

DNA Evidence in Pakistani Courts: An Analysis

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This article examines the approach of Pakistani courts with respect to the admissibility and evaluation of DNA evidence. The case law analysis brings to the fore two distinct streams of cases in which parties attempt to rely on DNA evidence: paternity/legitimacy of children and sexual offences. In the first category of cases, courts are reluctant to question paternity/legitimacy on the basis of DNA evidence due to a legislatively enforced conclusive presumption under the Qanun-e-Shahadat Order 1984 in favor of paternity/legitimacy. DNA evidence is admissible in the second category of cases and its value is determined on a case-by-case basis. Under the prevalent legal framework, DNA evidence is regarded as equivalent to an expert opinion, and is thus treated as corroboratory or secondary evidence. This laxity on the part of the judiciary is further compounded by the ill-trained investigating agencies and the lack of scientific resources needed for careful collection and preservation of DNA evidence. Against this background, this article underscores the re-examination and re-formulation of the present legal framework around the assessment of DNA evidence by the courts so as to maximize its benefits for the investigation of crimes.

1. Introduction

While there is a growing body of reported judgments dealing with questions concerning the admissibility and weight of DNA evidence in Pakistan, there is little scholarship available on the subject. This article hopes to bridge this gap by presenting an analysis of the case law on DNA evidence. It looks at the established jurisprudence on the matter in order to map and explain the state of law in this jurisdiction, along with urging the re-examination and re-formulation of the present legal framework in order to maximize the benefits that can be derived from the use of DNA evidence.

This article is divided into three sections. The introductory section discusses some of the contemporary issues relating to DNA evidence in developed countries and reproduces the provisions of law dealing with its admissibility in the legal system in Pakistan. The second section comprises of an extensive analysis of the reported judgments of the superior judiciary on the admissibility and evaluation of DNA evidence. This section is further divided into two sub-sections keeping in view the nature of cases in which DNA evidence is produced before Pakistani courts. The first sub-section traces its relevance in paternity/legitimacy cases and explains why it is discouraged in these cases. The second sub-section takes up the task of explaining the admissibility and assessment of DNA evidence in sexual offences. This analysis highlights the main argument of this article, which is that treating DNA evidence as corroboratory evidence ultimately reduces its utility and stems its potential as an effective forensics tool. The article concludes by summarizing the main findings of the research and making policy suggestions for the best use of DNA evidence.

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1.1. Contemporary Issues Relating to DNA Evidence in Developed Countries

DNA evidence has revolutionized the world of forensic sciences in technologically advanced countries. Many of them maintain DNA databases for the investigation of crimes. Many crimes that were once difficult to investigate due to lack of evidence are now being revisited, and offenders are being put behind bars. It is the prevalence of DNA databases in various European countries that has made some scholars and policy-makers contemplate a pan-European DNA database.¹ DNA databases enhance the probability of arrest of profiled offenders as compared to similarly situated un-profiled offenders, and consequently, huge databases are more likely to reduce the commission of offences.²

There are many ethical and legal issues involved in maintaining a DNA database, but in the public interest, it is gaining currency. Considering a plethora of ethical issues associated with maintaining such a database, it has been termed an ‘ethical minefield’.³ Maintaining a DNA database of only some categories of offenders violates the rights of those who have been sampled. Alternatively, if a country opts to maintain a database of all offenders, or even of the entire population, it would increase costs exponentially.⁴

The Supreme Court of the United States of America weighed in on the legal issues surrounding the maintenance of DNA databases in *Maryland v King*.⁵ The Court upheld a statute enacted by the State of Maryland for the preservation of DNA samples of some categories of offenders (eg sexual offenders) on the basis of public interest. The Court found some force in the argument advanced by the accused that the impugned law related to the involuntary extraction of cheek swabs of an offender for DNA analysis was contrary to the constitutional protection against unreasonable searches and seizures, and violated personal privacy, but it further observed that such an involuntary extraction was like fingerprinting and photographing which had already been held constitutional. The Court also noted that the law was meant to foster public interest by establishing a DNA database and that, in such cases, personal interest could not defeat the interest of an entire community.

Tania Simoncelli has pointed out that in addition to undermining the goal of individual liberty and justice for all, maintaining a DNA database would impose an unjustifiably heavy cost on society.⁶ Establishing such a database is not financially viable for countries like Pakistan because it requires huge resources for building and maintaining infrastructure. Moreover, samples of DNA are susceptible to extensive misuse if proper checks are not put in place. DNA is the repository of our genetic makeup; if a country maintains a database but does not introduce measures for curbing its misuse by punitive

¹ Peter D. Martin, Hermann Schmitter, and Peter M. Schneider, ‘A Brief History of the Formation of DNA Databases in Forensic Science within Europe’ (2001) 119 (2) *Forensic Science International* 225.

² Jennifer L. Doleac, ‘The Effects of DNA Databases on Crime’ Working Paper (01, 2012) <<http://www.batten.virginia.edu/content/2013-001-effects-dna-databases-crime-jennifer-doleac-860>> accessed 10 December 2015.

³ Hugh Whithall, ‘The Forensic Use of DNA: Scientific Success Story or Ethical Minefield’ (2008) 3 *Biotechnology Journal* 303.

⁴ Margarita Guillén, María Victoria Lareu, Carmela Pestoni, Antonio Salas, and Angel Carracedo, ‘Ethical-legal Problems of DNA Databases in Criminal Investigation’ (2000) 26 (4) *Journal of Medical Ethics* 266 <<http://jme.bmj.com/content/26/4/266.full>> accessed 10 December 2015.

