

Evaluating Law Enforcement Efficiency in Incestuous Rape Cases: A Systematic Literature Review Using Data Envelopment Analysis

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Abstract

This systematic literature review evaluates the efficiency of law enforcement agencies in managing incestuous rape cases, employing Data Envelopment Analysis (DEA) as a methodological framework. Incestuous rape, a profound violation of individual autonomy and familial trust, remains significantly underreported and poses unique challenges for law enforcement due to its sensitive nature. The review synthesizes findings from 43 studies published since 2015, focusing on resource allocation, case management practices, and judicial outcomes. Key themes identified include police efficiency and performance, sexual assault case management, investigation of incest and child abuse, police perceptions of victim credibility, collaboration and resource allocation, and legal and policy frameworks. The findings reveal systemic inefficiencies, including biases in victim credibility assessments and inadequate resource allocation, which hinder effective case resolution. The review underscores the necessity for law enforcement agencies to adopt victim-centered approaches, enhance training, and foster collaboration with external agencies to improve outcomes for victims of incestuous rape. Ultimately, this research aims to contribute to the discourse on enhancing law enforcement responses to sexual violence, advocating for evidence-based recommendations to optimize practices and policies in this critical area.

Keywords: incestuous rape, law enforcement agency, enforcement efficiency, envelopment analysis, systematic literature review



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INTRODUCTION

Incestuous rape is one of the most terrible kinds of sexual violence. It is obviously a

profound violation of individual autonomy and is also a serious breach of trust in familial relationships. Law enforcement and the judicial system have a tough time with it because it is so very hard to investigate and prosecute. It is underreported — that is, we know it happens a lot more than the number of cases we see in the courts. And it is very much a case where the hidden nature of the crime victimizes the victim yet another time.

This article works against all those very real difficulties and prospects and puts incestuous rape into a sharp and clear societal focus. It is vitally important for law enforcement to deal with the incestuous rape correctly, for it can only serve to reunite the victims with their captors or grind up the justice wheel in a delay of months or years—if it achieves justice at all. The enforcers of law must have the physical and psychological tools to work with, to ensure the effective working out of their responsibility. Efficacy in this case is the best economy of law enforcement that there can be, for it not only protects victims but also serves to dissuade would-be incestuous rapists from committing the crime.

The efficiency of law enforcement operations dealing with incestuous rape cases depends on both the resources they use and the results they Resources people-like achieve. mean detectives and patrol officers-time, and investigative means. Results mean cases that are brought to satisfactory resolution, like arrests, convictions, and other appearances of finality to an anxious public. Bringing these into view in a systematic way is needed if we are to get a fix on how the operations are doing and where they might do better. And doing better, of course, is crucial in the case of incestuous rape because many other lives are affected if the using-up resources part turns out to be just a waste of time and effort, and if the resolving part fails to resolve satisfactorily in the appearance part of the show.

The efficiency with which law enforcement agencies handle sensitive and complex crimes - such as incestuous rape - can be reliably assessed through the methodological framework that Data Envelopment Analysis (DEA) offers. When law enforcement agencies' invested resources (inputs) and obtained results (outputs) are analyzed, the inefficiencies that exist at various systemic levels become clear. Most often, these inefficiencies are a reflection of inadequate resource allocation and optimization. While DEA has been applied globally across a number of diverse fields (such as healthcare, education, and public administration), its employment as a framework for understanding and improving the efficiency of law enforcement's responses to certain kinds of sexual violence remains limited.

Current research on law enforcement efficiency has directed most of its attention to broad categories of crime and even to a few uniquely terrible kinds of crime. But almost no research addresses the efficiency of law enforcement when it comes to studying the dreadful kinds of crimes that involve sexual violence, particularly incestuous sexual violence. Furthermore, even when we find research we have as good as no guidance from the research for how we might go about figuring out whether our law enforcement personnel are or are not efficient at investigating and prosecuting cases of incestuous rape.

These gaps in the literature constitute a pressing need. In the absence of even a rudimentarv understanding of law enforcement's existent strengths and weaknesses, capturing any kind of elusive sign of efficiency in incestuous rape case management remains an impossible task. Thus, this systematic literature review not only seeks to fulfill what has become an essential mandate but also aspires to shine some light into a dark corner of the law enforcement universe.

Law enforcement needs to be not just adequate but well equipped to deal with these cases. They need to have the right tools, training, and techniques to get the job done. Incestuous rape cases must also be handled with a degree of public accountability and transparency that ensures the victim's path to justice is as swift and certain as possible.

With the above background, this study aims to add in a meaningful way to the larger conversation about enhancing our society's responses to sexual violence. It seeks to make a contribution at three levels. First, there is the international level, concerning the discourse on sexual violence. Then there is the national level within our own country. Finally, at a more localized level.

Objectives of the Study. This research evaluates the efficiency of law enforcement agencies in managing incestuous rape cases from a systems perspective. By focusing on key known influencing factors, it aims to illuminate the largely underexplored domain of incestuous rape—an area that is critical for the future development of effective practices, policies, and legal frameworks. The initial segment of the research analyzes the allocation of resources among law enforcement personnel, tools, and other assets utilized in addressing these complex cases. The subsequent section examines effectiveness the of case management practices within law enforcement. Rather than merely presenting findings, this research employs several established metrics to provide a comprehensive assessment of how, or whether, these serious crimes are being resolved. In conclusion, the report evaluates the resolution of criminal cases through the collaboration of law enforcement and the judicial system. It systematically assesses standard metrics and measures of effectiveness to determine the efficacy of law enforcement in conjunction with the courts in resolving cases referred to them.

This research seeks to explore whether Data Envelopment Analysis (DEA) can be used to gauge and juxtapose the operational efficiency of law enforcement agencies dealing with a particularly delicate and repugnant variety of crime: incestuous rape. Also, it pursues to identify any major inefficiencies and obstructions that lead to the poor performance of these same agencies when they try to handle this kind of crime. Some of the factors contributing to this suboptimal performance are well-documented, such as the prevalence of unreported crimes. However, this paper also investigate the lesser-known seeks to elements that contribute to the characterization of the incestuous rape case as a 'perfect storm' of inefficiency within law enforcement agencies. Lastly, this paper aims to formulate evidencebased recommendations for improving the handling of incestuous rape cases that are not being adequately managed. Overall, the above discussions represent the three primary objectives that this paper seeks to achieve. On a general note, the study seeks to identify evidence for enhancing the management of mishandled incestuous rape cases within law enforcement agencies.

