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**DRUG FACILITATED SEXUAL ASSAULT AND THE
MEDICO LEGAL RESPONSE TO SEXUAL OFFENCES IN
INDIA: AN INTEGRATED FORENSIC AND LEGAL
ANALYSIS**

AUTHORED BY - HITESH NARISSETTY

5th year, 2nd Sem, BBA.LLB (Hons.), 2021-2026

Vignan Institute of Law, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi, Guntur, Andhra Pradesh, India – 522213.

CO-AUTHOR: DR. M. SANTHOSHRAJU

Assistant Professor, Vignan Institute of Law, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi, Guntur, Andhra Pradesh, India – 522213.

ABSTRACT

Drug Facilitated Sexual Assault (DFSA) represents a distinctive category of sexual violence wherein offenders administer or exploit intoxicating substances to impair a victim's capacity to provide meaningful consent. This research critically analyses the medico-legal response to DFSA in India through an integrated examination of criminal law, forensic toxicology, and investigative procedures. The study evaluates the transition from the Indian Penal Code and Code of Criminal Procedure to the Bharatiya Nyaya Sanhita, Bharatiya Nagarik Suraksha Sanhita, and Bharatiya Sakshya Adhiniyam, assessing their relevance to consent, intoxication, and evidentiary standards. Emphasis is placed upon the role of timely medico-legal examination, standardized hospital protocols, and scientific collection of biological samples including blood, urine, and hair. The paper investigates common forensic challenges such as rapid drug metabolism, narrow detection windows, delayed reporting, and inadequate chain of custody practices. Judicial precedents and national guidelines are analysed to understand evolving principles on survivor dignity, trauma-informed care, and prohibition of unscientific examinations. The research further explores the evidentiary interface between toxicology findings, digital forensics, and witness testimony in establishing incapacity and perpetrator liability. Comparative perspectives from international multidisciplinary response models are considered to identify operational gaps within the Indian system. The paper concludes that

effective prosecution of DFSA requires coordinated interaction among healthcare providers, forensic laboratories, and investigators supported by uniform protocols and specialized training.

1. INTRODUCTION

Sexual assault happens when someone either touches another person in a sexual manner without consent or makes another person touch them in a sexual manner without consent. Section 74 of BNS, 2023 says *“Whoever assaults or uses criminal force to any woman, intending to outrage or knowing it to be likely that he will thereby outrage her modesty, shall be punished with imprisonment of either description for a term which shall not be less than one year but which may extend to five years, and shall also be liable to fine.”*¹

Drug Facilitated Sexual Assault (DFSA) refers to incidents in which sexual offences are facilitated through the administration of drugs or intoxicants that incapacitate victims physically or mentally thus impairing their capacity to give informed consent. A form of sexual violence wherein the victim is impaired by drugs administered covertly or consumed voluntarily thereby invalidating meaningful consent.² Drugs or intoxicants such as alcohol, benzodiazepines, GHB (gamma hydroxybutyrate), ketamine or Rohypnol that incapacitate or impair the victim’s ability to give informed consent. These substances may cause sedation, loss of motor control, amnesia, or inability to resist, making them particularly insidious tools in facilitating assaults.³ In India, most DFSA incidents involve alcohol largely because of its legal availability and social acceptance. Perpetrators may exploit victims' voluntary intoxication or covertly administer stronger substances.

Drug facilitated crime (DFC) is a general term that includes rape or other sexual assault, robbery, money extortion, as well as the deliberate maltreatment of the elderly or children under the influence of psychotropic substances. DFCs are criminal acts carried out by means of administering a substance to a person with the intention of impairing behaviour, perceptions or decision-making capacity. It also extends to taking advantage of an impaired person, without

¹ Bharatiya Nyaya Sanhita, 2023, § 74, No. 45, Acts of Parliament, 2023 (India).

