



The Implementation and Enforcement of DNA Testing in Rape Cases in Bangladesh: A Comparative Analysis with the United Kingdom

Pial, Tanjum Monoara¹, Rahman, Md Khalid^{2*}

¹ Law School, Suffolk University, Boston, Massachusetts, United States of America; tanjumnaf20@gmail.com

² Faculty of Arts and Social Sciences, American International University-Bangladesh, Bangladesh; khalid.rahman@aiub.edu

*Correspondence: khalid.rahman@aiub.edu

Abstract

Purpose of the study: The purpose of this article is to demonstrate that, while DNA testing has some flaws, once those flaws are addressed, it has the potential to be used as critical evidence in the rape cases of Bangladesh, and by contrasting with the legal approaches of the United Kingdom, an answer about this phenomenon can be perceived.

Methodology: The authors of this paper employed a descriptive analysis to support the claims posed by the research questions. They examined various legal cases to validate their arguments. As a result, the research methodology of this study is evaluated through the framework of “Doctrinal research” given its legal focus, with the paper mainly concentrating on legal principles.

Findings: The findings suggest that the DNA test faces several complications in Bangladesh including violations of constitutional rights (article 32 & 35(4)), mistreatment, consent-related matters, and contamination. Though having such obstacles, still it can be proven as an effective tool in rape cases. Besides, under Section 37 of the DNA Act 2014, DNA tests may be perceivable in court as evidence, but the Act does not use the word “must”. Consequently, there is a loophole in the statute that prevents immediate conviction. Moreover, sections 2, 15(f), and 24 of the DNA Act 2014 should be considered for amendment by the legislature of the country. Furthermore, the findings of the contrasts between the DNA Act 2014 and the UK Acts will allow the Bangladeshi law to be enriched hypothetically.

Implications: As rape cases in Bangladesh is an exceptionally disturbing issue, so legal enactments should be there to decrease these occurrences and those must be unequivocally authorized properly. Here the writers attempted to contrast Bangladeshi laws and the United Kingdom regarding DNA tests, so Bangladesh can improve this by diminishing lacking DNA proof in rape cases.

Limitations and Future Direction: To begin, because this paper relies primarily on legal texts, statutes, and cases, it may lack empirical evidence, such as real-world case studies or statistical analysis. Second, because this research does not involve direct involvement with key stakeholders such as survivors, law enforcement, or forensic professionals, the lack of firsthand viewpoints may restrict knowledge of practical difficulties and concerns.

Article History:

Received: 6 October 2022

Accepted: 3 December 2023

Online: 31 December 2023

Keywords:

DNA Act 2014, DNA Test, Evidence Act 1872, Rape Cases, Constitution of Bangladesh, United Kingdom, Right to Privacy, Self-incrimination.

1. Introduction

Technological innovations have evolved in reaction to new conceptions and discoveries for the good of humanity. The amplitude of DNA technology has had quite an egregious dominance on a diversity of sectors. Forensic usage of DNA has the caliber to aid in the allotment of justice, such as in rape cases (Parven, 2012). Simultaneously constitutional rights abuses, concerns of manipulation, whether effective or not, and other barriers to its use must be overcome. Conversely, though scientific utilization of DNA information is valuable for solving cases and discrediting the innocent, such use should not jeopardize constitutional rights. It's pointless to take an all-or-nothing approach to fight crime or uphold constitutional rights in that cognition. None of those will strike out perfectly and to detriment of one another. It's still a phenomenon of enforceability or balancing. Envisaging this, the current study makes a circumference of concrete suggestions cherished at amplifying and reinforcing the proper use of genetic wisdom in the judicial process of Bangladeshi rape cases. Bangladesh is not the maiden country that strives to anticipate or even cope with technological variation, especially when it falls to the demeanor of DNA evidence in rape cases. Approximately 1,093 children and women were raped in Bangladesh from January to October 2020 (Mamun, 2020). Around 205 women were gang-raped out of the integrated number of victims (Mamun, 2020). From this sequel, it is pertinent that it is pro tempore a serious problem. When it comes to the demeanor of DNA testing in rape cases, many contradictory issues arise, and concerns are posed in courts about constitutional rights violations, fabrication, and diversified issues, and many people have lack awareness about this matter. Therefore, the study has been centered on the following research questions:

1. Does mandating to provide DNA test in rape violate the Right to privacy under Article 32 and the Right against Self-incrimination under Article 35(4) of the Bangladesh Constitution?
2. Does Deoxyribonucleic Acid (DNA) Act 2014 (later DNA Act) lack fundamental crucial if it is compared with the United Kingdom?
3. Though having obstacles and DNA Act 2014 lacking, can DNA testing in the rape case be an effective tool?