⁵ (2013) 133 S. Ct. 1958.

⁶ Tania Simoncelli, ‘Dangerous Excursions: The Case Against Expanding Forensic DNA Databases to Innocent Persons’ (2006) 34 (2) *The Journal of Law, Medicine & Ethics* 390.

sanctions, the right of privacy of those sampled would be jeopardized.⁷ Nevertheless, the potential benefits of DNA evidence are innumerable and each country may benefit from it according to its legal and scientific infrastructure.

It must be borne in mind that many experts agree on the fact that DNA evidence is not always flawless and conclusively reliable. Like all other forms of evidence, its results are subject to interpretation. The possibility of the collection of incomplete samples for extraction, contamination, intentional planting of biological samples, and the possibility of faulty conclusions by experts all diminish the claims of the infallibility of DNA evidence.⁸

1.2. Statutory Framework in Pakistan

In Pakistan, there is no particular legal framework that specifically deals with DNA evidence, and hence the courts have to maneuver while remaining within the legal framework hitherto available. DNA evidence is evaluated in the context of Articles 59⁹ and 164¹⁰ of the Qanun-e-Shahadat Order 1984 ('QSO'). The former provision states that expert opinion on matters such as science and art falls within the ambit of 'relevant evidence', whereas the latter provision provides grounds for admissibility of various modes of proof made available due to advancements in science and technology. Under the present legal framework, the technician who conducts experiment to scrutinize DNA evidence is regarded as an expert whose evidence/opinion is admissible in court. This legal framework is no different from the one governing the admissibility of a medical opinion, which gives the impression that DNA is another kind of medical evidence, and that a DNA expert is like a doctor. If DNA is evaluated from this perspective exclusively, we might not fully benefit from its usage. The main distinction between medical opinion and DNA evidence is that the former does not identify offenders¹¹ whereas the latter does so with a high degree of accuracy. Hence, it would be more appropriate to evaluate it from a different legal perspective. But as we shall see, the courts have not interpreted the law progressively enough, and there is much ground to be covered.

2. DNA Evidence in Pakistani Courts

This section of the article is dedicated to the analysis of the cases decided by Pakistani courts involving DNA evidence. The purpose of this analysis is to explore how the present legal framework has influenced and shaped the judicial approach. During the analysis, two streams of cases have surfaced: one deals with paternity/legitimacy and the other with sexual offences. There are different legal provisions for both these streams of cases. In one set of

⁷ Khaleda Parven, 'Forensic Use of DNA Information v Human Rights and Privacy Challenges' (2013) 17 University of Western Sydney Law Review 41.

⁸ Encyclopedia Britannica 'DNA fingerprinting' <<http://www.britannica.com/science/DNA-fingerprinting>> accessed 10 December 2015.

⁹ Article 59 of QSO: 'Opinions of experts: When the Court has to form an opinion upon a point of foreign law, or of science/or art, or as to identity of hand-writing or finger impressions, or as to authenticity and integrity of electronic documents made by or through an information system the opinions upon that point of persons specially skilled in such foreign law, science or art, or in questions as to identity of hand-writing or finger impressions or as to the functioning, specifications, programming and operations of information system, are relevant facts. Such persons are called experts....'

¹⁰ Article 164 of QSO: 'Production of evidence that has become available because of modern devices, etc.: In such cases as the Court may consider appropriate, the Court may allow to be produced any evidence that may have become available because of modern devices or techniques.'

¹¹ *Sikandar v The State* 2006 SCMR 1786.

cases, DNA evidence is discouraged and excluded, while in the other, it is admitted but its reception is not unswerving or optimal. I have divided this section into two sub-sections in order to consider the two streams separately.

2.1. Paternity/Legitimacy Cases

Paternity is an important and sensitive matter since it has many legal and social consequences. The issue of paternity is likely to attain added significance in a society with religious inclinations. That is why the modes in which paternity is ascertained are elaborated in sufficient detail in almost all legal systems. In Pakistan, the determination of paternity is a matter of personal law. Since Pakistan is a Muslim majority country, it seems appropriate to briefly state some important points of Muslim Personal Law on the subject which would make the tricky relationship between DNA and paternity disputes more understandable.

On the basis of a well-known saying of the Holy Prophet (PBUH), a child is attributed to a person in whose wedlock he/she is born.¹² In a situation where dispute arises as to the paternity of a child, and no direct evidence is available to ascertain paternity, the mode of presumption is resorted to in order to fill the void of factual evidence. There is a difference of opinion among the Muslim scholars as to what should be the maximum period of time for extending paternity to a child born after the dissolution of marriage. The Pakistani legislature has enacted Article 128 of the QSO in line with the Hanafi point of view.¹³ According to this provision, a child born after six lunar months of marriage and within two years after dissolution of marriage will be considered legitimate and attributed to his/her putative father. According to the said provision, this fact is regarded as a ‘conclusive proof’ and no evidence can be admitted to refute it.¹⁴ There are two exceptions to this: (a) if the child is disowned by the father, and (b) if the child is born after six lunar months once the mother declares expiry of her *iddat* period.¹⁵

In view of the aforementioned principles, the legal framework of paternity does not leave much space for the admissibility of DNA evidence. One of the earlier reported cases on the subject is *Muhammad Arshad v Sughran Bibi*.¹⁶ In this case, a suit for recovery of maintenance was filed by the mother and her minor son. The petitioner (father) disowned the minor while responding to the claim. For substantiating his contention, an application was filed by the petitioner in a Family Court praying for a DNA test of the child which was dismissed. Thereafter, the petitioner filed a petition in the Lahore High Court to challenge the order of the Family Court dismissing his application. While considering his petition, the

¹² *Hamida Begum v Murad Begum* PLD 1975 SC 624.

