2). The growing complexity of urban and academic life has intensified the need to identify social and environmental variables that can protect young people against criminal tendencies and social harms. Consequently, researchers increasingly argue that universities should strengthen supportive and secure environments capable of encouraging students toward constructive leisure patterns and healthy social engagement (3, 4).

Extracurricular activities, particularly sports and leisure programs, play a central role in promoting social integration, improving emotional balance, and fostering positive social values among university students. Participation in physical and recreational activities contributes not only to physical fitness but also to psychological resilience, self-esteem, social identity, and interpersonal trust. Research has demonstrated that active participation in sports activities is associated with lower levels of anxiety, stress, depression, and antisocial behavior (5, 6). In addition, sports participation enhances social cohesion and collective identity by increasing interaction among individuals from different social and cultural backgrounds (7). From a sociological perspective, sports environments can function as informal educational systems through which social norms, ethical behaviors, discipline, and responsibility are reinforced. Such functions become particularly significant in university contexts where students experience identity formation, emotional transitions, and increased independence. Therefore, extracurricular sports and leisure activities may operate as preventive mechanisms against social deviance and criminal tendencies by directing students' energies toward constructive social engagement (8, 9).

The relationship between security and participation in leisure and sports activities has also been emphasized in recent studies. Feelings of social and psychological security significantly influence individuals' willingness to participate in public and collective activities. Environments perceived as unsafe reduce social interaction, limit physical activity participation, and increase social isolation. Conversely, secure environments facilitate social participation, increase trust, and improve psychological comfort. In the context of sports participation, perceived security includes dimensions such as physical safety, psychological security, digital security, and social support systems. Studies on women's participation in public sports activities indicate that security concerns represent one of the most influential barriers to participation (10, 11). These findings suggest that security is not merely a physical condition but also a social and psychological perception that shapes behavioral choices. Furthermore, public sports activities can themselves contribute to the strengthening of social security by increasing collective interactions, reducing social alienation, and promoting social vitality (12). This reciprocal relationship indicates that security both influences and is influenced by participation in extracurricular and sports activities.

Social support represents another essential factor affecting students' participation in sports and leisure activities and their resistance to criminal behavior. Social support includes emotional, financial, informational, and instrumental assistance received from family members, peers, educational institutions, and broader social networks. Theoretical approaches in criminology and social psychology consistently emphasize that individuals with stronger support systems are less likely to engage in risky or deviant behaviors. Supportive social networks enhance self-control, emotional stability, and social belonging, thereby reducing the probability of criminal involvement (4, 13). Within academic environments, family participation, institutional support, and peer encouragement can significantly influence students' motivation to engage in extracurricular activities. Studies on sports participation have shown that social support positively predicts participation motivation and self-efficacy in sports activities (14). Likewise, educational institutions that provide adequate facilities, supportive policies, and structured extracurricular programs contribute to students' social integration and behavioral adjustment. Consequently, social

support mechanisms may indirectly contribute to crime prevention by encouraging healthy lifestyles and reducing social marginalization.

Leisure time management has become increasingly important in contemporary societies characterized by technological expansion, sedentary lifestyles, and social fragmentation. Improper use of leisure time among youth and university students may increase exposure to harmful social environments, deviant peer groups, and risky behaviors. In contrast, constructive leisure activities can serve as protective factors against social harms. Recent studies indicate that physical activity participation patterns are significantly affected by environmental, social, and institutional conditions (15, 16). Moreover, sedentary lifestyles among adolescents and young adults have become a major public health concern due to their association with psychological distress, social isolation, and reduced social participation (17). Research conducted in Iran also demonstrates that physical activity participation remains insufficient among many social groups due to barriers such as inadequate facilities, weak social support, cultural restrictions, and limited institutional attention (18). These conditions may increase vulnerability to social harms and weaken social cohesion among students and young adults. Therefore, promoting sports and leisure participation should be considered not only a health-related objective but also a social and criminological strategy.

