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INTERFACES BETWEEN MENTAL HEALTH AND PSYCHIATRY IN THE ASSESSMENT OF CRIMINAL INSANITY IN ADULTS ACCUSED OF VIOLENT CRIMES: A SCOPING REVIEW

INTERFACES ENTRE SAÚDE MENTAL E PSIQUIATRIA NA AVALIAÇÃO DA INIMPUTABILIDADE PENAL EM ADULTOS ACUSADOS DE CRIMES VIOLENTOS: REVISÃO DE ESCOPO

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Abstract
Objective: To map and analyze evidence on mental health and criminal irresponsibility among adults accused of violent crimes. Methods: Scoping review conducted between January and February 2026 in accordance with Joanna Briggs Institute and PRISMA-ScR guidance, with prior protocol registration in the Open Science Framework. Searches were performed in PubMed, Medline, Scopus, Embase, and Cochrane Library, complemented by Google Scholar. Two independent reviewers conducted study selection, data extraction, and qualitative synthesis. Results and Discussion: Twelve studies were included. Evidence shows higher prevalence of mental disorders among legally involved individuals; however, this does not automatically establish criminal irresponsibility, which requires assessment of cognitive and volitional capacity at the time of the offense. Discrepancies between clinical and forensic diagnoses, cognitive biases, and methodological variability were identified. Emerging trends include structured assessment protocols, bias mitigation strategies, and exploratory use of artificial intelligence tools. Conclusion: A multifactorial, standardized, and legally grounded evaluative framework is essential to strengthen reliability and legitimacy in forensic psychiatric decision-making regarding criminal responsibility.

Keywords: Mental Health. Criminal Irresponsibility. Forensic Psychiatry. Violent Crime. Criminal Responsibility.

Resumo
Objetivo: Mapear e analisar as evidências sobre saúde mental e irresponsabilidade criminal entre adultos acusados de crimes violentos. Métodos: Revisão de escopo realizada entre janeiro e fevereiro de 2026, de acordo com as diretrizes do Joanna Briggs Institute e PRISMA-ScR, com registro prévio do protocolo no Open Science Framework. As buscas foram realizadas no PubMed, Medline, Scopus, Embase e Cochrane Library, complementadas pelo Google Scholar. Dois revisores independentes realizaram a seleção dos estudos, a extração de dados e a síntese qualitativa. Resultados e Discussão: Doze estudos foram incluídos. As evidências mostram uma maior prevalência de transtornos mentais entre indivíduos envolvidos com a justiça; no entanto, isso não estabelece automaticamente a irresponsabilidade criminal, que requer a avaliação da capacidade cognitiva e volitiva no momento do delito. Foram identificadas discrepâncias entre diagnósticos clínicos e forenses, vieses cognitivos e variabilidade metodológica. Tendências emergentes incluem protocolos de avaliação estruturados, estratégias de mitigação de vieses e o uso exploratório de ferramentas de inteligência artificial. Conclusão: Uma estrutura avaliativa multifatorial, padronizada e juridicamente fundamentada é essencial para fortalecer a confiabilidade e a legitimidade na tomada de decisões em psiquiatria forense relativas à responsabilidade criminal.

Palavras-chave: *Saúde Mental. Irresponsabilidade Criminal. Psiquiatria Forense. Crime Violento. Responsabilidade Criminal.*

1 INTRODUCTION

The assessment of criminal non-imputability in adults involved in violent offenses entails a complex intersection of clinical, normative, and procedural criteria; it requires determining whether, at the time of the act, the individual possessed the capacity to understand the unlawful nature of the conduct and to act in accordance with that understanding, a standard that guides both judicial decisions and medico-legal interventions. It is therefore a retrospective judgment that demands a technical reconstruction of the individual's mental state at the time of the offense, based on clinical, documentary, and contextual evidence capable of supporting the expert conclusion (Blake et al., 2022).

In contemporary forensic practice, methodological heterogeneity in expert examinations, assessment instruments, interpretative criteria, and reporting standards directly impacts conclusions regarding criminal responsibility, underscoring the need for standardization and transparency to reduce discrepancies among expert opinions and ensure more reproducible and equitable decisions. The absence of uniform guidelines may amplify divergences between specialists and compromise legal certainty, particularly in cases of high social visibility (Hardman et al., 2024).

Advances in neuroscience provide explanatory contributions regarding cognitive and emotional deficits that may impair discernment; however, they also raise epistemological limitations concerning direct causal inferences between neural findings and criminal responsibility, requiring caution when integrating biomedical data into criminal evaluations. The use of neuroimaging and neurobiological markers must be clinically contextualized, avoiding misinterpretation of correlation as legal causation (Vitacco, 2024).

