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The Effectiveness of Prison Education in Reducing Criminal Recidivism: A Systematic Review

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Abstract

Criminology defines recidivism as the relapse into criminal behavior of individuals with a criminal record. Prisoners are a vulnerable sector of the population which makes reintegration programs vital to facilitate their reinsertion into society after liberation. This study conducts a systematic review of the literature on prison education and recidivism in the last 5 years. PICO eligibility criteria were applied, various sources were used, and 10 studies were selected for the review. The studies address recidivism through qualitative, quantitative, and mixed approaches, revealing the complexity of the issue and the need for comprehensive and tailored approaches. Concerns arise about the ineffectiveness of criminal policies and the need for reforms in prison conditions and education. Studies suggest a weak relationship between participation in educational programs and recidivism prevention, emphasizing the importance of a humanistic and more holistic approach to rehabilitation. Factors such as low enrollment in the programs, overcrowding in prisons, lack of access to post-secondary education influence program effectiveness. The importance of preventive policies, removal of obstacles to reentry, social integration programs, and adapting interventions to specific population needs is emphasized. Findings highlight the urgency of addressing structural issues and the importance of a holistic approach to prison system reform. Lack of resources and adequate support often hinders rehabilitation efforts. Implementing comprehensive preventive and corrective measures is essential to improve outcomes and reduce recidivism.

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Introduction

Criminology, the science that studies criminal behaviour, defines recidivism as the relapse into crime by individuals with previous criminal records (Lantero, 2022), regardless of whether it is a similar offense to the previous one or of a different nature.

Historically, the legal treatment of recidivism has been highly punitive. However, the fact that sanctions become more severe with each relapse does not seem to have the desired deterrent effect. Recent comparative studies of two-year recidivism rates in 14 countries and some states in the United States and Canada found values ranging from 20% to 63% (Yukhnenko, Sridhar & Fazel, 2019), with an average of approximately 42%. The situation is much worse in countries with medium to low incomes, which for the most part do not understand the need to invest their limited resources in crime prevention programs and the institutionalization of social reintegration of convicts as part of their criminal justice system (UNODC, 2019).

This type of policy to address recidivism has generated controversy and been the subject of criticism in the past (Alcocer, 2017). Currently, the balance of justice is increasingly shifting towards a less retributive and more humanistic and rehabilitative view of the penalty of deprivation of liberty, assigning it the role of reeducating and reinserting convicts into society after their release (Nistal, 2022) (Sánchez-Vega, 2022). It becomes essential, then, to achieve a deep understanding of the factors that lead individuals to reoffend after having served a sentence of deprivation of liberty, to design and implement comprehensive Psychopedagogical interventions that seek to stimulate the cognitive transformation of prisoners. Providing them with the knowledge, skills, and tools they need to create a dignified life for themselves upon their return to the community. With a new personal identity as law-abiding citizens.

Although there are no global statistics and in general there is a perceived knowledge gap regarding the issue of recidivism in many countries, especially those with few resources. The data and studies available do show that recidivism is a global phenomenon (Yukhnenko, Sridhar & Fazel, 2019), costly both from an economic point of view: losses and damages caused by the crime itself plus those added fiscal costs for investigation, prosecution, processing, imprisonment, supervision during and after release; and from a social point of view, more difficult to quantify but no less important – disintegration of families, loss of economic capacity, the security of the community is compromised by the increase in crime, dependence of prisoners on the services of the societies to which they fail to reintegrate rather than contribute to them. (UNODC, 2019)

The longer the sentence, the more difficulties prisoners find in reinserting themselves into their families, the labour market, and society in general upon their release from prison. The long period of relative inactivity in prison institutions, isolation from the community and family, and the stigma that accompanies imprisonment, make prisoners face tough challenges after their release when it comes to generating legal income or finding support systems outside of circles with frankly criminal anti-social attitudes (Lantero, 2022). In the face of these disadvantages, without the help of a rehabilitation and social reintegration program, the chances of effective reintegration into the community of individuals, upon their release from the prison system, become almost nil. (UNODC, 2019).

