

Implications of Forensic Evidence in Bangladesh: Theory and Practice.



LL.M THESIS

A RESEARCH MONOGRAPH

SUBMITTED IN PARTIAL FULFILLMENT OF THE CREDIT REQUIREMENTS FOR
AWARDING THE DEGREE OF MASTER OF LAWS BY DAFFODIL INTERNATIONAL
UNIVERSITY .

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To

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Subject: Prayer for Submission of Dissertation

Dear Sir,

It is an excellent pressure on behalf of me that I even have been ready to make research on **“Implications of Forensic Evidence in Bangladesh: Theory and Practice”** . In concluding this research, I even have given all of my best afford to make useful research and by collecting all the relevant information from different sources which will fulfill your expectation.

Therefore, I shall remain grateful to you if you undergo this thesis paper for your evaluation and I would be like that if any valuable recommendation is made on your part in this matter.

I am always available for any longer clarification of any part of this paper at your convenience.



Sincerely yours,

Taniya Akter Prova

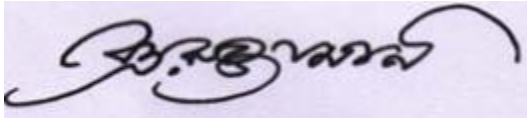
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Letter of Approval

This is to certify that the work is done **“Implications of Forensic Evidence in Bangladesh: Theory and Practice”** is a real work done by **Taniya Akter Prova , ID: 221-38-061**, Department of Law, Daffodil International University, done under my supervision in the partial fulfillment for the research work .



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Declarations

I hereby solemnly declare that the thesis title “ **Implications of Forensic Evidence in Bangladesh: Theory and Practice**”, submitted by me in partial fulfillment of the requirement for the award of the degree of master of laws, Department of Law, Daffodil International University.

I further declare that the research work presented in this thesis is original and it has not been submitted earlier either partly or wholly to any other university for any academic qualification/certificate/diploma degree. The work I have presented does not breach any copyright.

A handwritten signature in black ink, appearing to read 'Taniya', with a long, sweeping horizontal stroke extending to the right.

Taniya Akter Prova

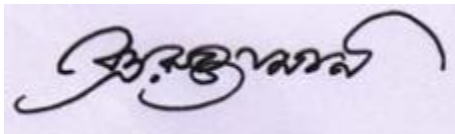
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Certification

This is to certify that thesis on” **Implications of Forensic Evidence in Bangladesh: Theory and Practice**” ,has been prepared by Taniya Akter Prova. It is prepared for the partial fulfillment of the requirement for the award of the degree of Master of Laws, Department of Law, Daffodil International University. The research has been carried out with my guidance and as research of the bonafide work carried out successfully.



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Dedication

Firstly, I am showing very much respect and gratitude to Allah. I would like to express my gratitude and love to my parents for their encouragement and to provide me with opportunities for higher education. They are still guiding me to be a good human being and motivated me to dedicate myself to the benefit of the country.

A handwritten signature in black ink, appearing to read 'Taniya', with a long, sweeping underline that extends to the right.

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ACKNOWLEDGEMENT

First of all, praise and thanks to Almighty Allah, for showering His blessings on the successful completion of my research work.

I would like to express my deep and sincere gratitude to my research supervisor, Professor Mr. Mohammad Badruzzaman form faculty of humanities and social sciences in daffodil university for giving me the opportunity to do research and providing invaluable guidance throughout this research.His dynamism, vision, sincerity and motivation inspired me deeply. It was a great privilege and honor to work and study under his guidance. I am very grateful for what he has offered me. I would like to thank him for his friendship, compassion and great sense of humor. I am extending my heartfelt thanks to Google also , my research is fully based on secondary data for this reason I have collected my research data from various sources from Google online sites .I also want to give thanks to Professor Md. Ayub Ali Lecturer in the Department of Law & Justice at Southeast University.

I am very grateful to my parents for their love, prayers, care and sacrifices in educating me and preparing me for my future.

Taniya Akter Prova.

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January,2023

Abbreviation and Glossary

BNWLA	Bangladesh National Women Lawyers' Association .
BSEHR	Bangladesh Society for the Enforcement of Human Rights
BLAST	Bangladesh Legal Aid and Services Trust.
CID	The Criminal Investigation Department
DMC	Dhaka Medical College
CRPC	The Criminal Procedure Code
DFM	Diplomatic Forensic medicine
DNA	Deoxyribonucleic Acid
NFDPL	National Forensic DNA Profile Laboratory
PRB	Police Resolution of Bengal
WCRPA	Children Punishment Prevention Act

Abstract

20th century is known as the era of science. Science and technology have made great strides. At the beginning of the 20th century, a forensic organization was also established in Bangladesh. The network of these organizations lasted until the end of the 20th century and strengthened into the 21st Century. Many forensic organizations have been established in Bangladesh to handle criminal cases in a timely manner through scientific investigation in the field and in the laboratory. The courts are responsible for administering justice and are based on evidence gathered through various means. One way to gather evidence is through forensic science. But the facilities created are not enough so that increase the number of criminal cases in Bangladesh. There are need more human, machine, scientific and technological infrastructure to modernize forensics in Bangladesh, also the need to enhance forensic capacity in Bangladesh remains. This research highlights the importance of forensic evidence for judicial administration in Bangladesh. This study also aims to investigate the question of how the application of forensic evidence fits into theory and practice. It also highlights and describes current scenarios, issues, academic and research activities, future directions and the need for forensic evidence in Bangladesh.

