

Final Report

CHAINPREVENT

The chain of events underlying the development and persistence of antisocial behaviour: Moving forward in tailored crime prevention strategies (ref. 2022.03898.PTDC)

Executive Summary and Policy Recommendations

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1. Background and Context

Crime and violence are global challenges with profound social and economic implications, often causing severe damage to individuals and society. Persistent involvement in criminal activity is typically driven by a constellation of multi-systemic factors (Basto-Pereira & Farrington, 2022; Basto-Pereira et al., 2015; Basto-Pereira et al., 2016), including academic and professional failure, complex family dynamics, histories of addiction, and personality traits. These factors do not simply predict antisocial behaviors at specific points in development; they also contribute to long-term psychosocial vulnerabilities (Basto-Pereira & Farrington, 2022). These factors are interconnected in a chain of events that can create ideal conditions for persistent criminal pathways (Basto-Pereira et al., 2024).

In this context, the ChainPrevent project—*The chain of events underlying the development and persistence of antisocial behaviour: Moving forward in Tailored Crime Prevention Strategies*—takes an innovative approach.

For the first time, ChainPrevent systematically maps sequences of vulnerabilities (social, psychological, familial, educational) from childhood through late adolescence, significantly advancing our understanding of how early risk factors contribute to ongoing criminal behavior in adulthood. Understanding the entanglement of risk factors throughout development enables the identification of which childhood risk factors are crucial not only for understanding early disruptive behavior but also for determining which factors contribute to creating a cascade of multisystemic vulnerabilities at later stages of development.

This cascade of vulnerabilities substantially increases the likelihood of adult criminal behavior and presents significant obstacles to early desistance from crime during adolescence. This research project allowed the identification of crucial risk factors leading to subsequent cascades of risk factors for criminal convictions. These risk factors are termed “magnetic risk factors” due to their particular ability to attract other criminogenic risk factors in later developmental stages. Their identification is crucial because it enables intervention on key risk factors, thereby increasing the effectiveness and cost-benefit ratio of early interventions aimed at disrupting antisocial pathways.

2. Purpose

This study develops and tests a novel methodology to map thousands of chains of risk factors, enabling the identification of key vulnerabilities for intervention at each developmental stage, particularly during early childhood. This objective is particularly relevant because it is unrealistic to expect public justice policies to intervene or prevent all factors known to increase the risk of criminal behavior. This pioneering project paves the way for a new line of scientific research in developmental criminology, enabling the identification and prioritization of prevention and intervention strategies targeting specific risk factors critical for preventing criminal trajectories and social marginalization.

3. Methodological Note

To test this new approach to the factors underlying the development of criminal careers, the ChainPrevent project utilized data from the Cambridge Study in Delinquent Development (CSDD). The CSDD is a prospective longitudinal study involving 411 males from South London, initiated in 1961/62 when participants were 8–9 years old, and it continues to track them into later adulthood. Using a multi-informant approach, the study gathered data across various domains at different developmental stages: individual (e.g., impulsivity), behavioral (e.g., alcohol use), familial (e.g., harsh discipline, poor parental supervision), and socioeconomic factors (e.g., low socioeconomic status). Criminal records were tracked from ages 10 to 61. Professor David Farrington, a key member of the ChainPrevent team, has directed this longitudinal study since 1982.

The richness and comprehensiveness of these data, combined with the new methodology developed by ChainPrevent, allowed for the first detailed exploration of how specific childhood risk factors contribute to the emergence of further vulnerabilities promoting criminal behaviour at later stages of life. These emergent factors have been termed "magnetic risk factors" due to their ability to attract and generate new vulnerabilities that intensify the risk of criminal behaviour over time.

Additional details regarding the sample, instruments, and data analysis plan can be found in Basto-Pereira et al. (2024, 2025), published in open-access peer-reviewed journals freely accessible to the general public.

4. Overview of Key Findings

ChainPrevent introduced the innovative concept of "magnetic risk factors"—factors that, in addition to directly increasing the risk of involvement in problematic behaviours during childhood (Basto-Pereira et al., 2024, 2025; Pereira & Basto-Pereira, 2025), are notable for their ability to promote multiple vulnerabilities throughout development. A clear example of this is poor parental supervision during childhood, which not only increases the risk of antisocial behaviour but also increase the risk fo other adverse outcomes, such as school failure and involvement in high-risk environments during adolescence, thereby multiplying the risk for antisocial behaviour at later developmental stages.

