



Systematic Review

Nurses' Responsibilities Towards Victims of Violence in the Preservation of Forensic Traces and Evidence: A Scoping Review

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Abstract: Background/Objectives: The objective of this review is to map nurses' responsibilities in addressing individuals who are victims of violence, specifically in the preservation of forensic evidence in both intra- and extra-hospital contexts. The research question is as follows: What are a nurse's responsibilities regarding the care of victims of violence for the preservation of forensic evidence in in-hospital and out-of-hospital emergencies? **Methods:** The mnemonic PCC (P-Population, C-Concept, and C-Context) method was followed according to the recommendations of the Joanna Briggs Institute (2024). The population is defined as "individuals who are victims of violence", the concept (phenomenon of interest) as "nursing interventions determining responsibilities in forensic evidence preservation", and the context as "intra- and extra-hospital emergencies". A search was conducted in the following databases: CINAHL Complete via EBSCO Host, Medline Complete via EBSCO Host, PubMed, Web of Science, and RCAAP via B-ON. From the total articles retrieved, 18 were selected for analysis. **Results:** The 18 articles emphasized the critical role of nurses in preserving forensic evidence in both intra- and extra-hospital contexts. These findings were grouped into six domains to clarify the topic: (1) knowledge and training of nurses on forensic evidence preservation and the implementation of standardized protocols; (2) collection of biological and non-biological samples to preserve evidence on the victim's body; (3) collection of biological and non-biological samples to preserve evidence on the victim's objects and belongings; (4) documentation of forensic traces and evidence; (5) maintenance of the chain of custody; and (6) ongoing interprofessional collaboration between nurses, law enforcement, and judicial authorities. **Conclusions:** Intra- and extra-hospital emergencies, teams must be proficient in recognizing victims of violence and in conducting appropriate evidence preservation to ensure their legal admissibility.

Keywords: nursing care; violence; forensic evidence; emergency



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1. Introduction

Forensic sciences play a significant role in daily life, bridging the work of health-care professionals in preserving forensic evidence and the application of justice. Nurses'

knowledge of this area facilitates evidence preservation and contributes to successful investigations, as nurses are often the first healthcare professionals to come into contact with victims, perpetrators, and evidentiary objects [1]. The emergency context provides a unique setting for assisting victims and perpetrators of violence and offers opportunities for identifying, collecting, storing, preserving, and documenting evidence [2]. We, therefore, sought to answer the following research question: What are a nurse's responsibilities when dealing with victims of violence regarding the preservation of forensic evidence in in-hospital and out-of-hospital emergency departments?

Hence, given nurses' obligations to maintain continuous professional development, knowledge in forensic nursing is essential. According to the Portuguese Order of Nurses, nursing interventions must prioritize defending individual freedom and human dignity [3].

Violence is a global reality, with daily reports of violent acts that cause both physical and emotional harm to victims. Pre-hospital emergency settings and services are often the first point of contact with victims and perpetrators. Thus, healthcare professionals must be prepared to recognize, collect, preserve, and document all physical evidence related to potential crimes [2]. Beyond addressing the physical and emotional needs of individuals, nurses should assist in preserving evidence on the victim, perpetrator, objects, and crime scene [4].

Nurses hold a privileged position in emergency services by providing forensic nursing care through identifying, assessing, treating, preserving, and collecting potential evidence [5]. Training in recognizing, collecting, storing, preserving, and documenting evidence is essential, as improper handling and failures in the collection and storage process can compromise the quality of samples and thus hinder potential investigations [2]. Consequently, it is crucial for nurses to possess knowledge and skills that enable them to recognize and manage situations involving violence, maltreatment, neglect, child or elder abuse, sexual violence, and domestic violence [6].

Moreover, the Portuguese Order of Nurses states that nursing interventions must uphold freedom and human dignity while ensuring equality, truth, justice, altruism, respect for human rights, community welfare, and protection against practices that contravene the law, ethics, or the common good [7]. This highlights the importance of forensic competencies among nurses.

This review aims to map nurses' interventions and responsibilities in addressing victims of violence regarding the preservation of forensic evidence in intra- and extra-hospital settings. This is a scoping review that was conducted following the Joanna Briggs Institute's methodology.