Violence risk assessment and the identification of mental disorders associated with violent acts constitute central components of forensic work, as they influence decisions regarding security measures, hospitalization, and therapeutic management; assessment tools must be employed with careful attention to their predictive properties and ethical implications within judicial contexts. Their interpretation requires technical expertise and a clear understanding of the statistical limits of individual-level prediction, particularly when deprivation of liberty is at stake (Ogonah et al., 2023).

Within institutional contexts, gaps in resources and training for forensic evaluations, as well as procedural delays, affect access to timely assessments, with repercussions for the right to defense, the duration of precautionary measures, and the adequacy of penal responses for individuals with mental disorders. These constraints tend to exacerbate regional inequalities and negatively impact the quality of judicial decisions grounded in expert reports (Zhao et al., 2025).

Determinants of hospitalization length and trajectories within forensic psychiatric hospitals, such as clinical severity, comorbidities, and local healthcare structures, demonstrate that the management of non-imputability extends beyond the legal sphere and requires integrated justice–health policies to promote more appropriate clinical and social outcomes. The absence of coordinated care networks contributes to prolonged confinement and difficulties in social reintegration following security measures (Dima et al., 2024).

Within the Brazilian legal framework, the application of Article 26 of the Penal Code and related provisions raises debates concerning diagnostic criteria, definitions of incapacity, and the compatibility between security measures and therapeutic principles, highlighting the need for technical and legal production that articulates medical science with procedural safeguards. The interpretation of these provisions requires balancing social protection, proportionality, and respect for the fundamental rights of individuals with mental disorders (Feitosa, 2023).

Recent studies have emphasized practical challenges, including insufficient multidisciplinary teams, expert heterogeneity, and the scarcity of standardized protocols, which hinder forensic decision-making and may compromise the equity and effectiveness of penal responses in cases of violence. This scenario reinforces the need for structural investment and continuing professional education to strengthen the field of forensic psychiatry in the country (Teixeira, 2025).

The presence of cognitive biases and contextual pressures in forensic practice, such as judicial expectations, perceived social risk, and high workload, may influence clinical-forensic judgments; recognizing and mitigating these biases is essential to strengthening the validity and impartiality of non-imputability evaluations. Strategies such as technical supervision, structured protocols, and peer review may contribute to greater consistency and reliability in expert reports (Buongiorno et al., 2025).

Finally, procedural stages, from initial screening to recommendations regarding security measures, require integrated models that combine rigorous clinical assessment, legal safeguards, and rehabilitation pathways, aiming to reconcile social protection, the accused's fundamental rights, and therapeutically oriented objectives aligned with available evidence. The consolidation of such models depends on interinstitutional coordination and public policies that acknowledge the complexity of the mental health–criminal justice interface (Holmes et al., 2025).

The heterogeneity of expert reports, diagnostic variability, and the influence of sociocultural factors undermine the consistency of applied criteria, revealing weaknesses in the articulation between the justice system and the psychosocial care network, with direct impact on technical assessments and therapeutic referrals. In light of this, the present study proposes to map and analyze, through a scoping review, the evidence on mental health and criminal non-imputability in adults accused of violent crimes.

2 METHODOLOGY

This study is a scoping review conducted between January and February 2026, following the methodological guidance of the Joanna Briggs Institute (JBI), as outlined by Peters et al. (2022), and registered in the Open Science Framework (OSF) under the DOI: https://doi.org/10.17605/OSF.IO/3E6TB. The adoption of the JBI framework enabled a comprehensive and contextualized examination of the available body of knowledge, allowing for the identification of theoretical and methodological gaps, the recognition of emerging trends, and the delineation of implications for clinical practice and future research, thereby strengthening scientific production in the health field.

Initially, the guidelines proposed by Peters et al. (2020) were adopted, which provide direction for conducting systematic reviews based on the PCC (Population, Concept, Context) strategy, prioritizing clarity, transparency, and coherence between the research question, eligibility criteria, and evidence synthesis. Subsequently, the PRISMA checklist recommendations, updated by Tricco et al. (2018), were incorporated to complement the JBI model by emphasizing international standardization in reporting, detailed documentation of selection processes, and improved reproducibility of findings.

Thereafter, the protocol proposed by Galvão, Pansani, and Harrad (2015) was adopted as an operational tool to implement these guidelines, representing a Brazilian adaptation that translates the rigor of international standards into a practical and context-sensitive application. The convergence of the frameworks proposed by Peters (2020), Tricco (2018), and Galvão (2015) provides the study with a robust and coherent methodological structure organized into five sequential stages: (1) formulation of the research question using the PCC strategy; (2) identification of relevant studies in indexed databases; (3) selection according to eligibility criteria; (4) systematic extraction of pertinent information; and (5) integrative synthesis of findings, ensuring rigor and transparency throughout all phases of the process.