2. Review of the Literature

There are different sorts of papers concerning DNA evidence, its impact, impediments and so forth however this writing audit unveils about the materialness and authorization of DNA test in only rape cases, an assimilation between Bangladesh and United Kingdom about DNA test viability in rape cases. This literature review discussed about noticeable using of DNA evidence to identify suspects of rape cases. Though having many obstacles, it is still possible to become an effective tool. No laws are fulfilled for the changing time. With the epoch and modern technology, crimes are growing each day. So, for solving crimes, though having various obstacles many researchers can argue regarding DNA test effectiveness in rape cases. This paper mainly intends to inflict a perspective of the existing DNA Act 2014 of Bangladesh by comparing its accomplishments as well as shortcomings with United Kingdom who are exploiting this neoteric form of evidence to its best feasible use, providing solicitation from the present legal appliance of DNA in rape cases of Bangladesh. The alarming issue regarding DNA test in rape case is infraction of fundamental rights named right to privacy and right against self-incrimination, but it does not fully affect these fundamental rights in rape incident. Here in DNA test, arguments remain regarding the consequences after the excerpt of DNA evidence, safety which arises question about infringement of right to privacy and it may violate right to privacy also. But DNA test in rape is necessary because without this evidence identification of criminal will be immensely hard procedure and DNA test after rape for investigation will not affect right to privacy if the later storage procedure, storage security, limited access can be assured. This literature review gives the positive side and valid roots for not effecting fundamental rights through DNA test in rape cases of Bangladesh and suggest the pathway of ameliorative the gap of effecting Right to privacy and right against self-incrimination. In Bangladesh, however DNA mandating in assault cases won't be unconstitutional, yet there is far to go of this Act due to different lacking (Application of Forensic Evidence in Bangladesh: A long way to go - FutureLaw, n.d.). Still there is an expectation since government has made a stride and sanctioned an Act to present the DNA or biological proof in criminal quest set of laws of Bangladesh named Deoxyribonucleic Acid (DNA) Act 2014. So, by comparing with the nation named United Kingdom who is very advance in DNA test strategy's uses in assault cases, the

audit attempted to recommend some improving method to advance the overall set of laws of Bangladesh regarding DNA test in rape cases.

As an example, “*Marper case*” can be taken as a consideration in which court stated that whilst the right to privacy is a constitutional right, it is subject to such abridgements, and any derogation or restriction must be proportionate to the government interest at hand (*S and Marper v UK* [2008] - JUSTICE, n.d.). In this ambience, the government's interest in ascertaining the actuality and punishing perpetrators of crimes done is balanced against the obligatory extraction of DNA from an innocent individual. (*S and Marper v UK* [2008] - JUSTICE, n.d.). The right to privacy is not absolute, as previously uttered. In the criminal sense, the right to privacy can sometimes does confrontment with state interests, which could be necessary to clench the right's derogation. The individual right to privacy is balanced against a public interest in which the same individual is presumed to have a stake in this case. Bangladesh is signatory country of ICCPR (The International Covenant on Civil and Political Rights: A Study on Bangladesh Compliance National Human Rights Commission, Bangladesh, n.d.) . Despite adhering to a dualistic legal tradition, Bangladesh is bound by its constitution to uphold international law. The Appellate Division ruled in 2001 that if no law can be found on a contested issue, the applicable principle of international law should be embedded to unravel the matter (Hasanat, 2013). So, DNA test is not conflicting with Bangladesh constitution and can be applicable in rape cases of Bangladesh. Besides, the provisions of the Evidence Act of Bangladesh also allow the court to accept DNA as evidence. Section 45 of the Evidence Act 1872 provides that when the Court has to form an opinion upon a point of science, or art, or as to identity of handwriting or finger impressions, the opinions upon that point of persons especially skilled in science or art, or in questions as to identity of handwriting or finger impressions are relevant facts. As a result, forensic evidence, including DNA evidence, is pertinent information. Additionally, the DNA Act expressly states that a report that includes a DNA profile may be used as admissible evidence (Ali, 2016). However, section 45 of Evidence Act contemplates that the opinion of the expert is not conclusive evidence, and it is not saving guard for reading to any conclusion (2017 (10) ALR 233) (BLD 1978 (AD) 142).