Theoretical perspectives in environmental criminology and social prevention approaches suggest that social environments capable of fostering belongingness, interaction, and positive engagement can reduce opportunities for criminal behavior. Crime prevention through social development emphasizes strengthening social institutions, improving educational systems, increasing social participation, and enhancing collective efficacy. In this framework, universities possess substantial potential to function as preventive institutions through the development of secure and supportive extracurricular environments. Research on safe cities demonstrates that social cohesion, collective trust, and secure public spaces significantly contribute to the reduction of crime and social disorder (3). Similarly, studies examining attitudes toward crime reveal that social values, demographic factors, and environmental conditions influence individuals' behavioral orientations toward lawful or unlawful conduct (4). Among university students, extracurricular sports activities can increase interpersonal trust, social responsibility, and adherence to social norms while simultaneously reducing feelings of loneliness, frustration, and aggression. These outcomes may ultimately contribute to lower tendencies toward deviant and criminal behaviors.

Social cohesion and social identity are also important dimensions linking extracurricular participation to crime prevention. Students who actively participate in collective activities generally experience stronger social attachment and institutional commitment. This sense of belonging reduces social alienation and increases compliance with social rules and norms. Research on sports participation among students demonstrates that social factors, including family support, peer relationships, and institutional encouragement, significantly influence participation levels (19). Furthermore, sports participation has been associated with stronger ethical values, discipline, cooperation, and social responsibility (8). Such values are highly relevant to crime prevention because they reinforce behavioral self-regulation and strengthen individuals' commitment to collective norms. At the same time, social isolation and weak institutional attachment are frequently identified as risk factors for criminal and antisocial behavior (20). Therefore, strengthening social cohesion through extracurricular sports and leisure programs may serve as an effective preventive strategy within university environments.

Another significant issue concerns the role of educational institutions in shaping students' behavioral patterns and social competencies. Universities possess the capacity to influence students not only academically but also socially and ethically. Extracurricular curricula and organized recreational programs can improve students' life skills, emotional management, and social adaptability. Studies on extracurricular curriculum development emphasize that structured extracurricular programs contribute to holistic student development by addressing emotional, social, and cultural dimensions alongside academic achievement (21). Moreover, educational institutions that provide accessible sports facilities, recreational opportunities, and

supportive cultural programs can increase students' participation in healthy activities and reduce exposure to harmful environments. Environmental and neighborhood characteristics also influence physical activity participation patterns (9, 22). Features such as accessible recreational spaces, secure public environments, and socially supportive communities encourage social interaction and active lifestyles. Consequently, institutional investment in extracurricular activities may generate broader social outcomes extending beyond health benefits to include social stability and crime reduction.

The relationship between physical activity, mental health, and subjective well-being further highlights the importance of extracurricular sports programs for university students. Participation in physical activity is positively associated with mental well-being, subjective health, and emotional stability (5). Mental health problems, stress, and emotional instability can increase vulnerability to risky behaviors and criminal involvement among young people. In contrast, active participation in sports activities can improve emotional regulation, reduce stress, and strengthen coping mechanisms. Research has shown that environmental and social factors significantly influence physical activity participation across different age groups and social contexts (23, 24). Therefore, improving social support systems and perceptions of security may encourage greater participation in sports and leisure activities, thereby indirectly contributing to psychological stability and crime prevention. Furthermore, studies on social vitality indicate that public sports participation and social security are important predictors of collective vitality and social well-being (12). Such findings support the argument that extracurricular sports activities should be integrated into broader social development and crime prevention policies.

Despite the growing literature on sports participation, social support, and crime prevention, limited research has simultaneously examined the combined role of security and social support in extracurricular sports–leisure activities and their implications for crime prevention among university students. Most previous studies have focused separately on physical activity participation, social well-being, or criminological factors without integrating these variables into a comprehensive structural model. Moreover, the specific social and institutional context of Iranian universities requires further investigation because cultural conditions, educational structures, and social norms may influence students' perceptions of security, support, and participation differently from other societies. Given the importance of preventing social harms among university students and promoting healthy behavioral patterns, identifying the mechanisms through which security and social support influence extracurricular participation and crime prevention appears essential. Therefore, the present study aimed to develop a model of the role of security and social support in students' extracurricular activities (sports–leisure) and its role in crime prevention.

## Methods and Materials

Based on its objective, the present study falls within the category of applied-developmental research. In terms of data collection, it is classified as a descriptive-correlational study using structural equation modeling (SEM). The statistical population consisted of master's degree students enrolled in the first semester of the 2024–2025 academic year at Payame Noor University in Kermanshah Province (N = 270). According to the Morgan table, a sample of 155 participants was selected through multi-stage cluster random sampling from among students who, based on reports from the university's cultural and sports officials, spent at least one hour of their leisure time on physical and sports activities.

