

## Original Article

**Association between education levels and crime rates in Bushehr**Zahra Zaeri <sup>1</sup> , Mehdi Shabanzadeh <sup>2\*</sup> <sup>1</sup> Department of Criminal Law & Criminology, Bu.C., Islamic Azad University, Bushehr, Iran.<sup>2</sup> Department of Law, Bu.C., Islamic Azad University, Bushehr, Iran.**\*Corresponding author and reprints: Mehdi Shabanzadeh**, Assistant Professor, Department of Law, Bu.C., Islamic Azad University, Bushehr, Iran.**Email:** [Mehdi.Shabanzadeh@iau.ac.ir](mailto:Mehdi.Shabanzadeh@iau.ac.ir)**Received:** 04 May 2026**Accepted:** 13 Jun 2026**Published:** 19 Jun 2026**Abstract**

**Background:** Delinquency, as a social and psychological issue, has a significant impact on the security and development of societies. This study has investigated the relationship between education level and crime rates in Bushehr city in south of Iran.

**Methods:** This cross-sectional study was conducted on 485 residents of Bushehr. The statistical population included the general public, families, organizations dealing with delinquency issues (e.g., the judiciary, police, prison organizations), and offenders. Data were collected through standardized questionnaires and interviews, and analyzed using Chi-square tests and multiple regression analysis.

**Results:** The results showed that lower education levels (below high school diploma) are associated with higher crime rates. Individuals with less than a high school diploma were predominantly involved in drug-related crimes (62%), whereas those with university-level education were more frequently implicated in financial crimes such as embezzlement and forgery (44%). Additionally, winter recorded the highest crime rate (37.14%). Regression analysis demonstrated a significant negative effect of education on crime rates ( $\beta = -0.35$ ,  $p = 0.001$ ). Furthermore, gender (being male) and increasing age were also found to significantly influence criminal behaviors.

**Conclusion:** The findings suggest a significant association between lower education levels and higher crime rates. Further longitudinal or interventional studies are needed to explore the potential impact of educational programs on crime reduction. Moreover, targeted interventions for high-risk groups and attention to the social and environmental factors influencing crime are essential.

**Keywords:** Educational Status; Crime; Juvenile Delinquency; Iran; Risk Factors; Socioeconomic Factors.

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**Introduction**

**D**elinquency is one of the most significant social and legal challenges, profoundly affecting both society and individuals (1). It not only leads to insecurity and mistrust within communities but also imposes severe psychological and social consequences on offenders and their families. Understanding

the factors contributing to delinquency and identifying preventive measures is crucial, particularly across diverse societies (2). Education level is among the most widely studied factors in this context. Recent research has consistently highlighted the protective role of education against criminal behaviors. Studies suggest that

individuals with lower education levels, often lacking essential skills and awareness, are more likely to commit crimes (3, 4).

Education, as a tool for personal development, influences individuals' attitudes, values, and social behaviors. Educated individuals typically possess greater social and economic skills, allowing them better access to resources and resilience against social and economic pressures (5, 6). Moreover, Education can reduce risky and unhealthy behaviors, including criminal activities, as educated individuals are more aware of the consequences of crime (7).

However, in underprivileged regions and urban areas, access to adequate educational opportunities may be limited. In such communities, the lack of education often emerges as a primary driver of delinquency, as individuals without professional or social skills are more prone to criminal and antisocial behaviors (8, 9). This trend is especially pronounced in areas with weak economies and high unemployment rates, where low education levels contribute to poverty, further fueling crime (10).

Bushehr, located in southern Iran, presents a unique social, economic, and cultural context that may influence the relationship between education and crime. Its distinctive geographic position, cultural diversity, urban development challenges, and sociopolitical dynamics make it a critical area for social research. The presence of diverse ethnic groups and languages, alongside its unique social structure, provides an opportunity for focused studies on delinquency. Exploring the link between education and crime in such a setting could guide policymakers in designing more effective educational and social programs to reduce crime and raise public awareness (11, 12).

Many studies suggest that raising education levels can directly or indirectly influence crime reduction. For instance, research has shown that communities with lower

education levels often experience higher rates of violent and economic crimes due to factors like job insecurity, poverty, and social challenges (13). Conversely, access to advanced education and specialized training improves individuals' socioeconomic status, thereby mitigating the likelihood of criminal behavior (14).

Recent research underscores the critical role of education in crime prevention. While factors such as poverty, social inequality, and economic challenges significantly contribute to delinquency, education remains a primary preventative factor. Higher-educated individuals are generally less affected by these adverse factors and are less likely to engage in criminal activities (15). Studying this phenomenon in Bushehr could yield valuable insights, helping determine whether education serves as a mitigating factor against delinquency in the region.

## **Methods**

This research aimed to investigate the association between education levels and crime rates in Bushehr. To achieve this goal, a survey research method was employed, utilizing questionnaires and statistical data from relevant institutions.

