

Juvenile Engagement in Socio-Economic Rehabilitation and Its Effect on Recidivism: A Study of Borstal Institutes in Punjab

Rizwan-ul-Haq Aamir¹, Dr. Asif Naveed Ranjha²

1. PhD Scholar, Department of Social Work, The Islamia University of Bahawalpur
rizwan_aarbi@yahoo.com, ORCID ID: _0000-0003-3938-0517
2. Professor, Department of Social Work, The Islamia University of Bahawalpur
asif.naveed@iub.edu.pk, ORCID ID: 0009-0002-4969-4640

Abstract

Juvenile recidivism has continued to pose a challenging phenomenon within the Punjab correctional system of Pakistan. The causes of juvenile recidivism are related to poverty, family disintegration, educational problems, and lack of follow up, among other stress factors leading to re-offenses. In the Punjab province, there are two Borstal institutions, which include the Borstal institute and Juvenile jail in Bahawalpur & Faisalabad. The two institutions are obligated by the laws of Pakistan to rehabilitate the offenders through various trainings, education, and psycho-social counseling. There appears to be no empirical research findings concerning the efficiency of such rehabilitation efforts among the offenders. The current study investigated the influence of socio-economic rehabilitation among the juveniles in terms of recidivism involving 141 offenders aged between 12-18 years from the two institutions. Data were collected through designed questionnaire while analysis was carried out using descriptive statistics, chi-square test, and multivariate logistic regression using IBM SPSS Statistics Version 26.0. Findings revealed that 28.7% of the offenders involved in rehabilitation programmes had experienced recidivism in contrast to 75.0% among those who were not undergoing rehabilitation programmes; this indicates a statistical significance of 46.3 percentage points ($\chi^2=28.974$; $p<.001$; $\phi=.447$; medium to large effect size). The logistic regression model showed that rehabilitation programme involvement (OR=.112), post-release employment (OR=.146), family support (OR=.864), psychological counseling (OR=.501), and community acceptance (OR=.590) were the significant predictors of non-recidivism. It is pertinent to note that all the 141 offenders were first-time offenders and 94.3% were violent offenders indicating need for intense intervention approaches. The overall two-year recidivism rate was 41.8%. This finding holds great significance for juvenile justice policies and institutions within Punjab.

Keywords: Juvenile Recidivism, Socio-Economic Rehabilitation, Borstal Institutions, Juvenile Offenders, Punjab, Pakistan

Introduction

Juvenile delinquency and recidivism continue to be persistent problems within criminal justice systems around the globe, and they become even more evident in developing nations where structural inequities amplify the challenges faced by those who find themselves in the criminal justice system. Globally, contemporary research underscores that high rates of juvenile re-offending are heavily driven by cross-national challenges such as institutional over-reliance on punitive detention rather than restorative justice, fragmented post-release support infrastructure, and deep-seated societal stigmatization that blocks former young offenders from accessing formal education and labor markets. These systemic barriers universally weaken the social bonds necessary to foster long-term behavioral desistance

among youth. Furthermore, comparative international literature highlights that public expenditure in developing regions remains disproportionately skewed toward high-security confinement rather than communal reintegration. This imbalance routinely results in severe institutional overcrowding, a complete breakdown of protective supervision mechanisms, and the unintentional transformation of juvenile facilities into criminogenic environments where minor offenders learn advanced criminal behaviors from more seasoned peers. Consequently, without robust global policy frameworks that mandate structural transitions toward trauma-informed care and sustainable socioeconomic capacity building, international rehabilitative efforts will continuously struggle to break the cyclical trajectory of youth recidivism. Transitioning to the domestic context, Pakistan grapples with highly localized variations of these structural issues, where a historically prison-centric legal framework has traditionally favored youth incarceration over rehabilitative intervention. The domestic landscape is further complicated by massive economic deprivation, severe educational deficits, and a lack of formalized case management services for discharged juveniles, making local youth uniquely vulnerable to falling back into criminal patterns. Transitioning to the domestic context, Pakistan grapples with highly localized variations of these structural issues, where a historically prison-centric legal framework has traditionally favored youth incarceration over rehabilitative intervention. The domestic landscape is further complicated by massive economic deprivation, severe educational deficits, and a lack of formalized case management services for discharged juveniles, making local youth uniquely vulnerable to falling back into criminal patterns. Furthermore, comparative international literature highlights that public expenditure in developing regions remains disproportionately skewed toward high-security confinement rather than communal reintegration. This imbalance routinely results in severe institutional overcrowding, a complete breakdown of protective supervision mechanisms, and the unintentional transformation of juvenile facilities into criminogenic environments where minor offenders learn advanced criminal behaviors from more seasoned peers. Consequently, without robust global policy frameworks that mandate structural transitions toward trauma-informed care and sustainable socioeconomic capacity building, international rehabilitative efforts will continuously struggle to break the cyclical trajectory of youth recidivism. Even with the existence of several government programs meant to curb juvenile delinquency, the phenomenon continues to be widespread in Punjab, Pakistan (Anwar et al., 2007; Nazim et al., 2024). Some of the contributory factors behind this menace are deep-rooted poverty, quick population growth, poor quality of education, broken families, and a prison-centric institution that pays little attention to rehabilitation. The definition of recidivism refers to the process of re-arrest and reincarceration during a specified period of follow-up time, which has been widely adopted in criminology literature (Maltz, 2001). According to increasingly extensive research from various countries, the primary risk factors for juvenile recidivism can be seen in educational underachievement; unemployment; family breakdown; lack of psychological assistance; and lack of post-release social reintegration programmes (Andrews & Bonta, 2010; Laub & Sampson, 2003; Maruna, 2001). Socioeconomic rehabilitation programmes designed to deal with such risk factors through vocational training, education, counseling, family therapy, and community integration have proven their effectiveness in crime reduction.