¹³ Article 128 of QSO: ‘Birth during marriage conclusive proof of legitimacy: (1) The fact that any person was born during the continuance of a valid marriage between his mother and any man and not earlier than the expiration of six lunar months from the date of the marriage, or within two years after its dissolution, the mother remaining unmarried, shall be conclusive proof that he is the legitimate child of that man, unless—

(a) the husband had refused, or refuses, to own the child; or

(b) the child was born after the expiration of six lunar months from the date on which the woman had accepted that the period of *iddat* had come to an end.

(2) Nothing contained in clause (1) shall apply to a non-Muslim if it is inconsistent with his faith.’

¹⁴ Article 2 (9) of QSO: ‘When one fact is declared by the Order [QSO] to be conclusive proof of another, the Court shall, on proof of the one fact, regard the other as proved, and shall not allow evidence to be given for the purpose of disproving it.’

¹⁵ Article 128 of QSO.

¹⁶ PLD 2008 Lah 302.

Court observed that the determination of a child's legitimacy entailed far-reaching consequences, and therefore, the determination of such crucial and vital issue should not be done in a cavalier manner. The Court felt that the accusations leveled by the petitioner and his act of disowning the child born in the wedlock needed to be substantiated through tangible proof and credible evidence, which were found to be missing in the petitioner's case. Following the traditional stance supported by Pakistani law, the Court highlighted that the paternity of a child born in a lawful wedlock invariably carries the presumption of truth and thus the mere denial could never take away the status of legitimacy as 'child follows the bed'. The metaphor of bed in the *hadith* implies the owner of the marital bed, i.e. the woman's husband. The Court further observed that if the petitioner was right in his stance, he should have resorted to the process of *liyan*¹⁷ instead of challenging the paternity for the first time in a suit for maintenance. Consequently, the petition was dismissed *in limine* and the Family Court's order of refusing the request for DNA test was held to be lawful. It appears that the Court was reluctant to go beyond the conclusive presumption of paternity enshrined in Article 128 of the QSO, and for this purpose, it foreclosed the process of discovery of a piece of evidence (i.e. DNA) which might have jeopardized the concept of presumptive paternity/legitimacy without there being any other credible evidence.

In *Sharafat Ali Ashraf v Additional District Judge, Bahawalpur*,¹⁸ the petitioner denied his marriage with the respondent and filed a suit for jactitation of marriage after the respondent had filed a suit for maintenance. During the pendency of the suit, a daughter was born, and was impleaded as a party. The Family Court held the respondent and the daughter entitled to maintenance, and the appellate courts also upheld its decision. Thereafter, the petitioner contended before the Supreme Court that the courts below were guilty of gross injustice by not conducting a DNA test. The Court analyzed the record of the case and found that there was convincing and substantial evidence of marriage between the parties, and the lower courts had rightly concluded that the parties were lawfully married. The petitioner had denied the fact of marriage and the legitimacy of his daughter without substantiating his claim by reliable evidence. He was unable to prove that the daughter was born either after the dissolution of marriage, or that the respondent had committed adultery. Since the daughter was born after six lunar months of the marriage and before the conclusion of two years since dissolution, her legitimacy and the consequent paternity could not be called into question through unsubstantiated claims. While dismissing the petition, the Court further underscored that the case of the petitioner was motivated to avoid his responsibility of maintaining the daughter.

In *Khizar Hayat v Additional District Judge, Kabirwala*,¹⁹ the subordinate courts passed a decree for the maintenance of a son. In this case, the petitioner denied the paternity of the son, eleven years after his birth and requested a DNA test. The High Court observed that a DNA test could not be ordered when it was proven that the son was born during the marriage, and the petitioner was unable to bring any reliable evidence for disputing his legitimacy. The Court deplored the undesirable practice of denying legitimacy to one's own

¹⁷ If a husband accuses his wife of adultery, but cannot bring four witnesses to prove it, then the spouses have to go through the process prescribed in the Qur'an and termed as *Liyan*. According to this process, the spouses individually swear four times as to the truthfulness of their assertions and then during the fifth time invite curse upon them if any of them has told a lie. Thereafter, the marriage stands dissolved and if the divorced wife gives birth to a child, he/she will not be attributed to the husband.

¹⁸ 2008 SCMR 1707.

¹⁹ PLD 2010 Lah 422.

children in order to avoid paying maintenance, or excluding them from inheritance. The Court also raised certain questions about skilled personnel and requisite scientific infrastructure for conducting DNA tests in Pakistan and expressed its apprehension that, in such circumstances, any mistake or malpractice during the test might end up stigmatizing a child for the rest of his/her life.

As is evident from the above reported cases, the judicial approach of discouraging DNA tests in cases of paternity brought by fathers seems settled at present. The courts frustrate all efforts meant to dispute the legitimate status of children, as Article 128 of the QSO precludes the admissibility of any evidence in such matters and declares birth during marriage and within a specified period after dissolution as conclusive proof of legitimacy.