In the first stage, the PCC strategy (Population, Concept, Context) was used to define the scope of the review. P (Population): adults accused of violent crimes; C (Concept): mental health and criminal non-imputability; C (Context): judicial proceedings and forensic psychiatric evaluations. The guiding research question was formulated as follows: “What scientific evidence addresses the relationship between mental health and criminal non-imputability in adults accused of violent crimes?”

In the second stage, the search was conducted in the PubMed, Medline, Scopus, Embase, and Cochrane Library databases. To develop the search strategies, DeCS/MeSH terms were consulted through the Virtual Health Library (VHL), taking into account the study objective and guiding question. After refinement, English-language descriptors were combined using Boolean operators as follows: (Mental Health OR Mental Disorders OR Psychiatric Evaluation) AND (Criminal Responsibility OR Insanity Defense OR Legal Insanity OR Criminal Incompetence) AND (Violent Crime OR Violent Offenders) AND (Forensic Psychiatry OR Forensic Assessment).

Complementary searches of gray literature were carried out in Google Scholar. Considering the inherent limitations of this platform, such as low specificity of results and the absence of refined methodological filters, the first 100 records ranked by relevance were screened, in accordance with methodological practices commonly adopted in scoping reviews. The same inclusion and exclusion criteria applied to indexed databases were used, considering publication period, study type, thematic relevance, and direct alignment with the guiding question.

In the third stage, following the PRISMA-ScR flow diagram adapted from Tricco et al. (2018) (Figure 1), the search, screening, and selection processes were conducted in four sub-stages. During Identification, records retrieved from databases and complementary searches were organized and duplicates were removed by two independent reviewers. In the Screening phase, titles and abstracts were assessed, excluding studies that did not address mental health, criminal non-imputability, or violent crimes.

During the Eligibility sub-stage, full texts were analyzed according to predefined criteria, considering relevance to the central concept of the review and clarity of the forensic psychiatric approach. Disagreements between reviewers were resolved by consensus. In the Inclusion phase, studies meeting all criteria were incorporated into the final scope of the review, coded, and forwarded for data extraction, as depicted in the flow diagram presented in Figure 1.

In the fourth stage, full-text studies published within the last five years, available through open access, in any language, and addressing mental health and criminal non-imputability in adults accused of violent crimes were included. Empirical studies, clinical-forensic investigations, case analyses, qualitative studies, literature reviews, and legal analyses with psychiatric interface were considered. Studies not involving adults or not addressing violent crimes were excluded.

In the fifth stage, data from the selected studies were systematically extracted, analyzed in a blinded manner, and organized in a structured spreadsheet using the Rayyan tool by two reviewers, optimizing the analytical process and enabling consistent integration of findings across studies. In accordance with Kellermeyer, Harnke, and Knight (2018), a detailed data analysis was conducted through full-text reading of the selected articles. Results were presented through a study selection and extraction flow diagram, as illustrated in Figure 1.

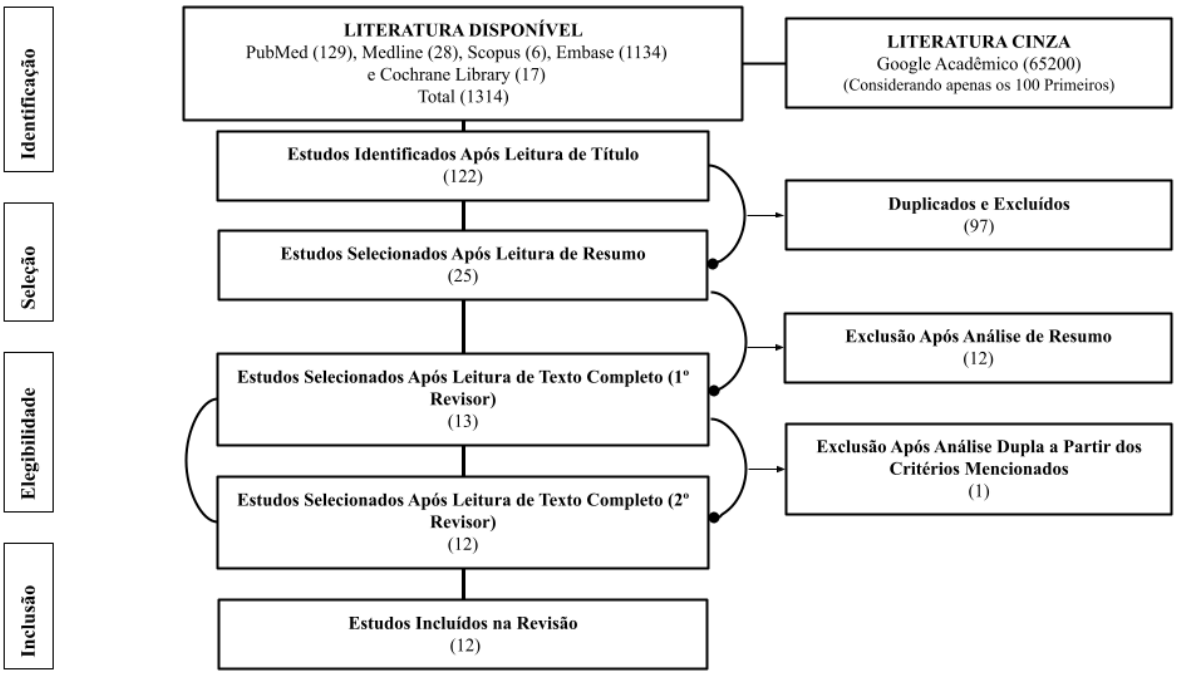
After the extraction process, each study was included in Tables 1, 2, and 3, organized using a unique code composed of the abbreviation “Cod” followed by a sequential study number (E), formatted as E1, E2, E3, and so forth. Extracted information was structured as follows: Table 1 – title, authors, year of publication, and Level of Evidence (LE), according to the Oxford Centre for Evidence-Based Medicine (2024) classification; Table 2 – objective, study type, and population/sample.

