

RELEVANCY OF MEDICAL AND FORENSIC EVIDENCE IN CASES OF CHILD SEXUAL ABUSE

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ABSTRACT

The upshot of child sexual abuse has been discussed worldwide by scholars and researchers but there are many outcomes of such crimes which can be understood by victims of sexual crimes. CSA is a serious public health issue in India with long lasting physical, emotional and psychological consequences. These crimes leave a smudge of a grin and stern feeling on the victim for the entire life. Dynamics of CSA being different differs from an adult rape and altogether demands different approach of evidence collection. Medical and forensic evidence is of utmost importance in case of CSA as there is no eye-witness to these crimes in majority of the cases. A standard sexual kit employed for evidence collection needs urgent modification considering genital development of pre and post puberty victims. One of the key determinants of POCSO trial results is the existence and integrity of forensic and medical evidence. Medical and forensic evidence is critically essential to support the version of the victim in order to prove that the offence actually took place and to ascertaining the offender/perpetrator of such crime. Child survivors tend to struggle more with reporting events accurately or surviving hostile cross-examinations and hence scientific and objective means of evidence become even more crucial.

Keywords: CSA, POCSO, Forensic evidence, child rights, medico legal, evidence collection, DNA profiling

1. INTRODUCTION

Medical and Forensic science is the application of specific range of scientific knowledge to address an issues and the process to identify and compare the materials to meet the ends of justice. It basically establishes the connection between the crime scene, the victims and the perpetrators, the weapons used in the offense, the place and the time of the occurrence of the incident. Thus, medical and forensic evidence is basically the evidence that is gathered from the body of the victim and the accused and then they are analyzed by scientific methodologies. Such evidence includes blood sampling tests, DNA sampling on the body of the victim and the accused, crime scene, finger-prints etc. The foremost statement of evidence is the statement given by the victim before the court which aids medical examination. The victim is to be examined by a registered medical practitioner employed in a government hospital or any hospital run by local authority. The examination shall include examination of blood, blood stains, semen, swabs, septum, sweat, hair samples and finger nail clippings by the use of modern scientific techniques including DNA profiling and such other tests which the registered medical practitioner thinks necessary. Such medical examination should be conducted after taking consent on behalf of the victim. The act also provides additional provisions for examination of minor victims in as much as that the examination should be done by a medical practitioner in presence of parents or any other person in whom the child trusts or in presence of a women nominated by the head of medical institution. In the case of **Ravi versus State of Maharashtra**, a two-year-old girl was allegedly raped by the appellant. **“Nasal swabs, superficial vaginal swab, deep vaginal smear on**

slide, superficial vaginal smear on slide, anus swab, skin scraping of blood on thigh and abdomen, nails and other blood samples” were among the forensic evidences that medical professionals examined and the forensic examination led to the appellant’s conviction.

In the case of **Lalmalsom Kaipeng versus State of Tripura**, Rupali Majumder, a Scientific Officer of the State Forensic Science Laboratory, examined over the forensic exhibits related to this case, including the external and internal vaginal swabs, a small short hair, the victim’s dry blood sample, the victim’s long pants, the victim’s light purple shirt, the accused-appellant’s pubic hair (cut), pubic hair (combed), and the accused-appellant’s dry blood sample. The outcome of the examination was (a) Serum stain, spermatozoa, or blood stain of human origin could not be detected (b) Human hair was found, although the location of the hair was not found. In light of the preceding analysis of the law and the forensic evidence the court was of the view that the appellant is entitled to the benefit of the doubt. The convict-appellant, was released from custody after being found not guilty of the allegations brought against him. In this case Forensic Evidences played an important role in determining the rights of the accused. It is necessary that the forensic evidences are collected and examined in due time. The smegma lost all its importance after the lapse of 24 hours of performance of sexual intercourse. The same was highlighted and upheld in the case of **S P Kohli v High Court of Punjab & Haryana**.

The medical examination of the accused is also mandatory and it was held in the case of **Bombay versus Kathi Kalu AIR 1961, SC 1808, (1962)3, SCR, 10** it was observed that **“There is no violation of Article 20 (3) of the Constitution in compelling an accused to give his specimen handwriting or signature or impression of thumb, finger palm or foot to the investigating officer or under orders for the purpose of comparison”**.

In **Madan Gopal Kakkad v. Naval Dubey and Another** it was held that the cases of sexual offenses against minors and the victim’s testimony have substantial evidentiary value do not need corroboration unless there is a compelling reason to do so. High court’s arguments that complete penetration or hymenal rupture was required reaffirms that even minimal penetration is enough to establish a rape case under section 375 IPC. The court claimed that leniency in that situation compromised justice and did not announce the High Court’s insufficient punishment. The Supreme Court sentenced the accused to 7 years of rigorous imprisonment, imposed a fine of 25,000 and directed them to pay the amount to the victim as compensation and to reinforce the need for severe punishment in cases involving in sexual abuse cases.