² RESEARCH GATE, https://www.researchgate.net/publication/354170779_A_Forensic_Aspect_on_Drug_Facilitated_Sexual_Assault (last visited Sep. 01, 2025).

³ MEDCRAVE, <https://medcraveonline.com/FRCIJ/a-forensic-aspect-on-drug-facilitated-sexual-assault.html> (last visited Sep. 01, 2025).

their consent, after their voluntary intake of an incapacitating substance.⁴

The term medicolegal refers to both medicine and law. It can refer to two things:

1. The study and application of medical and scientific methods as evidence in a legal case, e.g. paternity, cause of death, rape, etc. This is also referred to as legal medicine or medical jurisprudence.
2. Medical law is the branch of law that governs proper medical practices.

The two should not be confused, although some legal cases can involve both, for instance, if a doctor is called as an expert witness for a malpractice case against another healthcare provider.⁵

Medical law sets out the proper code of conduct, the responsibilities of healthcare providers, and the rights of patients. If a healthcare provider is suspected of having committed medical malpractice and caused unnecessary harm to a patient, they risk legal action from said patient. Criminal law also applies to the medical world to ensure that healthcare providers do not engage in criminal activity in their practice. Forensic medicine is one particular specialist field, which involves collecting and analysing samples from a criminal case to produce objective evidence for the court.

The intersection of these forensic and legal processes is essential because DFSA cases are extraordinarily vulnerable to procedural failure. Alcohol induced amnesia, absence of visible injury, or delayed presentation can result in judicial skepticism even when forensic evidence exists. Courts have underscored that medical evidence is significant but not determinative in the absence of corroboration and contradictions or retractions can complicate convictions. It is within this labyrinth that an integrated, interdisciplinary framework aligning forensic sensitivity with legal clarity is indispensable.⁶

1.1 Hypothesis

If DFSA cases in India are investigated through a coordinated legal forensic framework with timely medico legal examination, adherence to Ministry guidelines, standardized toxicology protocols and strict chain of custody then evidentiary reliability and conviction rates will improve significantly.

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UNODC, https://www.unodc.org/documents/scientific/forensic_analys_of_drugs_facilitating_sexual_assault_and_other_criminal_acts.pdf (last visited Sep. 01, 2025).

⁵ TOPDOCTORS, <https://www.topdoctors.co.uk/medical-dictionary/medicolegal/> (last visited Sep. 01, 2025).

⁶ TIMES OF INDIA, <https://timesofindia.indiatimes.com/city/nagpur/medical-evidence-alone-insufficient-for-conviction-in-sexual-assault-cases-bombay-hc-overturms-20-year-sentence/articleshow/116300534.cms> (last visited Sep. 01, 2025).

1.2 Objectives

1. To examine the legal framework governing DFSA in India before and after the 2024 statutory changes.
2. To analyse the role of forensic toxicology, medico-legal examination, and evidence chain of custody in DFSA cases.
3. To evaluate operational and procedural challenges in investigating and prosecuting DFSA.
4. To recommend measures that strengthen the medico-legal and legal response to DFSA while protecting survivor rights.

2. LEGAL FRAMEWORK

India's legal regime on sexual offences is currently operating across two statutory universes because Parliament replaced the nineteenth century codes (Indian Penal Code, Code of Criminal Procedure, and Indian Evidence Act) with the Bharatiya Nyaya Sanhita, 2023 (BNS)⁷, the Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS)⁸, and the Bharatiya Sakshya Adhinyam, 2023 (BSA)⁹, which came into force on July 1, 2024. Conduct occurring before that date is prosecuted under the old codes; conduct on/after that date is prosecuted under the new ones.

Under the Indian Penal Code (IPC), "rape" (s.375)¹⁰ was defined with enumerated circumstances under which consent is legally absent, including where a woman "is unable to communicate consent." Consent was further structured by Section 90 IPC¹¹, which invalidates consent given under fear, misconception or by a person who, owing to intoxication or unsoundness of mind, cannot understand the nature and consequence of that to which they consent. DFSA fact patterns typically travel through this matrix: stupefaction impairs capacity to consent; the evidentiary narrative then establishes absence or vitiating of consent. The BNS recasts and renumbers the offence but the core organising idea, absence of meaningful consent and the protection of sexual autonomy remains central. Courts continue to treat intoxication induced incapacitation as negating consent.