The measurement instruments used in this study included the standardized questionnaire for measuring the variable of urban social security perception developed by Saeidi Majd et al. (2020) and the leisure time measurement questionnaire developed by Karimi et al. (2019), which were employed to assess security and social participation in sports activities. The questionnaires were distributed among students using a five-point Likert scale ranging from “very low” to “very high” in order to measure participants' attitudes. The Cronbach's alpha coefficient obtained for all questionnaires was 0.91. The validity of the questionnaires was also confirmed by experts in sports sciences and criminology specialists.



**Table 1. Research Variables**

Indicators	Variable Name	Variable Type
Vitality and happiness, social participation, health	Extracurricular activities (sports–leisure)	Independent
Digital security, social security, public health	Security and social support	Dependent
Reduction of social harms, social identity, social cohesion	Crime prevention	Mediating

## Findings and Results

According to Table 2, the variable of psychological security had the highest mean, while extracurricular activities (sports–leisure) had the lowest mean.

**Table 2. Mean and Standard Deviation of Research Variables**

Factors	N	Mean	Standard Deviation
Psychological security	155	3.46	0.529
Social cohesion	155	3.40	0.658
Family participation	155	3.10	0.689
Educational institutions' training in crime prevention	155	3.31	0.681
Extracurricular activities (sports–leisure)	155	3.03	0.857

Subsequently, the assumption of data normality was examined. To test the univariate normality assumption of the study variables, the one-sample Kolmogorov–Smirnov test was employed. The results indicated that the normality assumption could not be rejected for any of the variables ( $p > 0.05$ ). Since the significance levels for all variables were greater than 0.05, the variables were considered normally distributed. The results of this test are presented in Table 3.

**Table 3. Results of the Kolmogorov–Smirnov Test for Assessing Normality**

Dimensions	Sample Size	Significance Level
Psychological security	155	0.207
Social cohesion	155	0.321
Family participation	155	0.429
Educational institutions' training in crime prevention	155	0.455
Extracurricular activities (sports–leisure)	155	0.241

According to the Fornell and Larcker criterion, convergent validity is established when the Average Variance Extracted (AVE) exceeds 0.50. This indicates that a latent variable can explain, on average, more than half of the variance of its indicators. As shown in Table 4, the AVE values for the latent variables were all above 0.50. Therefore, the convergent validity of the measurement models was considered satisfactory.

**Table 4. Average Variance Extracted (AVE) Values for the Variables**

Variable	Average Variance Extracted
Psychological security	0.501
Social cohesion	0.629
Family participation	0.566
Educational institutions' training in crime prevention	0.502
Extracurricular activities (sports–leisure)	0.828

In this study, two criteria were used to determine the reliability of the questionnaire based on the recommendation of Fornell and Larcker (1981): Cronbach's alpha coefficient and composite reliability coefficient. The Cronbach's alpha coefficients for all variables exceeded the minimum acceptable threshold of 0.70. Unlike Cronbach's alpha, which implicitly assumes equal indicator weights, composite reliability relies on the actual factor loadings of each construct and therefore provides a more accurate estimate of reliability. Composite reliability values greater than 0.70 indicate internal consistency of the construct. The results of instrument reliability are fully presented in Table 5.

**Table 5. Composite Reliability and Cronbach's Alpha Values for the Variables**

Variable	Cronbach's Alpha	Composite Reliability
Psychological security	0.899	0.913
Social cohesion	0.928	0.931
Family participation	0.878	0.878
Educational institutions' training in crime prevention	0.876	0.890
Extracurricular activities (sports–leisure)	0.789	0.773

**Table 6. Discriminant Validity of the Research Model**

Constructs	Psychological Security	Social Cohesion	Family Participation	Educational Institutions' Training in Crime Prevention	Leisure and Sports Activities
Psychological security	0.549				
Social cohesion	0.679	0.791			
Family participation	0.719	0.769	0.679		
Educational institutions' training in crime prevention	0.601	0.719	0.591	0.719	
Extracurricular activities (sports–leisure)	0.448	0.459	0.439	0.718	0.909

