

Forensic Evidence Under Pressure: Challenges in Adult Female Rape Examinations within South African Medico-Legal Services

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Research Article

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Abstract

Background

Medico-legal examination after rape serves a dual purpose: to provide appropriate clinical care and, where the survivor chooses, to document and preserve evidence that may be relevant to a criminal investigation. The quality of this approach depends on timely examination, informed consent, appropriate evidence collection, accurate injury documentation, the availability of forensic resources, and coordination between health, police and laboratory services. Evidence from South Africa indicates ongoing challenges with access to and continuity of post-rape care.

Methods

A qualitative study was conducted at three Thuthuzela Care Centres in South Africa. The broader study included 17 adult female rape survivors and 28 service providers. This article presents a descriptive summary of survivors' responses concerning their medico-legal examinations and a reflexive thematic analysis of interviews with nine medical service providers (six forensic nurses and three medical doctors). The interviews explored participants' experiences of examination, evidence collection, documentation and service-level challenges affecting the medico-legal pathway.

Results

Eight survivors spoke positively about their medico-legal examination, mainly because they were made comfortable, treated with dignity and informed about procedures. Six described the examination as painful, traumatic or invasive, while three did not respond to this question. Medical service providers described practical and system-level issues affecting the forensic pathway, including limited availability of female examiners, bathing before examination, decisions to decline forensic examination, shortages of female medico-legal clinicians, uncertainty concerning evidentiary admissibility and documentation, delays in obtaining rape kits, transport difficulties, and concerns about the practical implementation of the J88 medico-legal form.

Conclusion

The findings indicate that the quality of the medico-legal response depends on more than the technical examination itself. Survivor-centred consent and communication must be augmented by reliable access to evidence-collection materials, competent documentation, timely laboratory processing and effective coordination across sectors. Strengthening these linked components may improve the continuity and forensic utility of post-rape services in South Africa.

Introduction

Rape presents a complex clinical and forensic response because the examination must take into account the survivor's immediate healthcare needs while, where consent is provided, documenting

findings and preserving material that may be relevant to a criminal investigation. Recent guidance emphasises informed consent, privacy, respectful communication, appropriate examination, evidence collection and documentation as interconnected elements of the response to sexual violence (World Health Organization, 2020; Yesodharan et al., 2022). The forensic examination is therefore not simply an evidentiary procedure; it is necessitated by a healthcare encounter in which autonomy, dignity and patient choice remain central.

The forensic value of such an examination depends on the quality and timing of several connected processes. Evidence must be identified, collected, labelled, preserved and transferred appropriately, while physical findings need to be accurately described and interpreted in context. Recent reviews have highlighted substantial variation in the prevalence of genital injury and in examination and documentation practices, highlighting the need for consistent approaches to forensic examination and injury documentation (Stewart et al., 2024; Crawford et al., 2025).

The experience of the person undergoing the examination is significant in forensic practice. Stewart et al. (2024) refer to a scoping review of adult sexual-assault patients – to some patients, the physical examination was reassuring or empowering, whereas others experienced it as intrusive or violating; the conclusion was that patient perspectives remain under-researched. A study (Berger et al., 2023) of women undergoing a forensic medical examination reported that the examination was generally evaluated positively but that a substantial proportion of research participants perceived it as an additional psychological burden, with many preferring female clinicians. These findings correspond to the need for trauma- and violence-informed approaches that support choice, trust, compassion and patient-directed care (Klein et al., 2024).

Consent is particularly important when survivors are deciding whether to undergo a forensic examination or individual components of evidence collection. Research (Campbell et al., 2021a) examining adult patients' decisions to decline medico-legal examination or sexual-assault kit collection has emphasised the importance of respecting autonomy and recognising that patients may decline some or all forensic procedures. The use of trauma-informed methods in sexual-assault research has similarly highlighted the importance of minimising additional distress while preserving participant control (Campbell et al., 2021b).