⁷ Bharatiya Nyaya Sanhita, 2023, No. 45, Acts of Parliament, 2023 (India).

⁸ Bharatiya Nagarik Suraksha Sanhita, 2023, No. 46, Acts of Parliament, 2023 (India).

⁹ Bharatiya Sakshya Adhinyam, 2023, No. 47, Acts of Parliament, 2023 (India).

¹⁰ Indian Penal Code, 1860, § 375, No. 45, Acts of Parliament, 1860 (India).

¹¹ Indian Penal Code, 1860, § 90, No. 45, Acts of Parliament, 1860 (India).

The Supreme Court in “**Lillu @ Rajesh & Anr. v. State of Haryana**¹²” (2013) held the so called “two finger test” unconstitutional, finding it violative of dignity and privacy and scientifically irrelevant to consent. Subsequent rulings and government advisories have reiterated that such examinations must not be performed; care must be trauma informed and evidence centric. This jurisprudence is especially salient for DFSA because the evidentiary focus necessarily shifts to biochemistry (toxicology) and circumstantial reconstruction, rather than pseudo anatomical markers.

In “**Aparna Bhat v. State of Madhya Pradesh**¹³” (2021), the Supreme Court issued binding directions to eliminate stereotypical reasoning and impermissible bail conditions in sexual offence cases. For DFSA trials, Aparna Bhat instructs judges and counsel to avoid myths about “real rape” no injuries, delayed FIR, prior acquaintance, alcohol consumption, aligning the courtroom ethos with modern consent doctrine and the Evidence/BSA exclusions of sexual history. Earlier, in “**State of Punjab v. Gurmit Singh**¹⁴” (1996), the Court warned against undue suspicion of prosecutrix testimony and emphasised a sensitive approach to evaluation. These decisions form the behavioural spine for fact finding in intoxication contexts where physical injury may be minimal, but capacity to consent evidence is central.

2.1 POCSO ACT

Where the survivor is a child, the Protection of Children from Sexual Offences Act, 2012 (POCSO) overlays the framework with strong statutory presumptions. Section 29 POCSO¹⁵ presumes the accused to have committed the offence once foundational facts are established; Section 30¹⁶ presumes the requisite mental state, subject to proof to the contrary. POCSO Rules and harmonised national guidance reinforce immediate medical care and sensitive examination standards. In suspected DFSA against children covert sedation by a known adult, these presumptions are trial critical and interact with BNSS/BSA to streamline proof.

Expert evidence under Section 45 of the Indian Evidence Act continues under the BSA with updated numbering. Courts admit toxicology reports that meet authenticity and chain of custody requirements; BNSS/CrPC provisions on medical examination and forwarding of

¹² Lillu @ Rajesh & Anr v State of Haryana, CRIMINAL APPEAL NO. 1226 OF 2011.

¹³ Aparna Bhat vs The State Of Madhya Pradesh, AIR 2021 SUPREME COURT 1492.

¹⁴ The State Of Punjab vs Gurmit Singh & Ors, 1996 AIR 1393.

¹⁵ The Protection of Children from Sexual Offences Act, 2012, § 29, No. 32, Acts of Parliament, 2012 (India).

¹⁶ The Protection of Children from Sexual Offences Act, 2012, § 29, No. 32, Acts of Parliament, 2012 (India).

samples integrate with MoHFW's kit handling directions. In DFSA matters, laboratories should issue method validated reports indicating limits of detection/quantification and pharmacokinetic windows; investigators must link these to the acts and timings alleged. The BSA's retention of sexual history exclusion and presumption clauses ensures that scientific proof of intoxication supplements, rather than substitutes, survivor testimony on non consent.