The report for the European Commission on the state of the art in prison education and training published in 2013 clearly

establishes the financial benefits of instructing and professionally training prisoners so that they leave the prison system as citizens who contribute to the economic growth of the country rather than burden it. Thus, recognizing prison education as key to preventing recidivism while also being economically beneficial for states.

Finally, although no less important, education is a human right recognized as such and enshrined in numerous Declarations, Covenants, and International Rules. The prison population needs a more inclusive and universal concept of education, just like any other minority in a vulnerable situation. Ensuring inclusive and equitable quality education is a Sustainable Development Goal, and as such, it is a guideline to follow in the construction of more prosperous human societies. (Castro-Martínez, 2021)

Based on this theoretical basis, the present research is based, but there is still one question to answer: Is there sufficient experimental evidence to support the well-founded premise that educational interventions and professional training in prisons constitute effective ways to prevent recidivism of prisoners after their release? The present research then has as its main objective to qualitatively evaluate the most recent literature published on the topic, in search of empirical evidence to support or disprove this hypothesis. All this with the intention of shedding light on the prevailing panorama at the international level in the field of crime prevention and criminal justice, with the aim of contributing to decision-making in this regard, especially in the region of Latin America and the Caribbean.

Methodology

A systematic review of the scientific literature available in the fields of education and social sciences was conducted, using the guidelines proposed in the PRISMA 2020 Declaration (Page et al., 2021). Although it originated in the health sciences, it has been increasingly used in the social sciences and education (Sánchez-Serrano, Pedraza-Navarro, & Donoso-González, 2022) because it is considered one of the best-established protocols for systematic reviews. It provides a standardized methodology that is widely accepted in the scientific community. The checklist of 27 elements in PRISMA ensures the quality and replicability of the review.

A review protocol was designed using the PICO strategy to search for evidence. The protocol describes the search strategy, the selection criteria for the articles that were finally included, and the qualitative analysis of the information obtained from them.

Eligibility Criteria

The studies included in the review were on the topic of the relationship between prison education and criminal recidivism. They were published in the last 5 years in English or Spanish in peer-reviewed academic journals or official repositories of international institutions. Studies were considered regardless of the age or gender of the participants, or the type of correctional institution where they were incarcerated. The type of study design was also not restricted, so qualitative, quantitative, and mixed methods were all included.

The studies were selected based on the PICO elements, which are:

- Population/Phenomenon: The population of interest in this review was people who had been incarcerated. The phenomenon of interest was the relationship between prison education and criminal recidivism.
- Intervention: The intervention of interest was prison education.
- Comparison: The comparison group was people who had not received prison education.
- Outcomes: The outcome of interest was criminal recidivism.

The PICO strategy is a useful tool for ensuring that a systematic review is well-designed and that the findings are relevant to the research question.

Table 1. Description of the PICO components of this systematic review.

PICO Elements	Criterios de Elegibilidad.
Population/Phenomenon	Human populations incarcerated in correctional institutions without age or gender restrictions.
Intervention/Application	Formal educational interventions or professional training programs aimed at convicts, carried out within the prison institution during the sentence.
Comparison	Recidivism rates of inmates who benefited from educational and professional programs vs. those who did not receive them or dropped out without completing them.
Outcomes	The recidivism recorded among the subjects who benefited from the educational and professional programs was higher, lower, or does not show significant variations between the two groups.

Exclusion criteria

The following articles were excluded from the systematic review:

- Articles whose full text was not available.
- Articles that had been retracted.
- Literature reviews.
- Case studies.
- Books and manuals.

Explanation:

The inclusion criteria for the systematic review were designed to ensure that the findings were relevant to the research question and that the data were of high quality. The exclusion criteria were based on the following considerations:

- Full text: The full text of the article was required to be available to assess the quality of the research and to extract the relevant data.
- Retraction: Articles that had been retracted were excluded because they were of questionable quality.
- Literature reviews: Literature reviews were excluded because they summarize the findings of other studies, rather than providing original data.
- Case studies: Case studies were excluded because they are based on a small number of participants and may not be

generalizable to the wider population.

- Books and manuals: Books and manuals were excluded because they are not peer-reviewed and may not be based on rigorous research.

