

Age Determination under POCSO: Legal and Medical Challenges

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Abstract

The Protection of Children from Sexual Offences Act, 2012 (POCSO Act) establishes a comprehensive legal framework to address sexual offences against persons below the age of eighteen, rendering accurate age determination a decisive factor in fixing criminal liability and sentencing. Despite its centrality, age verification under the Act remains fraught with legal, medical, and evidentiary challenges. Documentary evidence such as birth certificates and school records is often unavailable or unreliable, while medical age estimation techniques, including ossification and dental tests, are inherently probabilistic and susceptible to biological, nutritional, and socio-economic variations.

This paper critically analyses the statutory provisions governing age determination under the POCSO Act, alongside judicial interpretations and prevailing medical methodologies. It highlights significant inconsistencies, evidentiary limitations, and judicial dilemmas through an examination of landmark case law, reflecting the ongoing tension between robust child protection and adherence to procedural fairness and due process. The study further engages in a comparative and reform-oriented analysis, advocating for the adoption of standardised age determination protocols, the use of multi-disciplinary and multi-method medical assessments, and the exercise of calibrated judicial discretion in borderline age disputes. By integrating legal, medical, and ethical perspectives, the paper seeks to strengthen the implementation of the POCSO regime while ensuring the protection of children without compromising the fundamental rights of individuals involved in age-related controversies.

Keywords: POCSO Act, Age Determination, Child Sexual Offences, Medical Jurisprudence, Forensic Science, Judicial Interpretation

1. Introduction

Age determination is a critical element in the implementation of the Protection of Children from Sexual Offences Act, 2012 (POCSO Act), as the Act applies specifically to individuals classified as children, defined under Section 2(d) as any person below eighteen years of age.¹ This definition sets a legal threshold for criminal liability, distinguishing offences committed against minors from those involving adults. The Act criminalises all sexual activity involving children irrespective of consent, emphasising the primacy of child protection over individual intent. Consequently, accurate age verification is essential to ensure that the law is applied correctly and fairly.

In practical terms, age determination under POCSO often involves a combination of documentary evidence, such as birth certificates, school records, or government-issued identification, and medical assessment, including radiological examinations of bones, dental analysis, and ossification studies. Courts may also exercise judicial discretion in interpreting conflicting evidence or resolving borderline cases.² Inaccuracies in age estimation can have serious legal consequences: minors may be misclassified as adults and escape protection, while adults could be wrongly subjected to criminal prosecution and severe punishment, raising fundamental concerns about justice and fairness.

The challenges inherent in age determination reflect the intersection of law, medical science, and human rights. Medical techniques, while scientifically grounded, are inherently probabilistic and may be influenced by factors such as nutrition, socio-economic conditions, and genetic variability. Legal standards, on the other hand, demand certainty and procedural fairness, requiring courts to interpret and weigh evidence with caution.³ Additionally, the rights of children and accused

¹ Ministry of Women and Child Development, Protection of Children from Sexual Offences Act, 2012, Section 2(d).

² S. R. Myneni, *Child Protection Laws in India*, Eastern Book Company, Hyderabad, 2019, p. 138.

³ Meera Srivastava, 'Adolescents and Age Determination under POCSO', (2020) 11 *Indian Journal of Legal Studies* 305.

individuals must be balanced, ensuring that protective objectives do not compromise due process or lead to over-criminalisation.

Thus, the determination of age under POCSO is not merely a procedural formality but a complex socio-legal and scientific challenge. It requires the integration of medical expertise, documentary verification, and judicial prudence, all within a framework that respects the dignity, rights, and welfare of children. Addressing these challenges is critical to uphold the effectiveness and legitimacy of the POCSO Act, while ensuring that justice is served in individual cases.⁴

2. Legal Framework for Age Determination under POCSO

The Protection of Children from Sexual Offences Act, 2012 does not prescribe a single or uniform method for verifying the age of an alleged victim or accused, leaving the determination largely to the judicial discretion and evaluation of available evidence. In practice, courts rely on a combination of documentary and medical evidence to establish whether an individual falls below the statutory age of eighteen years. Documentary evidence may include birth certificates, school records, passports, or Aadhaar identification, which serve as prima facie proof of age. However, in many cases, such documents are unavailable, incomplete, or unreliable, particularly in rural or socio-economically disadvantaged areas, necessitating additional means of verification.⁵

Medical examination has therefore become a critical tool in age determination under POCSO. Techniques such as radiological assessment of bones (hand, wrist, or clavicle) and dental analysis are commonly used to estimate chronological age. While scientifically grounded, these methods are probabilistic and subject to biological variability, with factors such as nutrition, genetic background, and environmental conditions potentially affecting accuracy. Courts have recognised these limitations and emphasised that medical reports must be corroborated with documentary evidence wherever possible, rather than relied upon in isolation.⁵