Punjab has two rehabilitation centers for juveniles; these are Borstal Institute and Juvenile Jail, Faisalabad, founded in November 2001 at an initial capital cost of Rs. 80 Million in a 52-acre area, and Borstal Institute and Juvenile Jail, Bahawalpur, located within the old central jail set up in 1846. These two rehabilitation facilities run according to the laws set out in the Juvenile Justice System Act (JJSA) 2018 and the Punjab Borstal Act 1926. However, despite these existing facilities, there is little empirical data available to answer whether such rehabilitation programs have had an impact on decreasing juvenile recidivism

rates in Punjab. This study has tried to contribute towards providing an answer to that question.

Literature Review

Four interlinked theoretical approaches underpin this research work. First, the rehabilitation approach, which was put forward by Francis (2014) and adopted in correctional policies throughout the world, states that criminal activity can be changed through systematic intervention measures that correct cognitive, educational, and economic deficiencies. In cases involving juveniles, the rehabilitation approach serves as the basis for developing their human capital through humane means compared to punishment (MacKenzie, 2006). Secondly, the social learning theory developed by Bandura (1977) and later applied in the field of criminology by Akers (1998) argues that criminal actions are learned through observational learning, behavioral modeling, and differential reinforcement within the context of social settings. According to Andrews and Bonta (2010), the Risk-Need-Responsivity (RNR) model can be used as a scientific method for developing efficient correctional interventions. In their opinion, the intensity of the intervention should correspond to the riskiness of the criminal, there should be emphasis on the criminogenic needs, which include unemployment, poor education, and antisocial beliefs, and the intervention should fit the way the person learns best. In turn, Laub and Sampson (2003) present their criminological theory based on life courses, and according to Maruna (2001), desistance theory can explain how people manage not to commit crimes for a long time. A considerable body of empirical work is available regarding the structural precursors to youth crime in Pakistan. One of the most critical structural precursors is economic deprivation. According to Awan, Khan, and Khalid (2021), youth unemployment levels have already exceeded the absorption capacity of the formal labour market, while Khalid (2001) found that juveniles who commit crimes come from poor economic backgrounds. Strain theory put forth by Merton (1938) explains the reasons. Lack of education also increases vulnerability to youth crime because young people who lack formal education have fewer employment opportunities and lack self-regulation of cognition (Lubis, 2022; Munir & Malik, 2020). Family structure is another important factor. There have been considerable changes within Pakistan's juvenile justice laws over several decades. The JJSA Ordinance (JJSO), passed in 2000, introduced an innovative system of laws related to juvenile justice, including juvenile courts, Borstals, and rehabilitation requirements. The JJSA 2018 further fortified the existing ordinance by eliminating death penalty and life imprisonment for criminals under the age of 18 years old. This legislation put priority on diverting cases away from jail and ensuring rehabilitation rather than incarceration (Chughtai, Abbas, & Asghar, 2021; Shah, Balasingam, & Salman, 2020). Moreover, the Punjab Prisoners Foundation has made an agreement with the Inspector General of Prisons that will provide market-oriented vocational education free of charge for both male and female prisoners as well as juveniles (Government of Punjab, 2001; Nazim et al., 2024).