Sources of Information and Search

During December 2023, systematic searches were conducted in the databases Puede, Dialnet, Education Resources Information Center (Eric), Red de Revistas Científicas de América Latina y el Caribe, España y Portugal (Redalyc) and Google Scholar.

The search terms were selected by identifying the descriptors derived from each component of the PICO strategy. The general search strategy was adapted to the specific syntax and indexing of each database using different combinations of the following keywords: "Literacy", "Recidivism", "Program", "Education", "Prison", "Rehabilitation", "Reinsertion".

Specifically, in the PubMed database, the combination of terms that yielded the best results was: (((education) OR (literacy)) AND (priso*)) AND (recidivism)) OR (reoffen*)

Study Selection and Data Collection Process

After removing duplicates, the results of the searches conducted were examined in three stages. During the first of these, the title and abstract of each article were inspected in contrast to the inclusion list. Subsequently, the complete text of those studies that passed to the second stage was downloaded and read, as it was determined in the initial analysis that they seemed to meet the eligibility criteria identified for the review. Finally, the results of the research that met the requirements were studied to determine their inclusion in the bibliographic synthesis.

Regarding data extraction, the variables that were defined were: prison education programs, recidivism rate, recidivism factors.

Data compilation was carried out using a narrative synthesis strategy that goes beyond the simple summarization of the statistical results of the effect of prison education interventions on recidivism rates, to explore the factors that modeled these interventions and could be influencing the results obtained.

Plan for Risk of Bias Analysis in Individual Studies

A bias is a systematic error or deviation from the truth that can result in both over-estimation and underestimation of the actual effect of an intervention (Cochrane, 2011). Bias analysis in descriptive and qualitative studies, as described in the eligibility criteria of the present review, is not usually applied in the same way as in randomized controlled trials or in cohort studies, case-control studies. Bias analysis is generally used in experimental and observational studies to evaluate the internal validity of the results. Instead, in the present review, we will consider the following criteria for the evaluation of the methodological quality of the selected studies and the relevance of the information collected to address the research

question: Selection of sources, Critical analysis, Consistency of the information, Contextualization of the results, Evaluation of potential biases, Applicability to criminal policy.

Results

Study Selection

A total of 1,277 studies (ERIC, $n = 908$; PubMed $n = 189$; Dialnet, $n = 68$; Google Scholar, $n = 66$; Redalyc, $n = 46$) were identified after the initial search. The process of reading the title and abstract resulted in the elimination of 1,244 of them for not meeting the inclusion criteria of the present review. Of the remaining 49 studies, 7 duplicates and 1 retracted article were removed.

Consequently, 41 articles passed to the phase of reading the full text, of which 15 more were rejected for not dealing directly with the influence of education and vocational training on criminal recidivism. Instead, they focused on the design of specific Psychopedagogical programs for prison contexts, or theoretical discussions on prison education and its potential influence on the social reinsertion of inmates, without going into depth on this aspect.

Another 15 were rejected because they were literature reviews ($n = 7$), case studies ($n = 4$), and an additional work was excluded because it turned out to be a research protocol design. Finally, three more were excluded for dealing only indirectly with the relationship between prison education and criminal recidivism, making it very difficult to extract relevant information for the present study. As a result, 10 valid studies were included in the bibliographic review.

Characteristics of the Studies

Of the 11 studies selected for inclusion, only three were purely qualitative ((Higgins, 2021), (Jaramillo González, 2021), and (Ponce de León Romero, López Armijos, & Camacho Rojas, 2021)), while three others were identified as quantitative ((Céspedes Magaraci, 2019), McNeely (2023), and (Moles-López, Burgos-Jiménez, & Añaños, 2023)), and the remaining four were mixed methods ((Becker Patterson, 2022), (Enderica Guin & Fuentes Terán, 2020), Hernández, Parra (2019), and (Solarte, Viveros, & Carrillo Ramírez, 2023)).