2.2 NDPS ACT¹⁷

The NDPS Act implements India's treaty obligations under the 1971 Psychotropics Convention and others, empowering the Centre to add psychotropics to schedules as abuse patterns evolve. This power underwrites responsive regulation of DFSA relevant agents' ketamine, complementing penal provisions in BNS and procedural duties in BNSS. Forensic and prosecutorial practice therefore sits at the junction of criminal law and drug control policy, a junction especially visible when unlawful access to hospital grade or diverted pharmaceuticals is proved.

Courts have made it clear that dignity centred examinations are non-negotiable, striking down invasive, unscientific practices and directing stereotype free adjudication. Clinicians must obtain informed consent for each component of the exam, explain options in plain language, and respect refusals without threatening legal consequences; investigators must avoid framing delays, alcohol consumption by the survivor, or prior acquaintance as de facto indicators against the allegation. These guardrails, read with the MoHFW guidelines, increase the reliability of evidence and the fairness of process in the DFSA setting, where the chemical trace may be faint and the narrative often contested.

When drafting the charge, prosecutors should consider aggravated forms custodial contexts under the codes' aggravated rape provisions and NDPS counts where the stupefier is scheduled. Sentencing submissions should be evidence led: capacity impairment, breach of trust, planning procurement, concealment in drinks and post offence conduct. The Supreme Court's broader rape jurisprudence on proportionality and aggravation remains instructive for tailoring submissions to the DFSA modality, even as the BNS re numbers provisions.¹⁸

¹⁷ The Narcotic Drugs and Psychotropic Substances Act, 1985, No. 61. Acts of Parliament, 1985 (India).

¹⁸ The Indian Evidence Act, 1872, No. 1, Acts of Parliament, 1872 (India).

3. FORENSIC TOXICOLOGY

Forensic toxicology investigates the presence and effects of drugs and poisons in living or deceased individuals, especially in medico legal contexts. In Drug Facilitated Sexual Assault (DFSA), forensic toxicology plays a pivotal role in establishing the presence, identity, and timing of incapacitating substances that impair a victim's capacity to provide informed consent. The nature of DFSA creates unique challenges: substances used are often administered covertly in low doses, many have rapid metabolic clearance and victims may delay presentation due to memory loss or shame, compromising detection. Understanding these pharmacokinetic and methodological complexities is essential to building a robust evidentiary trail.¹⁹

A range of agents are implicated in DFSA, including alcohol, benzodiazepines GHB, ketamine, zolpidem, antihistamines, and cannabis-like substances. Alcohol remains the most commonly detected substance but often acts synergistically with other agents. Benzodiazepines and GHB are favoured for their sedative and amnesic properties, while ketamine and zolpidem offer dissociative and hypnotic effects. Each of these drugs presents unique analytical challenges due to differences in metabolism, detection windows and endogenous presence. For instance, GHB's rapid metabolism and endogenous occurrence hinder its detection, even with sensitive methods.²⁰

3.1 Biological Matrices

Forensic testing in DFSA typically employs multiple biological matrices:

Blood and Urine: These are primary matrices when collected promptly ideally within 48 to 72 hours post assault. Two 5 mL blood samples and 50 mL urine samples are standard for comprehensive analysis. Blood allows confirmation of ingestion close to the assault window, while urine may extend detection slightly later and capture more metabolites. Preservation and immediate refrigeration are critical to prevent degradation.²¹

Hair and Nails: When delayed reporting or long latency occurs, hair and optionally nails offer a retrospective detection window extending to weeks or months later. Segmental hair analysis can approximate timing, although dose inferences remain limited. Hair is thus a powerful supplementary matrix when blood/urine testing is no longer viable.²²

¹⁹ PMC, <https://pmc.ncbi.nlm.nih.gov/articles/PMC11325276/> (last visited Sep. 02, 2025).