In his article, Mr. Ali made the argument that, excepting the a few implementation-related difficulties, the admissibility of DNA evidence may serve as a pertinent fact demonstrating that scientific evidence known as DNA may be admitted into evidence by a court (Ali, 2016). He continued by saying that proving that DNA evidence meets scientific criteria for authenticity and correctness will be the main obstacle for legal actors trying to assess its validity and dependability. The widely accepted weaknesses in this context that may impact the reliability and dependability of DNA forensic evidence include, among other things, insufficient laboratory standards and techniques like insufficient DNA sample size, degradation and pollutants of the DNA test, inappropriate test procedures, and false identification (Ali, 2016).

In 2016, the court made the final decision of fatherhood based on the DNA test report in the *Bazlu Miah Vs. The State* (2016 (7) ALR 194). Based on the judgment, the fact could be summarized as follows- ‘Mst. Happy Begum (P.W. 1) filed a complaint for gang rape before the learned Magistrate, Jagannathpur Jone, Sunamganj containing allegation inter alia that the informant and the accused as named in the F.I.R. are neighbors and they are familiar to each other from their early life and some of the accused are also relations to the informant. At about 11.00 on the night the day 14.04.2002, the accused Bazlu Miah, Alai, Gaffar, Awlad and Azad had entered her room by breaking the door made of bamboo and forcefully raped her consecutively. After two months of the occurrence the informant felt that she has conceived by the occurrence of committing Rape upon her. The informant thus filed the above complaint. Ultimately, she gave birth of a male baby, named Abul Hossain.’ (2016 (7) ALR 194). However, in its verdict, the court concluded that ‘The DNA Profile obtained from the disputed child Abul Hossain matches with the DNA profile of Bazlu Miah. Therefore, based on the result of DNA analysis, it is sufficient to conclude that Bazlu Miah is the biological father of the disputed child Abul Hossain. He cannot be excluded as being the biological father of the child Abut Hossain as he possesses all the genetic markers that should be contributed to the child by a biological father. The probability of the staled

relationship is 99.99999%. The court further observed that The DNA Profile obtained from Abul Hossain did not match with Awlad Miah, Azad Miah, Abdul Gaffar and Aly Miah. As a result, this case is an excellent illustration of how the court chose to use the results of a DNA test to establish paternity following a rape occurrence.

3. Methodology

The authors of this paper employed a descriptive analysis to support the claims posed by the research questions. This paper highlights three key aspects that are centered on the research questions and addresses certain legal problems. The primary motivation behind choosing this subject is to increase awareness of the role played by DNA testing in rape cases of Bangladesh, as well as to dispel myths about potential conflicts of interest and address any knowledge gaps that exist. To do so, the authors tend to explore several legal cases as reference to substantiate the arguments. According to the definitions offered by the experts, doctrinal legal research is defined as the analytical investigation of current laws, relevant cases, and authoritative documents on a certain subject (Kharel, 2018). As a result, the research methodology of this study is evaluated through the framework of “Doctrinal research” given its legal focus, with the paper mainly concentrating on legal principles. Highly dependent on the laws of our country including Constitution of the Peoples Republic of Bangladesh 1972, the Women and Children Repression Prevention Act 2000, the Deoxyribonucleic Acid (DNA) Act 2014, the Evidence Act 1872, the Penal Code 1860 etc., this study has also constructed on several case laws of Bangladesh and UK as well.

4. Analysis of the Study

4.1 DNA Evidence: The short form of Deoxyribonucleic Acid is DNA which is a structure block of a human body and remains throughout of an individual’s whole life separate from others. Deoxyribonucleic acid can be found nearly in all cells of human body. It can ordain each person’s distinct characteristics and innate. DNA evidence is a naturalistic hylc evidence from which DNA can be extricated (Pandey & Tiwari, 2017). DNA encircles the hereditary or materials that are being utilized in the mint condition development of all cognizant living creatures. It can be called ‘deoxyribonucleic corrosive’ because it is a solvent that is acquirement in every cell of body which contains stacks of sugar pack amalgamated along it and each sugar pack has a missing oxygen particle that encodes and passes in general genetic information of everyone (Ali,2016). The huge segment of DNA for logical purposes behind existing is that with the exodus of undefined twins, no two individuals have a uniform DNA structure. The DNA tests grant lawful analysts of DNA to look at DNA particles from an individual or a shred of evidence concerned a differentiation them and DNA tests from various sources. The DNA confirmation can set up a virtual affirmation regarding the availability of a prosecutor at the area of the iniquity and thusly come into the guide of the court to recognize a person from wrongdoings.