2. Materials and Methods

This review follows the Joanna Briggs Institute guidelines [8] and extended analysis following the PRISMA-ScR recommendations [9]. The review protocol was registered in Open Source Framework with the registration number <https://osf.io/6vcqz>. This review's question and criteria follow the PCC mnemonic (P-Population, C-Concept, and C-Context) method, where the population is "individuals who are victims of violence", the concept (phenomenon of interest) is "nurses' responsibility in preserving forensic evidence", and the context is "intra- and extra-hospital emergencies". Search was conducted between 17 May 2024 and 14 July 2024 using the following databases, CINAHL Complete via EBSCO Host, Medline Complete via EBSCO Host, PubMed, Web of Science, and RCAAP via B-ON, using descriptors validated through CINAHL and MEDLINE MeSH terms and keywords.

Studies employing quantitative, qualitative, and mixed methods, published in Portuguese and English, with free full-text access, were included. Studies focusing on children and adolescents were excluded. No temporal limit was set for the search. All identi-

fied records were grouped and exported to RAYYAN, where duplicates were identified and removed. Subsequently, articles were screened based on their titles and abstracts to assess their eligibility. This article was conducted blindly by three reviewers, resolving disagreements before progressing the articles to the next phase. The documents meeting the eligibility criteria underwent full-text reading. The results are presented according to PRISMA-ScR recommendations [10]. Data extraction employed a pre-developed instrument capturing authors, study location, publication year, objectives, study design, and findings.

The search strategy yielded 352 potentially eligible articles (Figure 1). Of these, 141 duplicates were automatically excluded. From the remaining 211 articles, 178 were excluded after screening titles and abstracts. Of the remaining 33 articles, 4 were excluded due to inaccessible full texts and 11 were excluded for not addressing the research question. Consequently, 18 articles comprised the final sample for this review, as detailed in the accompanying table below (Table 1).