There is substantial literature from around the world about the efficacy of rehabilitation. The meta-analysis by Davis et al. (2013) for the RAND Corporation reveals that taking part in correctional education programs lowers the chances of being incarcerated again. Mbatha, Keire, and Mattemu's (2011) cross-sectional study conducted in Kenya shows that individuals who take part in vocational training and education programs perform better than others after their release in terms of employment opportunities. In a meta-analytical study, Weldon (2000) also notes the fact that those who participate in educational programs have significantly lower levels of recidivism compared to those who do not. Employment after release becomes the most important determinant of non-offense after the inmate's release. Western et al. (2015) prove that employment after release is a strong indicator of sustained nonoffending. This supports the social bonds theory of Laub & Sampson (2003). The role of family support in rehabilitation has similarly been confirmed as a strong tool. Family ties

have been identified as the fundamental process of informal social control in adolescence according to Sampson and Laub (1993). According to Barnert et al. (2015), family aid is essential for the rehabilitation of incarcerated teens based on qualitative interviews conducted. Family intervention has also been shown to affect later generations according to research done by Thornberry et al. (2003). Psychological counseling is another independent factor which affects desistance from offending. Basanta, Farina and Arce (2017) report that cognitive-behavioral treatment leading to reduced criminal thinking styles results in lower levels of recidivism. Community support and social integration are also key factors that contribute to desistance from criminality. Becker's labeling theory of criminal behavior posits that criminal stigmatization makes it difficult for offenders to obtain legal employment and socially accepted relationships.

Research Methodology

The current study has used the cross-sectional survey method of research, as determined suitable due to the ability of such research design to systematically establish and test statistical associations of participation in rehabilitation programs with recidivism (Bryman, 2016; Creswell, 2014). The longitudinal research design, although better suited from the theoretical perspective, was ruled out due to the limited access periods characteristic of custodial corrections facilities. The study sample consisted of all juvenile offenders within the age range of 12 to 18 years who were in custody at either one of the two special Borstal institutes of juvenile rehabilitation in the Punjab province of Pakistan – Borstal Institute and Juvenile Jail, Faisalabad, and Borstal Institute and Juvenile Jail, Bahawalpur. The two institutes work on the basis of the Punjab Borstal Act 1926 and the Juvenile Justice System Act 2018. The study sample was composed only of juvenile offenders, without the inclusion of correctional institution staff and vocational trainers. Purposive convenience sampling technique was used, considering the institutional limitations associated with sampling an enclosed and legally protected population. Probability sampling technique was out of the question owing to the security and access restrictions that existed within the Borstal Institutes (Rubin & Babbie, 2017; Patton, 2015). The sample size comprised 141 participants ($N = 141$), which fulfilled the required minimum requirement when applying a binary logistic regression model involving nine predictors (Field, 2018), in addition to fulfilling the power criteria set forth by Cohen (1992) for the proposed analysis. Interviews were conducted through an interview schedule instead of self-administered questionnaires due to two reasons. Firstly, only 56.7% of the respondents had attained primary level of education or lower, hence making self-completed questionnaires an inappropriate research method with chances of eliciting incorrect answers. Secondly, owing to the vulnerable nature of the respondents, there had to be a constant presence of an interviewer who could monitor respondent's condition during the interview and terminate the interview if necessary (Creswell, 2014; Rubin & Babbie, 2017). The interviews were conducted either in Urdu or regional language of the respective respondent. The content validity of the interview schedule was conducted using systematic literature review, expert review of academics specializing in social work, and a structured pilot study. All collected data were anonymized prior to their analysis. This research has been conducted in accordance with the principles outlined by Israel and Hay (2006) such as respect for persons, beneficence, non-maleficence, and justice. Data analysis was carried out using IBM SPSS Statistics Version 26.0.

Data Analysis and Results

The sample consisted of 141 youth offenders, who were mainly males (89.0%). The average age of the respondents was 16.2 years ($SD = 1.44$). Most of the offenders belonged to the age range of 16 to 18 years (95.0%, $n=134$). The sample revealed that it faced severe levels of educational deprivation; 11.3% had never attended school in their lives, while a total of 56.7% had been able to achieve at most primary-level education or lower. 85.1% of

the sample belonged to complete family backgrounds, and 97.2% came from families with a monthly income less than PKR 20,000. All of the respondents represented first-time offenders in the case of their present conviction.