4.2 DNA's Origins: Blood, saliva, hair follicles, flesh, tissue, muscle, brain cells, bone, teeth, hair, saliva, mucus, sweat, fingernails, urine, feces, and other bodily fluids all contain DNA (What every law enforcement officer should know about DNA evidence,” 2015). Investigators gather objects that could have been touched or worn by suspects or witnesses. DNA content may be included in these following items.

4.3 DNA test in rape cases of Bangladesh: Rape occurs when an individual person engages in sexual cohabitation by forcibly (Thesis on Relevancy of character as Evidence and Judicial Approach towards Rape victims, n.d.). Section 375 of Penal Code, 1860 of Bangladesh has described about rape as a forcible offense which occurs without consent of victim or occurs by giving death of fear or threat (Government of Bangladesh, 1860). There are diverse problems in rape cases during investigation procedure. But still there is a hope because of DNA evidence’s cardinal preface. In this epoch of modern technology, science is trifling an indispensable role in investigation procedure. Almost for sure that in assault cases, DNA test can fortify examinations and allegations. DNA test is frequently considered as convincing evidence in around all rape cases where a speculated accused should be distinguished, or where the charged individual's insertion in the wrongdoing should be adjudged. In case of examinations regarding rape charges where the DNA of the person in question or the blamed is accessible, the exploring officer usually gather and transmit the examples ascertained from crime scene to the DNA research facility. With the authorization of the Deoxyribonucleic Acid Act (DNA)

2014, lawful arrangements for assortment, safeguarding of DNA proof, wreck of test, risk for abuse of data, and so on had been outlined. Under the DNA Act, the DNA report is additionally made as allowable proof in the court procedures. Nonetheless having in all-around existing current methods for DNA test, the much-discussed alteration to the Women and Child Repression Prevention Act (WCRPA) 2000 had added through a farther amendment of section 32A requiring DNA test mandating in case off all offenses which are stated under the WCRPA (“Mandating DNA evidence in all violence against women cases | The Daily Star,” n.d.). Section 32A of WCRPA requires that in case of all offenses narrated under the WCRPA, DNA assessments must be accomplished for the two casualties and the blamed person, and they are independent for their consent to such assessments. Though rape is also a genre of sexual assault, in rape cases also DNA test is mandatory now in Bangladesh. Here the nonconformity of right to privacy and self- incrimination also arises for this given mandating guidelines by court.

4.4 DNA test and right to privacy

Both DNA testing and right to privacy issues are intertwined because when it comes to DNA testing, the first and most significant impediment is an infringement of one's right to privacy, and a debate occurs as to whether DNA testing in rape instance is unlawful or not.

4.5 Right to privacy in the laws of Bangladesh

Right to privacy is now a segment or a portion of article 32 of Bangladesh Constitution. Article 43 of Bangladesh's constitution states that every person has the right to privacy in his correspondence and other forms of communication. An innovative reading of Article 32 of the constitution could provide a right to privacy as segment of the right to life and liberty. The right to life and liberty may include the right to privacy, which is similar to the right to be left merely. Mr. Justice Subba Rao expanded on this idea in “*Kharak Singh v. State of Uttar Pradesh*”(SCR, 1964). Without this, Bangladesh Constitution declares about right to privacy in Article 45 also which stated about protection in home and correspondence. Without these constitutional Articles, many laws named Information and Communication Technology Act, 2006; section 122,124,126,127,129 of Evidence Act 1872 gives right to privacy protection in different situations. In 2014, DNA Act has been enacted which assures about DNA protection in Bangladesh.

