

Admissibility of Medical Forensic Reports in Sexual Offences in Legal Purview

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Abstract:

The paper explores the importance of forensic and medical testimony in the investigation of sexual offense cases in India. It 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. It also examines the ethical guidelines set by the WHO and the Ministry of Home Affairs for the medical care of the victims of sexual assaults. The article also explores the reasonableness of expert evidence in situations involving sexual offenses and how it impacts court rulings. The study highlights the use of forensic and medical testimony in determining the occurrence of sexual crimes and securing justice for survivors through case studies and an analysis of judicial trends. The conclusions highlight the need for timely case reporting, improvements in investigative techniques, and medical practitioner adherence to scientific reasoning.

Keywords: Sexual assault, forensic science testimony, India Survivors of sexual offenses, medical examinations.

INTRODUCTION:

Sexual offenses are the most inhuman activities done by humans. Sexual offenses are generally viewed as a serious assault on the body; mainly genital molestation occurs without the victim's consent. Even if it is a physical assault, the victim's self-respect, dignity, and modesty are violated. In the broader sense, sexual offenses are acts or expressions of violence and falsification committed by the most powerful male against the weakest available females in secure situations as a result of emotions such as anger, sorrow, self-doubt, annoyance, hostility, and deprivation, as well as the innocence of their true identity as SAT, CHITT, and ANANDA.

Adult men, especially those apprehended by the police or imprisoned, as well as sexual minorities, specifically the transgender community, may be involved in sexual violence. The offender of a sexual offense might be someone from total strangers to members of the government to romantic partners, the data recommend that they are usually somebody the victim knows. Sexual violence can take many different forms. From the beginning, women have established themselves in every area and become active in all part of developments such as politics, sports, piloting, or science. Each member will feel proud wherever a girl comes up with flying colours and celebrates it. However as soon as we read this news, the headline about the terrible and inhuman rape occurrence will come in front of us, making our country failure to protect women.

Approx. 65,025 rape cases were reported in the year 2021 in India, and it was noted that in most of the cases (nearly 96.8%), the culprits are well known to the victim's family. Cruelty can be avoided and is not inevitable.

The socio-cultural and economic changes that support a culture of violence against women must be communicated (VAW). We acknowledge the necessitate of implementing a multisectoral structure of mutually reinforcing steps for the prevention and management of sex-based violence, significantly against women and girls, our work is approached on enhancing the power of the health system.

LAWS OF MEDICAL FORENSIC REPORTS:

Section 375 of the Indian Penal Code deals with the offense of rape. It defines rape as “sexual relations with a woman against her will, without her consent, by force, misinformation, or fraudulence or at a time when she has been fuddled or duped or is of unsound mental health and in any case if she is under 18 years of age.”

Other important provisions related to rape in the Indian Evidence Act, of 1872, are in section 45, which deals with medical and forensic practitioners as competent witnesses. Courts depend on toxicological results, DNA inspections, and specialist judgments about offenses, and Section 114(A) deals with the court presuming that the victim of rape did not consent if she claims not to have given her consent. This provision strengthens the forensic findings and evidentiary advantage in showing non-consensual activity. Dying declarations, including those written by medical practitioners, are substantive proof under section 32(1).

The medical examination of a rape victim is governed by Sections 164A and 53A(1) of the Criminal Procedure Code 1973, specifying that a medical expert must examine a specific accused of rape. The most important factor is the accordance with such an examination under this section. The court determines section 293, authorizing forensic results from government laboratories to be admitted as evidence without the practitioner's presence in the court.

Section 27 of the Protection of Children from Sexual Offenses (POCSO) Act 2012 deals with the requirement that the most sensitive forensic medical examinations be executed on juvenile victims, preferably by a female medical practitioner, and Section 36 mandates that forensic and medical analysis be managed in a child-friendly manner.

The Indian Medical Council Regulation, 2002, provides principles and standards for conducting medical examination in cases of sexual offenses while supporting confidentiality and informed consent.