3 RESULTS

The study selection process followed the PRISMA stages in a systematic manner. Initially, 1,314 records were identified in the available literature, retrieved from PubMed (129), Medline (28), Scopus (6), Embase (1,134), and the Cochrane Library (17), in addition to 65,200 records identified in the gray literature through Google Scholar, considering only the first 100 results ranked by relevance. After title screening, 122 studies were deemed potentially relevant, with 97 excluded due to duplication or failure to meet the eligibility criteria. During the screening phase, 25 abstracts were assessed, resulting in the exclusion of 12 studies. Subsequently, 13 full-text articles were evaluated by the first reviewer, with 1 excluded following double assessment according to the predefined criteria. Finally, 12 studies were confirmed by the second reviewer and included in the review.

Figure 1

Study Selection Process for the Scoping Review



Source: Authors, 2026.

Table 1 – "General Information of Each Study" organizes the fundamental characteristics of the included studies. Each row is assigned a code (E-study + sequential

number) to facilitate reference throughout the manuscript. The columns comprise: "Cod" (study code), "Title" (full title of the research), "Author(s)" (responsible authors), "Year" (year of publication), and "LE" (Level of Evidence according to the Oxford Classification, 2024). This table provides an overview of the sources, enabling rapid identification and comparison across studies.

Table 1

General Information of Each Study

Cod	Title	Author(s)	Year	NE
E1	**Cognitive biases in forensic psychiatry: a scoping review**	**Buongiorno et al.**	**2025**	**4**
E2	**Core topics in forensic psychiatry**	**Catanesi et al.**	**2024**	**5**
E3	**Methamphetamine-associated psychosis and criminal responsibility**	**Engelson et al.**	**2025**	**4**
E4	**Forensic mental health patients on conditional discharge: quantitative findings**	**Kilbane et al.**	**2025**	**1**
E5	**Consistency between forensic and previous clinical psychiatric diagnoses**	**Li et al.**	**2025**	**3**
E6	**Arguments for the retention of the defence of mental impairment**	**McSherry**	**2023**	**5**
E7	**Analysis of forensic psychiatry experts' reports through large language models**	**Petroni et al.**	**2025**	**3**
E8	**Mental disorders and criminal legal involvement: national survey evidence**	**Swanson et al.**	**2025**	**2**
E9	**Development of serious mental illness in young violent offenders**	**Tärnhäll et al.**	**2025**	**3**
E10	**Hindsight bias in forensic mental health novices and experts**	**Weber et al.**	**2024**	**3**
E11	**Juror decision-making concerning defendants with mental health conditions**	**Holmes et al.**	**2025**	**1**
E12	**Factors associated with violent offenders with mental illness in forensic evaluations**	**Lin et al.**	**2025**	**3**

Source: Authors, 2026.

Table 2 – "Specific Methodological Information of Each Study" aims to systematically present the main methodological aspects of the analyzed studies. Each row corresponds to a study previously identified in Table 1, ensuring coherence and

traceability between datasets. This table enables a comparative analysis of the methodological approaches adopted across studies, supporting the assessment of consistency, quality, and applicability of the evidence provided.