4.6 Right to Privacy in Global Context: Both local and global courts have arbitrated cases regarding the phenomenon of right to privacy. European Court of Human Rights (ECHR) collectively decided that Britain's DNA and unique mark putting away arrangement disregarded the privilege to protection and this case was fetched by two men who had been captured on discrete events and eventually exempted, yet whose DNA and fingerprints stayed in the British data set in 2008 (*S and Marper v UK* [2008] - JUSTICE, n.d.). Those two men later asked that the examples be annihilated, however the police denied doing as such. In their accommodation to the ECHR, the men asserted that the DNA and finger impression strategy disregarded Article 8 of the ECHR and Fundamental Freedoms, which gives in significant part by stating and describing that everybody has the option to regard for his private life (*S and Marper v UK* [2008] - JUSTICE, n.d.). There will be no obstruction by a public rebel with the activity of this privilege aside from, for example, as per the law and is vital in a popularity-based community for the anticipation of wrongdoing. The Court eventually tracked down that the DNA and finger impression maintenance strategy neglected to adjust similarly the state and individual interests at issue. It passed that the maintenance established a lopsided obstruction with the candidate's entitlement to regard for private life and can't be viewed as fundamental for a popularity based society (*S and Marper v UK* [2008] - JUSTICE, n.d.) .

4.7 Fundamental nature of Right to Privacy is not absolute:

Though Right to privacy is fundamental right in nature but it is not incomparable, and this right is reliant upon some reasonable constraints by law in the interest security of the state, public solicitation, public significant quality or general prosperity. Where there are the interests of the ecumenical populace, any movement taken in such way can't be blamed as unlawful under the article named public health and morality. A State is under a pledge to take all steps for the improvement of the overall prosperity (Kanoon, 2003). A law planned to perpetrate this article, expecting to be sensible, reasonable and it will not affect the Constitutional principle

right. It is throughout settled that right to life guaranteed in constitution isn't basic creature presence and it is an alternative to see the value in all assets of life.

4.8 DNA test in rape case and violation of right against self-incrimination

Right against self-incrimination means one genre of advantage of individual to decay to response to questions or regardless give testimony against that person's own self which can disclose that individual person to a complication. In the case of *State of Bombay v. Kathi Kalu Oghad*, the Supreme Court ruled that a person's right not to be a witness against himself is protected under the Constitution ("*State of Bombay v. Kathi Kalu Oghad*, AIR 1961 SC 1808: (1962) 3 SCR 10 | Lawyers Update," n.d.). "Becoming a witness" is not the same as "providing proof" in the interpretation sense. Giving a finger impression or displaying body parts for identification purposes are not included in the definition. Being a witness has come to mean sharing some kind of information in testimony ("*State of Bombay v. Kathi Kalu Oghad*, AIR 1961 SC 1808: (1962) 3 SCR 10 | Lawyers Update," n.d.). There seems to be no statutory limitation on the procurement of samples for DNA analysis based on this. DNA information does not qualify into the definition of witness, according to section 139 of Bangladesh's Evidence Act 1872. As a witness, you must provide fact with an oral statement founded on your experience. In rape cases, revealing limbs of the body for the aim of identification does not classify as a witness. As DNA testimony does not fall under the definition of witness, it cannot be deemed unconstitutional under Bangladesh Constitution Article 35(4).

5. Discussion

5.1 How far Right to privacy can be protected in DNA test of rape cases:

Disparagements in specific situations regarding right to privacy are allowable though being fundamental in nature. Among primary International Human Rights statutes, ICCPR is most essential in the terra or globe. Article 17 of ICCPR conveys right to privacy by communicating about non-impedance in security, family, correspondence, honor, fame and communicated about the affirmation of law against contravention of right to privacy ("*International Covenant on Civil and Political Rights*," 1988). Human Rights Committee (HRC) also remarked about Article 17 of ICCPR ("*HRC General Comment No. 16: Article 17 (Right to Privacy) | Global Health & Human Rights Database*," n.d.). As mentioned by the HRC, the right to privacy is not unconditional or absolute, and since everyone lives in society, privacy protection is essential in this case. Permission of restriction clauses were used in umpteen of the ICCPR's articles, but the right to privacy does not have this imitative terminology. It can be viewed in this way: the ICCPR's lack of a restriction clause regarding the right to privacy was intentional, and it cannot be read to necessarily contain such a clause (Ludwin King, 2011). As a result, it seems that the right to privacy is safeguarded. However, the state procedure scenario demonstrates that states often make anomalies to the right to privacy under specific ambiances, such as in the case of criminal inquiry.

5.2 Comparison of DNA laws between Bangladesh and United Kingdom:

DNA laws exist in both Bangladesh and the United Kingdom (UK). In the United Kingdom, there are many laws that deal with DNA. The Police and Criminal Evidence Act 1984 and Protection of Freedom's Act 2012 are one of them. While demanding DNA evidence in rape cases is unlawful because it violates fundamental rights such as privacy and the right against self-incrimination, it may be if the handling technique following the DNA sample collection is incorrect. As a result, the UK government has focused on the handling of the process. The DNA Act 2014 and UK Acts will be contrasted because disparities will be identified because of this contrast, allowing Bangladeshi law to be enriched.