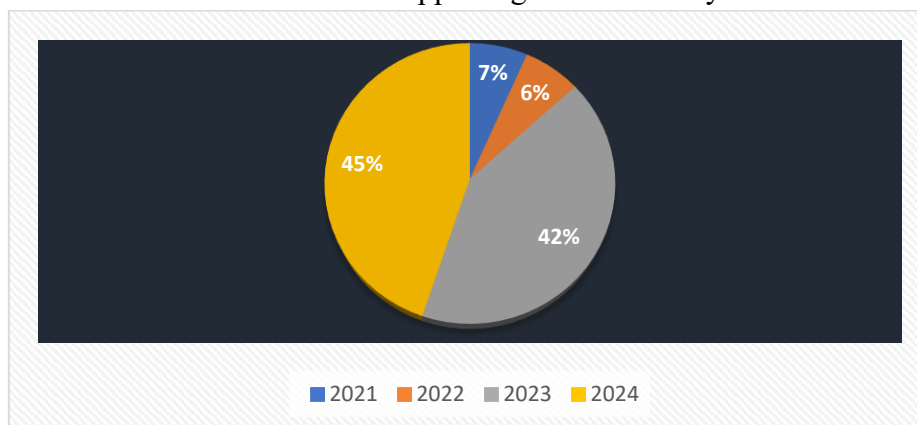


Fig 1, depicts a pie chart which shows that the increase of registered rape cases in India from 2021-2024. As the cases increased by 54.3% from 2021-2024 in India.

FORENSIC SCIENCE EVIDENCE: A NEWLY INVOLVED TECHNIQUE:

The application of specific range of scientific knowledge to address issues and further the ends of justice in a judicial system is known as forensic science. Its process is to identify and compare the materials. It establishes whether there is a connection between the crime, the victims, the perpetrators, the weapons used in the offense, the place, and the time of the happenings. It incorporates all scientific disciplines and uses them to further the purpose of law.

There are 2 types of medical forensic reports for sexual offenses:

1. DNA Test.
2. Osteoporosis/ Bone Density Test

DNA TEST

DNA fingerprinting is a technique that helps scientists and legal experts identify and solve crimes. Forensic medicine repeatedly uses DNA analysis to identify human remains, paternity tests, and examine elements seized at crime scenes. It is such a sensitive a test that even a sample can be used to link a suspect to a crime scene. The ability to recover genetic information from the contents of a small number of cells, DNA profiling has become one of the most important forensic zones. In forensic medicine, it is the most important event of the late 20th century.