In **State of Punjab versus Gurmeet Singh**, the Court held that the evidence of the rape survivors is not required because it is reliable and trustworthy. It emphasized that the minor’s contrary to the victim’s statements do not affect the reliability of the prosecution case and the trial court harshly criticized the insensitivity. The judgment protects the survivor’s privacy and dignity; from reaffirm the need for the most sensitive handling of the rape trials. The court sentenced the accused of five years’ rigorous imprisonment and a fine, and it also mandated the camera proceedings to prevent unnecessary trauma for the victim. This landmark decision continues to influence the judicial attitudes toward rape cases and to protect the victim’s rights.

In **Lillu @ Rajesh & Anr. Versus State of Haryana**, the Supreme Court held that the two-finger tests are violated because they harm the survivor’s right to privacy, dignity, and mental integrity. It highlights that the test has no forensic value in rape cases and that prior sexual experiences are not relevant in determining consent. The court demanded the discontinuation of the test, its support for medical exam and the need to protect the survivor’s rights. This judgment mainly focuses on the legal field of medical examinations and concerns sexual assault victims in India.

Corroborative DNA evidence and medical examination along with confession from the accused increase the rate of conviction. Successful recovery of forensic evidence also depends on timely

reporting of sexual assault. Many POCSO cases are marred by delayed medical examinations, compromised forensic samples or improperly prepared medico-legal reports, which in turn undermine the prosecution case. This paper attempts to examine the relevance of medical and forensic evidence that contributes in POCSO cases in India through the study of statutes, case law, judicial precedents and forensic procedure and procedural shortcomings that hamper the proper collection and utilization of such evidence. Collection and evaluation of forensic evidence along with genital examination are the most important constituents of medical assessment in cases of child sexual assault. In cases of sexual abuse, the most important biological and DNA evidence is seminal fluid. During sexual assault, semen gets deposited in the vagina but may drain to the anal region and also to the clothes and bed of the victim. Other biological evidence such as pubic hair, body fluids, skin cells present on the body or clothes of the child victim can be a potent source of DNA profile of the accused.

2. REVIEW OF LITERATURE

Kumar, R. (2021) conducted a study on the **“Role of forensic evidence in POCSO trials”** and highlighted that delays in forensic examination and inadequacies in evidence collection procedures led to a high acquittal rate in many cases. The study emphasized the need for timely, trained forensic support to strengthen prosecutions under the Act and recommended setting up more regional forensic labs.

Suminder Kaur, Simarpreet Kaur and Banita Rawat (2021) in their research paper **“Medico-legal evidence collection in child sexual assault cases: a forensic significance”** held that even with advanced DNA techniques, the conviction rate remains low. The methods used for forensic DNA evidence analysis vary around the world, but the primary step of biological evidence collection plays the most vital role. Proper and timely evidence collection from the victim by a trained medical professional is important.

Chavan PN, Malkar SB , Kankute SD and Ghumatkar SG (Volume 8, Issue 3 August 18, 2023) in their research paper **“Blood as Forensic Evidence Helps in Solving Sexual Assault in POCSO Act Case-a Case Study”** conducted a study that blood is important evidence in many crimes like murder, rape, gang war etc. Blood and semen are mildly alkaline aqueous body fluid, which carries DNA. Every living thing has DNA; its every composition differs from others. The interesting fact is that although 99.99% of human DNA sequences are same in every person it is only 0.01 % of DNA that makes us unique. In rape cases not only semen factor is important but also blood plays vital role in the forensic analysis. In some rape cases condoms are being used by accused, therefore in such cases it is quite impossible to get the analytical results of semen. Likewise, in POCSO cases analytical tests for semen resulted as negative as the victim passes out urine but in such cases of sexual abuse blood is the only important factor for analytical view.

Arya Mishra (2024) in his research paper **“Examining the Role of Forensic Evidence in Prosecuting Child Sexual Abuse Cases under the POCSO Act”** aims understand the key role played by the forensic evidences in determining the rights of victim and punishing the offenders. With the advancement in science and technology, forensic evidences can be better analysed. Forensic evidences, including forensic linguistics, blood, DNA etc, play an important role in determining the rights of the child victim and prosecuting the child sexual abuse offenders.

Shaju V.M., Dr.Anu Mutneja, (June, 2025) Volume 2, Issue 3 in her research paper **“Role of medical and forensic evidence in POCSO cases affecting the conviction rate”** critically analyses the role of such evidentiary elements affecting conviction rates under the POCSO Act. Leveraging case law examination, empirical research, and stakeholder interviews, the paper identifies evidentiary gaps, procedural deficiencies, and systemic impediments to justice delivery. Proposals are made for

upgrading evidence collection protocols, training mechanisms, and judicial interpretation.