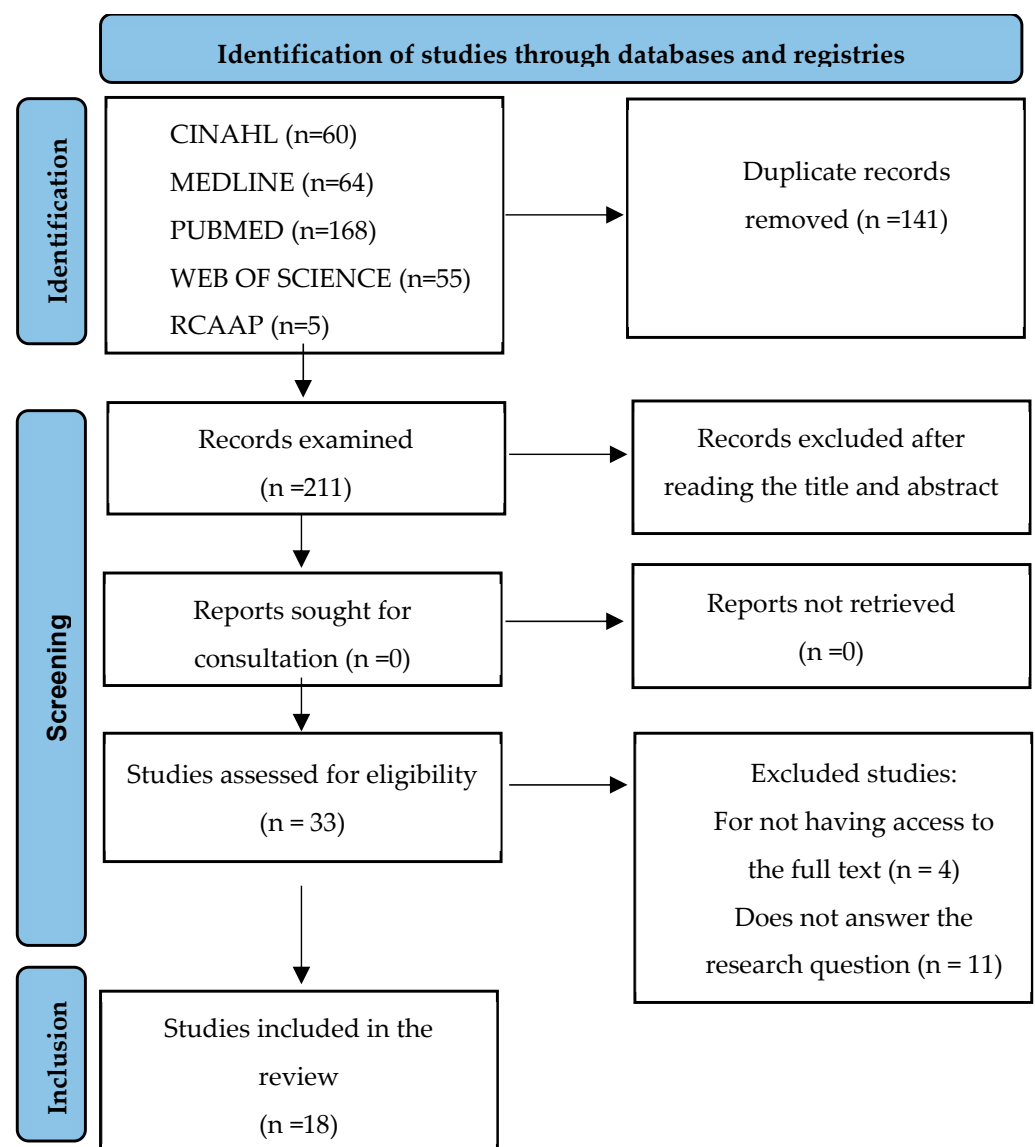


Figure 1. Search strategy.

Table 1. Characterization of the studies.

N°	Author(s)	Year	Title	Country	Study Design	Population/Sample	Objective	Main Findings
E1	Citolin, Vargas, Santos, Hilleshein, Brasil & Ramos	2024	Assistance to victims of violence in emergency services from the Forensic Nursing perspective	Brazil	Qualitative, descriptive exploratory	Twenty-one nurses who are part of the team providing care to victims of violence, in two reference hospitals in Brazil	To analyze the perspective of nurses' performance in collecting, identifying, and preserving evidence when approaching victims of violence in an emergency context	It highlights the importance of nurses' responsibilities in creating action and training protocols, highlighting obstacles and difficulties in collecting and preserving evidence
E2	Ramos & Branco	2023	Nurses' contribution to the preservation of forensic evidence in scenarios with evidence of crime	Portugal	Literature review	Inclusion and analysis of ten articles on the contribution of nurses in crime scenes to the preservation of evidence	To assess the role of nurses in preserving forensic evidence in crime scenes	Highlights nurses' responsibilities in identifying and storing forensic evidence in the context of intra- and extra-hospital emergencies
E3	Silva, Ferreira, Sá, Souto, Barros & Galindo-Neto	2022	Preservation of forensic traces by nursing in emergency services: a scoping review	Brazil	Literature review	Inclusion and analysis of twenty six studies on nurses in emergency services who deal with forensic evidence	Map scientific production on the preservation of forensic evidence by nursing professionals working in emergency services	It describes the responsibility of nurses' interventions in approaching victims of violence to preserve evidence, also highlighting the importance of training in the preservation of forensic evidence
E4	Pires	2021	Implementation of a quality improvement program in the area of preservation of forensic evidence in a hospital environment	Portugal	Internship report	Twenty six nurses from the Emergency Department of a hospital in the central region	Implement an improvement program in the area of the collection and preservation of forensic evidence in the Emergency Department of a hospital in the central region	It highlights the responsibilities of nurses in identifying victims of violence, in the correct collection of forensic evidence in different contexts, and in maintaining the chain of custody in the emergency department

Table 1. Cont.

N°	Author(s)	Year	Title	Country	Study Design	Population/Sample	Objective	Main Findings
E5	Veríssimo	2021	Forensic nursing in the general emergency service: "Promoting standardization of care in the collection and preservation of evidence"	Portugal	Master's dissertation	Nurses in the Emergency Department of a hospital in the central region	Implement an improvement program in the area of the collection and preservation of forensic evidence in the Emergency Department of a hospital in the central region	It presents a flowchart of action and evidence collection in different forensic situations in the emergency department Dimensions within the scope of a nurse's responsibility: - Correct removal of clothing, always cutting at the seams and away from the site of injury - Avoidance of using plastic bags when collecting and preserving biological traces, to prevent accelerating degradation - Describe all injuries in detail and record them in a specific document - Use personal protective equipment to prevent contamination of forensic traces
E6	Silva, Santos, dos Santos, da Silva, Santos & de Melo	2020	Preservation of Forensic Evidence by Nurses in a Prehospital Emergency Care Service in Brazil	Brazil	Descriptive correlational study	Nurses working in Prehospital emergency care	Relate nurses' knowledge to the performance of forensic evidence collection procedures	To assess the knowledge of pre-hospital emergency nurses regarding nursing interventions for the preservation of forensic evidence and traces
E7	Musse, Santos, da Silva Santos, Dos Santos & de Melo	2020	Preservation of forensic traces by health professionals in a hospital in Northeast Brazil	Brazil	Exploratory descriptive study	One hundred and forty four Health professionals in a hospital in Northeast Brazil	To describe the knowledge of health professionals about the preservation of forensic evidence and their ability to implement the processes related to its preservation	It highlights the responsibilities of nurses in the adequate training and correct documentation of forensic evidence to maintain the chain of custody, and also highlights the correlation between the level of knowledge and the implementation of adequate procedures and protocols

Table 1. Cont.