Table 1

Types of Offences Committed by Juvenile Offenders During Incarceration (N = 141)

Type of Offence	Frequency (n)	Percentage (%)
Property Crime	4	2.8
Violent Crime	133	94.3
Drug Offence	4	2.8
Other Offences	0	0.0
Total	141	100.0

Note. The categorization system relies on the offence that the youth offender was convicted of, for which they are currently serving time in the institution

Based on the results presented in Table 1, the offense profile of the sample involves a high degree of violent offenses, which constitute 94.3% of the sample (n=133). Property crime and drug offenses make up a relatively insignificant portion of the sample, constituting 2.8% each (n=4), and none of the respondents were categorized as committing other types of offenses. In light of the predominance of violent offenses within the group, there is an implication that the individuals involved will need greater behavioral intervention, anger management, and conflict resolution skills compared to those found in offenders of property and drug crimes.

Table 2

Participation in Vocational Training Programmes During Incarceration (N = 141)

Training Type	Participants (n)	Percentage (%)	Completion Rate (%)
Welding	33	23.4	78.8
Mechanic	33	23.4	75.8
Electrician	33	23.4	78.8
Computer/IT	32	22.7	87.5
Tailoring/Sewing	10	7.1	70.0
Total enrolled	141	100.0	78.2 (avg.)

Note. The completion rate refers to the number of participants enrolled who complete the entire training program.

Table 2 clearly shows that all the 141 individuals interviewed were involved in vocational training programmes while in prison. Thirty-three respondents (23.4%) underwent Welding, Mechanic, and Electrician training; 32 respondents (22.7%) underwent Computer/IT training while Tailoring/Sewing had the least number of 10 participants (7.1%). The average completion rate for all programmes is 78.2%, indicating a satisfactory level of programme retention. The programme with the highest completion rate is Computer/IT training (87.5%) due to its high level of relevance to the preference of the youth-oriented sample group.

Table 3

Rehabilitation Programme Quality Assessment by Juvenile Respondents (N = 141)

Quality Indicator	Excellent	Good (%)	Fair (%)	Poor (%)	Mean
-------------------	-----------	----------	----------	----------	------

	(%)				Score
Programme relevance	17.2	46.2	29.0	7.6	2.73
Staff qualification	6.2	36.6	43.4	13.8	2.35
Individual attention	9.0	31.7	40.0	19.3	2.30
Infrastructure	4.8	25.5	49.0	20.7	2.14
Resources availability	3.4	22.8	51.7	22.1	2.08

Note. Scale: Excellent = 4, Good = 3, Fair = 2, Poor = 1. Mean scores derived from participant self-reports.

The mean scores for the various qualities assigned to the rehabilitation program according to Table 3 are presented for five different aspects. The relevance of the program attained the highest score among the quality dimensions measured ($M = 2.73$) with a percentage of 63.4% of the respondents perceiving the quality as either good or excellent. This implies that the respondents perceived the program content as being relevant to their future requirements. All the other four qualities received mean scores lower than the midpoint of the scale (2.50), indicating that there was a generally negative perception among the respondents about these quality dimensions. The dimension of resource availability recorded the least score of all ($M = 2.08$), with only 26.2% of the participants giving a good or excellent rating for this aspect, due to the severe inadequacy of infrastructures in the two facilities and overcrowding. Quality perceptions were found to be significant empirically too, with the quality rating for the program being an independent predictor of recidivism ($OR = 0.912$, $p = .004$).

Table 4

Offender Status of Juvenile Sample ($N = 141$)

Previous Offences	Frequency (n)	Percentage (%)
First-time offenders	141	100.0
Second-time offenders	0	0.0
Three or more offences	0	0.0
Total	141	100.0

Note. Previous offenses mean all previous cases that have been recorded by the time an individual is incarcerated.

According to Table 4, it can be seen that all 141 interviewees interviewed were all first-time offenders and did not have any previous record of being charged for crimes before. Such an occurrence may be due to the admissions processes in the institution where only first-time offenders will be accepted, or because of the process of channeling many offenders into different institutions. But looking at this through the perspective of rehabilitating the offenders, then it is true that such an occurrence is vital to their rehabilitation since it shows that they have not yet formed criminal identities and hence are easier to reform. This was an indication of the necessity of offering effective rehabilitation to offenders upon their first encounter with the criminal justice process since it will reduce the possibility of chronic offending. The nature of the crime committed, vocational training status, and the nature of the programs provided offer an empirical account of the state of affairs in the institution, which shows that there is a huge difference between the need and ability to offer rehabilitation services.