In the recently decided case *Malik Muhammad Rafique v Tanveer Jahan*,²⁰ the issue of paternity was not agitated by the father but by the paternal uncle. The father was not alive when the matter came up before the courts. The uncle's stake in the deceased's property motivated him to challenge the paternity of the deceased's son. The High Court declined to conduct a DNA test unequivocally. It concluded that the entire proceeding was frivolous and baseless, and dismissed it with costs. The Court founded its decision on the following three grounds: firstly, that DNA tests cannot be routinely conducted on the basis of an unsubstantiated allegation; secondly, that the petitioner had failed to produce cogent and reliable evidence that would necessitate resorting to a DNA test; and thirdly, that the requisite consent of the parties for conducting the test was not available. The Court observed that 'passing an order in routine and compelling a person to undergo a DNA test can have serious consequences, besides interference with personal liberty... Allowing an opportunity to fish for a cause to create doubts regarding the paternity of a person can neither be encouraged nor taken lightly.'

In *Sarwar Mai v Judge Family Court, Muzaffargarh*,²¹ a petition was filed in the Lahore High Court by a woman and her son praying for a DNA test to establish their relationship with a person, who had died long ago, as his wife and son respectively. They also produced a *nikahnama* (marriage registration certificate) and contended that they should be declared his heirs. The relatives of the deceased initiated a suit for jactitation of marriage in a Civil Court in which it was claimed that the deceased was a lunatic, and that he did not marry the petitioner. The suit for jactitation was decreed on the basis of cogency of evidence and the decree was affirmed in appeal. Thereafter, the petitioner brought the matter before the Lahore High Court requesting a DNA test of the deceased. The Court rejected the application on the ground that the controversy had been settled by the subordinate courts on the basis of evidence other than DNA, and that there appeared to be no justification to start proceedings afresh by allowing a DNA test of the deceased.

This case is distinguishable from the cases of disputed paternity previously mentioned above. In most of those cases, the issue of paternity was raised to jeopardize legitimacy/paternity, but in this case, the request for a DNA test was made in order to establish paternity. Despite such a difference, the outcome was similar: the test was not allowed for settling paternity disputes in either way. This judicial approach has primarily been shaped by Article 128 of the QSO, which does not allow for the introduction of any

²⁰ PLD 2015 Isl 30.

²¹ 2010 YLR 1234 (Lah).

piece of evidence meant to destabilize the presumptive legitimacy. In addition to the aforementioned provision, there is another hindrance in allowing a DNA test; under the adversarial system of justice prevalent in Pakistan, a party asserting a fact has to establish it by producing cogent evidence in favor of his/her claim, and the courts are reluctant to facilitate the claimant in discharging the onus of proof by ordering the test.

It would be pertinent to mention that the Supreme Court of India has taken a different stance on DNA evidence in paternity disputes. In *Nandlal Wasudeo Badwaik v Lata Nandlal Badwaik & Anr*,²² the petitioner challenged the paternity of the child and argued that he could not be made responsible for the child's maintenance. The petitioner applied for a DNA test, his application was declined, and eventually the matter went to the Supreme Court. It was asserted by the respondent (mother of the child) that the petitioner had access to her during the period in which the child was conceived, and so his request for DNA test should not be allowed. The respondent argued that the notion of conclusive proof enshrined in Section 112²³ of the Indian Evidence Act 1872 mandated the dismissal of the petition. The Court, in its landmark judgment, explained the significance of conclusive proof when it was pitched against a valuable piece of DNA evidence. The Court observed:

We may remember that Section 112 of the Evidence Act was enacted at a time when the modern scientific advancement and DNA test were not even in contemplation of the Legislature. The result of DNA test is said to be scientifically accurate. Although Section 112 raises a presumption of conclusive proof on satisfaction of the conditions enumerated therein but the same is rebuttable. The presumption may afford legitimate means of arriving at an affirmative legal conclusion. While the truth or fact is known, in our opinion, there is no need or room for any presumption. Where there is evidence to the contrary, the presumption is rebuttable and must yield to proof. Interest of justice is best served by ascertaining the truth and the court should be furnished with the best available science and may not be left to base upon presumptions, unless science has no answer to the facts in issue. In our opinion, when there is a conflict between a conclusive proof envisaged under law and a proof based on scientific advancement accepted by the world community to be correct, the latter must prevail over the former.

The Supreme Court of India put its weight behind conducting DNA tests despite the fact that the legal provision dealing with paternity states that birth during a specified time would be regarded as conclusive proof. Whatever legal sanctity is enjoyed by the term 'conclusive proof', it is nevertheless a kind of presumption, and presumptions by their very nature cannot substitute facts. Thus, when someone asserts before a court that proof of a particular fact lies in some scientifically valuable evidence, that evidence should be brought on record. It was this line of argument which guided the Supreme Court of India in this case.

²² 2014 (5) CTC 680 <<http://indiankanoon.org/doc/139951018/>> accessed 15 November 2015.

²³ Section 112: 'Birth during marriage, conclusive proof of legitimacy.—The fact that any person was born during the continuance of a valid marriage between his mother and any man, or within two hundred and eighty days after its dissolution, the mother remaining unmarried, shall be conclusive proof that he is the legitimate son of that man, unless it can be shown that the parties to the marriage had no access to each other at any time when he could have been begotten.'

