



REVIEW PAPER

Ethical and legal aspects of the application of non-invasive prenatal paternity testing in early pregnancy in sexual assault survivors

Biswal P¹, Deepak LA², Behera N³, Kore AA⁴, Ahmed S⁵, Jaseja S⁶, Singh OG⁷

Address for the correspondence:

¹pulakit_biswal.mbbs-2023@aiimskalyani.edu.in
Mobile No: +9178488 16814
²liyadeepak@gmail.com
Orcid No: 0009-0000-3537-1790
Mobile No: +917591914250
³nischitbehera1403@gmail.com
Mobile: +918658074119
⁴atharvarajkore01@gmail.com
⁵ashazid95@gmail.com
Mobile No: +916003348402
⁶sneha_jaseja.mbbs-2023@aiimskalyani.edu.in
Mobile No: +919500051785
2nd MBBS Student
⁷Professor and head
(Corresponding author)
Forensic Medicine and Toxicology,
Orchid id: 0000-0002-3955-3185
dr.gambhirsingh@gmail.com
Mobile No: +919629047798
AIIMS Kalyani, Kolkata-741245

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ABSTRACT

Non-invasive prenatal paternity testing (NIPPT) has emerged as a technologically advanced and ethically sensitive tool, especially when applied in early pregnancy among survivors of sexual assault. Unlike traditional invasive methods, NIPPT analyses cell-free foetal DNA circulating in maternal blood, offering a safer alternative with high accuracy as early as the seventh week of gestation. Its application in sexual assault cases presents a complex interplay of ethical, legal, and psychological considerations. In contexts involving minors or individuals with cognitive impairments, consent processes must be especially safeguarded to uphold rights and prevent re-traumatisation. Additionally, considerations around privacy and confidentiality are paramount, as disclosure of paternity results can have significant social and legal consequences, potentially affecting custody decisions, criminal proceedings, and family dynamics. Legally, using NIPPT intersects with criminal justice and family law systems. It may serve as critical evidence in prosecuting sexual offences or in establishing or denying paternal rights. However, variations in jurisdictional laws concerning the admissibility and use of genetic evidence, particularly in ongoing investigations, pose challenges. Moreover, legal protections must be in place to prevent genetic information misuse and support the survivor's rights throughout the legal process. The implementation of NIPPT in these sensitive cases requires clear clinical guidelines, ethical oversight, and legal frameworks that respect the survivor's dignity and protect against secondary victimisation. As technology becomes more accessible, interdisciplinary collaboration is essential to balance its benefits with the complex ethical and legal terrain surrounding its use in early pregnancy following sexual assault.

Keywords: Informed consent; confidentiality; reproductive rights; foetal DNA.

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INTRODUCTION

The application of NIPPT in early pregnancy for sexual assault survivors raises important ethical and legal concerns.^{1,2} Non-

invasive prenatal paternity testing involves analysing foetal DNA present in the mother's blood to determine paternity. While it has many advantages, such as being non-invasive

and accurate, its use in sexual assault cases must be approached with caution, given the complexities of consent, privacy, and the potential emotional and psychological impact on the survivor.^{2,3,4}

ETHICAL ASPECTS

1. CONSENT^{5,6}

Informed consent: One of the most critical ethical issues is ensuring that the survivor provides informed consent for the paternity test. In cases of sexual assault, the survivor may be emotionally distressed, and their ability to provide informed consent might be compromised. It's essential that the survivor understands the implications of the test, including the potential outcomes, and that they are in a position to make a decision free from coercion.

Coercion or pressure: Survivors may be pressured by others (family, authorities, or even the perpetrator) to undergo the test. In such cases, ensuring that consent is truly voluntary becomes challenging.

2. PRIVACY AND CONFIDENTIALITY^{5,7}

The results of a non-invasive prenatal paternity test are highly sensitive and can have significant emotional, social, and legal consequences. Ensuring that the survivor's privacy is maintained throughout the process is essential. Information about the survivor's sexual assault and the paternity results should be kept confidential, and only those with legitimate reasons should have access to the results. There is also the concern that sharing the results might lead to further victimisation or public disclosure of the assault, which could harm the survivor.