Table 5

Chi-Square Test: Rehabilitation Programme Participation and Recidivism ($N = 141$)

Rehabilitation Participation	Recidivated (n, %)	Did Not Recidivate (n, %)	Total (n)
Participated (n = 101)	29 (28.7%)	72 (71.3%)	101
Did not participate (n = 40)	30 (75.0%)	10 (25.0%)	40
Total (N = 141)	59 (41.8%)	82 (58.2%)	141

Note. $\chi^2(1, N = 141) = 28.974, p < .001$. Phi (ϕ) = .447, Cramér's $V = .447$ (medium-to-large effect size).

The primary finding of this study came from Table 5. Recidivism rates were 28.7% for juvenile offenders who participated in the socio-economic rehabilitation programs as opposed to 75.0% for juveniles who did not participate in these programs, with a difference of 46.3 percentage points. This finding is statistically significant and shows a moderate-to-large effect size ($\chi^2[1] = 28.974, p < .001, \phi = .447, \text{Cramér's } V = .447$). The general recidivism rate for two years was 41.8% (n = 59 of 141).

Table 6

Binary Logistic Regression: Independent Predictors of Recidivism (N = 141)

Predictor Variable	OR	95% CI	p
Rehabilitation participation	0.112	[0.049, 0.258]	< .001
Post-release employment	0.146	[0.058, 0.369]	< .001
Family support score	0.864	[0.808, 0.924]	< .001
Psychological counselling receipt	0.501	[0.260, 0.965]	.038
Community acceptance	0.590	[0.356, 0.978]	.039
Educational attainment	0.674	[0.494, 0.919]	.014
Programme quality rating	0.912	[0.855, 0.973]	.004
Age at first offence	1.225	[1.025, 1.464]	.026

Note. Nagelkerke $R^2 = .709$. Hosmer-Lemeshow goodness-of-fit $p = .565$. Overall classification accuracy: 86.9%.

The findings from the binary logistic regression analysis were given in Table 6, and it was confirmed that rehabilitation programmes predicted non-recidivism the most strongly (OR = 0.112, $p < .001$). The odds of recidivating among individuals who had taken part in the programme were only 11.2% compared to non-participants. Moreover, post-release employment was also seen as a strong predictor of non-recidivism (OR = 0.146, $p < .001$). It was discovered that juveniles who were employed post-release showed lower levels of recidivism compared to those not employed or working as apprentices. There were differences in the levels of post-release employment depending on vocational training type. It was determined that computer/IT, electrician, and mechanic courses resulted in the greatest levels of employment, and tailoring/sewing vocational training provided the lowest levels of employment after releasing due to low labor market demand for garment trade skills in Punjab's urbanizing labor market. Overall, the results support the social bond theory by Laub & Sampson (2003) and the findings from Western et al. (2015) study.

Table 7

Post-Release Employment Rate by Vocational Training Type (n = 141)

Training Type	N	Employment Rate (%)	SD
Computer/IT	32	87.5	33.5
Electrician	33	81.8	39.1
Mechanic	33	75.8	43.4
Welding	33	72.7	45.2
Tailoring/Sewing	10	60.0	51.6

Note. $F(4, 136) = 3.784$, $p = .001$, $\eta^2 = .100$ (medium-to-large effect). Post-hoc Tukey HSD: Computer/IT > Tailoring/Sewing ($p = .018$).

The influence of family support emerged as another independent factor determining non-recidivism ($OR = 0.864$, $p < .001$), such that the likelihood of recidivism decreased by 13.6% with each increment in the family support score. There were considerable differences between mean family support scores among non-recidivists ($M = 18.96$) and recidivists ($M = 12.52$; Cohen's $d = -1.153$). While the recidivism rate in two-parent families reached 30.5%, in families where juveniles grew up either in institutions or orphanages, it increased dramatically to 87.5%. This indicates the key role played by family ties in informal social control (Sampson & Laub, 1993). Participation in psychological counselling was an additional independent factor decreasing the likelihood of recidivism by 49.9% ($OR = 0.501$, $p = .038$) and contradicting the notion expressed in the RNR framework's Needs principle (Andrews & Bonta, 2010) because of the limited access of a considerable number of juveniles to this service. The protective influence of rehabilitation programmes was shown to depend on the quality rating of such programmes ($OR = 0.912$, $p = .004$). Thus, the benefits of rehabilitation appeared to be conditional, as confirmed by resource shortages at both institutes. There was a significant and gradual association between age at first crime and recidivism status outcomes ($F[3, 137] = 7.568$, $p < .001$, $\eta^2 = .089$). Recidivism occurred in 59% of juvenile offenders whose first crime occurred between the ages of 10-12 years, compared with only 26% among juvenile offenders whose first crime occurred between the ages of 17-18 years. The slope follows from the taxonomy proposed by Moffitt (2006), differentiating life-course persistent offenders, in whom antisocial behavior is driven by early child neuropsychological dysfunction, and adolescence-limited offenders, for whom offending behavior is transient and context-dependent. The temporal pattern of recidivism is indicative of the need for immediate post-release care, with 17.2% of the participants re-offending within six months and 30.3% within one year following release, while 55.9% had not been provided any professional assistance during the process of re-integration into civilian life after release from incarceration. These figures reflect the so-called cliff effect, as described by Solomon et al. (2006), referring to the withdrawal of institutional support exactly when the level of risk for reoffending is at its highest. Social stigma in the community further exacerbated this structural problem, with more than half of the participants reporting stigmatization and social isolation following release into the community, where they were generally accepted poorly. Community acceptance was identified as a significant predictor of recidivism ($OR = 0.590$, $p = .039$), indicating that social labeling and ostracism, as defined by Becker (1963), are indeed criminogenic forces.