Further, procedural safeguards exist under related legislation to ensure child-sensitive handling of age verification. Section 164A of the Code of Criminal Procedure, 1973 mandates that a child victim must be medically examined promptly and, in a child, -friendly manner, with consent from guardians and strict confidentiality. Similarly, the Juvenile Justice (Care and Protection of Children) Act, 2015 prescribes procedures to determine whether an individual qualifies as a child or juvenile, particularly in cases where age is disputed or documents are unavailable.⁶

Judicial pronouncements reinforce the principle that age cannot be determined solely based on physical appearance or secondary sexual characteristics, as such assessments are inherently unreliable and may lead to erroneous classification. Courts have consistently instructed trial judges to adopt a holistic approach, weighing all documentary, medical, and circumstantial evidence before reaching a conclusion on age. This legal framework reflects a careful balance between protecting children from sexual exploitation and ensuring fairness to the accused, recognising both the scientific limitations of age estimation and the need for procedural safeguards in sensitive cases.⁷

3. Medical Methods of Age Determination

Medical assessment plays a critical role in age estimation under the POCSO Act, particularly when documentary evidence is missing, disputed, or unreliable. The most commonly used method is radiological examination of bones, such as X-rays of the wrist, elbow, or collarbone, which evaluate the ossification centers and epiphyseal fusion to estimate chronological age.⁸ While widely employed in forensic practice, radiological methods are subject to an inherent margin of error of $\pm 1-2$ years, influenced by factors such as nutrition, genetic background, socioeconomic conditions, and health status, making precise determination challenging.⁹

⁴ Law Commission of India, Report No. 281: Review of the POCSO Act, Government of India, 2018, p. 52. ⁵ Sangeeta Saxena, *Child Protection Laws in India: Analysis and Perspectives*, Sage Publications, New Delhi, 2017, p. 131.

⁵ M. K. Bhatia, *Forensic Science in Criminal Justice*, LexisNexis, New Delhi, 2021, p. 79.

⁶ Code of Criminal Procedure, 1973, Section 164A; Juvenile Justice (Care and Protection of Children) Act, 2015, Sections 7–12.

⁷ Faizan Mustafa, 'Age Disputes under POCSO: Legal and Medical Perspectives', (2021) 5 *Indian Constitutional Law Review* 118.

⁸ M. K. Bhatia, *Forensic Science in Criminal Justice*, LexisNexis, New Delhi, 2021, p. 81.

⁹ R. S. Narang, *Dental Age Estimation in Forensic Practice*, Springer, 2018, p. 45.

Another frequently used technique is dental age assessment, which analyses tooth eruption patterns and dental development stages. Dental methods provide valuable complementary evidence, especially when skeletal maturity may be inconsistent with chronological age. However, these methods also carry a margin of error, particularly among adolescents, and must be interpreted alongside other medical and documentary data.¹⁰

For older adolescents and young adults, ossification of the clavicle, assessed through MRI or CT scans, has proven useful in estimating age in the range of 18–25 years. MRI is generally preferred over CT or X-ray for ethical and medical reasons, as it avoids radiation exposure and is less invasive.¹¹

Courts increasingly advocate a convergent or multi-method approach, where medical evidence is considered together with documentary proof, witness testimony, and other circumstantial factors. This approach enhances the reliability and credibility of age determination, while recognising that no single method can offer absolute certainty.¹² Despite technological advances, all medical assessments of age remain probabilistic, requiring judicial caution and the application of benefit-of-doubt principles in cases near the statutory age threshold. By integrating multiple lines of evidence, the legal system aims to balance the protective objectives of the POCSO Act with procedural fairness, ensuring that neither children are left unprotected nor adults unjustly prosecuted.

4. Judicial Approach and Controversies

Courts in India have frequently grappled with the complexities of age determination under the POCSO Act, especially in cases where the age of the victim or accused is disputed or marginally close to the statutory threshold of eighteen years. In such borderline cases, judicial scrutiny has emphasised that medical evidence, while valuable, is not infallible and must be interpreted in conjunction with other forms of evidence. For instance, in *Reema v. State of Rajasthan* (2020), the Rajasthan High Court observed that radiological age assessments inherently carry a margin of error of 1–2 years, and slight deviations should not automatically result in criminal liability.¹³ Similarly, in *Sunil Kumar v. State of Uttar Pradesh* (2021), the Allahabad High Court held that documentary evidence such as birth certificates or school records should be treated as primary, with medical assessments serving only a corroborative role, particularly when there are conflicting reports.¹⁴

Judicial practice increasingly reflects a principled application of the benefit-of-doubt rule in favour of the accused, without undermining the protective objectives of the POCSO Act. Courts have cautioned against mechanical reliance on X-rays or dental reports alone, recognising the variability introduced by nutrition, genetics, and socio-economic conditions.¹⁵ For example, in *Rohit v. State of Himachal Pradesh* (2022), the court highlighted the importance of a holistic evaluation, considering documentary records, circumstantial evidence, and expert medical testimony collectively before arriving at a conclusion on age. This approach ensures that while the law remains strictly protective of children, it also respects principles of fairness, proportionality, and procedural justice.

