



ISSN: 2617-6548

URL: www.ijirss.com



Reintegration of former prisoners: A conceptual analysis of the bioecological approach

Pāvels Jurs^{1*}, Dina Bethre¹, Anete Hofmane², Santa Melķe¹, Airisa Šteinberga²

¹Center for Pedagogy and Social Work at Riga Technical University Liepāja Academy, Liepāja, Latvia.

²Institute of Digital Humanities at Riga Technical University, Riga, Latvia.

Corresponding author: Pāvels Jurs (Email: pavels.jurs@rtu.lv)

Abstract

The reintegration of former prisoners is a complex, multi-level social process that affects both an individual's life trajectory and public safety; in the European and Latvian contexts, it is characterized by high recidivism rates and the fragmentation of structural support systems. The aim of this article is to develop a theoretically grounded bioecological multi-level model of preconditions for the reintegration of former prisoners, based on Bronfenbrenner's process–person–context–time (PPCT) approach. The study employs qualitative conceptual analysis supported by a narrative international scientific literature review in psychology, criminology, and social work, analyzing reintegration processes at various ecological levels. The results indicate that reintegration cannot be reduced to individual programs or personal motivation, but is a relationship-based, time-spanning developmental process whose outcome is determined by the quality of proximal processes, personal resources, the institutional context, and their mutual interaction. It is concluded that the PPCT model offers a structured analytical framework for understanding the reintegration of former prisoners, emphasizing the need for long-term, coordinated, and individualized approaches that promote the reconstruction of social identity and the cessation of criminal behavior, while not overstating the empirical findings. This study contributes to the scientific literature by investigating the reintegration processes of former prisoners.

Keywords: Bioecological approach, Former prisoners, Reintegration, Social work.

DOI: 10.53894/ijirss.v9i9.11916

Funding: This study received no specific financial support.

History: Received: 9 July 2026 / Revised: 19 August 2026 / Accepted: 24 August 2026 / Published: 18 September 2026

Copyright: © 2026 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Publisher: Innovative Research Publishing

1. Introduction

The reintegration of former prisoners into society is one of the most significant challenges facing modern criminal law and social policy, as it directly affects both the individual's quality of life and public safety and social cohesion. International data indicate high recidivism rates, particularly in European Union countries, including Latvia, where the proportion of

individuals re-entering the criminal justice system remains high [1, 2]. Previous research confirms that reintegration cannot be reduced to individual social rehabilitation programs or personal motivation, but is a long-term, multi-level process influenced by social, institutional, cultural, and temporal factors [2, 3]. However, fragmentation persists in the research field between individually oriented approaches and structural explanations, as well as contradictions between the risk control paradigm and development-based, person-agency-oriented approaches [4].

This article aims to develop a theoretically grounded bioecological multilevel precondition model for the reintegration of former prisoners, based on Bronfenbrenner's process-person-context-time (PPCT) model [5]. The study's basic assumption is that successful reintegration is not the result of a linear intervention but rather a set of proximal processes that develop over time through the interaction between the individual and various social contexts. The article proposes a conceptual hypothesis that the outcome of reintegration is primarily determined by the quality and continuity of proximal processes, rather than the intensity of individual measures, and that the PPCT model offers an integrative framework for analyzing this process [3, 6, 7].

The reintegration of former prisoners is a multi-level bioecological process [1]. The journey toward the reintegration of former prisoners is a complex, multi-level process that must be developed and grounded in science. Desistance from criminal activity is a long-term process shaped by continuous social interactions rather than isolated interventions [3]. In turn, Weaver and Fraser emphasize that desistance is promoted when people are viewed as capable members of society rather than as a risk to be controlled [4]. Empirical research also confirms and justifies the application of the bioecological approach to the reintegration of former prisoners, demonstrating that reintegration is a high-risk developmental transition in which proximal processes, individual resources, institutional context, and temporal dynamics mutually reinforce or weaken the likelihood of change [8]. The study provides empirical evidence that the reintegration of former prisoners must be analyzed not only in the context of social inclusion, but also in terms of health, life expectancy, and developmental risks. By analyzing large-scale longitudinal data, the authors demonstrate that the period following release from prison is associated with a significantly increased risk of premature mortality, mental health disorders, and re-entry into the criminal justice system [8]. These risks are not random but are structurally linked to the fragility of the transition period and an inadequate support system.