Two of the studies focused on academic programs in the prison environment, one of which addressed higher education ((Ponce de León Romero, López Armijos, & Camacho Rojas, 2021)) and the other described educational interventions ranging from literacy in prison to post-secondary education ((Becker Patterson, 2022)). One study focused specifically on vocational training (McNeely (2023)), while the remaining five ((Céspedes Magaraci, 2019), Hernández, Parra (2019), (Moles-López, Burgos-Jiménez, & Añaños, 2023), (Jaramillo González, 2021), and (Solarte, Viveros, & Carrillo Ramírez, 2023)) covered both formal education and vocational training and preparation programs for life outside of prison. (Enderica Guin & Fuentes Terán, 2020) examined the factors that influence criminal recidivism, specifically in the context of drug trafficking in Ecuador.

Six of the studies selected were theses ((Céspedes Magaraci, 2019), (Enderica Guin & Fuentes Terán, 2020), Jiménez Arango (2022), (Jaramillo González, 2021), Hernández, Parra (2019), and (Solarte, Viveros, & Carrillo Ramírez, 2023)) and five were articles from peer-reviewed journals ((McNeely (2023), (Becker Patterson, 2022), (Higgins, 2021), (Ponce de León Romero, López Armijos, & Camacho Rojas, 2021), and (Moles-López, Burgos-Jiménez, & Añaños, 2023)). Finally, of the 11 articles selected, 8 were in Spanish (Céspedes Magaraci (2019) based his study in Peru, (Enderica Guin & Fuentes Terán, 2020) in Ecuador, Hernández Parra (2019) in Colombia, (Jaramillo González, 2021) in Panama, Jiménez Arango (2022) in Ecuador, (Moles-López, Burgos-Jiménez, & Añaños, 2023) in Spain, (Ponce de León Romero, López Armijos, & Camacho Rojas, 2021) conducted a comparative study between Spain, Ecuador, and Mexico, and Solarte (2023) addressed the situation in Colombia. The remaining two studies were analyzed in their original English ((Becker Patterson, 2022), (Higgins, 2021), and McNeely (2023)) and both addressed the issue in the United States of America. Table 2 summarizes additional information about the selected studies.

The 11 studies included in the systematic review were conducted in a variety of countries, including Peru, Ecuador, Colombia, Spain, and the United States. The studies used a variety of methodological approaches, including qualitative, quantitative, and mixed methods.

Thematic focus

The studies focused on a variety of topics related to the relationship between prison education and criminal recidivism. Some studies focused on the effectiveness of specific types of prison education programs, such as academic programs, vocational programs, or programs that provide life skills training. Other studies focused on the factors that influence the effectiveness of prison education programs, such as the quality of the program, the characteristics of the participants, and the context in which the program is implemented.

Methodological approach

Of the 11 studies, three were purely qualitative, three were purely quantitative, and four were mixed methods. The qualitative studies used a variety of methods, including interviews, focus groups, and participant observation. The quantitative studies used a variety of methods, including statistical analysis of survey data, administrative data, and experimental data. The mixed methods studies used a combination of qualitative and quantitative methods.

Country: Of the 11 studies, eight were conducted in Spanish-speaking countries and three were conducted in English-speaking countries. The Spanish-speaking studies were conducted in Peru, Ecuador, Colombia, and Spain. The English-speaking studies were conducted in the United States.

Publication: Of the 11 studies, six were published as journal articles and five were published as theses. The journal articles were published in a variety of journals, including criminology journals, education journals, and public policy journals. The theses were submitted to universities in Peru, Ecuador, Colombia, and Spain.

Summary of findings: The results of the systematic review suggest that there is no clear consensus on the relationship

between prison education and criminal recidivism. Some studies found that prison education programs can reduce recidivism, while others found no significant effect or even a negative effect.

The studies that found a positive effect of prison education on recidivism typically involved programs that were comprehensive and well-designed. These programs often included a combination of academic, vocational, and life skills training. They also provided participants with opportunities for social support and networking.

The studies that found no significant effect of prison education on recidivism or even a negative effect typically involved programs that were less comprehensive or well-designed. These programs often focused on a single area, such as academic education or vocational training. They also provided participants with fewer opportunities for social support and networking.

The results of the review also suggest that the relationship between prison education and recidivism may vary depending on the specific type of program, the characteristics of the participants, and the context in which the program is implemented.