South Africa has developed an integrated model of post-rape care through Thuthuzela Care Centres (TCCs) to coordinate medical, psychosocial, legal and victim-support services. A recent systematic review (Randa et al., 2023) of women's experiences of accessing care after falling victim to sexual violence in South Africa found that, despite the established service framework, gaps remain in survivors' experiences of initial care, support and referral pathways. The TCC model is intended to provide coordinated services and reduce secondary victimisation, but its effectiveness depends on the availability and functioning of each component of the service pathway.

In an analysis of J88 forms (a standard South African medico-legal form used to record clinical findings after an alleged assault) the South African Medical Research Council scrutinised 2 810 such forms,

which confirmed the central role of medico-legal findings in sexual-offence proceedings and the importance of accurate forensic documentation in supporting judicial decision-making (Machisa et al., 2018). In addition, South African research (Fouché et al., 2018) has identified deficiencies in the completion of medico-legal documentation by community-service doctors. More recent forensic literature also emphasises that biological evidence collection and laboratory processing are affected by delays, resource constraints and workflow requirements (Harrel & Holmes, 2022).

Against this background, the present study examines the medico-legal examination pathway from two complementary perspectives: adult female rape survivors who experienced the examination and medical service providers responsible for delivering medico-legal services. The analysis focuses specifically on the practical forensic pathway from examination and evidence collection through documentation, preservation, laboratory processing and potential evidentiary use.

The study aimed to explore the forensic and medico-legal challenges encountered during the examination of adult female rape cases in South Africa. The objectives were to:

- examine survivors' experiences of medico-legal examination;
- identify barriers to forensic examination and evidence collection;
- assess documentation and evidentiary concerns; and
- examine service-level and intersectoral factors affecting the continuity of medico-legal services.

Methods

Study design

This qualitative study formed part of a principal project exploring the quality of post-rape care in South Africa from the perspectives of adult female rape survivors and medical service providers. A qualitative design was appropriate as the present analysis sought to understand participants' experiences, perceptions and reports of challenges associated with medico-legal service provision and utilisation. Reflexive thematic analysis was selected for the nine medical service provider interviews because, as Braun and Clarke (2019, 2021a, 2022) explain, it supports an interpretive examination of patterns of meaning while recognising the researcher's active role in theme development. Two complementary analytical approaches were used for distinct aspects of the medico-legal examination pathway. With regard to the specific interview question about their medico-legal examination, responses from all 17 survivors were summarised descriptively to capture reported experiences of comfort, dignity, pain and distress; these responses were not subjected to reflexive thematic analysis. The nine medical service provider interviews were analysed thematically because these participants had direct professional experience of medico-legal service delivery and could provide insights into practical, clinical and system-level challenges affecting examination, evidence collection and documentation.

Setting

The study was conducted at three TCCs in South Africa. The centres provide integrated services to people affected by rape and sexual violence, including medico-legal examination, medical treatment, psychosocial support, victim assistance and legal referral. TCCs are designed as coordinated, interdisciplinary service settings where medical and forensic processes occur alongside psychosocial and criminal-justice support.

Participants

The principal study included two participant groups: adult female rape survivors and medical service providers working with rape survivors at TCCs. The survivor sample comprised 17 adult female rape survivors recruited through purposive sampling. The service provider sample consisted of 28 participants working with adult female rape survivors in Gauteng Province: four legal service providers, 15 psychosocial service providers and nine medical or medico-legal practitioners. The present analysis focused exclusively on the nine medical service providers – six forensic nurses and three medical doctors. Seven were female and two were male, and the reported mean duration of medical practice was 24 years.

Recruitment

Survivors

Purposive sampling was used to recruit 17 adult female rape survivors. Recruitment was facilitated by psychosocial providers at the participating TCCs, including site coordinators, victim-assistance officers, social workers and auxiliary social workers. These providers informed potentially eligible survivors about the study. Those who expressed interest were taken to a private office, where the researcher explained the purpose, objectives and procedures and obtained informed consent. Eligibility criteria required participants to have basic proficiency in English, to have reported an alleged rape occurring within the preceding two years (2020–2021), and to be capable of providing informed consent. Face-to-face, semi-structured interviews were conducted with all 17 survivors.