If the Protection of Freedom's Act 2012 and the Police and Criminal Evidence Act 1984 are compared with DNA Act 2014, following differences can be found:

Removal of DNA samples: The requirement to delete or erase the DNA samples of the individual involved beyond a certain length of time if convicted or exempted from trial is addressed in clause 14 of chapter 1 of Protection of Freedom's Right 2012. (Her Majesty's Stationery Office, 2012) Since storing DNA samples raises privacy issues, the UK does not store unauthorized DNA samples of individual. Regrettably, similar ideologies are absent from Bangladesh's 2014 DNA Act.

Storage period: The UK prescribes 6 months for the stored DNA samples before they are destroyed (Her Majesty's Stationery Office, 2012). But in Bangladesh DNA Act, the period of storing time is not given.

Eligible offences: Section 65A of the Police and Criminal Evidence Act 1984, which encompasses sexual and violent offenses, defines what constitutes a qualifying offence and it helps decide which crimes are suitable for DNA testing (Roberts, 2014). Nothing in the Bangladeshi constitution, the DNA Act 2014, defines "offenses" that necessitate this procedure. While some may argue that leaving an open interpretation that allows any manner of crime to qualify is a positive thing, DNA testing is a complicated process that requires both money and time.

Arrested person's DNA: Section 3 of the UK's Protection of Freedoms Act 2012 authorizes the collection of DNA samples from people detained or alleged with a qualifying offense (Her Majesty's Stationery Office, 2012). In Bangladesh, however, there were no such parts of the law that allowed for the collection of DNA samples from the detained. So, from above discussions it can be said that DNA Act 2014 lacks some fundamental crucial.

5.3 Though having obstacles, DNA test still can be an effective tool in rape cases: DNA test faces several problems like constitutional rights violation, mishandling, consent related matter, contamination etc. Though having such obstacles, still can be proven as effective tool in rape cases because:

Suspect identification: DNA test gives a chance to assimilate the sample collected from crime scene with other previous offender and it also gives a clue regarding suspect which gives the investigation a new ray (RAINN, 2019).

Increases the probability of offenders being held responsible: DNA test can almost certainly be used in the court. Many rape cases depend on firsthand accounts and can be interpreted in variety ways. DNA testing aids in the prosecution of the suspect (RAINN, 2019).

Prevention for future rape cases: Serial offenders are more likely to commit acts of terror. When you consent to a forensic examination and DNA testing in a rape case, you improve the likelihood of apprehending the suspect and avoiding further rape cases. So, if the suspect is not charged then their DNA will be entered into the database, enabling the investigation officer to connect them to a potential crime (RAINN, 2019)

DNA test is not conclusive evidence which gives direct chance for conviction, and it is just a piece of information which can be used in identification of suspect ("DNA test not conclusive evidence in rape, HC upholds trial court view | Hindustan Times," n.d.). The procedure by which a court decides whether relevant proof is admissible under the evidence law is known as admissibility (Afroz, 2019). The capacity of anything to be considered as evidence by a judge is referred to as admissibility. Under Section 37 of the DNA Act 2014, DNA test may be perceptible in court as evidence, but the Act does not use the word "must". Consequently, there is a loophole in the statute that prevents immediate conviction. The court will find the defendant guilty if the other facts are known and the DNA test evidence is sufficient. As an outcome, DNA testing is necessary evidence in rape cases otherwise the prosecution process will be virtually impossible without it.

6. Concluding Remarks and Recommendations

Apart from the discrepancies, Bangladesh's legislation is an excellent start toward implementing the most technologically flourished evidential process. Notwithstanding, the Act manages to capture all the necessary elements of good legislation. Bangladesh has made a remarkable attempt in a country where many nations, including India, have yet to apply. Although section 15(f) of the DNA Act 2014 states that for DNA testing initiated hereinafter, implement the procedure advised by this Law and regulations but such rules or procedure have hereto been established under this Act. At the very least, Bangladesh has recognized the significance and is working to establish certain rules and regulations in the immediate future. Some provisions need to be amended of DNA Act 2014:

- a. Section 2 of this Act demand to be amended and "eligible offences" definition should be inserted.
- b. Section 15(f) of this Act need to be amended by advising the DNA testing procedure.