Synthesis of the results

The articles included use different methodological approaches, such as interviews, surveys, quantitative and qualitative data analysis, and review of existing policies and programs to approach the topic of criminal recidivism and the importance of intervention and resocialization programs in the prison system. Despite this, there are common concerns about the lack of effectiveness of current criminal policies and the need for reforms to address prison conditions, prison education, and labor reintegration.

Each study approaches the topic of criminal recidivism from its own perspective. Solarte, Viveros, & Carrillo Ramírez (2023) and Enderica Guin & Fuentes Terán (2020) evaluate the efficiency of criminal policies in Colombia and Ecuador, respectively, with the latter focusing on recidivism in the crime of drug trafficking. McNeeley (2023) uses statistical tools to analyze the relationship between participation in vocational programs in prison and recidivism in the United States. Solarte, Viveros, & Carrillo Ramírez (2023), Moles-López, Burgos-Jiménez, & Añaños (2023), and Jaramillo González (2021) use a gender-differentiated approach, addressing the phenomenon of criminal recidivism in women from Colombia, Spain, and Panama. Ponce de León Romero, López Armijos, & Camacho Rojas (2021) conduct a comparative study that explores university programs in prisons in Ecuador and Mexico, analyzing their impact on recidivism and social inclusion. Becker Patterson (2022) examines the relationship between recidivism and the participation of incarcerated adults in basic correctional education programs. Higgins (2021), for its part, explores the relationship between prison education and criminal recidivism from various perspectives.

Céspedes Magaraci (2019), for its part, offers a deep assessment of prison conditions and microeconomic factors contributing to recidivism in Peru. While Hernández, Parra (2019) assesses the efficiency of INPEC educational programs in Colombia.

Discussion

In general, the studies reviewed highlight the complexity of the problem of recidivism and the need for comprehensive and context-specific approaches. Although there is a consensus on the vital importance of prison education in the resocialization of prisoners, most studies that conduct statistical analyses show a very weak relationship between participation in educational and vocational training programs in prisons and the prevention of recidivism, which remains high, even in prisoners who have benefited from them. (Céspedes Magaraci, 2019), (Enderica Guin & Fuentes Terán, 2020), (Solarte, Viveros, & Carrillo Ramírez, 2023). The complexity of measuring and comparing recidivism globally is evident because each territory defines and measures recidivism using different criteria and the difficulties in accessing this data (Becker Patterson, 2022), (Ponce de León Romero, López Armijos y Camacho Rojas 2021), (Solarte, Viveros, & Carrillo Ramírez, 2023), (Higgins, 2021).

The limitations of using recidivism as a measure of the effectiveness of resocialization programs that are carried out in prisons are also recognized, given that it is a multi-causal phenomenon that involves individual, social, and criminological aspects of each individual (Enderica Guin & Fuentes Terán, 2020), Hernández, Parra (2019), (Ponce de León Romero, López Armijos y Camacho Rojas 2021), (Solarte, Viveros, & Carrillo Ramírez, 2023). Furthermore, from an ethical point of view, it might be worth looking at the personal benefits of participating in educational programs of various kinds, which go beyond the prevention of recidivism, reporting psychosocial benefits by facilitating empowerment and individual growth of inmates (Higgins, 2021), (Moles-López, Burgos-Jiménez, & Añaños, 2023) and (Ponce de León Romero, López Armijos y Camacho Rojas 2021).

Although the study by (Becker Patterson, 2022) reports a significant decrease in the median recidivism rate of inmates who participated in educational programs with an effect reported $r = 0.66$ and McNeeley (2023) showed some relationship between completion of vocational programs in prison and recidivism and employability, especially for those who completed computer programs (lower probability of returning to prison for supervised release suspension) and mechanics (higher salaries after release).

Most studies do not report significant differences in recidivism rates among inmates who benefited from educational programs during their stay in prison, which seems to confirm the stance that criminal reoffending is a much more complex phenomenon and that rehabilitation for social reintegration goes beyond simple educational interventions. In this regard, (Céspedes Magaraci, 2019) mentions as an example of a successful case the maximum-security prison in Hayden in Norway, which has the lowest recidivism rates in the world, below 20%, with a state investment of \$120,000 dollars per inmate per year. Addressing the stay in prison from a humanist and compassionate perspective: without bars, emphasizing respect for the human dignity of the inmate and providing a variety of educational programs, psychological therapy, and professional training so that the prison experience is a path to rehabilitation rather than a punishment for crimes committed.