²⁰ MEDCRAVE, <https://medcraveonline.com/MOJT/MOJT-02-00028.php> (last visited Sep. 02, 2025).

²¹ PUBMED CONTROL, <https://pmc.ncbi.nlm.nih.gov/articles/PMC8635549/> (last visited Sep. 02, 2025).

²² PUBMED CONTROL, <https://pmc.ncbi.nlm.nih.gov/articles/PMC11325276/> (last visited Sep. 02, 2025).

Non-Conventional Specimens: Emerging research explores other specimens such as oral fluid or dried blood spots, but their application in DFSA remains largely investigational. The core accepted matrices remain blood, urine, and hair.²³

Modern forensic toxicology relies on sensitive, selective instrumentation capable of detecting the broad spectrum of DFSA agents. The gold standard methods include liquid chromatography with tandem mass spectrometry (LC-MS/MS) and gas chromatography mass spectrometry (GC-MS/MS). These techniques offer high sensitivity, specificity, and the capacity for multi-analyte screening, essential for detecting low level sedative compounds and their metabolites. Sample preparation methods like liquid liquid extraction, solid phase extraction, dilute and shoot must align with the chosen analytical platform. Establishing method validation including limits of detection, quantification and recovery is critical to ensuring admissibility in court.²⁴

4. MEDICO LEGAL EXAMINATION AND HOSPITAL PROCEDURES

A medico legal examination also termed a forensic medical examination is a clinical and forensic assessment conducted by qualified medical professionals when violence is alleged or suspected, with a mandate to collect, preserve, and document medico legal evidence for legal proceedings. In contexts of sexual offences and particularly in Drug Facilitated Sexual Assault (DFSAs), medico legal examination bridges healthcare and justice providing immediate care to survivors while systematically recording wound patterns, collecting biological samples, and generating documentation that supports prosecution. It is governed by statutory, professional and ethical standards that ensure both evidence integrity and patient welfare.²⁵

In India, the Code of Criminal Procedure (CrPC) Section 164A²⁶ Now BNSS Section 183²⁷ equivalent mandates prompt medico legal examination post sexual offence allegations. Hospitals, public and private, are required under CrPC Section 357C²⁸ to render immediate, free medical care to survivors, with penal liability under IPC Section 166B²⁹ for refusal or delay. Additionally, the Ministry of Health & Family Welfare's (MoHFW) 2014 Guidelines provide procedural protocols covering informed consent, use of Sexual Assault Evidence Kits (SAEK), documentation format and specimen collection standards. Collectively, these legal

²³ PUBMED CONTROL, <https://pubmed.ncbi.nlm.nih.gov/35779361/> (last visited Sep. 02, 2025).

²⁴ PUBMED CONTROL, <https://pubmed.ncbi.nlm.nih.gov/articles/PMC11325276/> (last visited Sep. 02, 2025).

²⁵ RTN, <https://rtn.gov.in/medico-legal-examination-definitions> (last visited Sep. 02, 2025).

²⁶ Code of Criminal Procedure, 1974, § 164A, No. 2, Acts of Parliament, 1974 (India).

²⁷ Bharatiya Nagarik Suraksha Sanhita, 2023, § 183, No. 46, Acts of Parliament, 2023 (India).

²⁸ Code of Criminal Procedure, 1974, § 164A, No. 2, Acts of Parliament, 1974 (India).

²⁹ Indian Penal Code, 1860, § 166B, No. 45, Acts of Parliament, 1860 (India).

instruments establish a dual obligation to uphold survivor rights and generate legally defensible evidence.

4.1 PHASES OF MEDICO LEGAL EXAMINATION

1. Reception and Triage

Survivors must be received promptly with privacy, dignity, and sensitivity. Initial triage assesses clinical stability, urgent medical needs, and the requirement for emergency care. Accurate documentation of arrival time, presenting symptoms, and immediate needs is essential for both treatment and medico-legal purposes.