Service providers

Using a stratified sampling approach, service providers were recruited, from the legal, psychosocial and medical sectors working with adult female rape survivors at TCCs in Gauteng Province. Participants were required to have at least six months' experience in the field of sexual violence and to be proficient in English. Recruitment continued until adequate informational depth was achieved. The present analysis focused on the nine medical service providers, comprising six forensic nurses and three medical doctors, because their direct experience of medico-legal service delivery was particularly relevant to the study objectives. Their observations provided practice-based perspectives on forensic examination,

evidence collection, medico-legal documentation and service-level challenges affecting the forensic pathway. The adequacy of this focused sample was considered in relation to the specificity of the research question, participants' professional experience and the depth of the interview data, rather than through a predetermined numerical threshold for saturation.

Data collection

Data were collected through face-to-face semi-structured interviews with survivors and medical service providers. Survivor interviews explored experiences of post-rape care and, where disclosed in sufficient detail, aspects of the circumstances surrounding the assault. Service provider interviews focused on experiences of working with adult female rape survivors and challenges encountered in service delivery, with particular attention to consent procedures, forensic examinations, evidence collection, medico-legal documentation, patient cooperation, resource constraints, intersectoral collaboration, interactions with law-enforcement agencies and systemic barriers. All interviews were audio-recorded with participants' consent and were transcribed verbatim for analysis.

Data analysis

Reflexive thematic analysis was conducted for the service provider interviews. Transcripts were read repeatedly to achieve familiarisation with the data. Meaningful segments relating to medico-legal service provision were coded and grouped into broader areas of meaning. Through an iterative process of interpretation, comparison and refinement, themes and sub-themes were developed to reflect recurring patterns in participants' narratives. The analysis focused on the interaction between survivor-level, practitioner-level and system-level factors affecting the forensic pathway. Reflexive thematic analysis was treated as an interpretive method rather than a procedure for identifying objectively fixed themes (see Braun & Clarke, 2019, 2021a, 2022).

An audit trail documented coding decisions, theme development and interpretive reflections. Verbatim quotations were retained to maintain a close connection between the findings and participants' explanations. With regard to the specific question on the medico-legal examination, responses from all 17 survivors were classified descriptively as positive, negative or no response. These categories summarised the survivors' reported experiences and were not themes generated through reflexive thematic analysis. By contrast, the nine medical service provider interviews were analysed using reflexive thematic analysis to interpret patterns in providers' experiences of medico-legal examination, evidence collection, documentation and service-level challenges. The nine providers were selected for this focused analysis because their direct professional experience was relevant to the study objectives. The adequacy of this analytical sample was considered in relation to the specificity of the research question, participants' professional experience and the depth of the interview data, rather than through a predetermined numerical threshold for saturation (Braun & Clarke, 2021b).

Ensuring trustworthiness

Trustworthiness was supported through a documented audit trail of methodological and analytical decisions. Credibility was strengthened through verbatim quotations and close alignment between themes and participants' testimonies. Dependability was supported through systematic coding and comparison across interviews. Confirmability was promoted through transparency in transforming interview data into thematic interpretation. Reflexivity was maintained by acknowledging the researchers' role in interpreting the data and constructing themes rather than presenting the analysis as a purely objective extraction of participants' meanings (Nowell et al., 2017; Braun & Clarke, 2021b).