The columns are structured as follows: "Cod," indicating the study code; "Objective," describing the primary aim of the research; "Study Type," specifying the methodological design adopted (such as case study, cross-sectional, qualitative, quantitative, etc.); and "Population/Sample," detailing the participant group or the number of elements investigated.

Table 2

Specific Methodological Information of Each Study

Cod	Objective	Study Type	Population/Sample
E1	**To map cognitive biases in forensic psychiatry**	**Scoping review**	**Secondary studies**
E2	**To discuss contemporary core topics in forensic psychiatry**	**Narrative review**	**Specialized literature**
E3	**To analyze criminal responsibility in psychosis associated with methamphetamine use**	**Clinical-forensic observational study**	**Forensic clinical cases**
E4	**To synthesize quantitative evidence on conditionally discharged forensic patients**	**Systematic review**	**Secondary studies**
E5	**To assess agreement between clinical and forensic diagnoses**	**Retrospective observational study**	**Forensic assessment records**
E6	**To analyze the legal foundations of the mental disorder defense**	**Theoretical-legal study**	**Legal literature**
E7	**To evaluate the application of language models in the analysis of forensic reports**	**Methodological observational study**	**Forensic reports**
E8	**To investigate the association between mental disorders and criminal involvement**	**National epidemiological study**	**Adults from the general population**
E9	**To identify early factors associated with severe mental illness among violent offenders**	**Longitudinal observational study**	**Young adult offenders**
E10	**To assess hindsight bias among forensic professionals**	**Experimental study**	**Forensic novices and experts**
E11	**To analyze juror decision-making in cases involving mental disorders**	**Experimental systematic review**	**Experimental studies with jurors**

E12	**To identify factors associated with violent offenders with mental illness**	**Cross-sectional observational study**	**Forensic psychiatric evaluations**

Source: Authors, 2026.

Current literature indicates that individuals with a history of legal involvement exhibit a higher prevalence of mental disorders; however, this finding does not, in itself, imply criminal non-imputability, which depends on a specific assessment of the capacity for understanding and self-determination at the time of the offense. Part of the contact with the criminal justice system is attributed to structural failures in care and social exclusion. Within the forensic context, discrepancies are observed between clinical diagnoses and forensic conclusions, often associated with methodological gaps and cognitive biases.

Normative and empirical reviews advocate for the standardization of assessment instruments, the integration of longitudinal clinical data, and the adoption of multifactorial models that incorporate developmental and contextual variables, in addition to improving the clarity and structure of expert testimony in court. Recent trends include greater methodological rigor, the implementation of structured protocols, bias mitigation strategies, and the exploratory use of artificial intelligence–based tools. Overall, the findings point toward a more integrated, technically consistent, and legally grounded model at the interface between psychiatry and criminal law.

Figure 2 presents an integrative conceptual model developed from the methodological and theoretical synthesis of the included studies, aiming to represent the dynamic interactions among individual, procedural, and institutional factors that influence legal outcomes in cases involving mental disorder. The conceptual framework illustrated below synthesizes these elements and represents the dynamic interaction among cognitive, forensic, and judicial domains.

The model is structured around three interdependent domains. On the left, cognitive biases are situated, including anchoring bias, confirmation bias, and hindsight bias, recognized as factors capable of influencing clinical interpretation and evidentiary integration. At the center lies the forensic assessment, conceptualized as a technical process involving clinical interviews, psychiatric examination, document analysis, and multidisciplinary discussion. On the right, the judicial decision is positioned,

encompassing the determination of imputability, the rendering of a verdict, and the potential imposition of security measures.

Figure 2

Integrated Conceptual Model of Cognitive, Forensic, and Judicial Influences on Decision-Making in Forensic Psychiatry

Source: Authors, 2026.

The integrated analysis of the studies indicates that scientific production in forensic psychiatry converges around three structuring axes: evaluator cognitive vulnerability, the technical-clinical complexity of forensic assessment, and the normative influence of the judicial system. Cognitive biases do not operate in isolation; rather, they interact with institutional pressures and the evidentiary structure of criminal proceedings, shaping expert interpretation and decision-making.

Experimental studies demonstrate that contextual information may significantly alter forensic judgments, whereas systematic reviews identify diagnostic discrepancies between clinical and forensic evaluations. Furthermore, epidemiological evidence suggests that early-life and social determinants modulate the relationship between mental

disorder and criminal involvement, reinforcing the need for multidimensional analytical frameworks capable of integrating biological, psychological, and social variables.

Taken together, the findings indicate that judicial decisions are not grounded solely in clinical evidence but emerge from a complex system in which cognition, forensic methodology, and normative legal structures dynamically interact. This underscores the need for structured protocols, targeted training to mitigate cognitive bias, and stronger integration between psychiatry and law to enhance the consistency and legitimacy of forensic decisions. The model also incorporates institutional influences and systemic feedback mechanisms, demonstrating that judicial outcomes may shape subsequent forensic practices, thereby establishing a continuous cycle between scientific knowledge and the legal system.