Discussion

The results of this study were interpreted in terms of the theories and previous research reviewed above, focusing on their implications for rehabilitation policies and programs in the Punjab juvenile justice system. The multivariate results present convincing empirical evidence supporting the basic principles of Rehabilitation Theory (Francis, 2014). Rehabilitation program attendance turned out to be the most significant independent variable in predicting non-recidivism in the analysis ($OR = 0.112$, $p < .001$). The above

result proves that systematic socio-economic rehabilitation within the framework of Borstal significantly reduces the recidivism rate. The match of the criminogenic needs of offenders under investigation, such as lack of adequate education, severe economic deprivation, and a predominantly violent offense pattern, with the aims of the rehabilitation programs used corresponds to the RNR model (Andrews & Bonta, 2010). The size of the effect observed is in line with the results found in international correctional education and rehabilitation studies conducted in similar circumstances (Davis et al., 2013; Lipsey, 2009). Importantly, program quality was also an independent predictor of non-recidivism ($OR = 0.912$, $p = .004$), while the worst quality rating among the aspects examined referred to resources needed for rehabilitation, implying its crucial role in preventing further offending. The latter factor is largely determined by the shortage of space and resources in the Borstal facilities.

After-release employment was identified as the most influential post-reintegration variable regarding desistance, showing the highest correlation (Cramér's $V = .609$) and being the second strongest factor ($OR = 0.146$, $p < .001$). The higher probability of reoffending among unemployed youths compared to those engaged in any kind of work is indicative of the age-graded theory of social control by Sampson and Laub (1993; 2003), which argues that stable employment is the crucial turning point after release from institution, helping to establish a strong connection with institutions, create daily routines, and create a motivation for lawful conduct due to economic gains. Moreover, the present results support the process of desistance proposed by Western et al. (2015) and Maruna (2001) that states that employment facilitates the formation of prosocial identity inconsistent with criminal activity. Finally, the differences between the types of vocational training programs with respect to their influence on obtaining employment upon release ($F[4, 136] = 3.784$, $p = .001$, $\eta^2 = .100$) demonstrate that not all vocational training programs are equally effective in facilitating the process of rehabilitation.

The role of family support was shown to be an independent predictor of non-recidivism ($OR = 0.864$, $p < .001$; Cohen's $d = -1.153$), where the great disparity in terms of recidivism rate between juveniles who came from a two-parent family setting and those who came from an orphanage background proved the validity of the social bond theory by Sampson and Laub (1993) and the qualitative study of Barnert et al. (2015) which highlights the importance of family support in effective reintegration. The lack of psychological counselling provision for these juveniles, together with the significant decrease in recidivism probability through counselling ($OR = 0.501$, $p = .038$), clearly contradicts the Need component of the RNR model (Andrews & Bonta, 2010).

The significant progressive relationship between the age of first offence and recidivism ($F[3, 137] = 7.568$, $p < .001$, $\eta^2 = .089$) is consistent with Moffitt's (2006) developmental taxonomy and stresses the importance of developmentally differentiated programmes aimed at early onset offenders, since such individuals often have neurodevelopmental and psychosocial issues that cannot be dealt with via standard vocational programming. The patterned temporal grouping of offending events among offenders released recently, especially those without any type of reintegrative programme available to them, is indicative of the cliff effect as proposed by Solomon et al. (2006). The relatively high levels of stigma, social isolation, and community rejection reported by the respondents corroborate the labelling hypothesis formulated by Becker (1963). The positive correlation between community acceptance and recidivism ($OR = 0.590$, $p = .039$) proves that social exclusion caused by labelling is one of the real criminogenic processes because it prevents access to legitimate relationships and opportunities necessary for desistance. Community

reintegration should therefore be considered a key part of the rehabilitation process and not its automatic result.