2. Informed Consent and Survivor Autonomy³⁰

No examination or evidence collection should occur without informed consent. Clinicians must clearly explain procedures, allow the survivor to refuse any part, and ensure decisions are voluntary. National guidelines emphasize modular consent and prohibit coercion or threats of legal consequences, thereby upholding survivor autonomy.

3. Physical Examination and Documentation³¹

The examination should be respectful and trauma-informed, beginning with general assessment and proceeding to focused forensic evaluation when indicated. Injuries must be recorded objectively with details of size, color, and location; photographs may be taken only with consent. Discredited practices such as “virginity testing” are prohibited. Clinical notes must remain factual and avoid legal conclusions.

4. Forensic Specimen Collection

Specimens should be collected in a structured and time-sensitive manner as per protocol. These may include oral and genital swabs, blood, urine, hair samples, and clothing. In DFSA cases, blood and urine toxicology are priorities. All samples must be properly labeled, sealed, and documented to maintain chain of custody and evidentiary integrity.

5. Psychological Support and After Care

Survivor-centered care requires attention to emotional well-being. Counseling support, information on emergency contraception, STI prophylaxis, and HIV post-exposure prophylaxis must be offered. Clear follow-up instructions and referrals help reduce long-term trauma and improve recovery.

³⁰ BMJ, <https://www.bmj.com/medico-legal-consent> (last visited Sep. 02, 2025).

³¹ Lillu @ Rajesh & Anr v State of Haryana, CRIMINAL APPEAL NO. 1226 OF 2011.

6. Report Writing and Submission

The process concludes with preparation of a detailed medico-legal report. It must be factual, chronological, signed, and include findings, treatment provided, and evidence collected. The report and sealed evidence kits should be transmitted securely to the investigating authority in compliance with legal procedures.

4.2 Hospital Procedure

1. Receive the survivor promptly and respectfully in a private, safe environment. Ensure confidentiality and avoid unnecessary questioning at entry. Record time of arrival.
2. Address urgent medical needs first (bleeding, injuries, intoxication). Forensic procedures must never delay emergency treatment. Document all interventions.
3. Explain procedures in simple language and obtain separate consent for examination, evidence collection, photography, and police reporting. Respect the survivor's right to refuse any part.
4. Offer immediate emotional support and, where available, involve a trained counselor or Sexual Assault Nurse Examiner (SANE). Allow a trusted person to be present if the survivor wishes.
5. Advise the survivor not to wash, change clothes, eat, drink, or urinate before examination if possible. If already done, record details carefully.
6. Collect only essential information using non-leading questions. In DFSA cases, ask about memory loss, sudden drowsiness, or suspected drink spiking.
7. Conduct a respectful, focused external examination and document injuries precisely. Use photographs only with consent.
8. Perform genital/anal examination only with consent and in a dignified manner. Follow special legal requirements for minors under POCSO.
9. Collect time-sensitive samples in the following order:
 - Blood and urine (priority in DFSA)
 - Oral and genital swabs
 - Nail scrapings, hair samples
 - Clothing and other physical evidence
10. Use sterile containers, label accurately, and store samples as per forensic guidelines (refrigeration/freezing when required).
11. Seal and document every sample transfer with signatures, dates, and times to maintain legal integrity.

12. Provide necessary treatment: wound care, emergency contraception, STI prophylaxis, and HIV PEP as per protocols without waiting for forensic steps.
13. Prioritize early blood/urine collection (ideally within 24–72 hours). Preserve suspected drinks or containers when available.
14. Respect survivor autonomy regarding police reporting, except in legally mandated cases (e.g., minors). Provide examination even without police involvement.
15. Prepare a factual, objective report detailing findings, samples collected, and treatment provided without making legal conclusions.
16. Arrange follow-up for STI testing, PEP monitoring, pregnancy testing, and psychological counseling.
17. Apply additional safeguards for children, persons with disabilities, and vulnerable survivors as per legal requirements.
18. Maintain strict privacy of records, photographs, and forensic data with limited authorized access.
19. Hospitals must maintain evidence kits, trained staff, clear checklists, and links with forensic laboratories and support services.
20. Throughout the process, prioritize dignity, autonomy, and empowerment of the survivor.