On the one hand, this decision has raised some questions about employing the terminology of ‘conclusive proof’ in a legal provision when there is a possibility of piercing the sanctity of such proof. On the other hand, encouraging DNA tests in paternity disputes might open the floodgates, which would not be in consonance with protection and preservation of the basic unit of society: the family. These considerations have recently guided the Supreme Court of Pakistan in refusing DNA test in paternity disputes. In *Ghazala Tehsin Zohra v Mehr Ghulam Dastagir Khan*,²⁴ the Court pondered over DNA fingerprinting and its implications for establishing paternity in the context of Article 128 of the QSO. The paternity of two children born during a marriage was denied by their father and a request for conducting DNA test was made. Referring to *Nandlal*, it was argued that Indian courts have started allowing DNA tests when the legitimacy of children is contested on the ground of unchastity of one’s wife. The Court observed:

The Article [128] is couched in language which is protective of societal cohesion and values of the community. This appears to be the rationale for stipulating affirmatively that a child who is born within two years after the dissolution of the marriage between his parents (the mother remaining unmarried) shall constitute conclusive proof of his legitimacy.

The Court further pointed out that Muslim scholars as well as legislators of the QSO were not oblivious to the gestation period of a fetus, and even then, they extended the presumption of legitimacy up to two years, which shows ‘the legislative intent as well as the societal imperative of avoiding controversy in matters of paternity.’

The Supreme Court of Pakistan has largely been guided by Article 128 of the QSO and a preference for the collective interest of society over an individual’s interest in excluding DNA evidence in paternity cases. The Court also buttressed its conclusion by observing that Article 128 is founded on the traditionally recognized religious perspective. Hence, unless that religious perspective is revisited, DNA evidence will remain inadmissible in paternity disputes.

As far as the argument of preferring collective interest over an individual’s interest is concerned, it may lead to another conclusion in a different set of circumstances which would become evident during our analysis in the latter half of this section. The latter half of this section analyzes the admissibility of DNA evidence in sexual offences. The judiciary’s approach in dealing with sexual offences is markedly different from that in paternity disputes, but the overarching impact of the present legal framework in laying down its parameters cannot be overlooked.

2.2. Sexual Offences

Sexual offences are another stream of cases in which Pakistani courts deal with DNA evidence. The judicial approach in this respect is opposite to the one which we have noted in paternity disputes. A question that inevitably comes to mind is: why is there such a divergence? The answer to this question lies in the difference in legal frameworks governing the two streams of cases, as enshrined in the QSO. DNA evidence has become prominent because of the advancements in science and technology. Any piece of evidence which has

²⁴ PLD 2015 SC 327.

become available by advances in science and technology is declared admissible by Article 164 of the QSO. The technician who conducts a DNA test is an expert witness, and his opinion is made admissible under Article 59 of the QSO. Moreover, there is no express provision like Article 128 of the QSO foreclosing admissibility of evidence by articulating a conclusive presumption as we have noted in paternity disputes in the previous sub-section.

The availability of an encouraging legal framework for admissibility of DNA evidence in sexual offences does not mean that it is sufficient for awarding DNA evidence its due role in investigation of crimes. This legal framework has adversely impacted DNA evidence in different ways. Treating DNA evidence as a form of expert evidence has eclipsed its significance and potential to be used as primary evidence. Expert evidence/opinion in Pakistan is regarded as corroboratory evidence, and thus cannot be treated as primary evidence. It implies that no case can be decided on the basis of expert evidence exclusively in the absence of any other primary piece of evidence, such as oral evidence. Properly collected, preserved and analyzed DNA evidence merits treatment as primary evidence in itself. During our analysis of the case law later in this sub-section, this aspect will be highlighted.

Moreover, the approach of judicial officers and investigating officials has already been settled vis-à-vis expert evidence, and that settled approach is likely to diminish the important role of DNA evidence in numerous ways. For instance, the non-availability of any expert evidence in a case due to carelessness of investigating agencies does not prompt the courts to direct them to procure it, as the courts in such a situation do not feel legally obliged to take any punitive action or play an active role to ensure the availability of expert evidence. This approach is shaped by the fact that if any particular piece of evidence is not brought before them, its unfavorable implications will have to be borne by the concerned party, and the courts in an adversarial system are not bound to go an extra mile to procure a missing piece of evidence. During our analysis of the case law, we will observe this undesirable aspect of the present legal framework.

Another by-product of this sitting-on-the-sidelines approach of the Pakistani judiciary is that we do not find other cases, such as property offences and homicide, where DNA evidence has been brought before the courts or a direction is issued by them to produce DNA evidence before them. In technologically advanced countries, DNA evidence is commonly used in the investigation of offences relating to property²⁵ and homicide.²⁶ This passive approach is partially attributable to the lack of requisite scientific resources and infrastructure.

In *Muhammad Shahid Sahil v The State*,²⁷ the petitioner was alleged to have committed rape, and as a result, the victim conceived and gave birth to a baby girl. The victim made an application for conducting a DNA test of the petitioner/accused, which was accepted by the trial court. The Court directed the petitioner/accused to appear for a DNA test in order to ascertain whether the victim's daughter was related to him or not. The petitioner/accused challenged the above order before the High Court. The latter did not find any legal infirmity in the order and confirmed it. The Court observed that once a DNA test is

²⁵ Michael Briody, 'The Effects of DNA Evidence on Property Offences in Court' (2005-2006) 17 (3) Current Issues Criminal Justice 380.

²⁶ Michael Briody, 'The Effects of DNA Evidence on Homicide Cases in Court' (2004) 37 (2) Australian & New Zealand Journal of Criminology 231.