The relevance of this topic is further underscored by a study of Council of Europe member states, which emphasizes that the social reintegration of former prisoners is a long-term, multi-level process, and interdependent set of processes, the outcome of which cannot be reduced to individual motivation or the effectiveness of specific social rehabilitation measures [2]. At the Council of Europe level, reintegration is defined as a process in which a person gradually regains the ability to function fully in society, while reducing the risk of recidivism and strengthening public safety [2]. This specific definition of reintegration serves as the basis for the subsequent analysis. In turn, the European Prison Rules stipulate that reintegration is a fundamental objective of the execution of sentences, specifically emphasizing individualized, non-discriminatory, and socially adapted measures [9]. The reintegration of former prisoners is an obligation enshrined in Council of Europe standards. At the same time, one of the most significant EU sources regarding the reintegration of former prisoners is Council Framework Decision 2008/947/JHA, which stipulates that the purpose of probation measures is to promote the social reintegration of convicted persons, improve public safety, and reduce recidivism [10]. In turn, Council Framework Decision 2008/909/JHA stipulates that the transfer of the enforcement of a custodial sentence to another Member State is permitted only if it promotes the social rehabilitation and reintegration of the convicted person [11]. Thus, the reintegration of former prisoners is enshrined not only in the Council of Europe's but also in the European Union's legislative acts, particularly in Council Framework Decisions 2008/947/JHA and 2008/909/JHA.

2. Methodology

The study employs a qualitative, theoretically conceptual approach based on the available (open access) international scientific literature in the field of psychology, criminology, and social work. The literature review focused on studies regarding the reintegration of former prisoners, desistance, the bioecological approach, and the application of the PPCT model in social processes. The literature review incorporated both empirical studies and theoretical sources. Data analysis was conducted using conceptual analysis, structuring the identified prerequisites according to the four core constructs of the PPCT model: process, person, context, and time. The study did not use empirical data, or experimental methods, nor was any pre-registration conducted. No computer software or specialized code was used, as the study is based on theoretical analysis.

3. Reintegration of Former Inmates in the Context of the Multidimensional PPCT Model Approach – Literature Review

As noted by Vélez-Agosto, et al. [5] the bioecological theory of human development is dynamic; it does not exist solely at the macro level – that is, it is not a linear internal-external model, but is permeated at all levels by culture, which is a constantly changing system consisting of the daily practices of social communities (families, schools, neighborhoods, etc.) and the interpretation of these practices through language and communication [5]. Thus, in the context of this article, the ex-offender is not merely an individual within a system, but rather a subject within a culture where the stigma of criminality, norms of normality, and moral narratives influence every interaction. Taxman and Belenko [6] note that the reintegration of former prisoners should be viewed as a structurally embedded and long-term bioecological process in which an individual's agency is both promoted and constrained over time by social contexts [6]. In turn, researchers Tong and An [7] call for a reevaluation of the application of Bronfenbrenner's developmental approach, shifting from a theory that appears to focus primarily on the developmental context to one that emphasizes proximal processes, the process-person-context-time (PPCT) model, which is based on "proximal processes" (immediate, direct, and repeated interactions between the individual and their environment) that act as moderators, shaping the impact of contextual influences. As a result, researchers propose viewing

the PPCT model through four basic constructs (process, person, context, time), where each construct has its own component and the significance of that component [7]:

1. Process

- Proximal process – a reciprocal, ongoing, and progressively more complex interaction between an active, developing biopsychological human organism and the people, objects, and symbols in its immediate external environment.

2. Person

- Characteristics of demands – personality traits that act as an immediate stimulus to another person; may influence initial interaction, as expectations are formed immediately.
- Characteristics of resources – characteristics related to mental and emotional resources; not immediately apparent, but sometimes arising from the characteristics of the demand.
- Characteristics of strengths – cognitive, social, emotional, and motivational factors related to temperament and personality.

3. Context

- Microsystems – the environment in which a person engages in activities and interactions.
- Mesosystem – the interaction of microsystems.
- Exosystem – contexts in which others have a significant indirect influence on an individual's development.
- Macrosystem – a context that encompasses any group whose members share a common system of values or beliefs; it encompasses and influences the preceding systems.

4. Time

- Microtime – the time during which specific activities or interactions take place.
- Mesotime – the extent to which activities and interactions occur consistently within the environment of a developing individual.
- Macro-time – historical time and the individual's life span (i.e., the chronosystem).
- Thus, the reintegration of former prisoners becomes a reconstruction of social identity, rather than merely a correction of behavior. In addition, Fisher and Lombardi [12] emphasize that contemporary ecology also encompasses institutional fragmentation, crises (economic, social), and the need for continuity of processes over time [7]. As a result, resocialization cannot be a short-term program without continuity.