Additionally, (Céspedes Magaraci, 2019), (Enderica Guin & Fuentes Terán, 2020), Hernández, Parra (2019), (Higgins, 2021) analyze the factors that intervene in criminal recidivism and propose specific actions for its prevention, stating that:

the lack of adequate state actions in the educational and labor reintegration field in Ecuador contributes to the probability of recidivism, especially in crimes related to drugs, theft, and robbery. Early education and social rehabilitation are essential to prevent recidivism, especially when an individual commits a criminal act at an early age. The need for preventive criminal policies, the elimination of formal obstacles, such as criminal records, that limit the integration of people who have served a sentence. In addition, support for social integration programs, sports motivation, and artistic-cultural development aimed at post-sentenced people is advocated. (Céspedes Magaraci, 2019) addresses the challenge of labor reintegration, proposing to encourage entrepreneurial spirit and offer business advice, while betting on public education as a long-term key, proposing a budget optimization in Peru.

The importance of adopting a humanist and person-centered approach in the rehabilitation of individuals in prison is underlined. It is advocated for recognizing the person in prison as a social being and advocating for a dialogical approach. The relevance of the Council of Europe's recommendation is highlighted, which urges prison education to develop the person holistically, considering their social, economic, and cultural context. The emphasis is placed on the need to abandon the labels of criminality and recognize the person in prison as a human being with diverse identities. Prison education should provide a space where the person feels normal, respected, and treated as an adult, recognizing their potential, and fostering their development. (Higgins, 2021)

The lack of participation in educational programs is also identified as another important factor that influences the effectiveness of educational programs, proposing their mandatory nature (Céspedes Magaraci, 2019), Hernández, Parra (2019) although (Solarte, Viveros, & Carrillo Ramírez, 2023) acknowledges that participation in them only with the purpose of reducing the sentence without being truly involved, causes their rehabilitating capacity to vanish.

Finally, (Ponce de León Romero, López Armijos y Camacho Rojas 2021) and (Solarte, Viveros, & Carrillo Ramírez, 2023) point out that factors such as overcrowding in prisons, lack of human, physical, and economic resources directly impact the efficiency and resocializing capacity of educational programs. (Moles-López, Burgos-Jiménez, & Añaños, 2023) highlights the importance of adapting interventions to the specific needs of the female population to improve the effectiveness in preventing recidivism. The restrictions of many current systems on educational advancement beyond the high school level, which can influence job opportunities upon leaving prison, are addressed in (Ponce de León Romero, López Armijos y Camacho Rojas 2021) and (Jaramillo González, 2021), the latter also points out the lack of post-prison follow-up, which makes it difficult to know the reality of women once they have served their sentences. As well as the lack of information about job requirements outside the penitentiary center can present significant challenges for effective reintegration.

In conclusion, the reviewed studies highlight the complexity of recidivism and the multifaceted nature of its drivers. While educational programs undoubtedly play a role in rehabilitation, their effectiveness hinges on a holistic approach that addresses individual needs, contextual factors, and systemic limitations. Future research should delve deeper into these nuances, exploring program design optimization, resource allocation strategies, and alternative reintegration frameworks that prioritize human dignity and empower individuals to break the cycle of recidivism.

Conclusions

Formal and vocational education within prison walls stands as a cornerstone, not just for rehabilitation, but for upholding a fundamental human right. Recognized across the body of literature, its significance in fostering the reintegration of incarcerated individuals is undeniable. Yet, the harsh reality paints a different picture. The effectiveness of these educational endeavors often stumbles against the stark limitations of resource scarcity, particularly within low- and middle-income nations. Prison systems, already strained, struggle to provide adequate support for these crucial programs.

However, a ray of hope emerges when educational interventions are woven into the fabric of comprehensive rehabilitation programs. Embracing a humanist approach, these programs prioritize the holistic development of the individual, nurturing potential beyond mere cognitive gains. By addressing the emotional, social, and spiritual needs alongside intellectual growth, they empower individuals to break free from the shackles of their past and build a future brimming with self-worth and purpose. This synergistic blend of education and holistic rehabilitation demonstrably amplifies the impact on recidivism rates, offering a tangible pathway towards lasting societal reintegration.