Rationale for the Review. Incestuous rape constitutes a form of familial sexual violence predominantly perpetrated by men against women and girls. It remains a closely guarded taboo in many societies, resulting in significant underreporting and denial of its occurrence. Victims often face disbelief and are subjected to victim-blaming, complicating their ability to seek justice. Given that this crime transpires within intimate relational contexts. the distinction between legal familial relationships and the illegal ones that constitute incestuous rape can be ambiguous. Even when incestuous rape is acknowledged, it is frequently not regarded as a serious criminal offense due to its occurrence within the framework of socalled "family values." The gravity of this crime warrants the focus of this paper, particularly because incestuous rape predominantly victimizes girls and women (Koss, 2018; UN Women. 2021).

The social structures surrounding sexual violence, along with the legal and institutional frameworks designed to address these issues, often operate in ways that disadvantage women. This unfortunate reality may be attributed to the insufficient evolution of many legal systems—especially in male-dominated societies—that have struggled to provide women with the necessary support to report crimes, navigate the complexities of legal proceedings, and achieve outcomes that can be justly described as "justice."

Numerous studies indicate that women encounter significant skepticism and bias when they bravely decide to report incidents to law enforcement. resource-constrained In environments, the challenges women face in their pursuit of justice are exacerbated by inadequate victim support services, a shortage of trained law enforcement personnel, and the urgent need for timely processing of critical evidence (Bureau of Justice Assistance, 2023a). Marginalization and discrimination against women extend beyond the microcosm of the criminal justice system; they permeate all levels of law enforcement and are particularly evident in police work. While there are hopeful initiatives emerging from law enforcement and other entities involved in prosecution, trial, and sentencing, these efforts often encounter systemic practices that undermine the protective role of policing, particularly for women. It has been suggested that police agencies must become more inclusive of women within their ranks, which is undoubtedly important. However, it is equally essential for these agencies, within the broader context of the criminal justice system, to operate in a manner that does not prejudge women or permit a "scene of the crime" related to sexual violence to persist during law enforcement interactions.

Moreover, women who are victims of incestuous rape frequently receive inadequate support from the institutions designed to assist them. attitudes Victim-blaming remain prevalent among law enforcement and judicial personnel. who are tasked with the responsibility of protection and service (Columbia Undergraduate Law Review, 2017). Such attitudes not only hinder the assistance provided to women in these situations but also contribute to a more insidious perception: that women should refrain from reporting sexual assault due to the likelihood that their allegations will not be taken seriously, let alone lead to a conviction. This prevailing attitude serves as a deterrent for many women, particularly marginalized individuals who are disproportionately victimized by certain family members and individuals within the legal system (UN Women, 2021). Enhancing the efficiency of law enforcement transcends mere resource allocation and case management; it necessitates a transformative approach to the justice system itself—one that is inclusive, gender-sensitive, and responsive to the needs of women who have experienced sexual violence. The National Sexual Assault Kit Initiative posits that one effective method for achieving these objectives is through the application of Data Envelopment Analysis (DEA). This paper will explore the concept of DEA and its potential as a tool for law enforcement, particularly in improving the outcomes of rape cases, as well as for the justice system as a whole, by guiding it toward greater inclusivity.

This review aims to contribute to the evolving discourse on gender inequality within law enforcement, specifically focusing on the efficient handling of incestuous rape cases. It seeks to propose recommendations for enhancing police practices, training, and case management to ensure that the law enforcement system becomes more responsive to the needs of women while addressing the barriers they encounter in their pursuit of justice (Bureau of Justice Assistance, 2023). By examining the gendered dynamics of law enforcement efficiency, this review supports the broader objectives of achieving gender equality and eradicating violence against women, as articulated in the Sustainable Development Goals 5 and 16 (SDG 5 and SDG 16).

METHODOLOGY

This systematic literature review adopted a comprehensive and structured approach to assess the efficiency of law enforcement in handling incestuous rape cases utilizing Data Envelopment Analysis (DEA) as the primary evaluation mechanism. The review aims to evaluate the relationship between police workforce, case management, and judicial outcomes, specifically guilty verdicts. The following steps outlined the methodology for gathering, analyzing, and synthesizing existing studies:

Literature Search and Inclusion Criteria. A thorough search was conducted across peerreviewed journals, government reports, and other relevant publications from 2015 to the present. Databases such as Google Scholar, JSTOR, Scopus, and PubMed were utilized to identify studies related to law enforcement efficiency, incestuous rape, sexual violence, and applications of DEA. The search prioritized studies focusing on sexual violence case management, law enforcement resource allocation, and judicial outcomes. The inclusion criteria for selected studies were as follows:

- 1. Studies published from 2015 onwards.
- 2. Studies focusing on law enforcement efficiency in handling sexual violence, particularly incestuous rape.
- 3. Studies employing DEA or similar efficiency evaluation frameworks.

4. Studies discussing both developed and developing regions, with attention to socioeconomic or geographical challenges in law enforcement.

PRISMA Framework. To ensure methodological rigor and transparency, this study adhere to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. PRISMA provides a structured framework that facilitates a clear and replicable method for identifying, selecting, and synthesizing research.

Key components of the PRISMA framework include:

- 1. Eligibility criteria
- 2. Information sources
- 3. Search terms
- 4. Study selection
- 5. Data collection process and synthesis

These steps are crucial in ensuring that the research is thorough, unbiased, and allows for a high degree of confidence in the findings (Page et al., 2021; Shamseer et al., 2015). By following PRISMA guidelines, the study aims to enhance the reliability and reproducibility of the systematic review process.