N°	Author(s)	Year	Title	Country	Study Design	Population/Sample	Objective	Main Findings
E8	Filmalter & Heyns	2018	Forensic patients in the emergency department: Who are they and how should we care for them?	South Africa	Observational study	Forensic patients in the emergency department	Identify the forensic patient in trauma victims in the emergency department	Highlights the responsibility of approaching all trauma patients in the emergency department as forensic patients, identifying them and collecting evidence; it also describes the need for specific training in the treatment of forensic patients and the preservation of evidence
E9	Pliske, Brandstädter, Walcher, Lessig & Piatek,	2016	Forensic medicine tasks in the emergency room	Germany	Retrospective descriptive study	Victims and potential victims cared for in emergency rooms	To provide a guide for the treatment of potential victims of violence, with a focus on the field of trauma surgery, in order to recognize forensic situations and patients, as well as the documentation of these cases	Specifies and documents the different injuries, specific characteristics, and precautions to be taken when documenting and collecting forensic evidence in victims of violence in different contexts Nurses' responsibilities: - Identify the victim of violence - Describe the wounds and injuries accurately (extent, location, and type of injury) - Correctly preserve the evidence and accurately document it
E10	Foresman-Capuzzi	2014	CSI & U: Collection and Preservation of Evidence in the Emergency	United States of America	Literature review	Emergency service professionals	Evaluate the collection and preservation of forensic evidence in the emergency department	It highlights nurses' responsibilities in correctly collecting evidence in different types of violence, as well as the chronology of events

Table 1. Cont.

N°	Author(s)	Year	Title	Country	Study Design	Population/Sample	Objective	Main Findings
E11	Mulla	2011	Facing victims: forensics, visual technologies, and sexual assault examination	United States of America	Phenomenological study	Victims of sexual assault	Analyze a forensic artifact: photographs of wounds and injuries collected by forensic nurses working with sexually assaulted patients	<p>Refers to the importance of using photography to help document victims' injuries, highlighting the need for adequate training for nurses so that they can perform this intervention correctly</p> <p>Nurses' responsibilities:</p> <ul style="list-style-type: none"> - Document the collection of forensic evidence and traces on appropriate forms - Photograph the injury sites from different perspectives - Describe the type of injury and the size and location of the injury on the victim's body
E12	Machielse	2008	Forensic emergency nursing: role integration	Netherlands	Case study	Emergency nurses	Integrate the role of forensic nurses in the emergency room	<p>It highlights the responsibilities of nurses in collecting forensic evidence and traces without breaking the chain of custody</p> <p>Nurses' responsibilities:</p> <ul style="list-style-type: none"> - Use of gloves, paper bags, and a bag for each item of clothing - Careful removal of clothing without losing, removing, and/or contaminating evidence - Photographing injuries, which can be useful to document wound characteristics - Each envelope/bag for collecting evidence, and traces must be dated and signed by the person responsible for collection

Table 1. Cont.

N°	Author(s)	Year	Title	Country	Study Design	Population/Sample	Objective	Main Findings
E13	Pierce-Weeks & Campbell	2008	The challenges forensic nurses face when their patient is comatose: Addressing the needs of our most vulnerable patient population	United States of America	Descriptive Study	Unconscious or comatose patients unable to give informed consent	To analyze the challenges faced by forensic nurses in treating patients in coma	Highlights nurses' responsibilities for creating action protocols for unconscious victims
E14	McGillivray	2005	The role of Victorian emergency nurses in the collection and preservation of forensic evidence: a review of the literature	Australia	Literature review	Emergency room nurses	To assess the role of emergency nurses in collecting and preserving forensic evidence	Highlights nurses' responsibilities in creating procedures/protocols, collecting, documenting, and preserving forensic evidence, and in highlighting the importance of collaboration with the judicial system
E15	Sievers	2003	Sexual Assault Evidence Collection More Accurate When Completed by Sexual Assault Nurse Examiners: Colorado's Experience	United States of America	Comparative study	Sexual Assault Nurse Examiners (SANE)	To assess the quality of evidence collection by SANE nurses compared to other professionals	It demonstrates that the existence of SANE nurses promotes the more accurate collection of forensic evidence with better results, highlighting the importance of specialized training in ensuring the quality of this evidence
E16	McCracken	1999	Living forensics: a natural evolution in emergency care	Canada	Literature review	Emergency room nurses	Analyze the evolution of forensic nurses in emergency care	It highlights the increasing responsibility of forensic nurses in preserving and collecting evidence, as well as maintaining the chain of custody in the context of emergency care