Table 6 presents the discriminant validity of the research model. Discriminant validity refers to the extent to which a construct is empirically distinct from other constructs. This validity is assessed at both the indicator level and the latent variable level. At the indicator level, discriminant validity is evaluated through cross-loadings, where the loading of an indicator on its corresponding construct should be higher than its loadings on other constructs. At the latent variable level, the Fornell–Larcker criterion was used. According to this criterion, the square root of the AVE for each latent variable must be greater than its highest correlation with other constructs in the model. In the present study, the square roots of AVE values located on the main diagonal of the matrix were greater than the inter-construct correlations located below the diagonal. The rationale behind this criterion is that a construct should share more variance with its own indicators than with other constructs. The results in Table 6 demonstrate that all variables possessed acceptable discriminant validity.

In this section, the research hypotheses were tested and interpreted using the results obtained from the structural model analysis. It should be noted that structural equation modeling (SEM) was employed to analyze and evaluate the research model. SEM is a statistical modeling technique used to investigate linear relationships between latent (unobserved) variables and manifest (observed) variables. In other words, SEM is a powerful statistical technique that simultaneously integrates the measurement model (confirmatory factor analysis) and the structural model (regression or path analysis) into a single statistical test. Through these techniques, researchers can reject hypothetical structures (models) or confirm their fit with the observed data. To analyze the conceptual model of the study, SmartPLS software was used.

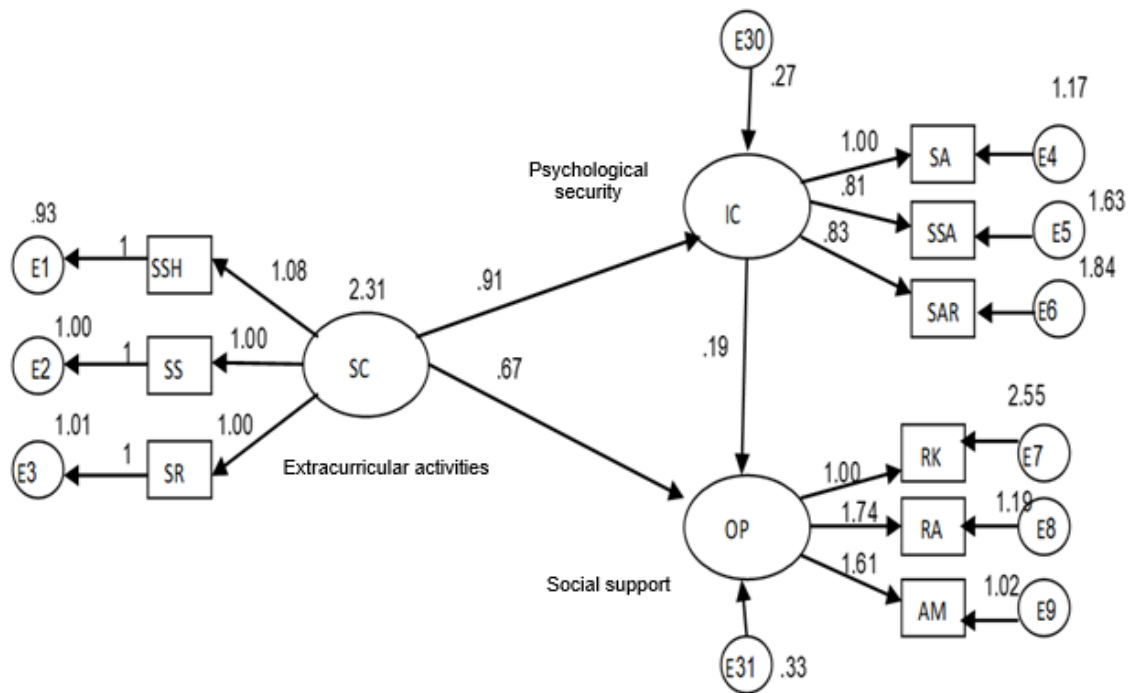


Figure 1. Unstandardized Parameters of the Model

Table 7. Results of Collinearity Indices

Variables	VIF
Psychological security	1.513
Social cohesion	1.969
Family participation	2.701
Educational institutions' training in crime prevention	2.863
Extracurricular activities (sports-leisure)	2.024

In the inner model section, the relationships among the latent variables were analyzed. The first criterion for evaluating the inner model was the absence of multicollinearity among variables, assessed through the Variance Inflation Factor (VIF). VIF values greater than 5 indicate multicollinearity among variables. According to Table 7, the non-collinearity assumption was satisfied for all variables.