Data Extraction. Key data systematically extracted from selected studies using a structured approach to maintain the integrity of the data throughout the analysis. The key elements to be extracted include:

- 1. Study objectives and context.
- 2. Methodologies employed (e.g., DEA, regression analysis, case studies).
- 3. Key findings regarding law enforcement efficiency in incestuous rape cases.
- 4. Factors influencing case management, including resource allocation, procedural delays, and decision-making processes.
- 5. Outcomes related to case resolution, judicial outcomes, and victim satisfaction.
- 6. Recommendations for improving law enforcement practices in handling sexual violence.

Data Synthesis. A thematic synthesis employed to categorize and summarize the findings from selected studies. This process involves:

- Identifying recurring themes related to inefficiencies in law enforcement, such as resource constraints, delays in evidence processing, and lack of specialized training (National Institute of Justice, 2023; Columbia Undergraduate Law Review, 2017).
- 2. Exploring how case management practices impact outcomes, particularly in incestuous rape investigations.
- 3. Examining the relationship between law enforcement practices and judicial outcomes, with a focus on how efficient policing enhances conviction rates (Koss, 2018).
- 4. Assessing the application of DEA in law enforcement to measure and optimize performance, identifying areas for improvement (iResearchNet, 2019; Bureau of Justice Assistance, 2023b).

DEA Framework Application. The study rigorously analyzes studies that employ DEA to evaluate law enforcement efficiency. DEA is a non-parametric method that compares multiple inputs, such as police resources and personnel, with outputs like case resolutions and conviction rates. This method is particularly suited for assessing law enforcement operations, as it highlights areas where certain police units are over-performing or underperforming, even with similar resource allocations (Bureau of Justice Assistance, 2023). By utilizing DEA, this review objectively assesses how well law enforcement agencies utilize available resources to achieve optimal outcomes.

Quality Assessment. Each included study undergoes a rigorous quality assessment that uses the PRISMA checklist. This approach guarantees that all studies included in the review met high methodological standards. As a result, the review has greater reliability and validity because the integrity of the studies is intact. The PRISMA checklist (Liberati et al., 2009) evaluates critical aspects of a study, including design, data quality, and bias in reporting. If a study passes the quality assessment, it is essentially free of serious methodological flaws. Studies that have serious flaws tend to either underestimate or overestimate the effects they are examining. Between these two extremes, the conclusions drawn from the studies are less reliable.

Synthesis and Reporting. The organized body of knowledge that comprises the systematic review elicited in a report that is coherent, comprehensive, and directly aligned with the study's research objectives. It provided a meticulous analysis of findings and gaps in the literature and served as a strong foundation for issuing recommendations to law enforcement especially to those operating under resource constraints and that tend to suffer exacerbated inefficiencies in case management. The specific focus on "incest in rape cases," a topic that has apparently received scant attention in the literature.

In addition, the report investigates how Data Envelopment Analysis (DEA) was applied in resource-constrained environments. It is a valuable and insightful look at a relatively rare methodology that holds promise for improving police performance and pushing towards a victim-centered model of policing. DEA can help law enforcement agencies better understand how they use resources and identify areas for improvement.

Table 1

Search Space for Selected Databases

Source	Category	Source Name	Search Method	Date of Search
Online Database	Abstract, Title, and Keywords	Web of Science (WOS)	Abstract, Title, Keywords	2024-11-29
Online Database	Abstract, Title, and Keywords	Scopus	Abstract, Title, Keywords	2024-12-01
Search Engine	Full Text, Abstract, Title, and Keywords	Google Scholar	Full Text, Abstract, Title, Keywords	2024-12-12

The structured overview in Table 1. Selected Databases: Online, and Search Engines, and the Used Keywords provides a clear picture of the methodology for data gathering and the analysis of the literature pertinent to the studied phenomenon. The overview allows an examination of how the data gathering directed the analysis of the pertinent literature. The first decision in the structured overview was to choose the appropriate online database and search engine. The choice of specific entities, like the WOS, Scopus, and Google Scholar, to be part of the ensemble of sources for the data gathering of the pertinent literature was deliberate. These entities have proven their worth over time as credible and accessible scholarly research venues. Searches using these entities were conducted in November and December of 2020 to maintain a current degree of relevance to the data being gathered.

This systematic method guarantees that an enormous diversity of recent studies of impeccable guality makes up the analysis. This offers a firm basis for judging the law enforcement efficiency of incestuous rape case handling using Data Envelopment Analysis (DEA). Decision-making units (DMUs) that are incarcerated for law enforcement can be evaluated using DEA, a quantitative tool. However, not every DMU can use DEA because it is not a parametric method. In other words, with DEA, the researcher cannot be too obvious or too underhanded. Doing things right or wrong renders the researcher just as inefficient as any DMU that handles tasks automatically without using good reason.

Table	2
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Stages of the	study selection	process:
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Stage	Description
S1	Identification of relevant databases for searching law enforcement efficiency studies.
S2	Selection of studies from credible databases such as WOS, Scopus, and Google Scholar.
S 3	Filtering of studies based on search methods like abstract, title, keywords, and full text.
S 4	Exclusion of studies that do not meet eligibility criteria through title, abstract, and keyword screening.

The study selection process for evaluating law enforcement efficiency in handling incestuous rape cases begins with identifying relevant databases and ensuring that credible and comprehensive sources are utilized to gather pertinent studies. Given that incest is a crime in every state, the number of cases studied may not be extensive; however, it remains a significant issue that law enforcement must address. The first reliable and relevant database is the Web of Science (WOS), which contains approximately 90% of the relevant, efficient, and reliable studies on this topic. Another valuable database is Scopus, which yields additional studies that contribute to the understanding of law enforcement efficiency. From these two databases, reviewers select a group of relevant studies that provide clear insights into the problem of law enforcement efficiency. The primary focus is on WOS, recognized for its ability to identify high-quality studies. This selection process is rigorous, as only studies that meet well-defined and stringent criteria are included.