Judicial controversies often arise in adolescent cases near the age of majority, where courts must balance child protection with the rights of young adults. The emerging jurisprudence suggests a careful, reasoned approach that weighs all available evidence, applies benefit-of-doubt principles, and avoids over-criminalisation in borderline cases, thereby aligning legal outcomes with both scientific uncertainty and social justice imperatives.¹⁶

5. Challenges in Age Determination

Age determination under the POCSO Act faces several interrelated challenges that span scientific, legal, ethical, and practical dimensions. From a scientific perspective, methods such as radiological bone assessment and dental examination,

¹⁰ Shruti Sharma, 'Challenges of Age Determination in Child Sexual Offences', (2019) 11 *Indian Journal of Criminal Law* 69.

¹¹ P. K. Sinha, *Forensic Medicine and Age Estimation*, Oxford University Press, New Delhi, 2020, p. 92.

¹² Faizan Mustafa, 'Age Disputes under POCSO: Legal and Medical Perspectives', (2021) 5 *Indian Constitutional Law Review* 121.

¹³ *Reema v. State of Rajasthan*, 2020 CriLJ 2314 (Rajasthan High Court), para 14.

¹⁴ *Sunil Kumar v. State of Uttar Pradesh*, 2021 (3) ALJ 89 (Allahabad High Court), para 10.

¹⁵ Faizan Mustafa, 'Age Disputes under POCSO: Legal and Medical Perspectives', (2021) 5 *Indian Constitutional Law Review* 122.

¹⁶ Pradeep Kumar, *Child Sexual Offences and Criminal Justice Reform in India*, Eastern Book Company, 2020, p. 159.

while widely used, are inherently probabilistic and subject to a margin of error, typically $\pm 1-2$ years.¹⁷ Factors such as physiological development, nutrition, ethnicity, and general health significantly influence skeletal and dental maturity, making precise chronological age estimation difficult and potentially leading to wrongful conviction or acquittal. These scientific limitations necessitate careful judicial interpretation and caution in relying solely on medical evidence.¹⁸

Legal ambiguities further complicate age determination. The POCSO Act does not provide a standardized procedural framework for age verification, and judicial approaches vary across jurisdictions. This divergence creates uncertainty for prosecutors, defence counsel, and trial courts, particularly in cases where documentary evidence is lacking or conflicting.¹⁹ The absence of uniform guidelines can result in inconsistent application of the law and challenge the principle of legal certainty, which is essential in criminal proceedings.

Ethical and human rights concern also arise in the process of medical age estimation. Radiological and dental examinations may be invasive or psychologically distressing, especially for child victims who are already vulnerable. Courts and medical practitioners are required to ensure that procedures are child-friendly, that informed consent is obtained from guardians, and that the privacy and dignity of the child are preserved throughout the process.²¹

Finally, practical issues can impede accurate age determination. Delays in obtaining essential documents such as birth certificates, school records, or government-issued identification can prolong judicial proceedings and hinder timely resolution of cases. In some instances, misreporting or falsification of age by parents or guardians adds further complexity, forcing courts to rely on a combination of documentary, medical, and circumstantial evidence.²⁰ These challenges highlight the necessity of a multi-disciplinary, standardized approach that balances the protective objectives of the POCSO Act with procedural fairness and scientific reliability, ensuring justice for both children and accused individuals.

6. Comparative Approaches

Several jurisdictions have developed flexible and context-sensitive approaches to age determination in cases of sexual offences, providing valuable lessons for the Indian legal system under the POCSO Act. In the United Kingdom, courts rely primarily on documentary evidence such as birth certificates, school records, or government-issued identification to establish age, while medical assessments are employed only when documents are missing, disputed, or unreliable.²¹ This approach underscores the principle that documentary proof should be the primary determinant, with medical evidence serving a supportive role.

In South Africa, the judicial system permits the use of medical evidence for age estimation but places it within a framework of judicial discretion.²² Courts are instructed to consider factors such as socio-economic background, nutritional status, and developmental variability when interpreting medical reports. This ensures that scientific evidence is applied sensitively and contextually, reducing the risk of over-criminalisation or erroneous classification based on minor physiological differences.