Table 8. Results of Collinearity Indices, Direct Effects, and Effect Sizes of the Inner Research Model

Hypotheses	$\beta$	CR
Crime prevention → Psychological security	0.629	8.979
Crime prevention → Family participation	0.446	5.445
Crime prevention → Social cohesion	0.589	8.360
Crime prevention → Educational institutions' training	0.361	4.893

The second criterion for evaluating the inner model involved path coefficients. To examine their significance, the bootstrapping procedure was used. These coefficients, together with their corresponding t-values, significance levels, and confidence intervals for direct effects, are presented in Table 8. The results demonstrated that crime prevention had a positive and significant effect on psychological security ( $\beta = 0.629$ , CR = 8.979), family participation ( $\beta = 0.446$ , CR = 5.445), social cohesion ( $\beta = 0.589$ , CR = 8.360), and educational institutions' training ( $\beta = 0.361$ , CR = 4.893). Based on these findings,

crime prevention had the strongest effect on psychological security ( $\beta = 0.629$ ) and the weakest effect on educational institutions' training ( $\beta = 0.361$ ).

The third criterion for evaluating the model was the calculation of the Goodness-of-Fit (GOF) index in partial least squares modeling. Unlike covariance-based structural equation modeling, PLS-SEM does not provide a global goodness-of-fit index. However, Tenenhaus et al. (2005) proposed the GOF index, which simultaneously considers both the measurement and structural models and serves as an overall indicator of model performance. The GOF index ranges between 0 and 1, and Wetzels et al. introduced the values of 0.01, 0.25, and 0.36 as weak, moderate, and strong levels of GOF, respectively. This index is manually calculated based on the average  $R^2$  and the average communalities according to the following formula:

$$GOF = \sqrt{\text{Communalities} \times \bar{R}^2}$$

This index represents the square root of the product of the average communality values and the average coefficient of determination.

**Table 9. Communality Values**

Variable	Communality Values	Coefficient of Determination
Psychological security	0.339	0.612
Social cohesion	0.311	$0.469 = 0.612 \times 0.405\sqrt{}$
Family participation	0.338	
Educational institutions' training	0.391	
Leisure and sports activities	0.385	
Mean	0.358	GOF = 0.469

The GOF index for the present model was calculated as 0.469, indicating an acceptable overall fit of the model.

## Discussion and Conclusion

The present study was conducted to develop a model of the role of security and social support in students' extracurricular activities (sports–leisure) and its role in crime prevention. The descriptive findings showed that psychological security had the highest mean among the studied variables, whereas extracurricular sports–leisure activities had the lowest mean. This finding suggests that although students reported a relatively favorable perception of psychological security, their actual engagement in extracurricular sports and leisure activities remained comparatively limited. This gap is important because a secure psychological and social environment does not automatically lead to active participation unless it is accompanied by adequate motivational, institutional, familial, and infrastructural support. Prior studies have similarly indicated that participation in physical and leisure activities is shaped by a combination of perceived safety, environmental accessibility, cultural expectations, and social encouragement (10, 16, 24). In this regard, the low mean of extracurricular sports–leisure activities may reflect the existence of barriers such as insufficient facilities, weak institutional programming, limited family encouragement, financial constraints, or low perceived value of leisure-based sport participation among students. This interpretation is consistent with studies showing that sports participation, particularly among young people and women, is influenced not only by personal interest but also by socioeconomic status, social support, perceived security, and the availability of appropriate recreational spaces (11, 14, 19).