- c. Storing of DNA sample related new section should be inserted which will give the after sample taking protection and will ensure right to privacy more strictly.
- d. Section 24 of this Act should be amended by insertion rule of arrested person's DNA collection.

The most potent component for discerning whether a dubious has conducted a serious offense is DNA testing. Forasmuch as of its one-of-a-kind existence, DNA is extremely important and dependable. DNA from the suspect's spittle, spermatozoon, and blood found on the suspect's clothes and organs and objects procured from the crime locus, can be destined in rape cases. In an endeavor to obtain reliable results, the investigative officer must confirm that these extracts and the specimen taken from the accused individual for matching, are traced and dispatched to the test laboratories within the time frames specified for each extract with much care and chariness. A DNA test of rape cases for investigation in Bangladesh is not unconstitutional for the infraction of the right to privacy and right against self-incrimination if it is handled with caution and utmost care. Since it does not grant an accomplishment to the issue of transgression or innocence, DNA testing comes under the ambit of expert opinion under section 45 of the Evidence Act 1872. It is corroborative evidence, and it answers a particular question for further investigation while remaining open to scrutiny and in habitability. In today's world, where crime is committed using a diversity of new techniques and approaches, the match can also be employed as a measurement of identification. It ought to be revised in semblance with the requirements, not on a whim, but inadequacy with the consecrated guidelines and rules.

References

- Ali, A. (2016). Admissibility of DNA Evidence in Bangladesh: Options and Challenges. *Southeast University Journal of Law*, 02(01), 18.
https://www.researchgate.net/publication/334942838_Admissibility_of_DNA_Evidence_in_Bangladesh_Options_and_Challenges?enrichId=rgreq-6743d5d019be1cfb54e2a7d6a535d9ba-XXX&enrichSource=Y292ZXJQYWdlOzMzNDk0MjgzODtBUzo5NjcyNjE2NzQyOTUyOTdAMTYwNzYyNDU2MjU0NQ%3D%3D&el=1_x_2&_esc=publicationCoverPdf
- Afroz, M. D. (2019). DNA Evidence: Beyond Reasonable Doubt? *J-Institute*, 4(2), 22–30.
 doi:10.22471/ai.2019.4.2.22
- Ali, F. (1950). A.K. Gopalan vs The State Of Madras.Union Of ... on 19 May, 1950, (17), 1–146. Retrieved from <https://indiankanoon.org/doc/1857950/>
- Application of Forensic Evidence in Bangladesh: A long way to go - FutureLaw. (n.d.). Retrieved April 11, 2021, from <https://futrlaw.org/application-forensic-evidence-bangladesh-long-way-go/>
- DNA test not conclusive evidence in rape, HC upholds trial court view | Hindustan Times. (n.d.). Retrieved April 19, 2021, from <https://www.hindustantimes.com/mumbai-news/dna-test-not-conclusive-evidence-in-rape-hc-upholds-trial-court-view/story-oBqhSRqIYwK42fCzN6StVI.html>
- Gilmore, N. (1996, March). Drug use and human rights: privacy, vulnerability, disability, and human rights infringements. *The Journal of Contemporary Health Law and Policy*. J Contemp Health Law Policy. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/8666730/>
- Government of Bangladesh. Penal Code, 1860 (Act No. XLV of 1860) (1860). Retrieved from http://bdlaws.minlaw.gov.bd/print_sections_all.php?id=11
- Her Majesty's Stationery Office. (2012). Protection of Freedoms Act 2012, 17(8), 393–396.
- HRC General Comment No. 16: Article 17 (Right to Privacy) | Global Health & Human Rights Database. (n.d.). Retrieved April 14, 2021, from <https://www.globalhealthrights.org/instrument/hrc-general-comment-no-16-article-17-right-to-privacy/>
- International Covenant on Civil and Political Rights. (1988). In *Annual review of population law* (Vol. 15, p. 148).
 doi:10.32420/1996.2.45
- Kanoon, I. (2003). Sharda vs Dharpal on 28 March, 2003, 2003(3), 1–18. Retrieved from