Beyond the walls of the prison, the responsibility for tackling recidivism rests upon the shoulders of the state. Proactive and well-resourced actions in both the educational and labor reintegration spheres are crucial. Prioritizing investments in quality education programs within the prison system, coupled with robust post-release vocational training and job placement initiatives, equips individuals with the tools to navigate the often-treacherous waters of reintegration. Furthermore, a paradigm shift in criminal policy is long overdue. Moving away from solely punitive measures towards a framework that emphasizes prevention and restorative justice holds immense promise. By addressing the root causes of crime, such as poverty, inequality, and lack of opportunity, we can break the cycle of incarceration and foster a more just and equitable society.

In conclusion, while the challenges are undeniable, the path towards mitigating recidivism is illuminated by a multifaceted approach. Investing in education and holistic rehabilitation programs within prisons, coupled with proactive state interventions in education, labor reintegration, and preventive criminal policies, offers a beacon of hope for a future where incarceration does not equate to a life sentence of recidivism, but rather serves as a springboard for transformation and meaningful reintegration into society.

Appendix

Appendix 1. Evaluation of the methodological quality of the selected studies

Reference	Source selection	Critical Analysis	Consistency of Information	Contextualization of the Results	translates to the English phrase Evaluation of Potential Biases.	Applicability to Criminal Policy
		The methodology is described				Positive impact of improving access to educational services on

Becker Patterson (2022)	Wide selection of sources, inclusion of academic studies, government reports and statistical data	The methodology is described clearly, and the information is presented coherently. A representative sample is used, with weights used for accurate representation. The results are applicable to the research question. The potential for representative bias in the sample is recognized.	Consistent information throughout the text.	Contextualized results in relation to the research questions	There is no information about the risk of bias of the results obtained.	reintegration efforts and their contribution to the economy.
Céspedes Magaraci (2019)	A wide range of sources, including academic studies, government reports, and statistical data.	Clear methodological approach, econometric panel data model to analyze the relationship between state investment in social reintegration programs and crime recidivism rates in Peru. Absence of information on sample size and selection of individual units, possible representativeness bias..	Consistent information throughout the text	Contextualized results in relation to the research question and specific objectives: establish the relationship between state investment in the education of prisoners and recidivism in Peru and propose budget optimization in line with more effective criminal policies.	Potential representativeness bias of the sample	Recommendations to improve the effectiveness of social reintegration programs and, therefore, reduce criminal recidivism in the Peruvian prison system.
Enderica Guin & Fuentes Terán (2020)	The sources include interviews with judges, forensic psychologists, recidivists, and criminologists, providing practical perspectives and experiences.	The combination of qualitative and quantitative methods indicates methodological soundness. Clear definition of the study universe as registered lawyers, a massive number of participants raises questions about the feasibility of interviewing all of them. Relevant and enriching inclusion of surveys and interviews with legal professionals specializing in domestic arbitration.	Despite the diversity of sources, there is consistency in the identification of criminogenic factors and the urgency of preventive policies.	They are contextualized in the lack of preventive policies in Ecuador and the need to address key factors for resocialization.	The limitation of not specifying academic sources, with possible biases in individual experiences, is acknowledged.	The findings highlight the urgency of reforms in Ecuadorian criminal policy, focusing on education, labor reintegration, and the elimination of social barriers to prevent recidivism. It contributes to improving resocialization programs and guiding more effective policies.
Hernández, Parra (2019)	A wide selection of sources, including academic studies, government reports, and statistical data.	Mixed approach, using both surveys and interviews, allowing for a more comprehensive data collection. Stratification of the sample provides a more detailed view of the incarcerated population. A detailed description of the selection criteria would strengthen the validity of the results. Measures taken to guarantee confidentiality and honesty of responses are not mentioned, affecting the quality of the collected data..	Consistent information throughout the text.	Contextualized results in educational interventions in the Medium Security and Penitentiary Establishment of Pamplona. Norte de Santander.	Possible selection bias.	Partially efficient results of implemented educational policies and analysis of factors that could be affecting their efficiency.
Higgins (2021)	Research, journals, and relevant academic literature	Opinion piece. The author's credibility is analyzed: Lorraine Higgins is a PhD student at Maynooth University in Ireland and a teacher at Cork Prison and the Dillon's Cross Project.	Consistent information throughout the text	The article considers various perspectives on the relationship between education and rehabilitation in prisons, supporting its arguments with sufficient citations and	Opinion piece, subjectivity is expected and accepted to a certain extent. The focus is not on eliminating all bias, but on understanding and	Complexity of the relationship between education and recidivism. Questions to correctional approaches focused on reducing recidivism and emphasis on the importance of education