Ethical considerations

Ethical clearance for the principal study was granted by the Faculty of Humanities Ethics Committee, University of Pretoria (GW20180844HS). Permission to conduct the research was obtained from the National Prosecuting Authority, the Department of Health and the South African Police Service. Participation was voluntary and informed consent was obtained before data collection. Participants were informed of their right to withdraw at any stage without penalty. Confidentiality and anonymity were maintained through participant identifiers instead of personal names. Interview data were securely stored and accessible only to the research team. Given the sensitive nature of sexual-violence research, appropriate psychosocial support mechanisms were available should participation cause emotional distress. Survivors received R150 compensation for participation.

Results

Survivors' experiences of the medico-legal examination

Of the 17 adult female rape survivors, eight (47.1%) described their medico-legal examination positively. Their experiences centred on being made comfortable, being treated with respect and dignity, and receiving explanations of what the examination would involve. Six survivors (35.3%) described the examination as painful, traumatic or invasive, while three (17.6%) did not respond to the question.

Comfort, dignity and explanation of procedures

"Yes, I was comfortable because they told me what they were going to do." (Survivor 2)

"Yes, they treated me with respect. One hundred percent." (Survivor 3)

"They explained everything to me, so when I went for the examination, I knew what to expect and felt at ease." (Survivor 14)

These statements indicate that communication and respectful interaction were important components of survivors' positive experiences. The findings are congruent with recent literature emphasising rapport, informed consent, patient choice and trauma-informed care in medico-legal examinations (Yesodharan et al., 2022; Klein et al., 2024).

Pain, trauma and intrusiveness

“Uhm... it was painful, but it was not too much.” (Survivor 5)

“When the doctor starts examining you, the trauma can come back, but you encourage yourself to be strong and let the doctor finish, knowing that the doctor and TCC staff are there to help and support you.” (Survivor 4)

“I did not like it at all. Because I had not bathed, it was difficult knowing that someone else had to touch my body. I just wanted to go home.” (Survivor 9)

The negative accounts did not necessarily suggest that survivors considered the examination inappropriate or unnecessary; they highlighted the physical and emotional difficulties associated with undergoing an intimate examination following rape. This characteristic is important because the forensic examination may be experienced as both necessary for evidence collection and difficult to tolerate. Similar variation in patients’ experiences has been identified in international research on the physical examination component of medico-legal examinations (Stewart et al., 2024; Berger et al., 2023).

Challenges in rendering medico-legal care

Availability and gender of the examiner

Medical service providers described situations in which adult female survivors were reluctant to be examined by male clinicians. They reported that the absence of a female examiner could result in discomfort, the need for additional explanation, referral to another centre or difficulty proceeding with the examination.

“Sometimes survivors do not want to be examined by a male doctor because they were assaulted by a man. We talk to them and explain that the doctor is there only to collect evidence for the investigation.” (Forensic nurse)

“At times, the forensic examiner on duty is a male nurse or doctor. Although survivors are informed that a female nurse will be present throughout the examination, some remain uneasy about being examined by a male practitioner. In my view, this discomfort is not rooted in prejudice against male forensic examiners, but rather in the trauma associated with their experience.” (Medical doctor)

The finding is consistent with research indicating that many women who undergo a forensic medical examination express preferences concerning the gender of the examining clinician (Berger et al., 2023). In the present study, service providers viewed the issue as a practical service-delivery challenge rather than as a judgement about male clinicians.

Bathing and potential loss of forensic evidence

Providers identified bathing or cleansing before the examination as a further challenge because it may reduce the availability of recoverable biological or trace evidence.

“When someone bathes, important forensic evidence can be lost. Some survivors bathe immediately, and others use enemas or other methods to try to cleanse themselves.” (Forensic nurse)

This finding should be interpreted in relation to the timing and the type of evidence sought. Although bathing or cleansing may reduce the likelihood of recovering some biological evidence, it does not necessarily preclude evidence recovery. South African research has identified bathing or showering before examination as a potential factor affecting deoxyribonucleic acid (DNA) recovery, while evidence recovery still depends on the type and location of the specimen and the circumstances of collection (Adefuye et al., 2024). The participants’ descriptions therefore highlight the importance of prompt access to forensic services and clear information about evidence preservation options, while avoiding the assumption that bathing necessarily eliminates all evidentiary possibilities.