The results also showed that all study variables had acceptable normality, convergent validity, discriminant validity, and reliability. The AVE values were above the accepted threshold, and the Cronbach's alpha and composite reliability coefficients confirmed the internal consistency of the measurement model. These findings indicate that the constructs of psychological security, social cohesion, family participation, educational institutions' training in crime prevention, and extracurricular sports–leisure activities were measured with acceptable psychometric adequacy. This is particularly important because concepts such

as security, support, cohesion, and crime prevention are multidimensional and socially embedded, and weak measurement can distort the interpretation of structural relationships. The acceptable validity and reliability of the model are consistent with the multidimensional nature of sport, security, and social participation emphasized in previous research. For example, studies on extracurricular curriculum design have shown that extracurricular activities should be understood as integrated educational, social, and cultural structures rather than as isolated recreational programs (21). Similarly, research on social security and public sports has demonstrated that concepts such as vitality, social values, perceived safety, and collective participation are interrelated dimensions of a broader social system (12). Therefore, the adequacy of the measurement model supports the theoretical assumption that crime prevention among students can be examined through a structural relationship among security, social support, institutional training, and leisure-based participation.

The structural model showed that crime prevention had a positive and significant relationship with psychological security, family participation, social cohesion, and educational institutions' training. Among these paths, the strongest relationship was observed between crime prevention and psychological security, while the weakest relationship was observed between crime prevention and educational institutions' training. The strong role of psychological security indicates that students' perception of mental calmness, emotional safety, and protection from social threats is closely connected to crime-preventive outcomes. This finding is aligned with criminological approaches that emphasize crime prevention not only through formal control but also through the strengthening of psychological stability, social belonging, and supportive environments (1, 2). When students feel psychologically secure, they are more likely to participate in constructive social activities, communicate with peers, develop trust in the university environment, and avoid risky or deviant behavioral pathways. This result is also consistent with evidence showing that anxiety, stress, and emotional disturbance are associated with maladaptive behaviors and reduced well-being, whereas social and psychological security can protect individuals from harmful behavioral patterns (5, 6).

The significant role of family participation in crime prevention also confirms the importance of social support as a protective factor. Family involvement can provide emotional support, behavioral monitoring, encouragement for healthy activities, and normative guidance. Students who receive support from their families are more likely to engage in socially approved leisure activities and less likely to experience alienation or behavioral disorganization. This finding corresponds with research demonstrating that social support and socioeconomic conditions influence sport self-efficacy and motivation for sports participation (14). It is also consistent with life-course criminological evidence showing that family roles, turning points, and social bonds can redirect young people away from criminal pathways (13). In the university context, family participation may act as a bridge between personal motivation and institutional opportunity: even when universities provide facilities, students may require encouragement, financial assistance, and emotional reinforcement from families to participate consistently in extracurricular sports–leisure programs.

The significant relationship between crime prevention and social cohesion indicates that collective belonging, interpersonal trust, and shared social identity are important components of preventive social environments. Social cohesion can reduce isolation, increase accountability, and strengthen students' attachment to the university community. This finding is consistent with studies showing that sport participation can promote social outcomes beyond physical health, including social integration, trust, vitality, and collective well-being (7, 12). It is also compatible with research on safe cities and social environments, which suggests that collective security and social order are strengthened when individuals experience meaningful interaction, shared norms, and secure public spaces (3). From this perspective, extracurricular sports and leisure activities may prevent crime by expanding students' social networks and reducing the likelihood of marginalization. When students are socially integrated, they are less likely to seek belonging through deviant peer groups or antisocial behaviors. This interpretation is further supported

by studies showing that attitudes toward crime are shaped by personal values, demographic characteristics, and social conditions (4).

The significant but comparatively weaker role of educational institutions' training in crime prevention suggests that institutional education is important but may be insufficient when implemented without practical support, attractive programming, or accessible facilities. Universities can influence students' preventive awareness through formal and informal education, but the effectiveness of such training depends on whether it is connected to lived experience, extracurricular opportunities, and supportive campus culture. Studies on extracurricular curriculum design confirm that extracurricular programs should be embedded in the broader educational mission of universities and should include social, cultural, emotional, and practical dimensions (21). Therefore, the weaker path coefficient for educational institutions' training may suggest that crime-prevention education alone cannot produce strong behavioral outcomes unless students are also provided with safe environments, sports facilities, family and peer support, and opportunities for meaningful participation. This finding also aligns with socio-ecological approaches to physical activity, which argue that participation is influenced by multiple levels, including individual motivation, social support, institutional organization, and environmental design (9, 15, 16).