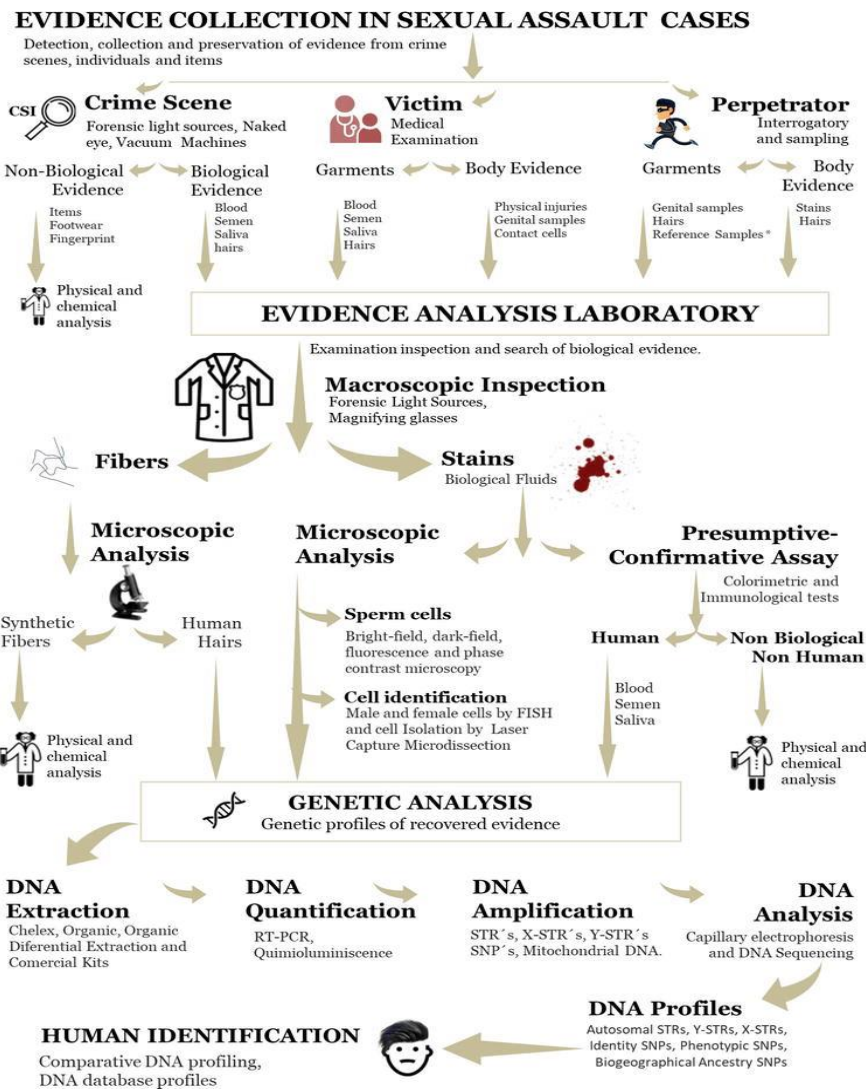
OSTEOPOROSIS/BONE DENSITY TEST

A bone density test specifies whether you have osteoporosis, a disorder identified by bones that are more brittle and more likely to break. The test measures the grams of calcium and other bone minerals that are packed into a bone segment using X-rays. The bones that are most frequently tested are in the hip, spine, and occasionally the forearm.

MEDICAL FORENSIC REPORTS

Medical forensic reports play very critical dual roles in cases of sexual offenses, specifically in rape cases. Providing the required medical treatment and psychological support is the first step. The second is to assist the survivors in the medical-legal proceedings by gathering the necessary evidence and correctly documenting it. Hence, the medical forensic reports so prepared become all the more important. Forensic reports are one approach to help find out the facts because there are usually no eyewitnesses of the act, and the victim and accused usually speak purely in their own interests. Forensic examination of the victim has always been a mandatory requirement.

If the other evidence in the case is reasonable, the unsuccessfulness of the medical report is not fatal. In the state of Madhya Pradesh v. Dayal Sahu, the Supreme Court held that the appellate court cannot refuse guilt based on conclusions drawn from based on irrelevant facts. The accused will not be given the benefit of the doubt for not inquiring about the prosecution's doctor if the victim's and other witnesses evidence is deemed credible.



Source: <https://www.intechopen.com>

Fig 2: This figure illustrates the process of evidence collection and analysis in sexual assault cases.

INSTRUCTIONS FOR SCIENTIFIC MEDICAL EXAMINATION IN SEXUAL ASSAULT CASES:

A new set of rules for forensic medical examinations in sexual assault cases was released in 2018 by the Central Forensic Science Laboratory Directorate of Forensic Science Services, which is operates under the guidance of the Ministry of Home Affairs. A summary of these guidelines is as follows:

1. When it comes to examining a victim, consent is important. The victim must be informed by a medical professional of the various tests involved in the examination as well as its advantages. Refusal to give consent will not mean denial of the opportunity to take an examination. When the victim is a teenager, the situation needs to be handled with extremely care.
2. In circumstances where the victim is an adult; comprehensive details about the tests and other procedures of medical examination should be provided to her parents or guardians if she is unable to grasp the process or to her family if she is a child.
3. The two- finger test is disallowed.
4. A specialist or member of their team is not allowed to discuss the victim's past sexual experiences or making any statements that may shame them.