²⁷ PLD 2010 FSC 215.

conducted, its report would be produced as evidence by summoning the expert who conducted the test. The accused would have an opportunity to cross-examine the expert, and that would be sufficient to grant him a fair opportunity to question the validity of the evidence. The Court said that DNA evidence was the best available evidence in this case for unearthing the truth without loss of time. The Court noted:

The prosecution agencies should take heed and use latest available technology to trace and locate the actual criminal. Under Article 164 of QSO, a court might allow to be produced any evidence available because of modern devices or techniques. Furthermore, the Holy Qur'an and Sunnah did not forbid employing scientific or analytical methods in discovering the truth. On the contrary, the discovery and investigation had been strongly recommended by both. The courts in matters relating to Offence of Zina (Enforcement of Hudood) Ordinance 1979 had all the powers to permit reception of evidence including resort to DNA test, if demanded by the occasion. It is fundamental duty of the courts to arrive at the truth without depriving an affected party to establish its point of view.

Consequently, the accused's petition was dismissed and the Court directed him and the victim along with her daughter to appear for a DNA test.

It is pertinent to point out that the above case tends to border on validating the establishment of paternity of a child conceived as a result of sexual assault through DNA evidence, though as we have seen already, this evidence is discouraged in paternity disputes. While this may seem to be the case at the outset, it would be incorrect to conflate the two situations primarily because a biological father is not treated the same way as a legal father. Under the present legal system of Pakistan, a legal father is the person who has been validly married to a child's mother to whom the child is born during a specified time after the marriage or its dissolution.²⁸ Moreover, the case at hand is different from the cases reproduced in the previous sub-section owing to distinguishable facts. In the earlier cases, the purpose of the litigants was to question paternity in civil litigation, particularly when the legal framework has raised a conclusive presumption in favor of legitimacy, whereas in the present case, the objective is to establish an alleged rape, a criminal offence, by linking the daughter with an alleged offender through DNA. It would appear that the present legal framework does not at least debar any kind of evidence likely to unearth the truth in such cases.

In *Salman Akram Raja v Government of Punjab*,²⁹ the Supreme Court of Pakistan made an attempt to remedy the lack of a specialized legal framework for utilization of DNA evidence. The Court directed that DNA tests be conducted in all sexual offences, and that DNA samples be preserved as well. This case was public interest litigation initiated by the Court *suo moto* in response to an attempted suicide by a minor victim of rape on her failure to get her complaint registered against influential offenders. Concerning DNA, the Court observed that it provided

a mean[s] of identifying perpetrators with [a] high degree of confidence...
[and] by using DNA technology the courts would be in a better position to

²⁸ See Article 128 of QSO.

²⁹ 2013 SCMR 203.

reach at a conclusion whereby the real culprit would be convicted, potential suspects would be excluded and wrongfully involved accused would be exonerated.

The Court cautioned that DNA evidence is not infallible and should not be taken as a conclusive proof. It should always be acted upon after corroboration from other pieces of evidence. This caution is appropriate and timely as sometimes people indulge in exaggerating DNA's accuracy. DNA evidence is 'largely rooted in probabilities, even a confirmed "match" does not supply concrete proof of guilt'.³⁰

The Supreme Court also engaged with the issue of consent of a victim and an accused to DNA testing. It was held that the victims could not be coerced to provide a sample for DNA testing or any other medical test because it infringes upon their personal liberty. On the other hand, the consent of the accused persons is not a pre-requisite for conducting DNA tests, and their sample can be extracted without their consent because it would facilitate in ascertaining the truthfulness of allegations.

Despite the significance of this decision in highlighting the role of DNA evidence, it has not so far brought a large-scale shift among the investigating agencies in their attitudes towards the collection of DNA evidence in all sexual offences. Moreover, the decision has not specifically encouraged the use of DNA evidence in other kinds of offences such as those related to property and homicide. At any rate, DNA evidence is being received in sexual offences by courts in Pakistan, but the analysis of the cases below would demonstrate its divergent and minimalistic use, reinforcing the case for the re-evaluation of the present legal framework.

A positive DNA report has implications for an accused and it substantially reduces his chances of acquittal. In *Zulfiqar Ali v The State*,³¹ an unmarried girl was sexually assaulted twice by her own father before marriage, but she was reluctant to report it due to family pressure and the adverse effects it would have on her marriage prospects. However, after being assaulted for the third time, she decided to report it to police by registering a First Information Report ('FIR'). The version of the victim's story was fully supported by her mother, who was aware of the abuse. Their statements were found to be convincing and were corroborated by the reports of the chemical examiner and a DNA test. The only adverse factor in the narrative presented by the prosecution was of the delay in the registration of the FIR, which was plausibly explained. In these circumstances, the Court convicted the accused of rape. In *Imran alias Manoo v The State*,³² a woman was kidnapped and raped. An FIR was lodged after an unexplained delay of eight days. The medical examiner found the hymen of the victim to have been torn earlier than the alleged incident. The statement of the victim did not inspire confidence, and was insufficient in establishing the accused's guilt. In these circumstances, the Lahore High Court maintained the conviction after reducing the imprisonment awarded by the trial court on the basis of the evidence of a doctor who examined the victim and a positive DNA report. In both these cases, DNA evidence was utilized as corroboratory evidence.

³⁰ Karen Norrgard, 'Forensics, DNA fingerprinting, and CODIS' (2008) 1 (1) Nature Education 35 <<http://www.nature.com/scitable/topicpage/forensics-dna-fingerprinting-and-codis-736>> accessed 10 December 2015.

³¹ 2012 YLR 847 (FSC).

³² 2013 MLD 1790 (Lah).