The overall goodness-of-fit index indicated that the proposed model had desirable explanatory power. This suggests that the combination of psychological security, social cohesion, family participation, educational training, and extracurricular sports–leisure activities provides a useful framework for understanding crime prevention among university students. The model is supported by prior evidence showing that physical activity and leisure participation are associated with health, subjective well-being, social interaction, and reduced social vulnerability (5, 17, 23). The findings also correspond with studies emphasizing that safe and attractive recreational environments encourage visitation, physical activity, and social interaction among adolescents and young people (22). In this sense, sports–leisure activities should not be interpreted as marginal or optional components of student life; rather, they should be understood as preventive social infrastructures that can reduce social harms by enhancing emotional regulation, discipline, group identity, ethical values, and social responsibility (8, 19).

The findings also have important implications for the criminological interpretation of student behavior. Crime prevention is more effective when it is approached through social development rather than through control-oriented measures alone. The evidence from the present study suggests that students' participation in structured leisure and sports activities can be strengthened when they experience psychological security, social cohesion, family support, and educational guidance. This is important because criminal and deviant behaviors are often associated with weak social bonds, psychological distress, low institutional attachment, and exposure to risky environments. Studies of offender characteristics and psychopathy among prisoners also indicate that crime is related to demographic, psychological, and behavioral factors that require preventive attention before criminal behavior becomes established (20). Accordingly, universities can play a preventive role by creating environments that support healthy interaction, reduce emotional pressure, and provide students with meaningful alternatives to passive, isolated, or risky leisure patterns. The integration of security, support, and extracurricular activity therefore represents a practical model for preventive management in higher education.

Overall, the results support the argument that security and social support are central determinants of students' participation in extracurricular sports–leisure activities and that these activities can contribute to crime prevention by strengthening psychological stability, social cohesion, and institutional belonging. The findings are consistent with previous studies that have linked perceived security to participation in public sports, social support to sports motivation, and leisure-time physical activity to well-being and social outcomes (7, 10, 14). They also extend earlier research by situating these relationships within a crime-prevention framework among university students. Therefore, the study contributes to management, sports sociology, and criminology by proposing that student crime prevention should be addressed through an integrated policy model that combines

secure campus environments, supportive family and institutional systems, and structured extracurricular sports–leisure opportunities.

This study had several limitations. First, the statistical population was limited to master’s students of Payame Noor University in Kermanshah Province, which restricts the generalizability of the findings to other universities, educational levels, regions, and student populations. Second, the study used a descriptive-correlational design and structural equation modeling; therefore, although the relationships among variables were statistically tested, causal conclusions should be made cautiously. Third, the data were collected through self-report questionnaires, which may be affected by social desirability bias, inaccurate recall, or students’ subjective interpretation of concepts such as security, support, and crime prevention. Fourth, the study examined selected dimensions of security and social support, while other potentially relevant variables such as peer influence, economic hardship, campus facilities, digital leisure patterns, personality traits, and prior exposure to crime were not directly included in the model.

Future studies should examine this model in larger and more diverse student populations, including undergraduate students, doctoral students, non-university youth, and students from public, private, and technical universities in different provinces. Longitudinal and mixed-methods designs are also recommended to clarify how security, social support, and extracurricular participation influence crime-prevention outcomes over time. Future researchers may also compare male and female students, different socioeconomic groups, and students with different levels of sports participation to determine whether the model functions similarly across groups. In addition, qualitative interviews with students, cultural–sports officials, families, and criminology experts could provide deeper insight into the barriers and facilitators of participation in sports–leisure activities. Future models may also include variables such as peer support, campus infrastructure, perceived discrimination, digital security, social media use, mental health, and institutional policy effectiveness.

University administrators and policymakers should treat extracurricular sports–leisure activities as part of student welfare, social development, and crime-prevention policy rather than as optional recreational services. Universities should improve free or low-cost access to sports facilities, provide safe and inclusive recreational environments, organize regular group-based leisure programs, and strengthen cooperation between cultural, sports, counseling, and security units. Families should also be encouraged to support students’ participation in healthy leisure activities through emotional encouragement, financial assistance, and positive attitudes toward sports participation. At the institutional level, crime-prevention education should be practical, participatory, and connected to real extracurricular opportunities so that students can experience social belonging, psychological security, and constructive peer interaction within the university environment.

### **Acknowledgments**

We would like to express our appreciation and gratitude to all those who helped us carrying out 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**

All ethical principles were adhered in conducting and writing this article.

## 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.

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