4 DISCUSSION

Recent literature converges on a central interpretative axis: although individuals with a history of legal involvement exhibit substantially higher prevalence rates of mental disorders compared to the general population, this epidemiological finding does not automatically or linearly imply criminal non-responsibility. The presence of a psychiatric diagnosis alone does not fulfill the legal-normative criteria for non-imputability, which require a specific assessment of the individual's capacity for understanding and self-determination at the time of the offense.

The population-based study by Swanson et al. (2025) demonstrates that most interactions between individuals with mental disorders and the criminal justice system stem from structural failures in care and limited access to treatment, rather than from an actual loss of cognitive or volitional capacity at the time of the offense. This distinction highlights a persistent conceptual gap between psychological distress and the strict legal criteria for non-imputability, underscoring the need for research capable of differentiating social vulnerability, lack of services, and genuine criminal incapacity.

In forensic practice, the retrospective analysis conducted by Li et al. (2025) reveals frequent discrepancies between prior clinical diagnoses and forensic conclusions, attributed to differing methodologies, incomplete documentation, and potential evaluative biases. Such inconsistency exposes fragility in the clinical-legal interface and

suggests that future investigations should examine how standardized instruments and integration of longitudinal clinical histories influence the reliability of determinations regarding criminal responsibility.

At the normative level, McSherry (2023) reopens the debate concerning the very existence of the mental incapacity defense, discussing the risks associated with its maintenance, reform, or potential abolition. Shifting the analysis of culpability to the sentencing phase, as a legislative alternative, may generate paradoxical effects on proportionality and fundamental rights. However, comparative empirical studies assessing the actual impact of such reforms on judicial decisions and defendants' clinical trajectories remain scarce, constituting a relevant agenda for cross-jurisdictional research.

The need for greater methodological rigor is reiterated by Catanesi et al. (2024), who highlight gaps in the standardization of criminal responsibility and adjudicative competence evaluations. The absence of structured protocols and variability in expert training may introduce decision-making inconsistencies, pointing to the importance of research testing evidence-based assessment models and examining their capacity to reduce inter-expert disagreement.

Once non-imputability is recognized, dispositional decisions become central. The quantitative review by Kilbane et al. (2025) shows that structured conditional release regimes are associated with lower recidivism rates and fewer violent events, indicating that the design of community supervision influences post-sentencing trajectories. Nonetheless, it remains unclear which specific components of these programs produce the most favorable outcomes, suggesting that future research should disentangle monitoring intensity, psychosocial support, and accountability mechanisms.

A developmental perspective adds further complexity to the debate. The prospective cohort study by Tärnhäll et al. (2025) demonstrates that neurodevelopmental disorders and childhood conduct problems increase the risk of severe mental illness and violent behavior in adulthood. These findings suggest that early psychopathological trajectories may influence later assessments of criminal responsibility, yet the literature still lacks integrative models articulating developmental, contextual, and legal criteria of imputability.

Simultaneously, the influence of cognitive biases in forensic practice has emerged as a critical theme. Weber et al. (2024) empirically demonstrate the presence of hindsight

bias among forensic evaluators, although simple interventions partially mitigate its effects. The review by Buongiorno et al. (2025) expands this perspective by mapping multiple biases—including confirmation bias, institutional loyalty, and gender-related bias—capable of altering conclusions regarding criminal responsibility. Despite growing awareness, controlled trials assessing the effectiveness of structured mitigation protocols in real forensic settings remain limited.

The incorporation of analytical technologies represents an emerging trend in this field. Petroni et al. (2025) suggest that computational models and artificial intelligence-assisted analysis may identify inconsistencies and potentially biased linguistic patterns in forensic reports. Although still exploratory, this development points to a relatively underexplored methodological domain focused on quality control in evaluations underpinning non-imputability decisions.

Another sensitive issue concerns the interface between substance use and criminal responsibility. Engelson et al. (2025) emphasize the importance of distinguishing acute intoxication, substance-induced psychosis, and persistent disorders in assessing mental incapacity. The lack of uniformity across jurisdictions in applying these distinctions reveals both normative and empirical gaps, suggesting the need for comparative studies aimed at harmonizing clinical-legal parameters.

Observational evidence presented by Lin et al. (2025) reinforces that the isolated presence of a mental disorder does not linearly explain violent behavior. Static and dynamic factors—such as sex, treatment history, therapeutic adherence, and comorbidities—modulate the risk of violence, indicating that simplified models based solely on psychiatric diagnosis are insufficient for imputability determinations. Future research should integrate contextual and clinical variables into multifactorial analytical frameworks.