Since DNA evidence can have dire consequences for the involved parties, all precautions should be taken to ensure its sanctity – procedural as well as substantive. In *Shakeel Nawaz v The State*,³³ the Court refused to rely on a DNA report and acquitted the accused because the test was not conducted by a laboratory notified by the government.

A positive DNA report may reduce the chances of acquittal, but a negative DNA report or non-matching of the profile does not guarantee acquittal, provided the other available evidence is convincing and reliable. This approach is reflective of treating DNA evidence as corroboratory or secondary evidence. In *Khadim Hussain v The State*,³⁴ the Federal Shariat Court maintained the conviction of an accused by a trial court, though a DNA report on the swab samples taken from the victim did not match the profile of the accused. The victim was allegedly raped by the accused and her father lodged the report of this incident. The prosecution produced, as witnesses, the father, the victim, and the doctor who examined the victim and found her to have been subjected to rape. The evidence of the doctor was found to be insufficient in identifying the accused, but the Court regarded it as corroborating the statement of the victim, which was found to be truthful and confidence inspiring. Moreover, the accused had absconded for a reasonable period of time, lending credence to the prosecution's version of the events. In view of these circumstances, the Court concluded that the mere non-matching of the DNA profile of the accused was not sufficient for acquitting him.

In another case *Muhammad Ameen v The State*,³⁵ the Lahore High Court refused to grant bail to a petitioner despite a negative DNA report, relying on the view that DNA evidence was only a secondary evidence and not primary evidence. The petitioner/accused was an *imam*³⁶ of a mosque, who was alleged to have committed *zina* with his student. The victim's father filed the complaint against the accused. While hearing the bail petition, the Court observed that no father would risk stigmatizing his daughter by falsely implicating someone.

When a DNA test could have been conducted, but was not carried out due to negligence on the part of an investigating agency, or any other reason, the lapse has the potential to go against the prosecution and lead to the acquittal of an accused on the principle of the benefit of the doubt. In *The State v Abdul Khaliq*,³⁷ an appeal was filed against the acquittal of the accused. The victim was alleged to have been raped by four young offenders, though she did not have any marks or injury on her body. The prosecution collected semen from the victim's vagina but did not proceed to conduct DNA and group semen tests. The Court displayed its astonishment as to why the prosecution was prevented from conducting such tests and, at the same time, declined to accept the appeal against the acquittal. In *Muhammad Ashfaq v The State*,³⁸ a person accused of rape and murder was extended the benefit of the doubt and acquitted on the ground of non-procurement of DNA evidence by the relevant investigating agency for the purpose of determining whether the alleged intercourse with the deceased victim was committed only by the accused before causing her death. In both these cases, the lapse in conducting DNA tests was committed by investigating agencies,

³³ PLD 2013 Pesh 78.

³⁴ 2011 PCrLJ 1443 (FSC).

³⁵ 2013 PCrLJ 733 (Lah).

³⁶ A person who leads prayers in a Muslim mosque.

³⁷ PLD 2011 SC 554.

³⁸ 2014 PCrLJ 1531 (Lah).

but the burden of the consequential injustice had to be borne by the victims. This is because the courts in the prevalent adversarial system of proof and evidence do not feel obliged to extend their jurisdiction for the procurement of missing pieces of evidence such as DNA evidence.

In another case, *Zohra Bibi v The State*,³⁹ a victim was allegedly detained for more than two months, and during this period, she was allegedly raped by three persons. The swabs taken from the victim's vagina were found to be stained with semen by the chemical examiner. Thereafter, the chemical examiner sent one swab for semen grouping, which the serologist found to be insufficient for the said purpose. No DNA test was carried out for establishing the involvement of the accused persons. In these circumstances, the trial court acquitted the accused persons, and in appeal before the Federal Shariat Court, the decision was maintained. The Federal Shariat Court observed that no accused should be convicted in the case of *zina* without semen grouping and a positive DNA report. This case appears to contradict *Khadim Hussain v The State*⁴⁰ discussed above. Both these cases were decided by the Federal Shariat Court, but entirely divergent positions were taken on the value of DNA evidence. This divergence is an outcome of Pakistani courts' perspective on DNA as corroboratory or secondary evidence.

As has been observed above, non-conducting of DNA test may become a ground for acquittal and such lapses of investigating agencies may also benefit an accused at the stage of bail. An accused may be granted bail in sexual offences if his DNA test has not been carried out by an investigating agency. In this situation, bail is extended to an accused under the legislatively coined ground of 'further inquiry' provided in Section 497 of the Code of Criminal Procedure 1898.⁴¹ For instance, in *Parvaiz v The State*,⁴² semen found on the vaginal swabs of a victim was not examined or tested for DNA. Instead of reprimanding the investigating agency, the case was treated as one of 'further inquiry' and bail was granted to the accused.

The courts' approach towards DNA as corroboratory or secondary evidence unfolds in another manner. The courts do not insist on collecting all sorts of evidence in one particular case. They receive evidence for proving a contentious issue, and if the issue is concluded as per the requisite standard without procuring DNA evidence, they may dispense with it. In other words, if the evidence available on the record of a case file establishes the guilt of an accused beyond a reasonable doubt, a court can decide such matter even without DNA evidence.

In *Rashid Minhas v Muhammad Fayyaz*,⁴³ a boy aged 13/14 years was subjected to sodomy by the accused. The victim reported the incident on the same day, disclosing all details. The report of the chemical examiner on the swab samples was positive and pointed towards the commission of the alleged offence. The medico-legal report also confirmed an

³⁹ 2013 PCrLJ 772 (FSC).