Among other findings, this study suggests that dysfunctional parenting, poor academic performance, and low self-control during childhood form interlinked risk chains, generating new vulnerabilities at various stages of development that promote antisocial trajectories throughout life (Basto-Pereira et al., 2025). Therefore, according to this study, the identification and intervention in these risk factors during childhood are crucial for preventing the development of various risk factors in subsequent stages, thus preventing chains of multisystemic vulnerabilities in later stages that systematically increase the risk of developing and persisting in criminal trajectories.

Additionally, this research also suggests that children raised in families living in extreme poverty face greater social risks (Basto-Pereira et al., 2024). Specific measures to support these families in promoting their children's cognitive and emotional development are crucial. These measures include early identification and the delivery of affordable, evidence-based interventions for parents whose children have difficulties learning fundamental skills at early ages (e.g., reading and writing); assessing and supporting the nutritional needs of children that might be affected due to family poverty; and other actions that make it achievable for families in poverty to promote the healthy development of their children.

This research marks a critical advancement in developmental criminology, opening new pathways for more effective and tailored crime prevention strategies. Nonetheless, it is essential that this exploratory study be replicated with longitudinal data from other countries and populations to strengthen the scientific evidence necessary for advancing prevention and intervention practices in justice settings. A detailed version of these findings are published in international peer-reviewed journals and can be freely accessed in Basto-Pereira et al., (2024) and Basto-Pereira et al., (2025).

5. Global Recommendations for Crime Prevention:

5.1. Provide affordable support for Families in Extreme Poverty that enable families to promote their children's healthy development.

- Implement programs for early identification of children's learning difficulties and provide affordable educational resources to parents.
- Assess and support children's nutritional needs to ensure optimal emotional and cognitive development.

5.2. Providing Access to Effective Interventions for Promoting Nonviolent Parenting Styles in Public Services (e.g., Health Centers, Child Protection Services)

- Example of programs: Being a Parent Program (Portuguese version: Maciel et al., 2025; United Kingdom: Day et al., 2012), Incredible Years (Portuguese Version: Seabra-Santos et al., 2016).

- **5.3. Early prevention and intervention for Risk-Taking and Behavioral Challenges**

Introduce programs focused on developing children self-control and emotional regulation skills.

Example of programs: SNAP for schools (Child Development Institute, 2025; Validation plans for the Portuguese context is now being discussed)

- **5.4. Enhance Cognitive and Behavioral Development Services**

Provide access to cognitive-behavioral therapies and support services for children with cognitive deficits and hyperactivity.

For a review about these programs please see the systematic review of Battagliese et al., 2015.

5.5. Invest in Educational and Vocational Programs for Justice-Involved Youth

- Expand tailored educational and job training opportunities within the justice system.
- Allocate additional resources and develop targeted interventions to enhance academic engagement.

Example of programs: Teach For Portugal programme (Lobo-dos-Santos, 2024; Studies about its effectiveness is now advancing)

6. Research Team

This project, funded by the Portuguese Foundation for Science and Technology and European funds, is coordinated by Professor Miguel Basto Pereira, researcher at the William James Center for Research, Director of the Master's Program in Forensic Psychology, and lecturer at Ispa – Instituto Universitário in Lisbon, Portugal. The project was conducted in close collaboration with internationally renowned researchers, such as Professor David Farrington, Emeritus Professor at the Institute of Criminology (University of Cambridge) and a leading authority in developmental criminology, and Professor Darrick Jolliffe, Professor of Criminology at Royal Holloway, University of London, and Chair of the Division of Developmental and Life-Course Criminology at the American Society of Criminology. The involvement of these experts underscores the international relevance of the project, positioning ChainPrevent at the forefront of research on crime prevention.

7. Scientific Outcomes

1. ChainPrevent Publications

Two papers have been published in Quartile 1 international peer-reviewed journals, and a forthcoming chapter written in Portuguese, was accepted and soon will be published in a scientific book organized by the School of Criminology, University of Porto. Bibliographic references and links:

- Basto-Pereira, M., Farrington, D. P., & Maciel, L. (2024). Unraveling the sequences of risk factors underlying the development of criminal behavior. *Journal of Developmental and Life-Course Criminology*, 10, 242-264. <https://doi.org/10.1007/s40865-024-00254-5>
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8. Funding Acknowledgements

This work is part of the research project “ChainPrevent - The chain of events underlying the development and persistence of antisocial behaviour: Moving forward in Tailored Crime Prevention Strategies” and is funded by the FCT – Foundation for Science and Technology, I.P. (Fundação para a Ciência e a Tecnologia, I.P.), under the project reference: «2022.03898.PTDC». This work is also funded with national funds from FCT – Fundação para a Ciência e Tecnologia, I.P. (project reference: UID/04810/2020; doi: <https://doi.org/10.54499/UIDB/04810/2020>).

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