Refusal or partial declination of the forensic examination

Three of the nine medical service providers described circumstances in which survivors did not wish to undergo a forensic examination or to report the case. Participants described situations in which treatment was still provided even when the survivor declined forensic examination or evidence collection.

“Sometimes we do not collect evidence because the patient does not want to report the case. They may want an examination and medication but do not want to open a case, so we cannot collect evidence if they do not consent.” (Forensic nurse).

“The examination process may be influenced by environmental factors and parental involvement. Some parents insist on being present during the examination, which can make adult survivors less forthcoming. While we usually ask parents to wait outside, some agree and others choose to stay”. (Medical doctor)

“Some patients decline a forensic examination. In certain cases, adult women report rape following consensual sex involving a burst condom, but we accept the patient’s account. Some only seek medical treatment, which we provide without a forensic examination.” (Forensic nurse)

This finding is compatible with research showing that adult sexual-assault patients may decline all or part of a medico-legal examination or sexual-assault kit collection. Such decisions are part of patient autonomy and should not be conceptualised as service failure (Campbell et al., 2021a).

Shortage of female medico-legal clinicians

One medical doctor highlighted a shortage of female doctors in forensic practice.

“Some female clinicians feel uncomfortable working in the medico-legal field, as exposure to such cases can make them feel vulnerable themselves. Consequently, many female doctors do not remain in medico-legal practice for extended periods.”

The participant attributed the shortage of female forensic doctors to the emotional demands of medico-legal practice, suggesting that repeated exposure to sexual assault cases may heighten feelings of personal vulnerability and contribute to retention challenges. This was the provider's interpretation; the present study did not independently assess workforce retention. Research indicates that trauma-exposed healthcare professionals may experience secondary traumatic stress, vicarious trauma and burnout (Newman et al., 2024; Zacharias & Upendra, 2024).

Evidentiary admissibility and documentation

Providers emphasised that forensic procedures must produce evidence that can be appropriately used in legal proceedings. Concerns were raised about consent for intimate imaging, the documentation of injuries and delays in obtaining DNA results.

"Any procedure must be legally admissible as evidence. For example, when using equipment such as a colposcope, patient consent is required before any findings can be used in court." (Medical doctor)

The medical doctor's testimony reflects the participant's understanding of the relationship between consent, a colposcopy and the potential use of the examination findings in court. This statement should be interpreted as a reported professional perspective rather than as an independently verified legal determination of admissibility. More broadly, the findings highlight the importance of accurate recording, interpretation and presentation of forensic examination findings. Recent research (Stewart et al., 2024; Crawford et al., 2025) continues to highlight variability in the documentation and visualisation of genital injuries and the need for standardised approaches. Forensic photography can provide an additional means of documenting injuries – as long as appropriate consent, technical standards and secure image handling are in place (Nittis & Hughes, 2021; Yesodharan et al., 2021).

Rape kits and delays in evidence collection

Providers described delays when sexual-assault evidence collection kits were not available at the TCC and had to be brought by police personnel.

"When patients arrive before the rape kit is available, they may have to wait for the police to bring it. This can be frustrating for patients, even though we cannot collect evidence without the kit." (Medical doctor)

The availability of evidence-collection materials is a basic but consequential component of the forensic pathway. The issue identified in this study concerns the point of collection rather than laboratory analysis alone: if the kit is unavailable, collection cannot begin – even when the patient is present and willing to proceed. International forensic literature has similarly identified sexual-assault kits as a major component of forensic laboratory workload and backlog, with interest in approaches that can shorten processing times (Harrel & Holmes, 2022).

Transport and intersectoral coordination

Transport between facilities and communication with law enforcement were described as additional barriers.