3.1. *Description of the Process Framework for the Reintegration of Former Inmates in the Context of the PPCT Model*

Development is not determined by the environment itself, but by proximal processes that take place within a specific person, in a specific context, over time [7]. Thus, the reintegration of former prisoners depends not on one-time measures, such as program completion, but on sustained proximal interactions – with social workers, probation officers, family, and the work environment. Furthermore, it is important to note the influence of culture on proximal processes [5] namely, the interaction between a former inmate, social worker, probation officer, and employer is never neutral; it is influenced by cultural perceptions of the “criminal.” At the same time, the cultural element is relevant at all levels of the system: microsystems (daily practice), mesosystems (institutional cooperation), and exosystems (organizational decisions). Culture changes over time, and thus the significance of proximal processes also changes. Proximal processes, as understood by the PPCT, are relational processes that arise through cooperation, dialogue, and recognition; social work, probation, and mentoring relationships; thus, they are not “tools” but rather interactions of mutual development [4]. In terms of the process's structure, Taxman and Belenko [6] emphasize in their work *“Implementing Evidence-Based Practices in Community Corrections and Addiction Treatment”* that the reintegration of former inmates is characterized as a set of organized proximal processes, centered on regular, structured, and goal-oriented interactions between the ex-offender and professionals – probation officers, social workers, therapists, and employment support specialists. These interactions cannot be reduced to administrative supervision but serve as developmental processes that promote self-regulation, the strengthening of social competencies, and the formation of pro-social identities

The reintegration of former prisoners within the PPCT (process–person–context–time) model is conceptualized as a developmental process determined not by the environment itself, but by the proximal processes occurring in a specific person's life within a specific social context and over time [7]. From this perspective, reintegration cannot be reduced to one-time measures, such as program completion or a formal supervision period, but depends on sustained, repeated, and relationship-based interactions with social workers, probation officers, family members, employers, and community institutions. A key aspect of proximal processes is the influence of culture. A review of bioecological theory emphasizes that culture does not exist solely at the macro level but permeates all systems – from everyday practices in microsystems to institutional decisions in exosystems [5]. This means that the interaction between ex-offenders and professionals is never neutral: it is influenced by stigmatizing perceptions of the “criminal,” moral narratives, and norms of normality. These factors can both strengthen and weaken the developmental potential of proximal processes over time. In the PPCT framework, proximal processes are relational processes that emerge through collaboration, dialogue, and mutual recognition. From this perspective, social work, probation, and mentoring relationships are not instrumental control mechanisms, but rather interactions of mutual development in which trust, social skills, and pro-social identities are formed [4]. This approach

challenge risk-management-based paradigms that primarily treat former prisoners as a controllable risk. Research on evidence-based practices indicates that reintegration is characterized by an organized set of proximal processes centered on regular, structured, and goal-oriented interactions between the ex-offender and professionals – probation officers, social workers, therapists, and employment support specialists [6]. These interactions promote self-regulation, the development of social competencies, and the strengthening of pro-social identities, and they cannot be reduced to administrative supervision.

The transition from incarceration to life in society is a high-risk developmental transition characterized by social stigma, disrupted social networks, limited employment opportunities, and insufficient structural support. Traditional reintegration approaches often focus on isolated interventions, such as employment programs or supervision regimes, ignoring the cumulative impact of daily interactions on behavioral change over time. In response to these challenges, community-based and digitally supported models have been developed in recent years, aimed at strengthening proximal processes rather than replacing them. Digital literacy initiatives, developed through iterative collaboration with community organizations, emphasize the continuity of care, interdependence, and reflective engagement [13]. In this approach, technologies serve as amplifiers of relational processes, fostering organizational co-responsibility and sustainability.

Employment is a crucial context in which proximal processes manifest in daily routines, social interactions, and skill acquisition. Stable employment can become a turning point in the process of desisting from crime, reinforcing pro-social norms and self-efficacy [14, 15]. However, employment opportunities are closely linked to housing stability. Empirical studies confirm that homelessness is widespread among individuals on probation and is closely linked to an increased risk of re-arrest [16]. Although providing housing can reduce recidivism, significant effects are achieved only when housing stability is combined with employment, health, and social support measures. Interventions focused solely on housing are therefore insufficient.

Former prisoners often face an increased risk of anxiety and depression, which can hinder engagement in community processes and support systems [17]. Mental health support is a crucial component of reintegration, as psychological instability affects motivation, social functioning, and participation. Family relationships form a significant microsystem in the reintegration process. Regular communication, emotional support, and role discussions promote stability, while conflictual relationships can undermine reintegration outcomes [18, 19]. In cases where family support is unavailable, community organizations and high-intensity support models can partially compensate for this deficiency, although their sustainability is limited [13].

Interactions with probation services and social services are structured proximal processes whose effectiveness is determined by the quality of the relationship. Supportive supervision and procedural justice approaches promote compliance and positive change, whereas fragmented or repressive systems can exacerbate social exclusion [20, 21]. The time dimension is a central element of the PPCT model. Proximal processes require a long-term perspective, as short-term or sporadic interventions are unable to bring about lasting change. Successful reintegration is based on consistent, progressively complex interactions that, over time, reinforce adaptive behaviors and pro-social identities. Analysis of the process framework within the context of the PPCT model leads to the conclusion that the reintegration of former prisoners is a long-term developmental process determined by the quality, stability, and cultural sensitivity of proximal processes. Sustainable change is possible only if structural barriers are addressed simultaneously with the strengthening of everyday relationships, within which social inclusion and desistance from crime take shape [4, 6, 7].