3. PSYCHOLOGICAL IMPACT^{7,8}

The psychological implications of knowing the paternity of the child early in the pregnancy can be profound, particularly for sexual assault survivors. Depending on the outcome, the survivor may experience emotional trauma, anxiety, guilt, or distress.

The survivor may also struggle with the decision of whether to keep or terminate the pregnancy. The paternity results could influence the survivor's decision, and they must receive appropriate psychological support and counselling.

4. AUTONOMY AND REPRODUCTIVE RIGHTS^{8,9,10}

It's essential to respect the survivor's autonomy in decisions related to their pregnancy. While paternity testing might provide information, it should not undermine the survivor's right to make decisions about their body and reproductive health. Survivors may not want to know the identity of the perpetrator, and knowing the paternity of the child might bring unwanted legal and social consequences. Respecting their decision not to pursue paternity testing is vital.

LEGAL ASPECTS

1. LEGISLATION AND REGULATION^{10,11,12}

The legality of non-invasive prenatal paternity testing varies across jurisdictions. In some places, such testing may not be regulated or may require specific consent processes, especially when it involves a victim of sexual assault.

State Laws: Some states or countries have laws governing the use of paternity testing and may have additional provisions for survivors of sexual assault. For example, a survivor may have legal protection from being forced to participate in paternity testing or may have the right to avoid disclosure of the results to the perpetrator.

2. USE OF RESULTS IN COURT^{10,13}

The results of NIPPT could be used in legal proceedings, such as criminal trials or custody disputes. However, this could raise ethical issues regarding the disclosure of the survivor's private medical information, and the use of test results might have unintended legal consequences.

In the context of a sexual assault case, using the paternity test results to identify the perpetrator can be problematic. The survivor might not want their personal history and trauma to be exposed in a legal context, and the test results might not always be reliable or definitive enough to act as solid evidence in a court of law.

3. RIGHTS OF THE PERPETRATOR^{10,13}

If the paternity test results are used to identify the perpetrator, the legal implications for the assailant could be significant. However, this raises concerns about whether the assailant's rights are protected and whether they should be compelled to undergo DNA testing without consent.

In cases where the identity of the perpetrator is unclear or disputed, non-invasive prenatal paternity testing may not be sufficient evidence on its own to establish paternity or provide clarity in the legal context.

4. IMPLICATIONS FOR CUSTODY AND CHILD SUPPORT^{10,12,14}

If the results of the paternity test are used to identify the perpetrator, they may have implications for future child custody and child support obligations. This is especially sensitive in cases of sexual assault where the survivor may not want to be forced into a relationship with the perpetrator, including legal obligations such as child support.

The survivor may face pressure to use the results in custody battles or child support cases, potentially complicating their ability to heal from the trauma.

5. LEGAL IMPLICATIONS IN INDIA^{16,17,18}

Indian law mandates informed consent for medical procedures. Under the Medical Council of India's Code of Ethics, it is required that patients provide voluntary, informed consent for any medical procedure. For sexual assault survivors, additional support may be necessary to ensure that their consent is informed and voluntary, without any coercion or undue influence. In India, privacy is a fundamental right under Article 21 of the Constitution of India (right to life and personal liberty), which extends to the right to medical privacy. The disclosure of the paternity test results must be handled with great care to ensure no confidentiality breach occurs. The Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011, also mandate that healthcare providers protect sensitive personal data.

CONCLUSION

The use of non-invasive prenatal paternity testing for sexual assault survivors in early pregnancy involves a range of ethical and legal issues, primarily revolving around consent, privacy, psychological well-being, and the implications of the results in a legal context. Medical professionals, legal authorities, and counsellors must carefully navigate these issues to ensure the survivor's rights and dignity are respected. Ensuring survivors are fully informed, supported, and protected legally and ethically is paramount in these sensitive situations.

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