				quality references.	understanding and contextualizing it.	in prison and its role in personal development.
Jaramillo González (2021)	Wide range of sources. Inclusion of academic studies, government reports and statistical data.	Lack of methodological information makes it difficult to evaluate the internal validity and reliability of the study. Absence of direct participation of women in prison could affect the representativeness of the sample.	Education in prison, recidivism and rehabilitation.	Contextualized results of educational and labor interventions at the Los Algarrobos Women's Rehabilitation Center in Panama.	Potential bias in sample selection.	Difficulties in the labor reintegration of convicted women, shortcomings and limitations in educational programs and post-prison follow-up.
McNeeley (2023)	Wide range of sources. Inclusion of academic studies, systematic reviews, and specific programs. References to relevant work in the field of resocialization and recidivism.	Quasi-experimental methods, Propensity Score Matching (PSM), to address biased selection. The methodology is described clearly and the information is presented coherently.	Information consistent throughout the text.	Contextualized results within the framework of resocialization and recidivism, highlighting the importance of education and vocational training. The context of the COVID-19 pandemic is considered in the interpretation of the results.	The possibility of selection bias is addressed by using PSM. There could be biases not considered in the evaluation of participants in vocational training programs.	The importance of improving resocialization programs is mentioned, the need for a more detailed discussion on how the results can be translated into prison policies and practices.
Moles-López, Burgos-Jiménez, & Añaños (2023)	Relevant research and academic literature.	Methodological design, institutional approval and adherence to ethical principles indicating methodological rigor. Significant sample size, proportional stratification process ensuring to reflect the diversity of the population. Data collection period allows to capture temporal factors. Possible self-selection bias.	Consistent information throughout the text.	Relevant conclusions on the importance of socio-educational programs adapted to women in prison contexts.	Points to possible bias in the interpretation of the results.	Results that contribute to improving resocialization programs, highlight the need for specific measures to prevent recidivism in women.
(Ponce de León Romero, López Armijos & Camacho Rojas 2021)	Wide range of sources. Review of numerous academic data sources of scientific rigor.	Rigorous research method: Comparative analysis of university programs in Spain, Ecuador, and Mexico. The methodology is described clearly, and the information is presented coherently.	Consistent information throughout the text.	Comparison of university penitentiary programs in Spain, Mexico and Ecuador in accordance with the implicitly defined objectives.	Potential selection bias, due to lack of detailed information on the sampling criteria.	Results suggest the implementation of university programs to facilitate the social reintegration of prisoners. Results potentially influenced by sample selection bias.
Solarte, Viveros, & Carrillo Ramírez (2023)	Wide selection of sources, inclusion of academic studies, government reports and statistical data. Limitation in the availability of information from some institutions, which may affect the representativeness of the sample.	Rigorous research method, including qualitative and quantitative analysis. Limitations in the representativeness of the sample, as it was not possible to obtain information from all the prisoners interviewed, which could bias the results.	Consistent information throughout the text.	The results are placed in the context of the resocialization and recidivism of female prisoners in COJAM, Colombia, emphasizing the importance of education and vocational training.	Potential risk of selection bias, as it was not possible to obtain information from all the prisoners interviewed. Additionally, the lack of access to some government data could introduce biases.	The results have significant implications for criminal policy, highlighting the need to adjust resocialization programs and consider alternatives to prison for women. The practical application of these results could improve the effectiveness of criminal policies and reduce recidivism.

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