Table 1. Cont.

N°	Author(s)	Year	Title	Country	Study Design	Population/Sample	Objective	Main Findings
E17	Johnson	1997	Forensic evidence preservation: the emergency nurses' role	Australia	Descriptive study	Emergency nurses	Assess the role of nurses in preserving forensic evidence	<p>Describes how to collect and preserve evidence at a crime scene without compromising the chain of custody</p> <p>Nurses' responsibilities:</p> <ul style="list-style-type: none"> - Remove clothing with gloves piece-by-piece and place in a paper bag - Always cut clothing as far away as possible from the point of damage, preferably at the seams - Projectiles should be handled with gloves and never with metal and/or plastic instruments
E18	Ledray & Netzel	1997	DNA evidence collection	United States of America	Literature review	Health professionals collecting DNA in cases of assault	Analyze DNA evidence collection practices in assault cases	It highlights nurses' responsibilities in the proper collection of DNA, ensuring the integrity and validity of forensic evidence in legal proceedings

3. Results

The following table (Table 1) shows a characterization of the studies, including the authors, country of study, year of publication, objective, study design, and study results.

4. Discussion

The preservation of forensic evidence and traces is of great importance in pre-hospital settings and emergency departments. Nurses, who are often the first point of contact with victims, play a crucial role in maintaining the chain of custody and facilitating investigations [10].

Based on the research conducted and the comprehensive analysis of all the articles included in this study, several domains of nurses' responsibilities in this context were identified.

Regarding the knowledge and training of nurses on the preservation of forensic evidence and implementation of standardized protocols in pre-hospital and emergency settings, gaps were identified. These knowledge deficits limit the appropriate handling of evidence and traces, posing a significant challenge in addressing victims of violence and preserving forensic materials [4,10,11]. Therefore, continuous and specialized training for nurses in this area is imperative [4,12]. Coupled with the knowledge gap is the challenge of correctly identifying a victim of violence. Frequently, only injuries are treated, and nurses may not recognize the need to evaluate violence and collect evidence [12,13]. Emergency nurses, often being the first to interact with patients and their families, must be able to recognize the presence of forensic evidence. However, evidence collection should never compromise the patient's hemodynamic stability or the delivery of emergency care [14]. Pre-hospital emergency nurses are in a privileged position to identify, assess, and care for violence victims while simultaneously collecting and preserving forensic evidence [15]. The emergency nurse's competence is not to conduct a forensic investigation; however, they have a privileged position in terms of identifying, collecting, and preserving forensic evidence [13].

The proper identification of violence victims, as well as the collection and preservation of forensic evidence, requires the implementation of standardized protocols and continuous training for nursing teams [2,16,17]. The creation and standardization of protocols are also essential for managing comatose victims who cannot provide histories or consent to evidence collection [18]. With the creation of such protocols, authors suggest that the creation of standardized kits is vital in regard to forensic evidence collection [14,15,19].

The collection of biological and non-biological samples from victims must follow specific procedures and protocols, tailored to the type of violence experienced. Evidence collection should occur during the physical examination and be carefully stored and documented to aid criminal investigations [4]. Proper preservation requires that evidence be placed in labeled envelopes indicating the victim's data, the collected content, the date and time of collection, and the professional who performed the collection, sealed with adhesive tape [4,13,15,16]. Biological traces are particularly critical, as they can be compromised by hygiene and comfort care [4,16]. Photographing injuries is essential for creating an accurate representation of observations and should be complemented by clear and concise documentation [15,20]. In cases of sexual violence, a standardized collection kit should include the removal of pubic and head hair, loose hair collected using a comb, and semen, blood, or saliva samples from the vagina, rectum, and/or mouth. If the victim scratched the perpetrator, nail clippings or scrapings should also be collected [21]. For deceased victims, hands should not be washed, but rather protected individually with paper bags [16,17].