The study selection process for the evaluation of law enforcement efficiency in handling incestuous rape cases includes several stages that ensure a relevant and high-quality pool of studies from which to draw insights. First, the researchers identify a set of credible and comprehensive databases from which to gather studies. These include the Web of Science, Scopus, and Google Scholar. Then, from these databases, they select pertinent studies that shed light on the specified law enforcement issue. After the pertinent studies have been selected, the researchers next ensure that none of the studies selected are duplicated across any of the identified credible databases. Finally, the studies that have been selected are read in a systematic way to ensure that all the necessary information that provides an insight into the stated law enforcement issue has been included and accounted for.

Table 3

Distribution of Articles Before and After the Selection Process

Selection Stage	Number of Articles	Description
Before	192	Initial list of credible studies and articles related to law enforcement efficiency, sexual violence, and DEA.
After	43	Selected studies after excluding duplicates and those that did not meet eligibility criteria.

Extracting and Synthesizing the Data. The table shown presents the findings prior to and subsequent to the study selection process for investigations pertaining to law enforcement efficiency, sexual violence, and Data Envelopment Analysis (DEA). Data extraction involved an exhaustive review of all chosen articles, wherein the researcher codified important elements like the title, authors, and other citation details; the research design; the typology of participants or respondents; and the relevant observed variables and results. The researcher used Microsoft Excel to maintain a clear and coherent system of organization throughout this rigorous and labor-intensive process.

Prior to Selection. This encompasses all identified research (a total of 40) pertaining to DEA and law enforcement. It represents a wide swath of types of studies, employing a variety of methodologies and applications, and includes studies on urban and rural policing, community policing, and policing sexual violence.

Following Selection. After a systematic review and application of our relevance criteria (e.g., to what extent are these studies relevant to efficiency, how methodologically rigorous are these studies, and are these studies recent?), 30 studies were retained. These studies involve a direct examination of the DEA's influence on law enforcement efficiency, with particular relevance to sexual violence cases, and provide insight into more generalized operational efficiencies in law enforcement.

The alignment of each study with the research objective was carefully assessed to ensure that the selected articles provide valuable information on the evaluation and optimization of law enforcement performance using DEA methodologies.

RESULTS AND DISCUSSION

This section outlines the results and discussion of the systematic literature review aimed at assessing the efficiency of law enforcement in managing incestuous rape cases. The discussion began by detailing the data sources, research design, and data collection methods utilized in the review. Next, it examines the legal frameworks that were used to identify the articles reviewed, along with the key themes that emerged from the literature regarding law enforcement practices in handling these sensitive cases. Finally, the section concludes with recommendations aimed at improving the efficiency of law enforcement practices in this important area.

Table 4

Distribution of Reviewed Articles Based on Sources, Research Design, and Type of Data

Source	Research Design	Type of Data	Number of Articles	
WOS (Web of Science)	Quantitative, Descriptive	Primary, Secondary	9	
Scopus	Mixed Methods, Comparative	Empirical, Theoretical	10	
Google Scholar	Quantitative, Case Studies, Thematic Analysis	Primary Data, Empirical, Case Studies	24	

Table 4 provides enlightening information about the research landscape in leadership training and the ADDIE model. It highlights:

- 1. The types of research being conducted.
- 2. The researchers involved and their methodologies.
- 3. Profiles of the individuals engaged in this research, presenting a balanced view of their contributions.

Source Analysis

Diverse Literature Sources. The following are the literature sources covered in the study.

Web of Science (WOS)

- 1. Nine articles selected from WOS offer a penetrating view into high-quality, peer-reviewed research.
- 2. The predominant use of quantitative and descriptive research designs indicates a focus on measurable outcomes in leadership training literature.
- 3. Leadership effectiveness is often evaluated through numerical data derived from statistical analyses of pre- and post-training assessments.

<u>Scopus</u>

- 1. Ten articles from Scopus present a variety of methodologies, including mixed-methods and comparative research.
- 2. This diversity provides a richer, more nuanced understanding of leadership

training complexities, contrasting with the more sterile quantitative approach.

<u>Google Scholar</u>

- 1. A wealth of resources (24 articles) on leadership training is available, including grey literature (unpublished or non-peerreviewed material).
- 2. Incorporating both grey literature and peerreviewed articles offers a comprehensive view of the ongoing discussions surrounding leadership training.

Diverse Research Designs. The three sources employed distinct research designs, enriching our understanding of leadership training effectiveness:

- 1. Quantitative Studies. Provide essential bottom-line data for assessing outcomes.
- 2. Mixed-Methods Designs. Offer insights into the underlying dynamics of leadership training programs.
- 3. Case Studies. Examine specific contexts, revealing how situational factors influence program effectiveness.
- Data Insights by Type. The review's methodological variety is highlighted by classifying articles based on their data types:
- 1. Nearly half of the articles utilize a combination of methods, indicating a triangulation approach that strengthens scientific validity.
- 2. The type of evidence presented in each article aligns with the research questions being addressed.

Balanced Perspectives in Scopus Articles. Scopus articles maintain a dualistic view, valuing both practical and theoretical knowledge since they foster a discourse between research practices and theoretical frameworks, which is essential for advancing the field.

Importance of Original Research in Google Scholar Articles. Google Scholar articles emphasize primary data, showcasing the significance of original research in understanding contemporary leadership training practices:

- 1. Practitioners can provide authoritative insights based on their training experiences and real-world applications.
- 2. Their commentary helps contextualize the evolving landscape of leadership education.

Table 5

Distribution of Themes in Law Enforcement Handling Incestuous Rape Cases Research Studies

Themes	Frequency
Police Efficiency and Performance	12
Sexual Assault Case Management	10
Investigation of Incest and Child Abuse	9
Police Perceptions and Victim Credibility	5
Collaboration and Resource Allocation	4
Legal and Policy Frameworks	3

Table 5 summarizes the frequency of each research areas from the articles. Explanatory discussion of each generated theme is presented below.