Niharika Sehgal, Dr. Bhawna Arora (Volume 7, Issue 3, May-June 2025) in their research paper **“Admissibility of Medical Forensic Reports in Sexual Offences in Legal Purview”** explores the importance of forensic and medical testimony in the investigation of cases of sexual offences and highlights how significant it is for medical practitioners to help survivors of sexual violence with their legal proceedings as well as their medical care. The article discusses the legal framework governing medical examination in sexual offense cases and highlights the revision in applicable laws and court rulings.

Chandra and Gupta (2025) in their paper **“Childhood at Risk: Examining the effectiveness of the framework in protecting children from sexual offences in gender, environment and human rights: An intersectional exploration (pp 337-358) IGI Global”** examined the complex vulnerabilities of children in the Indian context, specifically sexual offenses. Their work critiqued the efficacy of current frameworks, including POCSO, to protect children. They contended that while POCSO had provided a robust legislative framework with child-sensitive procedures—like in-camera trials and child friendly reporting—implementation had been wanting due to the mono sensitization of law enforcement and judicial staff. The authors highlighted that the convergence of gender, environment, and socio-economic exclusion further increased the vulnerability of children to sexual exploitation. The system, progressive as it was on paper, had been unevenly implemented in practice, especially in rural and marginalized areas where awareness and access to legal recourse continued to be limited.

3. RESEARCH METHODOLOGY

The methodology adopted for the research is doctrinal cum empirical approach using theoretical legal analysis and field based study. The methods adopted not only comprehend the relevant legal and institutional mechanism pertaining to protection of child from sexual offences but also inquire the practical applications and impact. The doctrinal aspect includes the study of statutory provisions, judicial precedents and case laws. In addition to primary legal sources, the doctrinal components incorporate a review of secondary data which includes NCRB reports, medical and forensic procedures, and academic literatures.

The empirical research aims to supplement doctrinal findings by conducting structural interviews and including participants such as legal professionals, forensic specialists, child right activists, social worker. The combined approach facilitates a more complete policy oriented understanding of child protection from sexual offences.

4. AIMS AND OBJECTIVE OF THE STUDY

- To understand the role of medical and forensic evidence in POCSO cases
- Co-relation between evidentiary strength and conviction rates
- Identify procedural and structural gaps in collection of evidence collection

5. DEFINITE FACTORS THAT DETERMINES THE NATURE OF FORENSIC EVIDENCE

- Sexual violence- related activities
- Time taken between the commission of the crime and examination of the victim and the accused/perpetrator
- Whether the victim took a shower, cleaned her clothes, or changed after the occurrence.

6. CHALLENGES IN MEDICO-LEGAL RESPONSES

- Lack of proper training of medical officers in dealing with POCSO-special procedures, causing

poor quality medico-legal reports.

- Unavailability of Sexual Assault Forensic Evidence (SAFE) kits at rural health facilities, resulting in partial evidence collection.
- Police-medical co-ordination lapses leading to delay in examination and undermining the integrity of forensic results.
- Lack of trauma-informed, child-focused medical exams, which impacts the psychological health of the child as well as the validity of testimony or physical evidence.

7. NATURE OF FORENSIC EVIDENCE IS DETERMINED BY DEFINITE FACTORS:

- Sexual violence-related activities
- Time taken between the commission of the act and the examination of the victim/perpetrator.
- Whether the victim took a shower, cleaned her clothes, or changed after the occurrence.

8. CONCLUSION

Sexual Abuse involving penetration is likely to cause physical injury to the genitals. The corroborative clinical findings among such child victims are of utmost importance that can be solved by collecting appropriate evidence during medical examinations. During forensic case reporting, the medical assessment plays a significant role in supporting the child victim and family, safeguarding their health and well-being and providing information to the judicial systems. In cases of sexual assault processing and analysing forensic evidences in a timely manner is very critical for successful prosecution in order to lead a conviction. Due to the furtive nature of the crime, the evidence collection should be done as soon as possible. Courts have prioritized the rights and dignity of survivors, and declined the unwanted practices like the two-finger test. Advancements in forensic science techniques have improved the accuracy of evidence collection and standardized the evidence kits for digital documentation and DNA profiling. Better judicial procurement has resulted from these improvements, which have increased the reliability of medical forensic reports. However, issues still persist as regards to proper handling of forensic samples, reporting cases on time, and ensuring that the medical experts follow scientific principles. Raising legal awareness among law enforcement, judges, and lawyers provides the proper training, and ensures more knowledgeable and proper handling of cases.

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