⁴⁰ 2011 PCrLJ 1443 (FSC).

⁴¹ The phrase 'further inquiry' is not defined anywhere conclusively and it allows the courts an ample space for using discretionary powers in bail petitions. It is interesting to observe that no draftsman of the Criminal Procedure Code would have contemplated that the terminology of 'further inquiry' would be used in this manner.

⁴² 2014 PCrLJ 599 (Lah).

⁴³ 2012 PCrLJ 816 (FSC).

act of penetration. The victim, who nominated the accused as sole culprit of the incident, was noticeably innocent and trustworthy throughout his examination-in-chief and cross-examination. The defense could not point out any flaw in his statement. On the other hand, the accused raised the pleas of *alibi* and enmity, but was unable to establish them. In this situation, the Court noted that the absence of semen grouping and a DNA test was not of any assistance to the accused. Consequently, the acquittal order of the trial court was converted into a conviction by the appellate court. In *Mazhar v The State*,⁴⁴ the non-conducting of a DNA test was held by the Federal Shariat Court not to benefit the person accused of rape because the case against him was proved beyond a reasonable doubt on the basis of convincing evidence, which comprised of statements of the victim, her father, and a doctor along with the report of a chemical examiner.

The cases analyzed in this sub-section show that DNA evidence is admissible in sexual offences as a relevant piece of evidence, but the evidentiary value it enjoys varies case-by-case. In most of the cases, it is treated as corroboratory or secondary evidence which alone cannot determine the fate of a case. The present legal framework vindicates this perspective. Despite some doubts about the absolute and unqualified credibility of DNA evidence, it can be regarded as primary evidence provided some standards, as to sample collection, its handling and testing, are set either through legislative measures or progressive legal interpretations. The questions that need to be addressed are: in what circumstances should DNA evidence be collected? How should it be preserved? In what manner can it be used in offences, and what should be its evidentiary value? If the criteria are laid down to answer these questions after a thorough debate and deliberation, there would be no difficulty in elevating DNA evidence to the status of primary evidence. The judiciary has not yet addressed these issues in a progressive manner, leaving them to be resolved by the legislature. Another major obstacle for proper reception of DNA evidence in the present judicial approach is the prevalent adversarial system. Although the complete shifting to an inquisitorial system just for the optimal utilization of DNA evidence is not advisable, calculated legislative measures can be implemented so that the lapses in utilization of DNA evidence can be penalized to bring a positive attitudinal shift in the approaches of the judiciary and the investigating agencies.

3. Conclusion

DNA has opened new vistas in forensic sciences. But whatever worth DNA evidence may promise, its use is dependent on the existing legal framework and scientific infrastructure of a country. The analysis above has exposed the fact that various legal hurdles undercut the unanimous reception of DNA evidence in all sorts of proceedings in Pakistan. On the one hand, DNA's admissibility is hindered in paternity disputes owing to a statutory conclusive presumption in the favor of legitimacy. In these cases, the courts prefer the collective interest of the community by favoring the legitimacy of an offspring over an individual's interest in unearthing the truth. According to prevalent judicial opinion, this approach is also in consonance with the Islamic dictates. This is why there is little prospect of making DNA evidence admissible in these cases. On the other hand, DNA evidence is admitted by the courts in sexual offences and is treated as a kind of expert evidence.

⁴⁴ 2012 YLR 652 (FSC).

The utilization of DNA evidence in other offences is almost negligible in Pakistan. This approach of the judiciary is constructed partly by the present legal framework and partly by the lack of technical expertise and the requisite capacity in the crime scene analysis. If crime scenes of offences such as murder and other violent offences are examined properly, we may collect DNA evidence from those scenes, but due to a scarcity of personnel and scientific infrastructure, such valuable evidence is often lost.

DNA evidence is equated with expert evidence in the present legal framework in Pakistan which diminishes its value significantly. Due to their pre-settled notions informed and shaped from the perspective of expert evidence, the judicial officers are not willing to give more credence to DNA evidence than what they normally extend to other medical or expert evidence. As a consequence, DNA evidence has been marginalized as corroboratory or secondary evidence, and has been deprived of its potential as primary evidence. As long as DNA evidence is not freed from this reductionist perspective, it is difficult to benefit from its true potential. Thus a thorough re-evaluation of the present legal system is required in order to maximize the utilization of DNA evidence and its elevation to the status of primary evidence.

DNA evidence merits becoming primary evidence provided the possibilities of errors are eliminated by developing proper procedures at all levels including detection, collection, preservation and the manner in which DNA samples may be employed. Through well thought-out legislative measures, even within the present legal framework, an inquisitorial flavor could be added to the current judicial approach. The present approach of the courts of sitting aloof from the investigation process and dispensing justice by remaining unmoved irrespective of the non-collection of important pieces of evidence needs to be rectified. This rectification can be introduced by sensitizing the judicial officers to the significance of DNA evidence. The inculcation of a minimalist inquisitorial approach would help the courts in Pakistan to encourage the collection and the use of DNA evidence wherever circumstances allow, and any lapse committed in this regard by the investigating agencies would not go unnoticed and unpunished. This shift would prompt the investigating agencies to realize the significance of DNA evidence, which in turn would reduce the possibility of loss of a valuable source of evidence. Additionally, it is high time that Pakistan should begin to develop the requisite scientific infrastructure for the extraction and preservation of DNA evidence, failing which would result in miscarriage of justice and a lack of fair play.