Finally, the experimental review by Holmes et al. (2025) demonstrates that the form and clarity of expert evidence significantly influence juror decisions regarding non-imputability. This finding reveals a communicational gap between psychiatric science and the legal system, indicating that future investigations should examine how standardized language, report structure, and expert training impact legal comprehension and the quality of judicial decisions.

Collectively, the evidence indicates a growing trend toward methodological sophistication in contemporary studies, characterized by more robust designs, greater bias control, and the use of validated instruments for clinical and functional assessment. At the same time, there is increasing sensitivity to inferential limitations and contextual heterogeneity within forensic settings, accompanied by a consistent movement toward integrating clinical and legal dimensions, thereby fostering more nuanced, contextually grounded, and legally informed analyses.

5 CONCLUSION

It is concluded that the higher prevalence of mental disorders among individuals with a history of legal involvement does not automatically justify a finding of criminal non-responsibility. Non-imputability requires a specific assessment of the individual's capacity for understanding and self-determination at the time of the offense, demanding a rigorous distinction between psychiatric diagnosis, social vulnerability, systemic failures in care, and the legal-normative criteria governing responsibility.

The findings reveal significant weaknesses at the clinical-legal interface, including discrepancies between prior diagnoses and forensic conclusions, the absence of standardized protocols, the influence of cognitive biases, and heterogeneity in the application of criteria involving substance use. Such limitations undermine decisional consistency and expose methodological gaps that compromise the reliability of forensic evaluations.

There is also insufficient integration of developmental, contextual, and clinical factors within models of criminal responsibility assessment, as well as a scarcity of comparative empirical studies addressing legislative reforms, dispositional regimes, and the communicative impact of expert evidence on judicial decisions. The incorporation of analytical technologies emerges as a promising, yet still incipient, trend in this field.

The development of structured, evidence-based protocols, multicenter validation of forensic assessment instruments, prospective studies integrating clinical and contextual variables into multifactorial models, and experimental research on bias mitigation and expert communication is recommended. These initiatives are essential to enhance the assessment of criminal imputability, strengthen legal certainty, and promote more

consistent and well-grounded decisions at the interface between mental health and criminal law.

REFERENCES

Blake, G. A. *et al.* Special considerations to the assessment of fitness to plead and competence to stand trial. *BMC Psychiatry*, 2022. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC10512877/. Accessed on: Feb. 6, 2026.

Buongiorno, L. *et al.* Cognitive biases in forensic psychiatry: a scoping review. *International Journal of Law and Psychiatry*, v. 101, p. 102083, 2025. Available at: https://doi.org/10.1016/j.ijlp.2025.102083. Accessed on: Feb. 6, 2026.

Catanesi, R. *et al*. Core topics in forensic psychiatry. *International Review of Psychiatry*, v. 36, n. 7, p. 673–675, 2024. Available at: https://doi.org/10.1080/09540261.2024.2420307. Accessed on: Feb. 6, 2026.

Dima, A. *et al.* Factors influencing length of stay in forensic psychiatric hospitals: a systematic analysis. *BMC Health Services Research*, 2024. Available at: https://link.springer.com/article/10.1186/s12913-024-10863-x. Accessed on: Feb. 6, 2026.

Engelson, B. *et al*. Methamphetamine-associated psychosis and criminal responsibility. *Journal of the American Academy of Psychiatry and the Law*, 2025. Available at: https://doi.org/10.29158/JAAPL.240121-24. Accessed on: Feb. 6, 2026.

Feitosa, L. I. *et al.* A inimputabilidade do indivíduo com transtornos mentais e desafios práticos no Brasil. *Revista REASE*, 2023. Available at: https://periodicorease.pro.br/rease/article/download/10917/4683/17974. Accessed on: Feb. 6, 2026.

Galvão, T. F; Pansani, T. S. A; Harrad, D. Principais itens para relatar revisões sistemáticas e meta-análises: a recomendação PRISMA. *Epidemiologia e Serviços de Saúde*, v. 24, p. 335–342, 2015. Available at: https://doi.org/10.5123/S1679-49742015000200017. Acesso em: 15 out. 2025.

Hardman, M. P. *et al.* Characteristics associated with criminal responsibility assessments and not criminally responsible findings: a 2024 analysis. 2024. Available at: https://pubmed.ncbi.nlm.nih.gov/38735266/. Accessed on: Feb. 6, 2026.

Holmes, H. L. *et al.* Juror decision-making concerning defendants with mental health conditions: systematic review and experimental insights. *Psychology, Crime & Law*, 2025. Available at: https://doi.org/10.1080/1068316X.2025.2574904. Accessed on: Feb. 6, 2026.