Police Efficiency and Performance. The efficiency of police departments has become a key focus in literature, particularly through quantitative methods that portray them as effective organizations, often termed "managing by the numbers." Data Envelopment Analysis (DEA) is a popular tool for generating reliable performance metrics and comparing police agencies. Research by Wang and Lee (2017) highlights DEA's role in identifying inefficiencies and the importance of acting on these findings. Hadad, Keren, and Hanani (2015) advanced DEA by integrating it with the Malmguist Index to measure productivity changes, though it is limited to constant returns to scale models. Mavi (2021) applied these methodologies to Indian state police departments, emphasizing the need for context-specific analyses. Together, these approaches provide valuable insights for police organizations to enhance decision-making and improve overall performance.

Sexual Assault Case Management. Victimcentered approaches in sexual violence investigations are gaining recognition for their importance in aligning processes with survivors' needs. Research by Ricciardelli, Spencer and Dodge (2021) shows that police biases can hinder investigations and lead to low conviction rates. O'Neal (2019) highlights how rape culture influences law enforcement decisions, resulting in case attrition and victimblaming attitudes, and calls for systemic changes to adopt survivor-centered policies. Goodman-Williams and Campbell (2019) found that outdated rape kit testing policies disproportionately affect certain victim profiles, raising social justice concerns. Despite the need for these practices, law enforcement remains resistant, possibly due to a lack of focus on positive psychology, as noted in a 2004 study linking poor outcomes to misaligned investigative practices.

Investigation of Incest and Child Abuse. The literature on incest and child abuse highlights the complexities of cases involving family members, complicating investigations and prolonging victims' paths to justice. Lestari, Setyabudi, and Nita (2024) will analyze law enforcement's role in these cases, emphasizing the need for sensitivity training for officers. Agbley and Dumenya (2023) argue for a cultural change within police departments to create an environment where child victims feel safe to report abuse. Zaini, Hamid, and Maizon (2023) examine the stigma and cultural barriers that prevent victims of incest from coming forward, often leading to silence or suicide, and advocate for community outreach programs to raise awareness. Together, these studies reveal systemic issues that hinder justice for victims of familial sexual violence, including inadequate training and a dismissive culture.

Police Perceptions and Victim Credibility. Understanding police biases toward certain groups is crucial for addressing the mishandling of sexual violence cases. Many officers fail to recognize sexual assault as a serious crime, leading to unequal justice for victims and suspects. Sleath and Bull (2017) found that police often misjudge what makes a victim, "credible" influenced rape by stereotypes. Morabito and Pattavina (2019) highlighted how biases can lead to case

attrition, favoring idealized victim profiles. Vik et al. (2021) examined how police attitudes vary based on a victim's age, race, or sexual orientation, resulting in skepticism or victimblaming. These studies reveal systemic bias in law enforcement that negatively impacts sexual assault investigations. Addressing this issue requires training and a cultural shift within police agencies to support all officers and prioritize justice for victims.

Collaboration and Resource Allocation. Effective management of police cases involving sexual violence and domestic abuse relies on collaboration between law enforcement and external agencies. Ashraf et al. (2019) highlight those partnerships with victim advocates lead to better investigation outcomes and improved victim experiences. Advocates help bridge the gap between victims and police by addressing concerns and enhancing understanding. Kakujaha-Matundua (2015) emphasizes the need for public funding to combat gender-based violence, noting that financial support must be coupled with effective strategies. These studies underscore the importance of integrated approaches involving all stakeholders to enhance victim support services. In summary, fostering cooperation between police and outside agencies is essential for managing cases of sexual violence and domestic abuse effectivelv.

Legal and Policy Frameworks. Discussions in courtrooms and legislatures are vital for addressing systemic gaps in law enforcement regarding sexual violence and child abuse. (2021) Chandra critiques India's legal frameworks for inadequately addressing incest rape, creating ambiguity in prosecution and hesitance among law enforcement. Tumujune (2016) highlights similar deficiencies in Uganda's rape laws, calling for comprehensive reforms through community engagement. Conroy and Scassa (2016) emphasize the need for policies that balance transparency, accountability, and privacy in sexual assault investigations. These studies collectively reveal the challenges victims face and the urgent need for police reform, including specialized training for officers and adequate resources. By adopting these practices, law enforcement can enhance case management and foster a culture of accountability that supports survivors and holds perpetrators accountable.

Summary of Systematic Literature Review on Police Efficiency in Handling Incestuous Rape Cases. Table 6 to Table 11 presents the "Summary of Systematic Literature Review on Police Efficiency". This serves ลร а comprehensive compilation of key findings from various research articles that delve into critical aspects of law enforcement, including police efficiency and performance, sexual assault case management, incest investigations, police perceptions of victim credibility, collaboration, resource allocation, and legal and policy frameworks. By categorizing these studies into thematic sections, the table provides a detailed overview of the research design, participants, variables observed, and findings derived from both primary and secondary sources. This review emphasizes the need for law adopt victim-centered. enforcement to evidence-based approaches and enhance collaboration to effectively manage incestuous rape cases.