THE NATURE OF FORENSIC EVIDENCE IS DETERMINED BY DEFINITE FACTORS:

There are three major factors to clarify the nature of forensic evidence gathered:

1. Sexual violence- related activities.
2. The amount of time that passes between the act and the examination.
3. Whether the victim took a shower, cleaned her clothes, or changed after the occurrence.

The medical practitioner collects a variety of biological specimens during forensic and medical examinations in sexual offense cases in order to help the investigation and legal actions. A summary of commonly collected specimens, methods of collection, and their forensic purposes:

Specimen/Sample	Collection method	Purpose
Oral Swabs	Oral cavity swabbing.	To resolve whether semen or other foreign resources are present.
Vaginal Swabs	Utilizing sterile cotton swabs for collection.	To find sperm, semen and DNA evidence.
Blood Samples	Extracted with a syringe from a vein.	Toxicological testing and DNA comparisons.
Anal Swabs	Taken from the anal area using sterile swabs.	To gather and look for indications for penetration and DNA.
Urine Samples	Placed in sterile containers for collection.	To check the victim’s system for drug and alcohol use.
Hair Samples	Cut or removed from the body or scalp.	Utilized in toxicological tests and DNA analysis.
Clothing Evidence	Collected from the Victim.	To analysis fibres, DNA traces, or stains
Fingernail Scrapings	Scraped with a sterile tool.	To gather stuff, like as cells, and skin, from the attacker.

RELIABILITY OF EXPERT EVIDENCE IN SEXUAL OFFENSES:

In instructions for the court, which is not an expert, to form its judgment on those resources after giving due points to the expert’s opinion, for once the expert’s opinion is approved, it is not the opinion of the medical officer but the court; the expert witness is expected to present all the significant details to the court, including the data that guide him to draw the conclusion and prepare the court on the scientific elements of the case by describing them in accurate terms. Every stakeholder participating in a sexual violence case expects a doctor to attain a positive medical opinion immediately after a medical examination, but they fail to examine the facts that the medical evidence and findings vary depending on the type of assault, post-assault activities, and the duration of the time since the examination.

In the case of the *State of Maharashtra v. Madhukar N. Gardikar (1991)*, the court highlights that the expert medical opinion must be supported by additional testimony and that a woman’s character has no bearing on whether or not she grants her consent.

In the case of *Tukaram & Anr. v. State of Maharashtra (1979)*, the court controversially acquitted the accused, for which there is no proof of resistance. This led to legal improvement, including changes to ho-

w to exclude the medical testimony used in rape cases.

JUDICIAL PRONOUNCEMENT IN MEDICAL FORENSIC REPORTS:

Since these examination reports serve the purpose of justice they discuss the judicial trend as to acceptance of these examinations for investigation of sexual offenses.

In the case of *B.C Deva Alias Dyava v. State of Karnataka*, the session court sentenced him to 7 years imprisonment, and the Karnataka high court upheld the judgments. The petitioner challenged the verdict and argued that the prosecution's case was weakened by the victim reliability, lack of corroborative medical testimony, and the reliability of the victim's evidence. The Supreme Court dismissed the appeal, emphasizing that the victim evidence does not require corroboration. The court stated that the victim may not every time resist due to fear or coercion, so the lack of physical injuries does not prove rape. The limitation of forensic evidence is also mentioned in this particular case, because the victim's clothing has been soaked in water, probably the biological traces are erased. The conviction has been upheld by the Supreme Court, reaffirming the idea that the survivor's testimony is sufficient for the conviction in sexual assault cases.

In this case, *Lillu @ Rajesh & Anr. v. 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.

In this case, *State of Punjab v. 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 Dilip v. State of Madhya Pradesh, the Supreme Court sentenced the accused for rape, if it is credible that the survivor's testimony is sufficient to convict even in the absence of conclusive medical evidence. The court rejects the defences claims that the prosecution case is disabled by the lack of physical injuries or seminal traces and that the medical reports are supplementary and cannot be clear to the survivor testimony. It highlights that consent is not relevant in cases involving minors and the survivor's claims are not refused due to lack of resistance. The ruling emphasized that the survivor's centric approach in sexual offenses cases.