## **Research Methodology**

The study used a survey method to collect data. This approach, commonly used in social research, allowed for the systematic gathering of information from the target population. The research instrument comprised a questionnaire with 25 items designed to examine the primary variables: education level and delinquency.

## **Study Population**

The population included the general public, families, institutions dealing with crime-related issues (e.g., judiciary, police, prison authorities), and offenders. This diverse group provided a comprehensive perspective on the phenomenon of delinquency.

**Sampling**

The sample size was determined using Cochran's formula. Based on this calculation, 105 individuals with a criminal history and 380 without were enrolled. The groups were then compared in terms of educational levels and other variables.

**Data Collection Tools**

The primary data collection tool was a questionnaire comprising 25 questions focusing on respondents' education and delinquency status. Additionally, statistical data on crime rates in Bushehr were gathered from judiciary and prison authority records to supplement the findings.

**Validity and Reliability of the Questionnaire**

The questionnaire's validity was reviewed by academic advisors and consultants, leading to modifications or removal of certain items. Reliability was assessed through a pilot test involving 20 participants, yielding a Cronbach's alpha coefficient of 79%, indicating a high level of reliability.

**Data Analysis**

Data were analyzed using SPSS version 19. Both descriptive and inferential statistics were employed, including frequency, percentage, mean, correlation coefficient, and regression analysis. These analyses explored the relationship between education levels and delinquency in Bushehr, with findings discussed in subsequent sections of the study.

**Results**

*Demographic Information*

The collected data from the two groups (experimental and control) included

variables such as age, gender, education level, and factors influencing delinquency. Table 1 show these details.

Table 1. Demographic Characteristics of the Sample

Characteristic	Criminal History Group (n=105)	No Criminal History Group (n=380)
Gender	n (%)	n (%)
Male	93 (88.57)	112 (29.47)
Female	12 (11.42)	268 (70.53)
Age		
20-29 years	40 (38.09)	112 (29.47)
30-35 years	37 (35.23)	92 (24.21)
Education		
Under Diploma	43 (40.95)	46 (12.10)
Diploma	36 (34.28)	91 (23.95)
University	26 (24.76)	213 (56.05)

The majority of the experimental group (offenders) were male, while the control group consisted of a higher proportion of females. The experimental group had a notably lower education level, aligning with the hypothesis of a relationship between education level and delinquency.

*Crime Distribution by Variables*

*A. Types of Crimes and Education*

This finding shows that individuals with lower education (below high school) were more involved in drug-related crimes, while university-educated individuals were more likely to engage in embezzlement and forgery Table 2.

*B. Crime Distribution by Season*

Winter had the highest crime frequency at 37.14%, potentially due to psychological and environmental factors such as cold weather and holidays.

*Association Between Education and Delinquency*

Table 2. Distribution of Crime Types by Education Level

Education Level	Drugs n (%)	Theft n (%)	Embezzlement/Forgery n (%)	Total n (%)
Under Diploma (n=43)	27 (62.00)	11 (25.00)	5 (13.00)	43 (100)
Diploma (n=36)	16 (45.00)	13 (35.00)	7 (20.00)	36 (100)
University (n=26)	6 (24.00)	8 (32.00)	12 (44.00)	26 (100)

The Chi-square test showed that education level is significantly related to a reduction in crimes. The p-value was 0.003, less than 0.05, confirming the hypothesis that a higher education level is associated with lower delinquency Table 4.

Given the p-value less than 0.05, it can be concluded that education level and crime occurrence are significantly correlated. The higher the education level, the lower the likelihood of delinquency.

*B. Education and Type of Crime*

Regression analysis indicated that individuals with lower education (below diploma) were more likely to commit severe and dangerous crimes.

*Multiple Regression Analysis*

This section examined the impact of independent variables (education, age, gender) on the dependent variable (type of crime) Table 5.

The regression analysis shows that education has a negative and significant impact ( $\beta = -0.35$ ) on delinquency, indicating that higher education levels are associated with reduced criminal behavior. Additionally, gender and age also had significant effects on crime occurrence Table 5.

**Discussion**

The analysis of the data obtained from this study revealed that education plays a significant role in reducing the frequency and types of crimes. Specifically, individuals with lower education levels (below high school) tend to be more involved in high-risk crimes such as drug offenses, while those with higher education, particularly university education, are more likely to be engaged in economic crimes. These findings suggest that the awareness and skills gained through education can reduce the inclination toward criminal behavior. These results are consistent with previous research:

Yabandeh et al., showed that education is one of the key predictors of reduced criminal behavior, as individuals with higher education levels are more likely to live in low-stress communities and have better opportunities for stable employment and positive peer relationships. They argued that drug-related crimes are more common in low-income communities with lower education levels, which is associated with limited access to educational resources and a lack of awareness about the consequences of such crimes (16). Ramezani, highlighted the impact of educational programs in prisons, showing that these programs can reduce recidivism by up to 60% (17).