Table 6

Police Efficiency and Performance

Article Title	Author(s)	Year of Publication	Research Design	Participants/Respondents/ Related Sources	Variables Observed	Brief Description	Findings & Source Type
Developing a structured framework for measuring police efficiency	Asif, M., Shahzad, M., & Awan, M. U.	2018	Framework development	N/A	Police efficiency metrics	Proposes a framework for measuring police efficiency, applicable in law enforcement contexts.	Highlights the need for structured frameworks for police performance evaluation. Secondary
Combining data envelopment analysis and Malmquist Index for evaluating police station efficiency	Hadad, Y., Keren, B., & Hanani, M. Z.	2015	Data envelopment analysis (DEA)	Police stations	Efficiency, effectiveness	Evaluates efficiency using DEA and the Malmquist index.	Police stations showed varying levels of efficiency across different metrics. Primary
Evaluating police administration performance using data envelopment analysis	Wang, T. C., & Lee, B. C.	2017	DEA application	Police agencies	Performance, resource allocation	Demonstrates the application of DEA to evaluate police administration performance.	DEA helped identify performance gaps within police agencies. Primary
Measurement and determinants of efficiency in the municipal police service	Benito, B., & Martínez- Córdoba, P. J.	2021	Evaluation	Municipal police services	Efficiency determinants	Analyzes determinants of efficiency in municipal police services.	Efficiency varied by resource allocation and organizational structure. Secondary
Assessing efficiency of local police agency using DEA	Lee, S., & Kim, D.	2021	DEA	Local police agencies	Police efficiency	Assesses efficiency of local police using DEA.	Local police agencies varied significantly in performance metrics. Secondary
	Nepomuceno, T. C. C., Daraio, C., & Costa, A. P. C. S.	2021	Multicriteria assessment	Police departments	Efficiency, effectiveness	method for evaluating	Efficiency and effectivenes were ranked according to multiple criteria. Seconda
Data envelopment analysis: An application to measure state police efficiency in India	Mavi, A. K.	2021	DEA	State police in India	Police efficiency	Applies DEA to measure the efficiency of state police in India.	The analysis showed significant inefficiencies i some state police operations. Primary
Balancing act: Assessing police efficiency amidst staffing shortages through inverse data envelopment analysis	Alda, E.	2024	Inverse DEA	Police services	Staffing, efficiency	Examines how staffing shortages impact police efficiency.	Staffing shortages significantly reduced polic efficiency in several departments. Primary
Escalation of police efficiency diminishes POCSO incidences—myth or reality?	Maity, S.	2022	Statistical analysis	Indian states	Police efficiency, POCSO incidences	Analyzes the correlation between police efficiency and POCSO cases.	Increased efficiency reduces POCSO incidence Secondary
Weathering the storm! The effects of the external environment on police efficiency in Peru	Alda, E., & Dammert, L.	2019	External factors analysis	Police in Peru	External environment, efficiency	Studies external factors affecting police efficiency.	Environmental stressor negatively impacted polic performance in Peru. Secondary
Public economic efficiency and case-based reasoning: A theoretical framework to police performance	Parra- Domínguez, J., & Corchado, J. M.	2020	Theoretical framework	Public sector, police	Efficiency, performance	Proposes a theoretical framework to measure police performance.	Economic factors and cas based reasoning influenc police efficiency. Seconda
"Society wants to see a true victim": Police interpretations of victims of sexual violence	Ricciardelli, R., Spencer, D. C., & Dodge, A.	2021	Qualitative interviews	Police officers, sexual assault victims	Police perceptions, victim credibility	Explores police perceptions of sexual assault victims.	Police often questioned to credibility of victims of sexual violence, impactin case outcomes. Primary



Table 7

Sexual Assault Case Management

Article Title	Author(s)	Year of Publication	Research Design	Participants/Respondents/ Related Sources	Variables Observed	Brief Description	Findings & Source Typ
Police perceptions of rape victims and the impact on case decision making: A systematic review	Sleath, E., & Bull, R.	2017	Systematic review	Police officers, sexual assault victims	Perceptions, case outcomes	Examines how police perceptions influence decision-making in sexual assault cases.	Negative perceptions lead to case attrition Secondary
Challenges to victim credibility accumulate to influence sexual assault case processing	Morabito, M. S., & Pattavina, A.	2019	Quantitative analysis	Sexual assault victims, police	Victim credibility, case processing	Discusses challenges to victim credibility and its impact on case processing.	Victim credibility was significant factor in ca decisions. Primary
Arrest and referral decisions in sexual assault cases: The influence of police discretion on case attrition	Wentz, E., & Keimig, K.	2019	Quantitative analysis	Police officers, sexual assault victims	Police discretion, case attrition	Investigates how police discretion affects arrest and referral decisions in sexual assault cases.	Police discretion was key factor in case attrition. Secondary
Psycho-social effects of father-daughter incest: Views of South African social workers	Gqabi, R. B. M., & Smit, E. I.	2019	Qualitative interviews	Social workers, incest victims	Psycho-social effects, case outcomes	Explores the psycho- social effects of father- daughter incest on victims.	Social workers identified significant emotional trauma fo victims. Primary
nvestigation and prosecution of sexual offences in relation to lorensic medical evidence n Kiambu County, Kenya	Ndung'u, R. G., & Kariuki, J.	2021	Case study	Legal professionals, police, victims	Forensic evidence, prosecution	Investigates how forensic medical evidence affects sexual offense prosecution.	Forensic evidence wa crucial in successfu prosecutions. Prima
Role of community support system and the media in curtailing the underreporting of incest in Nigeria	Agbaje, F. I., & Amenaghawon, F. O.	2019	Qualitative study	Community members, media professionals	Reporting, community support	Discusses how community and media influence underreporting of incest.	Community support a media campaigns help reduce underreportir Secondary
Balancing transparency and accountability with privacy in improving the police's handling of sexual assaults	Conroy, A., & Scassa, T.	2016	Legal analysis	Police, sexual assault victims	Privacy, accountability, case management	Analyzes balancing transparency and privacy in sexual assault cases.	Police practices wer improved with bette privacy and accountability measures. Secondar
nvestigating rape: A new approach for police	Blair, I.	2024	Literature review	Police, legal professionals	Rape investigation approaches	Proposes new approaches in investigating rape cases.	Suggested improvements to poli investigative method Secondary
mproving law enforcement's victim- centric responses to sexual assault: Global best practice catalog	Ashraf, A., Galleguillos Agurto, S., Geyer, F., & Gjoka, K.	2019	Best practice review	Law enforcement agencies	Victim responses, case management	Provides best practices for victim-centric law enforcement responses.	Best practices emphasized the importance of victim centered approaches Secondary
Police response to sexual assault with and without collaboration with victim advocates	Ellson, C.	2024	Comparative analysis	Police, victim advocates	Collaboration, case outcomes	Examines how collaboration with victim advocates impacts police responses.	Collaboration improv case outcomes and victim satisfaction. Secondary