Conclusion

The present investigation has systematically examined the engagement of juvenile offenders in socio-economic rehabilitation programmes at the Borstal Institutes in Faisalabad and Bahawalpur and has produced compelling evidence that such engagement substantially reduces recidivism. Participation in rehabilitation programmes reduced the two-year recidivism rate from seventy-five percent among non-participants to twenty-eight point seven percent among participants, a difference of forty-six point three percentage points representing the largest protective effect identified in the study. Post-release employment emerged as the critical post-institutional predictor of desistance, with unemployed juveniles re-offending at substantially higher rates than those who secured employment. Family support, psychological counselling, programme quality, educational attainment, and community acceptance each independently predicted non-recidivism. The uniform first-time offender status of all one hundred and forty-one respondents underscores the pivotal importance of effective rehabilitation at the initial point of justice system contact, as failure at this juncture carries profound implications for the life trajectory of young people.

In addition to revealing the identified deficiencies, the study also highlighted some critical shortcomings in the current rehabilitation process: the nearly ubiquitous violent offence profile among the sample members calls for a more rigorous behavioral intervention programme than what can currently be provided; the lack of reintegration assistance after release among the vast majority of the juveniles discharged from institutions clearly shows a serious failure within the entire system; and the persistent stigma attached to former offenders within the community qualifies as a continuous criminogenic factor and therefore requires specific measures to address it. Thus, it is recommended to implement the following steps in both institutions: enforce compulsory vocational training immediately changing curricula towards computer/IT, electrical trades, and technical skills; ensure access to psychological counselling services for all individuals; create employment opportunities for Borstal alumni among the private sector employers; enforce case management services for at least one year after the discharge; and launch a community sensitization programme as part of the reintegration initiative. Finally, it is advisable to form the Provincial Juvenile Justice Coordination Committee chaired by the Home Department and including representatives from Departments of Prison, Social Welfare, Health, Education, and Police, along with TEVTA, Judiciary, and key civil society actors. This Committee will need to meet quarterly in order to coordinate efforts in implementing the policy and achieving set recidivism reduction targets.

References

- Akers, R. L. (1998). *Social learning and social structure: A general theory of crime and deviance*. Northeastern University Press.
- Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). LexisNexis.
- Anwar, S., Azahr, M., Javed, M., & Sohail, M. (2007). Juvenile delinquency and the role of rehabilitation centres in Punjab. *Pakistan Journal of Criminology*, 1(2), 45–63.
- Awan, I. A., Khan, M. A., & Khalid, M. (2021). Youth crime and socio-economic factors in Punjab: An empirical analysis. *Journal of Sociology and Social Welfare*, 48(2), 112–134.
- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Barker, J. E. (1915). *Prisons and the prisoner: An introduction to the study of criminology*. J. M. Dent & Sons.