In *Madan Gopal Kakkad v. Naval Dubey and Anr.* the Court stated 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.

COMPARISONS OF OLD AND NEW FORENSIC MEDICAL REPORTS TECHNIQUES FOR SEXUAL OFFENCES

Aspects	Old techniques	New techniques
1. Evidence collection	<ul style="list-style-type: none"> • Wooden spatulas and cotton swabs used for samples. • They are repeatedly stored improperly, they causes sample degradations. • Lacking uniformity, raising the risk of contaminations. 	<ul style="list-style-type: none"> • Using DNA preservations kit and sterile synthetic swabs to preserve sample integrity. • Standardised kits to collect the forensic evidence such as the Sexual Assault Evidence Kit (SAEK).
2. Biological sample analysis	<ul style="list-style-type: none"> • Microscopic examination of bodily fluids to identify the epithelial and sperm cells. • Identify the blood group. (less specific) 	<ul style="list-style-type: none"> • Individual specific identification analysis the DNA Profiling's using PCR and STR (Short Tandem repeat). • When nuclear DNA is not available, Mitochondrial DNA can be use.
3. Injury documentation	<ul style="list-style-type: none"> • Medical practitioner by subjective verbal descriptions and hand drawn sketchers. • Absence of standardization of injury classifications. 	<ul style="list-style-type: none"> • To correct documentation, high resolution and digital photography and 3D imaging are used. • Alternate light sources (ALS) and UV light can identify trauma and bruises that are invisible to the naked eye.
4. Semen detection	<ul style="list-style-type: none"> • The Acid phosphate (AP) test is a non-specific method of detecting enzymes present in semen. 	<ul style="list-style-type: none"> • More reliable semen detection is provided by the Prostate Specific Antigen (PSA) test and RSID semen test.

	<ul style="list-style-type: none"> • Sperm cells which may deteriorate over time, are identified by microscopy. 	<ul style="list-style-type: none"> • When sperm cells are absent, male DNA can be detected using Y-STR DNA analysis.
5. Sperm detection	<ul style="list-style-type: none"> • To use the Christmas tree stain in microscopy to highlight sperm morphology. • Time sensitive and requires well preserved samples. 	<ul style="list-style-type: none"> • The accuracy is of DNA based identification when Y-STR (Y – chromosomes Short Tandem Repeat) analysis are used. • Detecting the male in Vasectomized or azoospermia individuals.

CONCLUSION AND SUGGESTIONS

As we can say that the forensic and medical examination plays a very important role for the investigation of sexual offences across the world. The old methods of investigations used by our medical practitioner were like asking questions to the victim, gathering information from the eye-witnesses or doing in field-study of the case, makes the investigation slow and delay, and this led to delay in justice to the victim’s family and victim themselves. The old techniques are considered an outdated method of investigation. Due to which the innovations are done and new forensic techniques came into the picture like DNA Testing or OSTEOPOROSIS/BONE DENSITY TEST, or etc which is less cruel to the victim and led to speedy justice to the victim. But the drawback of these techniques is that they are still outdated and cannot be used if the case will not register in given time period. The reason behind that the police officers and other department will not do their work properly and most of the cases are not registered in proper time frame. The importance of the victim’s testimony has been reinforced by the judicial pronouncement stating that a conviction does not always require medical evidence to support it. Courts have prioritized the rights and dignity of survivors, and the court rulings against unwanted and outdated practices like 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. There are still issues, such as the proper handling of forensic samples, reporting cases on time, and ensuring that the medical experts follow scientific principles and rather than their own personal beliefs. It is suggested that to improve the forensic medical testimony in sexual offense cases it provides that timely medical examinations and standardized forensic kits are used for the evidence collection and that specialized training be provides for medical professionals for forensic protocols and survivor care. Adopt advanced techniques, such as DNA profiling and high imaging, and enhance the accuracy of the investigation. Better cooperation between law enforcement, health providers, and forensic labs because it improves the legal proceedings. Lastly, 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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