“Transport to and from healthcare facilities remains a significant concern, and additional support from SAPS is needed to enhance patient safety. Patients frequently return seeking updates on their cases because they are unaware of the investigating officer assigned to the matter or its progress, while the alleged perpetrator often remains within the community. Within the medico-legal context, we primarily refer to individuals as patients rather than victims.” (Medical doctor)

This contribution signals the dependence of medico-legal services on coordination among health services, the police and other components of the criminal justice system (CJS).

The J88 forms as a practical documentation challenge

One service provider raised concerns regarding the documentation, interpretation and evidentiary value of the J88 forms.

“Although consultation informed the development of tools such as the J88, further input from practitioners directly involved in medico-legal practice is needed to ensure that these tools reflect the realities of everyday practice. Their practical experience can help identify implementation challenges and areas requiring improvement, which may not always be fully apparent to policymakers”.

The issue was not simply that documentation is required; documentation tools need to reflect the realities of clinical forensic work and enable practitioners to record findings in a sufficiently clear and useful manner. South African literature has previously identified weaknesses in medico-legal documentation, while earlier research linked the quality of documented injuries with the progression of rape cases through the CJS (Fouché et al., 2018; Jewkes et al., 2009). The present findings extend this concern by identifying the challenges practitioners face in meeting documentation requirements in everyday service conditions. Because the present study did not independently examine completed J88 forms, chain-of-custody records, laboratory reports or court outcomes, these findings identify perceived vulnerabilities in medico-legal practice rather than verified failures in evidence handling or demonstrated effects on legal proceedings.

Discussion

This study explored the forensic and medico-legal challenges associated with the examination of adult female rape cases in three South African TCCs. The findings indicate that the forensic pathway is shaped by interacting clinical, evidentiary, organisational and intersectoral conditions. Survivors' reports showed that respectful communication and explanation of procedures were associated with positive experiences, whereas pain, emotional distress and the intimate nature of the examination contributed to negative experiences. Medical service providers described practical barriers involving examiner availability, survivor choice, evidence preservation, rape-kit availability, documentation, transport and

laboratory delays. Figure 1 presents the Forensic Evidence Continuum, illustrating the interconnected points of vulnerability across the medico-legal pathway, from survivors' entry into care to the potential use of forensic evidence in the justice process.

Figure 1: The Forensic Evidence Continuum: Points of Vulnerability in Adult Female

Rape Examinations

The figure is intended as an interpretive framework and does not imply causal relationships directly established by participants' verbatim accounts. The image was created with the assistance of ChatGPT. All scientific content was reviewed, edited and approved by the author, who assumes full responsibility for its accuracy.

The Forensic Evidence Continuum is presented as a data-informed conceptual synthesis of the vulnerabilities described by participants. It organises the findings across interconnected stages of the medico-legal pathway rather than representing a validated forensic model or a causal sequence. In practice, these stages may interact: for example, a delay in accessing an examiner, or unavailability of a rape kit may postpone evidence collection, while documentation practices and communication between health services, police and laboratories may affect how collected evidence is recorded, transferred and subsequently interpreted. These connections are presented as practical relationships suggested by participants' versions of events, not as demonstrated causal effects. The study did not measure failure rates at individual stages or independently assess chain-of-custody records, evidence admissibility or court outcomes; the continuum therefore maps reported points of vulnerability rather than verified forensic failures.

The examination as both clinical encounter and forensic process

The findings reinforce the importance of treating the medico-legal examination as both a clinical encounter and a forensic process. A survivor may simultaneously require medical care, emotional support and evidence collection – therefore, the examination cannot be reduced to the production of forensic evidence. As Klein et al. (2024) note, existing trauma- and violence-informed approaches emphasise safety, trust, choice, collaboration and empowerment – principles that are relevant to forensic examinations because the survivor retains decision-making authority over procedures to which consent is required. The positive experiences described by eight survivors suggest that explanation and respectful treatment can coexist with the requirements of forensic examination. Conversely, the negative experiences reported by six survivors demonstrate that even when clinicians behave appropriately, the examination can still be physically or emotionally difficult. The scoping review by Stewart et al. (2024) found that adult patients' experiences of the physical examination vary and that patient-centred approaches warrant further attention.