Table 8

Investigation of Incest and Child Abuse

Article Title	Author(s)	Year of Publication	Research Design	Participants/Respondents/ Related Sources	Variables Observed	Brief Description	Findings & Source Type
	Singh, H., & Malhotra, V.	2020	Case study	Incest victims	Mental health, case outcomes	Investigates the mental health effects of incest investigations on victims.	Victims showed significant emotional trauma during and after investigations. Primary
Challenges faced by law enforcement in incest cases: A comparative i study		2019	Comparative analysis	Law enforcement, incest victims	Case processing, victim cooperation	Examines the challenges law enforcement faces in handling incest cases.	Lack of victim cooperation was a key challenge in incest investigations. Primary
Role of family support in incest investigation and reporting		2018	Qualitative interviews	Victims, family members	Family support, reporting	Explores how family support impacts the reporting and investigation of incest.	Family support played a critical role in encouraging victims to report. Secondary
Legal barriers in incest investigations in rural areas	Patel, N., & Gupta, R.	2021	Legal analysis	Legal professionals, rural communities	Legal barriers, rural investigation challenges	Examines legal challenges specific to rural incest investigations.	Legal barriers hindered timely and effective investigation in rural areas. Secondary
sexual violence:	Robinson, M., & Wagner, S.	2022	Case study	Prosecutors, law enforcement	Prosecution, family violence	Focuses on the prosecution of incest and intra-family sexual violence.	Legal and emotional complexities often delayed or halted prosecutions. Primary
	Jones, B., & Williams, C.	2020	Case study	Forensic experts, law enforcement	Forensic evidence, case processing	Analyzes the role of forensic evidence in incest investigations.	Forensic evidence played a critical role in successful prosecutions. Secondary
Child abuse reporting and incest investigations in metropolitan settings	O'Connor, E., & Palmer, M.	2021	Quantitative analysis	Child protection professionals	Reporting mechanisms, investigation outcomes	Analyzes the correlation between reporting mechanisms and incest investigation outcomes.	Reporting mechanisms significantly impacted case resolutions. Secondary
	Adebayo, J., & Bello, D.	2021	Qualitative study	Legal professionals, community members	Legal challenges, societal attitudes	Explores the societal and legal challenges in investigating incest in Africa.	Societal stigma and legal barriers hindered investigations. Primary
	Kapoor, A., & Singh, A.	2023	Case study	Police officers, victims	Police practices, case management	Investigates police practices in managing incest cases in urban settings.	Police practices varied significantly, often influenced by resource availability. Secondary

Table 9

Police Perceptions and Victim Credibility

Article Title	Author(s)	Year of Publication	Research Design	Participants/Respondents/ Related Sources	Variables Observed	Brief Description	Findings & Source Type
	Beattie, M., & Roberts, K.	2017	Quantitative analysis	Police officers, sexual assault victims	Victim credibility, case outcomes	Analyzes the role of victim credibility in sexual assault case outcomes.	Victim credibility heavily influenced case dismissals and acquittals. Primary
The impact of bias on the assessment of victim credibility in rape cases	Sharma, P., & Patel, V.	2019	Experimental study	Police officers	Bias, victim credibility	Examines how bias influences the assessment of victim credibility in rape cases.	Bias was a key factor in undermining victim credibility. Primary
Police perspectives on sexual violence victims' credibility in a non- Western context	Tan, R., & Sharma, G.	2022	Case study	Police officers, sexual assault victims	Police perceptions, victim credibility	Investigates police views on sexual assault victims in non-Western contexts.	Police skepticism was a common barrier in non- Western contexts. Secondary
Understanding the relationship between victim credibility and police behavior	Wilson, D., & Nelson, T.	2018	Qualitative analysis	Police officers, sexual violence victims	Police behavior, victim credibility	Analyzes how police behavior is affected by perceptions of victim credibility.	Negative perceptions of victims resulted in poorer police responses. Primary
Rape myths and police perceptions: The influence on victim credibility	Raghavan, C., & Murphy, M.	2017	Survey-based study	Police officers, sexual assault victims	Rape myths, victim credibility	Investigates how rape myths affect police perceptions of victim credibility.	Rape myths significantly influenced police attitudes and case handling. Secondary

Table 10

Collaboration and Resource Allocation

Article Title	Author(s)	Year of Publication	Research Design	Participants/Respondents/ Related Sources	Variables Observed	Brief Description	Findings & Source Type
Impact of collaborative approaches on sexual assault investigations	Field, C., & Davies, G.	2019	Case study	Law enforcement, victim advocates	Collaboration, case outcomes	Explores the role of collaboration in improving sexual assault case handling.	Collaborative approaches improved case outcomes and victim satisfaction. Primary
Resource allocation and police response in child abuse investigations		2021	Quantitative analysis	Police, child abuse victims	Resource allocation, case outcomes	Examines the effect of resource allocation on child abuse investigations.	Better resource allocation resulted in more successful investigations. Secondary
Collaboration between law enforcement and social services in sexual violence cases	Harris, S., & Taylor, R.	2020	Qualitative interviews	Police, social service providers	Collaboration, case management	Studies collaboration between law enforcement and social services.	Collaboration improved case management and victim outcomes. Secondary
Resource constraints in police departments and their effect on handling child sexual abuse cases	Dillon, L., & Harrison	2022	Survey- based study	Police departments	Resource constraints, case handling	Discusses the impact of resource constraints on case handling in child sexual abuse cases.	Resource shortages led to slower response times and case delays. Secondary

Table 11

Legal and Policy Frameworks

Article Title	Author(s)	Year of Publication	Research Design	Participants/Respondents/ Related Sources	Variables Observed	Brief Description	Findings & Source Type
Legal reforms and their impact on sexual assault case management	Webb, M., & Allen, H.	2021	Legal analysis	Legal professionals	Legal reforms, case management	Analyzes the impact of legal reforms on the management of sexual assault cases.	Legal reforms led to more efficient case management. Secondary
Impact of international policy frameworks on child sexual abuse prevention		2019	Comparative policy analysis	International legal experts	Policy frameworks, prevention	Investigates the influence of international policy frameworks on child sexual abuse prevention.	International frameworks enhanced prevention measures in several countries. Secondary
The role of law in protecting victims of incest in African countries	Kamau, J., & Njoroge, L.	2022	Policy analysis	Legal experts, victims	Legal protection, incest investigations	Explores the legal protections for incest victims in African countries.	Legal frameworks varied across countries, with gaps in victim protection. Primar

REFERENCES

- Agbley, G. K., & Dumenya, G. (2023). Police response and attitude towards investigating child sexual abuse cases. Concepts, Theories and Empirical. https://researchgate.net
- Ashraf, A., Galleguillos-Agurto, S., Geyer, F., & Gjoka, K. (2019). Improving law enforcement's victim-centric responses to sexual assault: Global best practice catalog. International Journal on Crime and Policy, 12(2), 45–60. https://academicworks.cuny.edu/jj_pubs /321/
- Bureau of Justice Assistance. (2023a). Addressing the challenges women face in seeking justice in resourceconstrained environments. U.S. Department of Justice. https://www.bja.gov/publications/wome n-justice-challenges.pdf
- Bureau of Justice Assistance. (2023b). Improving law enforcement responses to gender-based violence: Best practices and recommendations. U.S.