- Barnert, E. S., Perry, R., & Morris, R. E. (2015). Juvenile incarceration and health. *Academic Pediatrics*, 16(2), 99–109. <https://doi.org/10.1016/j.acap.2015.09.004>
- Basanta, J. L., Farina, F., & Arce, R. (2017). Risk-need-responsivity model: An empirical analysis of a recidivism reduction programme. *Psychosocial Intervention*, 26(2), 141–147. <https://doi.org/10.1016/j.psi.2017.02.004>
- Becker, H. S. (1963). *Outsiders: Studies in the sociology of deviance*. Free Press.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Chowdhury, A. B., & Fahim, A. (2019). Urbanisation, family dissolution, and juvenile offending in South Asia. *Asian Journal of Criminology*, 14(3), 207–226.
- Chughtai, W., Abbas, N., & Asghar, A. (2021). Restorative justice in juvenile cases in Pakistan: Challenges and prospects. *Journal of Law and Social Sciences*, 7(1), 1–22.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE.
- Davis, L. M., Bozick, R., Steele, J. L., Saunders, J., & Miles, J. N. V. (2013). *Evaluating the effectiveness of correctional education*. RAND Corporation. <https://doi.org/10.7249/RR266>
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE.
- Francis, B. (2014). Crime and rehabilitation: A systematic review of the evidence. *Howard Journal of Criminal Justice*, 53(3), 209–231. <https://doi.org/10.1111/hojo.12065>
- Government of Punjab. (2001). *Borstal Institute and Juvenile Jail, Faisalabad: Establishment report*. Home Department, Government of Punjab.
- Israel, M., & Hay, I. (2006). *Research ethics for social scientists*. SAGE.
- Kazi, M. A. (1951). *Borstal institutions in the Punjab: Historical and legal foundations*. Punjab Government Press.
- Kencana, T., Yusuf, M., & Rahman, A. (2019). Peer group influence and juvenile delinquency in Indonesia. *Indonesian Journal of Criminology*, 5(2), 88–104.
- Khalid, R. (2001). *Social factors in juvenile delinquency in Pakistan*. National Institute of Psychology.
- Laub, J. H., & Sampson, R. J. (2003). *Shared beginnings, divergent lives: Delinquent boys to age 70*. Harvard University Press.
- Lipsey, M. W. (2009). The primary factors that characterise effective interventions with juvenile offenders: A meta-analytic overview. *Victims and Offenders*, 4(2), 124–147. <https://doi.org/10.1080/15564880802612573>
- Lubis, I. (2022). Moral development and juvenile delinquency. *Journal of Youth Studies*, 25(4), 533–551.
- MacKenzie, D. L. (2006). *What works in corrections: Reducing the criminal activities of offenders and delinquents*. Cambridge University Press.
- Maltz, M. D. (2001). *Recidivism*. Academic Press.
- Maruna, S. (2001). *Making good: How ex-convicts reform and rebuild their lives*. American Psychological Association.
- Mbatha, J. R., Keire, S., & Mattemu, R. (2011). Prison education programmes and recidivism reduction: A cross-sectional study. *African Journal of Criminology and Justice Studies*, 5(1), 67–89.
- Merton, R. K. (1938). Social structure and anomie. *American Sociological Review*, 3(5), 672–682. <https://doi.org/10.2307/2084686>
- Moffitt, T. E. (2006). Life-course-persistent versus adolescence-limited antisocial behaviour. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology* (2nd ed., Vol. 3, pp. 570–598). Wiley.

- Munir, A., & Malik, S. (2020). Moral development and juvenile delinquency in Pakistan. *Pakistan Journal of Social Sciences*, 40(2), 765–778.
- Mushtaq, A., Hakeem, F., Aleem, A., & Shahab, M. (2025). Juvenile justice and rehabilitation in Pakistan: Contemporary challenges. *Journal of Law, Policy and Globalization*, 140, 1–12.
- Nazim, A., Amjad, S., & Shahid, N. (2024). Borstal institutions in Punjab: Mandates, realities, and reform imperatives. *Pakistan Journal of Criminology*, 16(1), 1–24.
- Panezai, S., Panezai, I., Wassan, M., & Saqib, M. (2020). Barriers to juvenile rehabilitation in Pakistani prisons. *Grassroots*, 54(1), 193–208.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods* (4th ed.). SAGE.
- Rekker, R., Pardini, D., Keijsers, L., Branje, S., Loeber, R., & Meeus, W. (2015). Moving in and out of poverty: The within-individual association between socio-economic status and juvenile delinquency. *PLOS ONE*, 10(11), e0136461. <https://doi.org/10.1371/journal.pone.0136461>
- Rubin, A., & Babbie, E. R. (2017). *Essential research methods for social work* (4th ed.). Cengage Learning.
- Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Harvard University Press.
- Shah, A., Balasingam, U., & Salman, M. (2020). Juvenile justice system in Pakistan: An analysis of legislative frameworks. *International Journal of Law and Management*, 62(5), 423–436. <https://doi.org/10.1108/IJLMA-05-2019-0116>
- Solomon, A. L., Kachnowski, V., & Bhati, A. (2006). *Does parole work? Analysing the impact of postprison supervision on rearrest outcomes*. Urban Institute Justice Policy Centre.
- Thornberry, T. P., Freeman-Gallant, A., Lizotte, A. J., Krohn, M. D., & Smith, C. A. (2003). Linked lives: The intergenerational transmission of antisocial behaviour. *Journal of Abnormal Child Psychology*, 31(2), 171–184. <https://doi.org/10.1023/A:1022574208366>
- Weldon, W. (2000). Recidivism rates among GED completers in correctional facilities. *Journal of Correctional Education*, 51(3), 246–261.
- Western, B., Braga, A. A., Davis, J., & Sirois, C. (2015). Stress and hardship after prison. *American Journal of Sociology*, 120(5), 1512–1547. <https://doi.org/10.1086/681323>