Evidence collection and the importance of timeliness

The descriptions concerning bathing and the absence of rape kits identify two distinct points at which evidence collection may be compromised: conditions before presentation and service-level availability at presentation. These should not be conflated. Even if a survivor has bathed, other forms of evidence may still be available, while someone who presents promptly may nevertheless experience a delay if a collection kit is unavailable. Evidence yield also depends on specimen type and time since assault. Harrel and Holmes (2022) describe continuing efforts to avoid sexual-assault kit processing delays. The practical implication is that evidence preservation should be understood as a pathway rather than a single event. Prompt access, appropriate advice, availability of collection materials, correct collection procedures, secure storage and timely laboratory processing all contribute to the forensic utility of the examination. The importance of evidence recovery procedures and quality assurance is further identified by Gaskell et al. (2025), who evaluated intimate and non-intimate DNA recovery processes across five Sexual Assault Referral Centres in England and Wales. Their study identified instances of unintended DNA transfer during some intimate recovery exercises using anatomical models, highlighting the value of standardised procedures, competency assessment of practitioners and verification of evidence-collection methods. The findings, albeit drawn from a United Kingdom setting and simulated recovery exercises, highlight the importance of maintaining forensic integrity throughout the evidence-collection process.

Documentation, injury interpretation and evidentiary value

Concerns regarding the J88 forms, forensic photography and evidentiary admissibility are particularly relevant to forensic science. The examination produces information that may later be considered by investigators, prosecutors and courts. Poorly recorded findings may make it difficult for later decision-makers to understand what was observed, how it was examined and what evidence was collected. Earlier South African research (Jewkes et al., 2009) indicated that documented injuries were associated with progression through the justice system in adult rape cases, highlighting the potential importance of basic clinical documentation. At the same time, the presence or absence of genital injury should not be treated as a simple indicator of whether sexual assault occurred. Recent systematic evidence shows variation in reported prevalence of genital injuries and examination methods, while a 2025 meta-analysis highlights heterogeneity in injury findings and documentation practices (Stewart et al., 2024; Crawford et al., 2025). The forensic task is therefore to document findings accurately and interpret the findings within their evidentiary limitations, rather than using injury findings as a deterministic test of the allegation.

The medical service providers' concerns about photography and colposcopy also necessitates a distinction between technical capability and admissibility. Forensic photography can improve documentation when undertaken with informed consent, appropriate technique and secure storage. Patient-perspective research has found that many adult patients consider forensic photography acceptable when it is explained and consented to, although individual preferences remain important (Nittis & Hughes, 2021).

Patient choice and declining forensic procedures

The finding that some survivors declined forensic examination or evidence collection should be interpreted within a patient-autonomy framework. A survivor may accept medical treatment while declining evidence collection or reporting to the police. Contemporary forensic nursing literature emphasises that patients are autonomous decision-makers and may decline components of the forensic process (Campbell et al., 2021a). The medical service response should therefore maintain access to appropriate clinical care while clearly explaining the implications and available choices concerning forensic evidence.

Workforce and intersectoral capacity

The shortage of female medico-legal clinicians and the reported need to transport survivors between facilities indicate that forensic care relies on organisational capacity. TCCs are intended to provide an integrated response; yet, integration at the policy level does not necessarily eliminate operational dependencies. Where a required examiner, rape kit, transport mechanism or laboratory result is unavailable, the continuity of the forensic pathway may be interrupted. This is relevant to the South African context because TCCs are designed as interdisciplinary one-stop services. A systematic review found that women's experiences of accessing post-sexual-violence care in South Africa still involve difficulties concerning support and referral pathways (Randa et al., 2023). The present findings add a more specific forensic dimension by showing how service constraints can affect examination and evidence processes.