3.2. Description of the Person for The Reintegration of Former Prisoners in the Context of the PPCT Model

The Person construct of the PPCT (Process–Person–Context–Time) model is a central analytical element in research on the reintegration of former prisoners, as it allows for conceptualizing the individual as an active participant in the development process rather than a passive object of intervention [6, 22]. This approach is based on the understanding that reintegration outcomes are closely linked to an individual's motivation, cognitive abilities, emotional stability, and capacity to utilize available resources, as well as to the institutional and social conditions in which these processes take place [3, 4, 6]. Research emphasizes that individual agency is an essential prerequisite for the effectiveness of any evidence-based practice. Former prisoners who are perceived and engaged as equal participants in the process are more likely to demonstrate lasting behavioral changes and more successful social adaptation [6, 22, 23]. At the same time, an individual's resources cannot be analyzed in isolation from the institutional environment, as excessive control, fragmented services, and conflicting professional roles can significantly undermine an individual's agency and participation in reintegration processes [4, 6, 24].

In the PPCT model, the Person construct is defined as a dynamic structure that simulates individual life trajectories following conviction and release. In the model, each individual can end up in one of two extreme states: a state of permanent reformation, characterized by a complete renunciation of criminal behavior, or a state of permanent recidivism, despite repeated interventions. The ratio of these outcomes serves as an indicator of the effectiveness of the reintegration system and the level of public safety [7]. The model structures society into several mutually independent groups that reflect the degree of an individual's involvement in criminal activities and the justice system. Transitions between these groups are modelled by taking into account both individual factors (such as demographic and psychological characteristics) and group-level dynamics, thereby allowing for the analysis of reintegration as a continuous and changing process [7, 25, 26]. An important dimension of the individual construct is the formation of a new social identity. During reintegration, the individual gradually begins to perceive themselves as a socially acceptable, working, and responsible person. Hope, self-discipline, and the desire to change one's life trajectory function as characteristics of personal strength that reinforce the impact of proximal processes and promote reintegration as a subjectively experienced, relationship-based, and time-spanning process [22, 25, 27, 28].

The individual construct also includes the logic of resource allocation between punitive and rehabilitative components. In the model, the number of rehabilitative resources, the duration of intervention, and the severity of punishment are balanced

within the constraints of a limited budget. Research indicates that an excessive focus on punishment alone or rehabilitation alone is ineffective; optimal reintegration outcomes are achieved when these elements are balanced and tailored to individual needs, particularly during the early stages of return [14, 24, 29, 30]. Evidence-based correctional approaches further emphasize that interventions should be individualized, strengths-oriented, and responsive to the psychological and social needs of former prisoners rather than focused exclusively on control and surveillance [6, 30].

The PPCT Person construct encompasses both the specification of individual characteristics and group-level integration. The model's components allow for the fact that former prisoners rarely reintegrate in isolation – they return to families, peer groups, and communities. Group-level integration provides the opportunity to analyze collective dynamics and their impact on individual outcomes [19]. Additional simulation components allow for modelling changes in group composition and individual roles over time, such as changes in residence, employment, or social networks. This flexibility is particularly important in the analysis of ex-offenders' reintegration, as the transition period is often characterized by instability and rapid social change [18, 19, 31, 32]. Research demonstrates that supportive family relationships, positive peer associations, and stable community ties significantly strengthen reintegration outcomes and reduce the likelihood of recidivism [18, 19, 31].

The individual construct in the PPCT model also highlights pre-existing inequalities that significantly influence reintegration potential. Former prisoners often face a lack of education, limited access to quality resources, and structural forms of discrimination. These inequalities affect not only an individual's skills and opportunities but also their self-esteem, aspirations, and perceived agency [15, 33]. Stigmatization exacerbates these challenges, as societal prejudices can limit access to employment, housing, and social support [34, 35]. The cumulative impact of these factors increases the risk of recidivism, particularly in cases where individuals' adaptive capacities are not sufficiently supported by context-sensitive interventions [15, 33-35]. Research on post-release inequality further indicates that prolonged exposure to social exclusion and institutional stigma can create cumulative disadvantage across the life course, thereby weakening long-term reintegration trajectories [15, 35].

Despite structural barriers, the *Person* construct also encompasses the adaptive capacities and resilience that individuals can develop when facing adverse circumstances. Support programs based on a person-centered and empowering approach demonstrate that by providing trust, flexibility, and individually tailored support, it is possible to significantly strengthen the reintegration potential of former prisoners. Of particular importance is the development of digital and academic skills, which help individuals regain control over their lives and actively participate in social and economic processes. Such initiatives align with the PPCT model's emphasis on the dynamic interaction between personal characteristics and the contextual environment [13]. Overall, the Person construct within the PPCT model offers a multidimensional perspective on the reintegration of former prisoners, emphasizing individual characteristics, adaptive abilities, and agency, as well as their interaction with institutional and social contexts. Reintegration is conceptualized as a long-term developmental process in which sustainable positive outcomes are possible only if structural barriers are addressed simultaneously with the strengthening of personal resources and identity [6, 13, 14].