The collection of biological and non-biological samples for the preservation of evidence from the belongings and objects of a victim must be performed meticulously. Nursing teams must be prepared to treat clothing as potential evidence, making it essential for them to possess knowledge on proper handling and preservation techniques. This is often the first opportunity to collect evidence in a hospital setting [4,16]. Clothing can contain physical and biological components that provide crucial information for elucidating the crime and contributing to the investigative process, as it can retain fibers, hair, skin, gunpowder residues, and absorb bodily fluids and blood [4,11,22]. For this reason, clothing should be individually stored in paper bags (one piece per bag), and its removal from the victim's body must be carried out using personal protective equipment to avoid the removal or contamination of evidence [11,17,22]. If cutting the clothing is necessary, it should be performed along the seams and away from the area of injury to minimize interference with potential evidence. Manual tearing of the clothing should never be performed, and cuts should avoid areas with blood, stains, or projectile holes [15,16,22]. The collection of these forensic samples and evidence requires efficient preservation. Each paper bag must be appropriately labeled with the victim's information, the collected contents, the date and time of collection, and the professional who conducted the collection. The bag must then be sealed with adhesive tape [4,13,15,16].

Proper documentation is a vital component in both clinical recordkeeping and the recording of forensic evidence and traces. It must, therefore, be meticulous, thorough, descriptive, and precise [2,4,13]. It is essential to accurately and comprehensively describe the individual's condition upon admission, any injuries present, and any objects found. This applies not only to victims, but also to alleged perpetrators [2,4,11,17].

Wounds and their characteristics must be described with precision, including the number, extent, shape, dimensions, and location relative to anatomical reference points [2,11,16]. Whenever there is no imminent risk of death to the victim or perpetrator, it is recommended that documentation be conducted before any treatment is initiated. Photographic documentation of untreated wounds is particularly valuable [2,4,11]. Written records, photographic evidence of wounds, and other materials such as clothing, knives, firearms, and residues can all be considered forensic evidence, as they hold the potential to determine the mechanism of injury [2,11]. All procedures must be documented from the earliest stages [17,23,24], and the use of protocols, action flowcharts, reference diagrams, and specific record forms is crucial [2,14,17].

Inadequate or insufficiently descriptive documentation may prove to be useless in an investigation, undermining the validity of a criminal case based on reasonable doubt [15].

Maintaining the chain of custody is also an integral part of evidence collection and preservation. It begins with the individual collecting the evidence and concludes with the individual handing it over to the authorities, ensuring that evidence remains confidential, secure, and unaltered throughout the process [16].

The chain of custody serves as a documentary trail that ensures that the collected evidence is valid and admissible in court, playing a critical role in preventing erroneous decisions [15]. Research indicates that training and education for all involved, along with proper documentation, is crucial to maintaining the integrity of evidence. Specific procedures must be employed to preserve and document the chronological sequence of evidence for legal purposes [10,16,17].

A rigorous maintenance of the chain of custody, from the moment evidence is collected until it is handed over to judicial authorities, requires recording information about the time, date, and individuals who interacted with the evidence, as well as those who had subsequent contact with the material [2,17,24]. The transfer of evidence among multiple professionals introduces the potential for errors, and any break in the chain can compro-

mise the legal process. Evidence must be stored and transported under conditions that guarantee its inviolability, and must be appropriately labeled with all relevant information. Additionally, it is imperative to document and obtain signatures from all parties involved each time the evidence is transferred to another professional [4,13,16,17]. Similarly, whenever an evidence container is opened, the location, time, and person handling it must be recorded [16,17].

Thus, the chain of custody must be maintained at all times during the forensic evidence collection process. The use of optimal documentation systems and protocols is essential to ensure the integrity and admissibility of evidence in court, reducing the likelihood of future claims of evidence tampering or misconduct during evidence collection [15–17].

The continuous interprofessional collaboration between nurses and law enforcement and judicial authorities is crucial and essential for the success of forensic investigations, ensuring that the collected evidence is admissible in court and that the investigation is effective [4]. After receiving the victim, it is imperative to notify and communicate with the authorities [10]. A lack of communication between nurses and judicial authorities, as well as noncompliance with forensic guidelines, can result in failures in evidence preservation and subsequent judicial errors [15]. In this context, nurses can play a pivotal role in the development of the investigative process and the outcomes of judicial decisions [13,25]. When equipped with forensic techniques and properly trained, their role extends beyond the collection and preservation of forensic evidence. They can also make significant contributions by providing expert testimony in court, acting as specialized witnesses or experts if called upon to testify [4,10,16].