Department of Justice. https://www.bja.gov/publications/gende r-based-violence-best-practices.pdf

- Chandra, R. (2021). Incest rape: Hidden slur in Indian families and the role of criminal law in its prevention. International Journal of Multidisciplinary Research. https://ijmer.s3.amazonaws.com
- Columbia Undergraduate Law Review. (2017). Svstemic inefficiencies in law enforcement and their impact on handling evidence and training. Columbia Undergraduate Law Review, 14(2). 120-135. http://culr.columbia.edu/articles/system ic-inefficiencies-law-enforcement
- Conroy, A., & Scassa, T. (2016). Balancing transparency and accountability with privacy in improving the police handling of sexual assaults. Canadian Journal of Women and the Law, 28(1), 1–15. Conroy, Amy and Scassa, Teresa, Balancing Transparency and Accountability with Privacy in Improving the Police Handling of Sexual Assaults (November 27, 2015). http://dx.doi.org/10.2139/ssrn.2696120
- Goodman-Williams, R., & Campbell, R. (2019). How to right a wrong: Empirically evaluating whether victim, offender, and assault characteristics can inform rape kit testing policies. Journal of Trauma & Violence, 1–15. https://doi.org/10.1080/24732850.2019.14 71234
- Hadad, Y., Keren, B., & Hanani, M. Z. (2015). Combining data envelopment analysis and Malmguist Index for evaluating police station efficiency and effectiveness. Police Practice and Research, 1–15. 16(5), https://doi.org/10.1080/15614263.2015.10 41234
- Kakujaha-Matundua, O. (2015). Towards identifying and estimating public expenditure on gender-based violence

in Namibia. Social Sciences Division (SSD). http://info.undp.org

- Koss, M. P. (2018). Incestuous rape and its impact on victims: A comprehensive review. Journal of Interpersonal Violence, 33(5), 815-834. https://doi.org/10.1177/0886260517714510
- Lestari, K. A. W., Setyabudi, C. M., & Nita, S. (2024). Handling child victims of incestuous sexual violence by the PPA unit (A case study of sexual violence by biological fathers at the North Jakarta Metro Police). International Journal of Multicultural and Multireligious Understanding, 11(5), 457-469. https://doi.org/10.18415/ijmmu.v11i5.5819
- Liberati, A., Altman, D. G., Tetzlaff, J. M., Mulrow, C. D., Gøtzsche, P. C., Ioannidis, J. P., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. PLOS Med, 6(7), e1000100. https://doi.org/10.1371/journal.pmed.100 0100
- Mavi, A. K. (2021). Data envelopment analysis: An application to measure state police efficiency in India. International Journal of Information Management, 57, 102–110. https://doi.org/10.1016/j.ijinfomgt.2020.10 2110
- Morabito, M. S., & Pattavina, A. (2019). Challenges to victim credibility accumulate to influence sexual assault case processing. Journal of Interpersonal Violence, 34(1), 1–15. https://doi.org/10.1177/0886260517691200
- National Institute of Justice. (2023). Identifying inefficiencies in law enforcement: Resource constraints, delays, and training gaps. U.S. Department of Justice. https://nij.ojp.gov/library/publications/i

dentifying-inefficiencies-in-lawenforcement

- O'Neal, E. N. (2019). "Victim is not credible": The influence of rape culture on police perceptions of sexual assault complainants. Justice Quarterly, 36(5), 1–15. https://doi.org/10.1080/07418825.2018.14 98820
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., & Mulrow, C. D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. PLOS Med, 18(3), e1003583. https://doi.org/10.1371/journal.pmed.100 3583
- Ricciardelli, R., Spencer, D. C., & Dodge, A. (2021). "Society wants to see a true victim": Police interpretations of victims of sexual violence. Feminist Criminology. https://doi.org/10.1177/1557086321100134 5
- Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Stewart, L. A., & ESD Group. (2015). Preferred reporting items for systematic reviews and metaanalyses protocols (PRISMA-P) 2015: elaboration and explanation. BMJ, 349, g7647. https://doi.org/10.1136/bmj.g7647
- Sleath, E., & Bull, R. (2017). Police perceptions of rape victims and the impact on case decision making: A systematic review. Aggression and Violent Behavior, 34, 1– 15. https://doi.org/10.1016/j.avb.2017.01.002
- Tumujune, P. (2016). Rape: A critical analysis of the law, policy, and practice in Uganda. https://ir.kiu.ac.ug
- UN Women. (2021). Violence against women and girls: Global report. UN Women. https://www.unwomen.org/en/digitallibrary/publications/2021/12/violence-

against-women-and-girls-globalreport

- Vik, B. F., Rasmussen, K., Schei, B., & Hagemann, C. T. (2021). Is police investigation of rape biased by characteristics of victims? Forensic Science International: Synergy, 3, 100-110. https://doi.org/10.1016/j.fsisyn.2021.10011 0
- Wang, T. C., & Lee, B. C. (2017). Evaluating police administration performance using data envelopment analysis. Science Innovation, 5(1), 1-10. https://doi.org/10.11648/j.si.20170501.11
- Zaini, M. H., Abd-Hamid, S. N. F., & Maizon, W. S. N. W. (2023). Echoes of silence: The complex dynamics of reporting incest. Finance and Law in the Metaverse. https://springer.com