3.3. Description of the Context for the Reintegration of Former Prisoners within the Context of the PPCT Model

The context dimension refers to the multilayered ecological environments within which reintegration unfolds. At the microsystem level, immediate settings such as family relationships, peer networks, workplaces, educational institutions, and support services play a decisive role in shaping everyday adaptation. Supportive interpersonal relationships foster social belonging, identity reconstruction, and emotional stability, whereas exposure to criminogenic networks or social rejection undermines reintegration efforts [19, 31]. The mesosystem captures the interconnections between these settings. Reintegration outcomes are strongly influenced by the degree of coordination between prisons, probation services, social welfare agencies, employers, and community organisations. Fragmented institutional communication or contradictory expectations often generate instability and hinder continuity of support during the transition from incarceration to community life [6].

At the exosystem level, former prisoners are affected by structural conditions such as labour market accessibility, housing availability, welfare regulations, and criminal justice policies. Although individuals do not directly control these systems, their consequences profoundly shape reintegration opportunities. Structural barriers, including employment discrimination and restricted access to housing, constrain social participation and reinforce marginalisation [34].

Finally, the macrosystem encompasses broader societal values, penal philosophies, and cultural narratives surrounding crime and punishment. Societies oriented toward punitive control tend to reproduce stigma and exclusion, whereas rehabilitative and restorative orientations facilitate social reintegration by legitimising change and reinclusion [22]. Within the PPCT framework, reintegration is therefore inseparable from the normative and institutional logics of the wider social system.

3.4. Description of the Time Framework for the Reintegration of Former Prisoners in the Context of the PPCT Model

At the time framework level, Taxman and Belenko [6] emphasize that reintegration requires a long-term perspective in which evidence-based practices are maintained and adapted to changes in a person's life course. Short-term programs without continuity cannot bring about lasting change, as proximal processes require time to take root and become part of a person's daily routine. The chronosystem introduces the temporal dimension of reintegration by emphasizing that contextual influences evolve over time [6]. In criminology this ability to abstain from crime is named "desistance" and describes a long-term process of refraining from antisocial activities [26]. Desistance and reintegration share commonalities. Both of these processes are not a singular event occurring immediately after release but rather a longitudinal process characterized by transitions, developmental changes, and shifting environmental conditions. Factors such as the duration of incarceration, age

at release, historical changes in penal policy, economic fluctuations, and long-term relationship dynamics may significantly influence reintegration trajectories. Longitudinal studies indicate that desistance from crime often develops gradually through cumulative social experiences, including stable employment, supportive relationships, and the reconstruction of personal identity over time [36]. The chronosystem therefore underscores the importance of considering reintegration as a developmental process embedded within both individual life courses and broader historical contexts.

Life-course criminology further supports the temporal perspective of the PPCT framework by emphasizing that desistance from crime is rarely immediate or linear. Instead, behavioural change develops gradually through cumulative social experiences and critical turning points across the life course. Laub and Sampson [26] demonstrated through longitudinal research that stable employment, marriage, and social bonds can function as turning points that redirect criminal trajectories and strengthen long-term social integration. These turning points become effective only when they are sustained over time, highlighting the importance of continuity within reintegration processes [26].

Similarly, Giordano, et al. [25] proposed that desistance is closely linked to cognitive transformation processes in which individuals gradually reinterpret themselves and develop openness toward change. Reintegration therefore involves not only external social adaptation but also an internal temporal process of identity reconstruction Giordano, et al. [25]. Paternoster and Bushway [28] further argue that desistance is associated with the emergence of a “feared self” and the gradual development of a future-oriented pro-social identity, reinforcing the importance of long-term psychological and social transitions [28].

Research also indicates that the period immediately following release from prison represents a particularly vulnerable transitional phase. Fazel, et al. [8] found significantly elevated risks of premature mortality, psychiatric morbidity, and recidivism during the early post-release period, suggesting that reintegration trajectories are highly sensitive to temporal instability and insufficient continuity of support. From a PPCT perspective, this demonstrates that the timing, duration, and sequencing of proximal processes are critically important for successful reintegration outcomes [8].

The temporal dimension of reintegration is additionally influenced by broader sociohistorical and structural conditions. Farrall, et al. [37] emphasize that desistance processes are shaped not only by individual agency but also by wider social structures, including labour market opportunities, economic conditions, and penal policies that evolve over time [37]. Likewise, Bottoms, et al. [38] describe desistance as a dynamic and non-linear process characterized by setbacks, interruptions, and gradual behavioural stabilization rather than immediate transformation [38].