Implications for forensic and medico-legal practice

The findings have several implications for practice. TCCs and other medico-legal services should enhance their mechanisms for timely access to sexual-assault evidence-collection materials. Services should maximise the availability of appropriately trained female forensic clinicians or establish clear referral and transfer arrangements when a survivor requests a female examiner. Informed consent should be documented as an ongoing process covering the examination and individual procedures such as photography and specimen collection. Training should emphasise precise description and documentation of injuries and other forensic findings. Communication between healthcare providers, the police and forensic laboratories should be improved, to reduce avoidable delays and improve continuity of evidence. The findings also support continued review of medico-legal documentation tools, including the J88 forms, with input from clinicians who use them in practice. Documentation requirements should enable clear recording of examination methods, findings, specimens collected and relevant consent decisions. Service monitoring should consider not only whether an examination occurred but whether the complete evidence pathway – from collection through storage, laboratory processing and reporting – functioned as intended.

Strengths, limitations and future research

A key strength of this study is that it includes perspectives from both survivors and medical service providers. The survivor narratives provide direct evidence of examination experiences, while the service providers identified operational and forensic barriers encountered during service delivery. The inclusion of six forensic nurses and three medical doctors with extensive professional experience provides a practice-informed perspective on medico-legal service provision. Several limitations should be considered. The study was conducted at three TCCs and involved a relatively small qualitative sample; therefore, the findings are not statistically generalisable to all rape cases or all medico-legal services in South Africa. The survivor participants had to be proficient in English, which may have excluded those who preferred other languages. The analysis of service provider data focused on nine medical providers from a wider 28-person service provider sample and therefore does not represent the perspectives of the police, prosecutors, psychosocial providers or other sectors directly. The findings are also based on participants' perspectives rather than independent observation of examinations, audits of J88 forms, laboratory records or case outcomes. Future research should include larger, multi-site qualitative studies with multilingual participants and a broader range of stakeholders, including the police, prosecutors, forensic laboratory personnel and psychosocial providers. Studies that triangulate interviews with audits of J88 forms, evidence-collection records, chain-of-custody documentation and laboratory processing data could examine where interruptions occur across the forensic pathway. Further work could also assess the practical usefulness of the proposed evidence-continuum framework in different South African service settings, without assuming that the stages operate as a deterministic sequence.

Conclusion

The medico-legal examination of adult female rape cases is an integrated forensic and healthcare process involving survivor experience, consent, clinical examination, evidence collection, documentation, resource availability, laboratory processing and intersectoral coordination. The findings show that survivors may experience the examination positively when they are treated with dignity and informed about the procedures, while others may find it painful, traumatic or invasive. Medical service providers identified practical barriers that can interrupt the forensic pathway, particularly the availability of examiners and rape kits, evidence-preservation issues, documentation requirements, transport and delays in forensic processing. The contribution of this study lies in demonstrating how these seemingly separate challenges are connected within the delivery of medico-legal services. Strengthening the forensic response therefore requires attention not only to examination technique but also to the continuity of the entire evidentiary pathway. In the South African TCC context, improving communication, consent, documentation, resource availability and intersectoral coordination may result in a more harmonised and forensically useful response to adult female rape cases.

Abbreviations

CJS

Criminal justice system

DNA

Declarations

Authors' contribution

The author made the sole contribution to the design and development of the manuscript.

Data availability

The datasets supporting the conclusions of this article are not publicly available because they contain sensitive information relating to adult female rape survivors.

Competing interests

The author declares no competing interests.

Ethics approval and consent to participate

Written informed consent was obtained from all participants, who participated voluntarily. Participants' identities were protected to ensure confidentiality and prevent disclosure of their personal information.

Consent for publication

Informed and written consent has been obtained from the participants.

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Figures



Figure 1

The Forensic Evidence Continuum: Points of Vulnerability in Adult Female Rape Examinations