The reviewed studies presented consistent findings, with no divergent opinions identified. Accordingly, the following table (Table 2) summarizes the recommended and discouraged practices when approaching a victim of violence to ensure the preservation of forensic evidence.

We recognize that these findings may not reflect the phenomenon in a global way, considering the regional limitations associated with the language selected for this research.

Table 2. Summary of recommendations and discouraged practices.

Do	Do Not
Correctly identify the victim	
Implement standardized protocols and standardized kits	
Perform photographic documentation of the injuries	
Protect the hands of deceased victims with paper bags individually	Wash the hands of the deceased victims
Store clothing individually in paper bags, and its removal from the victim's body must be carried out using personal protective equipment	Remove or contaminate evidence
If cutting clothing, cut it along the seams and away from the injury	Manually tear the clothing or cut over areas with blood, stains, or projectile holes
Appropriately label each paper bag with the victim's information, collected contents, date and time of collection, and the professional who conducted the collection	
Seal the bag with adhesive tape	

Table 2. Cont.

Do	Do Not
Conduct meticulous, descriptive, and precise documentation of the condition of the victim, injuries, and objects found	
Maintain the chain of custody	

5. Conclusions

This review reveals that the literature consistently highlights a significant knowledge gap among nurses in the field of forensic nursing, which compromises the preservation of forensic evidence and traces from victims of violence. Nurses must take responsibility across various dimensions to minimize the contamination of evidence and traces and must possess knowledge of how these are collected and documented effectively.

Maintaining the chain of custody is essential for evidence to be deemed valid for investigation. The establishment of protocols and documentation systems reduces the likelihood of errors during the collection and preservation of evidence. Records must be clear and concise, and forensic evidence and traces should be stored in secure and tamper-proof locations.

Emergency teams, both pre-hospital and in-hospital, must be aware of the importance or properly collecting forensic evidence and traces without compromising the victim's hemodynamic stability, emphasizing the need for ongoing training and education.

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References

1. Senturk, S.; Karahan, B.; Tugba, E. Examination of Postgraduate Dissertations Including Nursing in the Field of Forensic Sciences in Turkey. *Int. J. Caring Sci.* **2019**, *12*, 1725–1733.
2. de Oliveira Musse, J.; Santos, V.S.; da Silva Santos, D.; dos Santos, F.P.; de Melo, C.M. Preservation of forensic traces by health professionals in a hospital in Northeast Brazil. *Forensic Sci. Int.* **2020**, *306*, 110057. [[CrossRef](#)] [[PubMed](#)]
3. Ordem dos Enfermeiros. *Código Deontológico do Enfermeiro. Dos Comentários à Análise dos Casos*; Edição da Ordem dos Enfermeiros; Ordem dos Enfermeiros: Lisboa, Portugal, 2005.
4. Silva, R.X.; Ferreira, C.A.A.; de Sá, G.G.M.; Souto, R.Q.; Barros, L.M.; Galindo-Neto, N.M. Preservation of forensic traces by Nursing in emergency services: A scoping review. *Rev. Lat.-Am. Enferm.* **2022**, *30*, e3593.
5. Sheridan, D.J.; Nash, K.R.; Bresee, H. *Enfermagem de Urgência: Da Teoria à Prática*, 6th ed.; Lusociência: Loures, Portugal, 2011.
6. Emami, S.; Lynch, V.; Banazadeh, M. Enfermagem forense no departamento de emergência: A distância entre os comportamentos desempenhados pelos enfermeiros e sua percepção da importância dos comportamentos. *BMC Nurs.* **2024**, *23*, 1–12.