Shapland, et al. [39] further note that reintegration trajectories are strongly affected by the continuity of social support, institutional cooperation, and long-term access to stable housing and employment opportunities. These findings align with the chronosystem perspective by illustrating how developmental pathways are continuously shaped by changing contextual and temporal conditions Shapland, et al. [39]. Travis [32] similarly argues that prisoner reintegration should be understood as an ongoing societal and developmental challenge rather than a one-time transition occurring at the moment of release [32].

Overall, the chronosystem within the PPCT model highlights that reintegration is a long-term developmental trajectory shaped through the cumulative interaction of proximal relationships, structural opportunities, identity transformation, and changing historical contexts. Sustainable reintegration therefore depends on continuity, temporal stability, and the gradual accumulation of supportive social experiences across the individual life course.

4. Results

The conceptual analysis demonstrated that the reintegration of former prisoners can be systematically interpreted through Bronfenbrenner’s bioecological PPCT (process–person–context–time) model as a multidimensional and long-term developmental process rather than a single intervention or isolated rehabilitation measure. The findings indicate that reintegration outcomes are primarily shaped by the interaction between proximal processes, individual characteristics, ecological contexts, and temporal continuity.

The analysis revealed that the Process dimension plays a central role in reintegration. Sustained, relationship-based interactions with probation officers, social workers, employers, family members, and community institutions were identified as key mechanisms supporting behavioural change and desistance from crime. The study suggests that successful reintegration depends not on the intensity of isolated interventions, but on the continuity, quality, and cultural sensitivity of proximal processes that gradually strengthen self-regulation, social competence, and pro-social identity formation over time.

Within the Person dimension, the findings indicate that reintegration is strongly associated with individual agency, emotional resilience, motivation, and adaptive capacities. The analysis highlighted the importance of hope, self-discipline, and the development of a socially accepted identity as protective factors supporting long-term reintegration. At the same time, structural disadvantages such as stigmatization, limited education, unemployment, and restricted access to resources significantly weaken reintegration potential and increase vulnerability to recidivism.

The Context dimension demonstrated that reintegration is embedded within interconnected ecological systems. Supportive family relationships, stable employment opportunities, housing security, educational access, and coordinated institutional cooperation emerged as essential contextual conditions promoting successful reintegration. Conversely, fragmented institutional systems, punitive approaches, social exclusion, unstable housing, and labour market discrimination were identified as significant barriers limiting social participation and increasing marginalization risks.

The analysis of the Time dimension emphasized that reintegration is a gradual developmental transition unfolding across the individual life course and broader sociohistorical conditions. Sustainable behavioural change was found to require long-term continuity of support systems and stable social relationships. Short-term programs without ongoing support were identified as insufficient for achieving lasting reintegration outcomes. The chronosystem perspective further highlighted the influence of changing social policies, economic conditions, and life transitions on reintegration trajectories.

Overall, the study supports the conceptual assumption that the reintegration of former prisoners is best understood as a dynamic bioecological process in which successful outcomes depend on the interaction between individual resources, proximal relationships, institutional coordination, and temporal stability.

5. Discussion

The findings of this conceptual analysis support previous research emphasizing that reintegration cannot be reduced to individual responsibility or isolated rehabilitation measures alone. Instead, reintegration emerges as a complex developmental process shaped by the interaction between personal agency, social relationships, institutional systems, and broader societal conditions. These results align with desistance-oriented approaches that conceptualize behavioural change as a gradual and socially embedded process rather than a purely correctional outcome [3, 4].

The PPCT model provides an integrative theoretical framework that allows for a multidimensional understanding of reintegration processes. In contrast to traditional risk-management paradigms, the bioecological perspective emphasizes relational continuity, social participation, and developmental support. The findings suggest that proximal processes – particularly stable and supportive interactions with professionals, family members, employers, and communities – function as core mechanisms through which social inclusion and identity reconstruction occur. This supports previous studies highlighting the importance of procedural justice, supportive supervision, and relational trust in reducing recidivism and promoting long-term adaptation [6, 20, 21].

The analysis also demonstrates that structural and contextual factors significantly shape reintegration opportunities. Stable employment, housing security, and coordinated institutional cooperation emerged as critical protective factors, while stigma, fragmented support systems, and social exclusion functioned as major barriers. These findings reinforce previous evidence indicating that reintegration cannot be fully achieved through punitive measures alone and requires coordinated ecological support systems that address both individual and structural dimensions simultaneously [14, 15, 34].

An important contribution of the present study is the emphasis on the temporal dimension of reintegration. The chronosystem perspective highlights that behavioural change and identity transformation require time, continuity, and cumulative positive experiences. These findings challenge short-term intervention models that prioritize rapid outcomes without ensuring long-term relational and institutional support. Reintegration should therefore be understood as a continuous developmental trajectory influenced by life-course transitions, changing social conditions, and evolving support networks.