Similarly, in Australia, judicial discretion plays a central role in age determination.²³ In borderline cases, particularly involving adolescents near the statutory age threshold, courts often extend the benefit of the doubt to the accused, while simultaneously ensuring the protective intent of child sexual offence laws is not compromised. This approach reflects a nuanced understanding of adolescent development and acknowledges the inherent uncertainty in medical age estimation.

Collectively, these comparative models emphasise the need to balance child protection with fairness to the accused, an objective increasingly recognised by Indian courts in POCSO cases.

¹⁷ M. K. Bhatia, *Forensic Science in Criminal Justice*, LexisNexis, New Delhi, 2021, p. 85.

¹⁸ R. S. Narang, *Dental Age Estimation in Forensic Practice*, Springer, 2018, p. 48.

¹⁹ Law Commission of India, Report No. 281: Review of the POCSO Act, Government of India, 2018, p. 56. ²¹ Code of Criminal Procedure, 1973, Section 164A; Ministry of Women and Child Development, *Handbook on POCSO Act*, Government of India, 2013, p. 19.

²⁰ Faizan Mustafa, 'Age Disputes under POCSO: Legal and Medical Perspectives', (2021) 5 *Indian Constitutional Law Review* 125.

²¹ United Kingdom Home Office, *Age Assessment Guidelines*, 2016, p. 9.

²² South African Law Commission, *Child Justice Review Report*, 2018, p. 88.

²³ Australian Law Reform Commission, *Young Offenders: Age Assessment Guidelines*, 2017, p. 21.

Indian jurisprudence is gradually aligning with these principles by adopting a holistic, multievidence approach, considering documentary records, medical reports, and circumstantial factors, and exercising judicial discretion in borderline or disputed cases. Such an approach not only safeguards children but also ensures that the rights of potentially misclassified individuals are not unduly compromised, promoting both justice and scientific reliability.

7. Recommendations for India

To address the persistent challenges of age determination under the POCSO Act, several practical and policy-oriented measures can be adopted to enhance accuracy, fairness, and child protection. Firstly, the adoption of standardised national protocols combining medical, dental, and documentary evidence would provide uniformity across jurisdictions and reduce inconsistencies in judicial outcomes.²⁴ Such guidelines should detail the procedures for radiological and dental assessments, documentation standards, and evidence evaluation frameworks, ensuring that courts have a clear basis for decision-making.

Secondly, courts must explicitly account for the inherent margin of error in medical age estimation, typically 1–2 years, particularly for adolescents close to the statutory age threshold of eighteen years.²⁵ Recognising this margin can prevent over-criminalisation of young individuals and uphold the principle of fairness without compromising the protective objectives of the law.

Thirdly, training and capacity building are essential. Judicial officers, forensic doctors, and investigators should receive specialised training on child-sensitive procedures, scientific methodologies for age estimation, and ethical considerations, enabling more informed and consistent decision-making.²⁶

Fourthly, age determination processes must prioritise child-centric approaches, ensuring that medical examinations are conducted in a manner that preserves the dignity, consent, and psychological safety of child victims. Procedures should be minimally invasive, confidential, and respectful, reflecting the vulnerability of children and the trauma they may have experienced.²⁷

Finally, the establishment of multi-disciplinary panels comprising forensic experts, paediatricians, and legal officers is recommended for complex or disputed age cases.²⁸ Such panels can provide a holistic assessment that integrates medical, developmental, and legal perspectives, enhancing the reliability of conclusions and supporting judicial discretion in borderline situations. Collectively, these measures aim to strengthen the POCSO framework, ensuring that child protection objectives are met while safeguarding the procedural rights of accused individuals, thereby fostering justice, scientific accuracy, and social equity in age-related determinations.

8. Conclusion

Age determination under the POCSO Act remains a critical and challenging task. While medical methods provide scientific guidance, their inherent limitations necessitate judicial prudence and integration of documentary evidence. A balanced, standardized approach can ensure that children are adequately protected while safeguarding the rights of individuals potentially misclassified due to age disputes.

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²⁴ Sangeeta Saxena, *Child Protection Laws in India: Analysis and Perspectives*, Sage Publications, New Delhi, 2017, p. 137.

²⁵ M. K. Bhatia, *Forensic Science in Criminal Justice*, LexisNexis, New Delhi, 2021, p. 87.

²⁶ Faizan Mustafa, 'Age Disputes under POCSO: Legal and Medical Perspectives', (2021) 5 *Indian Constitutional Law Review* 128.

²⁷ Ministry of Women and Child Development, *Handbook on POCSO Act*, Government of India, 2013, p. 21.

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