Table 3. Seasonal Distribution of Crimes (n=105)

Season	Winter	Fall	Spring	Summer
Number of Crimes, n (%)	39 (37.14)	28 (26.66)	19 (18.00)	19 (18.20)

Table 4. Association Between Education Level and Crime Status

Education Level	Criminal History n (%)	No Criminal History n (%)	Total n (%)	Chi-square	p-value
Below Diploma	40 (80.0)	10 (20.0)	50 (100)	18.47	0.003
Diploma	20 (40.0)	30 (60.0)	50 (100)		
University	10 (20.0)	40 (80.0)	50 (100)		

Table 5. Multiple Regression Analysis of Factors Associated with Crime Type

Variable	Category	Beta Coefficient ( $\beta$ )	Standard Error	p-value
Education	University	Ref.	-	-
	Diploma	-0.18	0.08	0.04
	Below Diploma	-0.35	0.09	0.001
Age	20-29 years	Ref.	-	-
	30-35 years	0.12	0.06	0.04
Gender	Female	Ref.	-	-
	Male	0.28	0.11	0.02

A significant difference was observed between gender and the type of delinquency. The majority of offenders were male (88.57%), while the proportion of females was higher in the general sample (70.53%). This difference may be attributed to cultural and social factors that expose men to greater economic and social pressures. According to recent studies, such as the one by Mottaghi Ghamsari & Rostami, men are more likely to engage in criminal behavior due to dominant social roles and violent interactions, particularly in communities with high unemployment rates (18).

Data analysis revealed that winter accounted for the highest number of crimes (37.14%). These findings align with studies examining the psychological and environmental effects of seasons on human behavior. Sojoudi et al., demonstrated that reduced sunlight in winter, along with increased economic stress from holiday-related expenses, can lead to increased anxiety and risk-taking behaviors (19). Kiani et al., emphasized the stress and limitations on social activities during winter can contribute to higher rates of violence and crime (20).

The analysis revealed a significant negative relationship ( $\beta = -0.35$ ) between education and delinquency, highlighting the importance of education in reducing social crimes. Additionally, the effect of gender ( $\beta = 0.28$ ) indicated that men are more likely to commit crimes than women, which may relate to biological and social differences between the sexes. These findings are consistent with Villardón-Gallego et al., study which focused on the impact of education in reducing gender-based violence (21). A study by Ahmed, found a significant negative relationship between educational attainment and crime, reinforcing the idea that higher levels of education are associated with a reduction in crime rates. In this study, the educational variables, such as high school graduation and bachelor's degree attainment, were

shown to reduce crime rates significantly, particularly in property and total crimes. They also found that the size of the shadow economy (unreported economic activities) had a positive correlation with crime, emphasizing that economic instability can drive criminal behavior. This study supports the conclusion that education is a crucial factor in reducing criminal activity, which aligns with your analysis regarding the negative relationship between education and delinquency (22). Additionally, gender differences in delinquency suggest that social and biological factors influence crime patterns, with men exhibiting higher tendencies toward criminal activity. These results align with broader global research, emphasizing the importance of education as a preventive tool for crime and the need for gender-sensitive interventions in crime reduction strategies.

### **Recommendations**

Investment in Education should be implemented to increase access to education, particularly in underserved areas. Life skills and vocational training can serve as preventive measures against delinquency.

*Awareness Programs:* Informing individuals, particularly youth and low-educated groups, about the social and legal consequences of crime can help reduce the tendency to engage in criminal behavior.

*Seasonal Prevention Programs:* Social planning and recreational activities during the winter season can help reduce crime rates during this time.

This study provides strong evidence supporting the role of education in reducing delinquency. Given the positive effects of education on awareness and empowerment, investing in educational programs should be considered one of the most effective tools for crime prevention.

### **Limitation**

*Sampling Bias:* Since the study is conducted in a specific geographic region

(Bushehr), the findings may not be generalizable to other regions with different socio-economic, cultural, or environmental contexts. This could limit the applicability of the results across the broader population.

*Self-Reported Data:* The reliance on self-reported surveys can introduce biases, such as social desirability bias. Respondents may not fully disclose their criminal behavior or education levels, which could skew the findings.

### Conclusion

This study examined the impact of education level on delinquency in Bushehr, finding that lower education levels are linked to higher criminal behavior, particularly drug-related offenses, while those with higher education engage more in economic crimes. Gender and age were also factors, with men showing a higher propensity for delinquency. Seasonal variations, particularly higher crime rates in winter, indicate the role of environmental and psychological factors. Overall, the study underscores the importance of education in crime prevention, recommending policies to improve education and support at-risk populations as effective crime reduction strategies.

### Authors' contribution

Zahra Zaeri and Mehdi Shabanzadeh developed the study concept and design. Zahra Zaeri and Mehdi Shabanzadeh acquired the data. Zahra Zaeri and Mehdi Shabanzadeh analyzed and interpreted the data, and wrote the first draft of the manuscript. All authors contributed to the intellectual content, manuscript editing and read and approved the final manuscript.

### Informed consent

Questionnaires were filled with the participants' satisfaction and written consent was obtained from the participants in this study.

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### Conflict of interest

The authors declare that they have no conflict of interests.

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