5. LINKING FORENSICS WITH CRIMINAL JUSTICE

The investigation and prosecution of Drug Facilitated Sexual Assault (DFSA) hinge on the seamless integration of forensic science and criminal justice processes: forensic outputs toxicology, DNA, trace evidence, photographic documentation provide the objective substratum upon which legal narratives of incapacity, lack of consent and mens rea can be constructed, tested and adjudicated. DFSA by its pharmacological assault on memory and resistance renders testimonial evidence fragile; therefore, the credibility and admissibility of forensic evidence become determinative of legal outcomes. Building institutional linkages that synchronize evidence timelines, interpretive frameworks and procedural obligations is thus not ancillary but central to securing justice in DFSA matters.³²

DFSA investigations require a multidisciplinary forensic response: forensic toxicology to detect incapacitating agents and construct pharmacokinetic timelines; DNA analysis to

³² MINISTRY OF HEALTH & FAMILY WELFARE, <https://mohfw.gov.in/?q=en%2Freports%2Fguidelines-and-protocols-medico-legal-care-survivors-victims-sexual-violence> (last visited Sep. 02, 2025).

establish sexual contact and identify perpetrators; serology and biological fluid analysis to corroborate exposure evidence; trace chemistry for beverage/container testing; clinical photography and injury mapping to document physical findings; digital forensics to recover geolocation, messaging and CCTV that frame time lines and forensic nursing documentation to provide continuity between clinical and evidentiary records. Each discipline supplies discrete evidentiary value, some direct (DNA), some circumstantial toxicology levels relative to alleged timing and together they enable prosecutors to assemble a coherent proof package admissible under evidentiary rules.³³

5.1 FORENSIC AS EVIDENCE

Legally, the core question in DFSA prosecutions often reduces to capacity: did the complainant possess the cognitive and volitional ability to give informed consent. Forensic toxicological findings supply the scientific basis for answering this question by showing presence, concentration and timing of sedative agents. DNA or seminal fluid establishes sexual contact where contested, while trace chemical evidence from a cup or clothing can demonstrate covert administration. Courts treat these scientific data as corroborative of the survivor's account when chain of custody and method validation are demonstrable; consequently, forensics can shift a matter from a credibility contest to a scientifically interpretable dispute about timing and causation.

The chain of custody acts as the procedural bridge that transforms raw forensic material into legally admissible evidence. It documents every transfer, storage condition, temperature control and custody signature, thereby protecting against claims of contamination or tampering. In DFSA cases this documentation is often the single most scrutinized element because negative or equivocal toxicology results are not unusual without a pristine chain of custody record, even valid positive findings may be excluded or their probative value diminished. Hospitals, police units, and FSLs must therefore institutionalize chain of custody forms, tamper evident sealing and digital logging to withstand forensic and legal challenges.³⁴

³³ AROGYAKERALAM, <https://arogyakeralam.gov.in/wp-content/uploads/2020/03/Kerala-Medico-legal-Protocol-for-Examination-of-Survivor-of-Sexual-Offences-2019-compressed.pdf> (last visited Sep. 01, 2025).

³⁴ ACADEMIA, https://www.academia.edu/62995086/Analysis_of_Stress_Backlogs_during_Case_File_Processing_in_Forensic_Science_Laboratory (last visited Sep. 02, 2025).