JBI – Joanna Briggs Institute. Evidence implementation training program. 2022. Available at: http://www.ee.usp.br/jbibrasil/cursos/evidence-implementation-training-program-eitp/. Acesso em: 15 out. 2025.

Kellermeyer, L; Harnke, B; Knight, S. Covidence and Rayyan. *Journal of the Medical Library Association: JMLA*, v. 106, n. 4, p. 580, 2018. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6148615/. Acesso em: 15 out. 2025.

Kilbane, S. *et al.* Systematic review of forensic mental health patients on conditional discharge: part one – quantitative findings, methodology, limitations and future research. *International Journal of Offender Therapy and Comparative Criminology*, 2025. Available at: https://doi.org/10.1177/0306624X251357615. Accessed on: Feb. 6, 2026.

Li, H.-M. *et al.* Analysis of consistency between forensic psychiatric evaluation diagnosis and previous clinical psychiatric diagnosis: a retrospective study. *Journal of Multidisciplinary Healthcare*, v. 18, p. 2185–2192, 2025. Available at: https://doi.org/10.2147/JMDH.S506609. Accessed on: Feb. 6, 2026.

Lin, C.-H. *et al.* Factors associated with violent offenders with mental illness in forensic psychiatric evaluations. *PLOS ONE*, 2025. Available at: https://doi.org/10.1371/journal.pone.0336918. Accessed on: Feb. 6, 2026.

Mc Sherry, B. An analysis of arguments for the retention of the defence of mental impairment. *International Journal of Law and Psychiatry*, v. 84, p. 101853, 2023. Available at: https://doi.org/10.1016/j.ijlp.2022.101853. Accessed on: Feb. 6, 2026.

Ogonah, M. G. T. *et al.* Violence risk assessment instruments in forensic settings: systematic review of predictive performance. *The Lancet Psychiatry*, 2023. Available at: https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(23)00256-0/fulltext. Accessed on: Feb. 6, 2026.

Petroni, G. *et al.* A case study of forensic psychiatry experts' reports analysis through large language models. *International Journal of Law and Psychiatry*, v. 102, p. 102122, 2025. Available at: https://doi.org/10.1016/j.ijlp.2025.102122. Accessed on: Feb. 6, 2026.

Peters, M. D. J. *et al.* Best practice guidance and reporting items for the development of scoping review protocols. *JBI Evidence Synthesis*, v. 20, n. 4, p. 953–968, 2022. Available at: https://doi.org/10.11124/JBIES-21-00242. Acesso em: 15 out. 2025.

Swanson, J. W; Stenger, M; Easter, M. M. *et al.* Mental disorders and criminal legal involvement: evidence from a national diagnostic epidemiological survey. *PLOS Mental Health*, v. 2, n. 4, e0000257, 2025. Available at: https://doi.org/10.1371/journal.pmen.0000257. Accessed on: Feb. 6, 2026.

Tärnhäll, A. *et al.* Development of serious mental illness in young adult violent offenders: early-life risk factors and long-term adverse outcomes. *Psychiatry Research*, v. 346, p. 116384, 2025. Available at: https://doi.org/10.1016/j.psychres.2025.116384. Accessed on: Feb. 6, 2026.

Teixeira, M. A. L. *et al.* Imputabilidade penal e transtornos mentais: desafios para o sistema de justiça brasileiro. *Revista Ibero-Americana de Humanidades, Ciências e Educação (REASE)*, 2025. Available at: https://periodicorease.pro.br/rease/article/download/19184/11333. Accessed on: Feb. 6, 2026.

Tricco, A. C. *et al.* PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of Internal Medicine*, v. 169, n. 7, p. 467–473, 2018. Available at: https://doi.org/10.7326/M18-0850. Acesso em: 25 fev. 2025.

Vitacco, M. J. Neuroscience and the insanity defense: trying to put a complex science into legal practice. *Neuroscience & Law*, 2024. Available at: https://www.sciencedirect.com/science/article/pii/S2666353824000043. Accessed on: Feb. 6, 2026.

Weber, M. A. *et al.* Hindsight bias in forensic mental health novices and experts: an exploratory study. *Psychology, Crime & Law*, 2024. Available at: https://doi.org/10.1080/24732850.2024.2396991. Accessed on: Feb. 6, 2026.

Zhao, J.; *et al.* Implementation research in forensic mental health: system challenges and service models. *Implementation Science*, 2025. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC12509348/. Accessed on: Feb. 6, 2026.

Authors' Contribution

All authors contributed equally to the development of this article.

Data availability

All datasets relevant to this study's findings are fully available within the article.

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