- <https://indiankanoon.org/doc/149969440/>
- Kharel, A. (2018). Doctrinal Legal Research. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3130525>
- Ludwin King, E. B. (2011). A conflict of interests: Privacy, truth, and compulsory DNA testing for Argentina's children of the disappeared. *Cornell International Law Journal*. Retrieved from <https://1library.net/document/yn4lplz-conflict-interests-privacy-compulsory-testing-argentina-children-disappeared.html>
- Mamun, S. (2020). Bangladesh saw 1,093 rapes in 10 months this year. Retrieved April 11, 2021, from <https://www.dhakatribune.com/bangladesh/nation/2020/11/25/mahila-parishad-1-093-rape-incidents-in-10-months-this-year>
- Mandating DNA evidence in all violence against women cases | The Daily Star. (n.d.). Retrieved April 12, 2021, from <https://www.thedailystar.net/opinion/news/mandating-dna-evidence-all-violence-against-women-cases-1984661>
- Hasanat, A. (2013). Using International Law in National Courts: Bangladesh Perspective. *Bangladesh Journal of Law*, 13(1 & 2), 3. <https://www.biliabd.org/wp-content/uploads/2021/08/Abul-Hasanat.pdf>
- Pandey, H., & Tiwari, M. A. (2017). Evidential Value of DNA : A Judicial Approach. *Bharati Law Review*, (Jan-March), 12–35. Retrieved from www.manupatra.com
- Parven, K. (2012). Forensic use of DNA information in the Justice Delivery System of Bangladesh: Human Rights and Privacy Challenges. *Bangladesh Journal of Law*, 12(1 & 2), 73–75.
- RAINN. (2019). The Importance of DNA in Sexual Assault Cases. Retrieved April 19, 2021, from <https://www.rainn.org/articles/importance-dna-sexual-assault-cases>
- Roberts, B. (2014). Police and criminal evidence act 1984. In *A Companion to Criminal Justice, Mental Health & Risk*. Statute Law Database. doi:10.4324/9780203477618-10
- S and Marper v UK [2008] - JUSTICE. (n.d.). Retrieved April 12, 2021, from <https://justice.org.uk/s-marper-v-uk-2008/>
- SCR, A. Kharak Singh v. State of Uttar Pradesh (1964). Retrieved from <https://www.the-laws.com/Encyclopedia/Browse/Case?CaseId=002691004000&CaseId=002691004000>
- State of Bombay v. Kathi Kalu Oghad, AIR 1961 SC 1808: (1962) 3 SCR 10 | Lawyers Update. (n.d.). Retrieved April 12, 2021, from <https://www.lawyersupdate.co.in/supreme-court-guidelines/state-of-bombay-v-kathi-kalu-oghad-air-1961-sc-1808-1962-3-scr-10/>
- The International Covenant on Civil and Political Rights: A Study on Bangladesh Compliance National Human Rights Commission, Bangladesh*. (n.d.). Retrieved from www.nhrc.org.bd
- Thesis on Relevancy of character as Evidence and Judicial Approach towards Rape victims*. (n.d.).
- What every law enforcement officer should know about DNA evidence. (2015). In *Preservation of Biological Evidence: Best Practices* (pp. 131–137). Retrieved from <https://www.ncjrs.gov/nij/DNAbro/what.html>

Author's Biography:

Author's Photo



Author's Short Bio (50- 100 Words)

Ms. Tanjum Monoara Pial, originated from Dhaka, Bangladesh, graduated from the American International University-Bangladesh (AIUB) with an outstanding LL.B. degree, earning the prestigious "Summa Cum Laude" academic Award. Demonstrating consistent academic excellence, she is presently pursuing an LL.M Degree with a focus on criminal law at Suffolk University Law School, Massachusetts, US. She is proficient in assuming paralegal duties, including legal document drafting and assessment. Besides, she is skilled in organizing case materials and assembling litigation documents.



Mr. Md Khalid Rahman is an Assistant Professor of Law, an academic researcher, and an advocate. He pursued his LLB (Honors), LL.M, and MSS (Criminology and Criminal Justice) degrees from the University of Dhaka, Bangladesh. His research interests include public international law, human rights, genocide, refugee, and criminal law. Apart from publishing several articles and book chapters, he has presented several research papers in international conferences organized by national and international platforms including University of Cambridge, IAGS, Liberation War Museum Bangladesh, etc. His first documentary film "Where will I go? The Rohingya Dilemma" has been screened globally.

For instructions on how to order reprints of this article, please visit our website: <https://ajbe.aiub.edu>
Or contact us for further details: ajbe@aiub.edu