5.2 Digital Forensics

Digital evidence frequently complements biochemical proof in DFSA cases: call logs, messaging histories, ride share records, CCTV footage, and card transactions create temporal scaffolding that helps situate toxicology results within a factual narrative. Where a toxicology report indicates a sedative within a narrow window, CCTV or phone timestamps can corroborate who was present and when a drink could have been spiked. Forensics teams must thus integrate digital extraction into the evidence timeline, while police must secure and preserve relevant devices quickly to prevent automated deletion or overwrites.³⁵

Indian evidence law and jurisprudence increasingly recognize scientific evidence while also insisting on judicial caution in interpretation; statutory presumptions in POCSO and BSA/BNS can relieve some burdens where factual thresholds are crossed. However, forensic science does not operate in a vacuum: courts evaluate scientific outcomes alongside witness testimony, motive, opportunity and circumstantial evidence. Judges have repeatedly emphasized that absence of injury is not dispositive and that forensic reports must be read in context. Prosecutors should therefore present forensic evidence as a component of an integrated narrative that foregrounds legal elements (*actus reus* and *mens rea*) rather than relying on science alone.

6. CONCLUSION

Drug Facilitated Sexual Assault (DFSA) represents a unique and particularly insidious form of sexual violence, wherein perpetrators exploit the incapacitating effects of alcohol, sedatives, or psychotropic substances to eliminate a survivor's capacity for informed consent. The very nature of DFSA undermines traditional evidentiary expectations: physical resistance is often absent; memory recall is compromised and visible injuries may be minimal or entirely lacking. Consequently, the prosecution of DFSA cases demands a synergistic integration of legal precision and forensic sophistication, supported by survivor-centred medico-legal procedures. The research undertaken in this dissertation confirms that while the Indian legal framework both pre and post 2024 reforms (IPC/CrPC and BNS/BNSS/BSA) conceptually recognises DFSA by combining offences of sexual assault with those of administering stupefying substances, the operational reality remains far from ideal. Statutory provisions such as Section

³⁵ MANUPATRA, https://clpr.org.in/wp-content/uploads/2024/12/65.-Aparna_Bhat_and_Ors_vs_State_of_Madhya_Pradesh_andSC20211903211723582COM219692.pdf (last visited Sep. 02, 2025).

375 IPC (now Section 74 BNS) on consent, Section 328 IPC (now Section 123 BNS) on administering intoxicants, and procedural mandates for prompt medical examination are adequate in theory but frequently undermined in practice by procedural lapses, delayed forensic sampling and poor chain of custody management.

Forensic toxicology emerges as the evidentiary backbone in DFSA cases. The detection of drugs such as benzodiazepines, GHB or ketamine in a survivor's blood or urine within narrow pharmacokinetic windows can convert an allegation into a scientifically verifiable claim. However, the absence of timely collection, inadequate laboratory capacity and the lack of validated testing panels for emerging substances significantly reduce evidentiary yield. Likewise, medico legal examinations are often constrained by logistical deficiencies shortages of Sexual Assault Evidence Kits (SAEKs), insufficient training in trauma-informed care, and inconsistent adherence to Ministry of Health & Family Welfare guidelines.

Judicial analysis reveals a mixed record. While higher courts in cases such as *Lillu @ Rajesh v. State of Haryana* and *Aparna Bhat v. State of Madhya Pradesh* have emphasised dignity, survivor autonomy, and stereotype free reasoning, trial level outcomes are still hampered by inconsistent evaluation of forensic evidence, misinterpretation of toxicology results, and susceptibility to defence narratives exploiting procedural gaps. Furthermore, rural and resource constrained jurisdictions face acute challenges in ensuring that forensic and legal protocols are uniformly followed.

International comparative models, particularly the Sexual Assault Response Team (SART) frameworks in the US, Canada and the UK, demonstrate that multidisciplinary, survivor focused, and protocol driven responses can substantially improve DFSA case outcomes. These models integrate emergency medical care, forensic evidence collection, law enforcement engagement, and legal guidance into a single streamlined process. The Indian system, despite incremental reforms such as One Stop Centres and BNSS procedural mandates, still lacks such a fully institutionalised and standardised mechanism.