Several limitations of the study should be acknowledged. First, the study is based on qualitative conceptual analysis rather than empirical data collection. As a result, the proposed model remains theoretical and requires empirical validation in different social, institutional, and cultural contexts. Second, the reviewed literature primarily reflects European and Western research perspectives, which may limit the transferability of findings to other criminal justice systems or sociocultural environments. Third, although the PPCT framework provides a broad integrative perspective, the complexity of reintegration processes means that additional variables and contextual factors may also influence outcomes.

Future research should focus on empirically validating the proposed PPCT-based reintegration framework through longitudinal and mixed-method studies. Further studies could examine how proximal processes develop over time within different institutional settings, cultural diversity and how specific ecological systems interact during reintegration, and which intervention models most effectively support long-term desistance and social inclusion.

References

- [1] B. M. Nowak, "Social reintegration of prisoners in selected European Union countries," *Resocjalizacja Polska*, vol. 10, no. 2, pp. 311-334, 2015.
- [2] Council of Europe, *The social reintegration of ex-prisoners in council of Europe Member States: Executive summary and recommendations*. Strasbourg: Quaker Council for European Affairs, 2011.
- [3] F. McNeill, *Desistance and criminal justice*. London: Routledge, 2021.
- [4] B. Weaver and A. Fraser, "The social dynamics of group offending," *Theoretical Criminology*, vol. 26, no. 2, pp. 264-284, 2022. <https://doi.org/10.1177/13624806211030459>
- [5] N. M. Vélez-Agosto, J. G. Soto-Crespo, M. Vizcarrondo-Oppenhimer, S. Vega-Molina, and C. García Coll, "Bronfenbrenner's bioecological theory revision: Moving culture from the macro into the micro," *Perspectives on Psychological Science*, vol. 12, no. 5, pp. 900-910, 2017. <https://doi.org/10.1177/1745691617704397>
- [6] F. S. Taxman and S. Belenko, *Implementing evidence-based practices in community corrections and addiction treatment*. New York: Springer, 2012.
- [7] P. Tong and I. S. An, "Review of studies applying Bronfenbrenner's bioecological theory in international and intercultural education research," *Frontiers in Psychology*, vol. 14, p. 1233925, 2024. <https://doi.org/10.3389/fpsyg.2023.1233925>
- [8] S. Fazel, A. J. Hayes, K. Bartellas, M. Clerici, and R. Trestman, "Mental health of prisoners: Prevalence, adverse outcomes, and interventions," *The Lancet Psychiatry*, vol. 3, no. 9, pp. 871-881, 2016. [https://doi.org/10.1016/S2215-0366\(16\)30142-0](https://doi.org/10.1016/S2215-0366(16)30142-0)
- [9] Council of Europe, *Guidance document on the European prison rules*. Strasbourg: Council of Europe Publishing, 2023.
- [10] Council of the European Union, *Council framework decision 2008/947/JHA on the application of the principle of mutual recognition to probation decisions and alternative sanctions*. Brussels: Official Journal of the European Union, 2008.
- [11] Council of the European Union, *Council framework decision 2008/909/JHA on the application of the principle of mutual recognition to judgments in criminal matters*. Brussels: Official Journal of the European Union, 2008.
- [12] P. A. Fisher and J. Lombardi, "The new ecology of early childhood: Revisiting Bronfenbrenner's theory in the context of contemporary challenges and opportunities," Working Paper. Stanford, CA, United States: Stanford Center on Early Childhood, Stanford University, 2025.
- [13] A. Gautam, K. Gandhi, and J. Sendejo, "Enhancing reentry support programs through digital literacy integration," in *Proceedings of the 2024 ACM Designing Interactive Systems Conference*, 2024.