7. Ordem dos Enfermeiros. *Estatutos da Ordem dos Enfermeiros e REPE*; Edição da Ordem dos Enfermeiros; Ordem dos Enfermeiros: Lisboa, Portugal, 2015.
8. Peters, M.D.J.; Godfrey, C.; McInerney, P.; Munn, Z.; Tricco, A.C.; Khalil, H. Chapter 11: Scoping Reviews. In *JBI Manual for Evidence Synthesis*; Aromataris, E., Munn, Z., Eds.; JBI: Adelaide, Australia, 2020; pp. 407–452.
9. Tricco, A.C.; Lillie, E.; Zarin, W.; O'Brien, K.K.; Colquhoun, H.; Levac, D.; Moher, D.; Peters, M.D.J.; Horsley, T.; Weeks, L.; et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann. Intern. Med.* **2018**, *169*, 467–473. [[CrossRef](#)] [[PubMed](#)]
10. Citolin, M.O.; Vargas, M.A.; Santos, D.G.; Hilleshein, A.G.; Brasil, G.; Ramos, F.R.S. Assistance to victims of violence in Emergency services from the Forensic Nursing perspective. *Rev. Lat.-Am. Enferm.* **2024**, *32*, e4137. [[CrossRef](#)] [[PubMed](#)]
11. Pliske, G.; Brandstädter, K.; Walcher, F.; Lessig, R.; Piatek, S. Forensic medicine tasks in the emergency room. *Notf. Rettungsmed.* **2016**, *19*, 451–459. [[CrossRef](#)]
12. Filmlalter, C.J.; Heyns, T.; Ferreira, R. Forensic patients in the emergency department: Who are they and how should we care for them? *Int. Emerg. Nurs.* **2018**, *40*, 33–36. [[CrossRef](#)] [[PubMed](#)]
13. McGillivray, B. The role of Victorian emergency nurses in the collection and preservation of forensic evidence: A review of the literature. *Accid. Emerg. Nurs.* **2005**, *13*, 95–100. [[CrossRef](#)] [[PubMed](#)]
14. Machielse, P. Forensic emergency nursing—Role integration. *Edge* **2008**, *14*, 3.
15. Foresman-Capuzzi, J. CSI & U: Collection and Preservation of Evidence in the Emergency Department. *J. Emerg. Nurs.* **2014**, *40*, 229–236. [[PubMed](#)]
16. dos Pires, M.G.S. Implementação de um Programa de Melhoria da Qualidade na Área da Preservação de Vestígios Forenses em Meio Hospitalar. Master's Thesis, Polytechnic Institute of Viseu, Viseu, Portugal, 10 August 2021. Repositorio.ipv.pt. Available online: <http://hdl.handle.net/10400.19/6842> (accessed on 1 March 2025).
17. Veríssimo, C.M.M.C. Enfermagem Forense no Serviço de Urgência Geral: “Promover Uniformização de Cuidados na Recolha e Preservação de Vestígios”. Master's Thesis, Universidade do Minho, Braga, Portugal, 2021. Available online: <https://repositorium.sdum.uminho.pt/> (accessed on 1 March 2025).
18. Pierce-Weeks, J.; Campbell, P. The challenges forensic nurses face when their patient is comatose: Addressing the needs of our most vulnerable patient population. *J. Forensic Nurs.* **2008**, *4*, 104–110. [[CrossRef](#)] [[PubMed](#)]
19. Sievers, V.; Murphy, S.; Miller, J.J. Sexual assault evidence collection more accurate when completed by sexual assault nurse examiners. *J. Emerg. Nurs.* **2003**, *29*, 511–514. [[CrossRef](#)] [[PubMed](#)]
20. Mulla, S. Facing Victims: Forensics, Visual Technologies, and Sexual Assault Examination. *Med. Anthropol.* **2011**, *30*, 271–294. [[CrossRef](#)] [[PubMed](#)]
21. Ledray, L.E.; Netzel, L. DNA evidence collection. *J. Emerg. Nurs.* **1997**, *23*, 156–158. [[CrossRef](#)] [[PubMed](#)]
22. Johnson, D. Forensic evidence preservation. *Aust. Emerg. Nurs. J.* **1997**, *1*, 37–40. [[CrossRef](#)]
23. Silva, J.O.M.; Santos, L.F.S.; dos Santos, S.M.; da Silva, D.P.; Santos, V.S.; de Melo, C.M. Preservation of Forensic Evidence by Nurses in a Prehospital Emergency Care Service in Brazil. *J. Trauma Nurs.* **2020**, *27*, 58–62. [[CrossRef](#)] [[PubMed](#)]
24. MaCracken, L.M. Living forensics: A natural evolution in emergency care. *Accid. Emerg. Nurs.* **1999**, *7*, 211–216. [[CrossRef](#)] [[PubMed](#)]
25. Madureira Ramos, M.P.; Correia Branco, M.R. Contributo do Enfermeiro na preservação de vestígios forenses em cenário com indícios de crime. VI International Conference on Health Research. *RIIS Rev. Investig. Inovação Saúde* **2023**, *6*, 51–52.

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