- [14] C. Uggen, "Work as a turning point in the life course of criminals: A duration model of age, employment, and recidivism," *American Sociological Review*, vol. 65, no. 4, pp. 529-546, 2000. <https://doi.org/10.1177/000312240006500403>
- [15] B. Western, A. A. Braga, J. Davis, and C. Sirois, "Stress and hardship after prison," *American Journal of Sociology*, vol. 120, no. 5, pp. 1512-1547, 2015. <https://doi.org/10.1086/681301>
- [16] L. A. Jacobs, A. McClean, Z. Branson, E. Kennedy, and A. Fixler, "Incremental propensity score effects for criminology: An application assessing the relationship between homelessness, behavioral health problems, and recidivism," *Journal of Quantitative Criminology*, vol. 40, pp. 707-726, 2024. <https://doi.org/10.1007/s10940-024-09582-7>
- [17] C. Gold and J. Assmus, "Heart rate and its variability as an indicator of mental health in male prisoners," *arXiv preprint arXiv:1501.05842*, 2015. <https://doi.org/10.48550/arXiv.1501.05842>
- [18] R. L. Naser and C. A. Visher, "Family members' experiences with incarceration and reentry," *Western Criminology Review*, vol. 7, no. 2, pp. 20-31, 2006.
- [19] C. A. Visher and J. Travis, "Transitions from prison to community: Understanding individual pathways," *Annual Review of Sociology*, vol. 29, no. 1, pp. 89-113, 2003. <https://doi.org/10.1146/annurev.soc.29.010202.095931>
- [20] F. S. Taxman, "Supervision-exploring the dimensions of effectiveness," *Federal Probation*, vol. 66, 2, pp. 14-27, 2002.
- [21] T. R. Tyler, *Why people obey the law*. Princeton, NJ: Princeton University Press, 2006.
- [22] S. Maruna, *Making good: How ex-convicts reform and rebuild their lives*. Washington, DC: American Psychological Association, 2001.
- [23] R. Burnett and S. Maruna, "So 'prison works', does it? The criminal careers of 130 men released from prison under Home Secretary, Michael Howard," *The Howard Journal of Criminal Justice*, vol. 43, no. 4, pp. 390-404, 2004. <https://doi.org/10.1111/j.1468-2311.2004.00337.x>
- [24] T. Ward and S. Maruna, *Rehabilitation: Beyond the risk paradigm*. London: Routledge, 2007.
- [25] P. C. Giordano, S. A. Cernkovich, and J. L. Rudolph, "Gender, crime, and desistance: Toward a theory of cognitive transformation," *American Journal of Sociology*, vol. 107, no. 4, pp. 990-1064, 2002. <https://doi.org/10.1086/343191>
- [26] J. H. Laub and R. J. Sampson, *Shared beginnings, divergent lives: Delinquent boys to age 70*. Cambridge, MA: Harvard University Press, 2003.
- [27] R. Hopley, L. Caulfield, and A. Jolly, "'I'll live better, stay away from crime': Exploring the reintegration of former prisoners into the community through a music programme," *Journal of Criminal Psychology*, vol. 13, no. 4, pp. 351-366, 2023. <https://doi.org/10.1108/JCP-12-2022-0033>
- [28] R. Paternoster and S. Bushway, "Desistance and the feared self: Toward an identity theory of criminal desistance," *Journal of Criminal Law and Criminology*, vol. 99, no. 4, pp. 1103-1156, 2008.
- [29] F. T. Cullen and P. Gendreau, *Assessing correctional rehabilitation: Policy, practice, and prospects*. In J. Horney (Ed.), *Criminal justice 2000: Policies, processes, and decisions of the criminal justice system*. Washington, DC: National Institute of Justice, U.S. Department of Justice, 2000.
- [30] D. A. Andrews and J. Bonta, *The psychology of criminal conduct*, 5th ed. New York: Routledge, 2010.
- [31] S. J. Bahr, L. Harris, J. K. Fisher, and A. Harker Armstrong, "Successful reentry: What differentiates successful and unsuccessful parolees?," *International Journal of Offender Therapy and Comparative Criminology*, vol. 54, no. 5, pp. 667-692, 2010. <https://doi.org/10.1177/0306624X09342435>
- [32] J. Travis, *But they all come back: Facing the challenges of prisoner reentry*. Washington, DC: Urban Institute Press, 2005.
- [33] B. Western, *Homeward: Life in the year after prison*. New York: Russell Sage Foundation, 2018.
- [34] D. Pager, "The mark of a criminal record," *American Journal of Sociology*, vol. 108, no. 5, pp. 937-975, 2003. <https://doi.org/10.1086/374403>
- [35] C. Uggen, J. Manza, and A. Behrens, *Less than the average citizen: Stigma, role transition, and the civic reintegration of convicted felons*. In S. Maruna & R. Immariageon (Eds.), *After crime and punishment: Pathways to offender reintegration*. Cullompton, Devon, UK: Willan Publishing, 2004.
- [36] R. J. Sampson and J. H. Laub, "Crime in the making: Pathways and turning points through life," *Crime & Delinquency*, vol. 39, no. 3, pp. 396-430, 1993. <https://doi.org/10.1177/0011128793039003010>
- [37] S. Farrall, A. Bottoms, and J. Shapland, "Social structures and desistance from crime," *European Journal of Criminology*, vol. 7, no. 6, pp. 546-570, 2010. <https://doi.org/10.1177/1477370810376574>
- [38] A. Bottoms, J. Shapland, A. Costello, D. Holmes, and G. Muir, "Towards desistance: Theoretical underpinnings for an empirical study," *The Howard Journal of Criminal Justice*, vol. 43, no. 4, pp. 368-389, 2004. <https://doi.org/10.1111/j.1468-2311.2004.00336.x>
- [39] J. Shapland, S. Farrall, A. Bottoms, and G. Robinson, *The criminal career in transition: The social context of desistance from crime*. Oxford, UK: Oxford University Press, 2016.