Keywords: Forensic, Autopsy, Exhumation, pathology, Viscera ,toxicology

CHAPTER ONE

Preliminary

1.1.Introduction:

Over time, the execution of crimes has become increasingly sophisticated, serious, digital and organized. Crime patterns change with changes in science and technology.

Investigating crimes, finding the perpetrators, and bringing them to justice is never easy task. Detectives accomplish this through a variety of ways of examining eyewitness testimony and forensic evidence collected at crime scenes. In Bangladesh, forensic evidence is also used to investigate crimes, identify individuals, determine causes of unnatural and suicidal deaths, and determine causes of death with court clearance.

On 31 August 2022, our Cabinet took an important step by amending the Evidence Act of 1872 this Act ensure the admissibility of digital evidence in court. Which come into force in 20 November 2022. This means Bangladesh is truly on the stage for electronic justice. Bangladesh currently has three major criminal investigation laws which also includes forensic evidence. Among them are the Evidence Act 1872, the Criminal Procedure Code 1898 and the Bengal Police Regulations 1943.This Laws dealing with the admissibility and utility of forensic evidence in the administration of justice. Bangladesh also have about 30 forensic laboratories.

As you can see, there are laws and other technological advances to apply forensic evidence to the judicial system, but many cases are still pending due to lack of proper forensic reporting. The application of forensic evidence is inadequate due to technical, administrative and political issues. Most of the laboratories are located in Dhaka city. However, sending evidence from one department to another takes time and causes delays.

Additionally, there is a lack of both legal mechanisms and infrastructure, as well as qualified personnel, to collect, investigate and store forensic evidence. As a result, the lack of forensic evidence leads to miscarriages of justice and low conviction rates.

The pattern of obtaining forensic evidence is ancient. Bangladesh does not yet have uniform, codified rules for the inclusion of forensic evidence in its judicial system.

This study seeks to understand the relationship between theory and practice in the field of forensic evidence and the implications of forensic evidence in Bangladesh with the aforementioned lack of knowledge of scientific research methods and evidence. Also, this paper attempts to provide a simple and inexpensive solution to the problem defined.

1.2 LITERATURE REVIEW.

In order to do this research, it is necessary to read a lot of relevant literature to get a clear conception on this subject. I have read online journals, papers, articles, books, and other related publications that help me understand forensic evidence, its application in the justice system, regulations regarding forensic evidence, and how forensic evidence is applied. I studied a variety of literature from online. These are from different national perspectives. There are so many national also international provisions and laws which allow to present the forensic evidence in the court. Through this research, I learned that in most developing countries, like Bangladesh, in practice, the application of forensic evidence is so poor due to lack of technical experts and other political issues.

However, the major contents of different works are given below:

(**ALI, 2014**) explains that forensic evidence is used in the Bangladesh judicial system for identification of age, will and DNA testing to determine corpses. Also evidential value of scientific evidence in the justice system of Bangladesh. Forensic evidence includes a scientific theory, language of machines, digital video, recording as well as opinion or assistance of the concerned experts like Information technology experts. Scientific and physical evidence is obtained through studies conducted by scientists, or experiments and comparisons conducted by forensic professionals such as physicians, chemists, serologists and ballistics experts.

This paper also provides a legal framework for forensic evidence and case reference. In the absence of the strong Legal frameworks that provide a solid institutional foundation, often failing investigations and trials, pave the way for criminals to evade punishment, resulting in an increase in crime in society.

Bangladesh's has existing civil and criminal law leaves ample room for the widespread use of scientific and physical evidence in the administration of justice. However, forensic evidence is also can collected from autopsy reports, fingerprints, and many other means, so this study focuses solely on DNA testing. How are these used as forensic evidence? Is not the focus here. Only the terms of the legal framework are presented here and the legal gaps are not mentioned. In your case study, cite only two cases. The study does not have a clear idea of the number of cases solved using forensic evidence in Bangladesh.

(**Sarker, 2019**) describe that, the digital technology adds little to the original evidence. It is hardly worth the time and effort to prepare and present such evidence in a digital environment .Digital support may allow courts to see or hear evidence they otherwise would not have seen or heard, or

to allow courts to see such evidence in a more in-depth form of analysis. If you can hear it, it's worth it.

Over the past decade, there have been many cases where forensic video analysis has revealed the difference between a justified conviction and a wrongful acquittal. It also allowed the exoneration of defendants who would otherwise have been wrongly convicted. This is a farce that we as a civilized society cannot afford. This paper focuses solely on criminal cases and how they are resolved using forensic evidence. Also, the way forensic evidence fails to identify criminals in the criminal justice system. There is no given solution how this can be resolved and to what extent forensic evidence is practical in Bangladesh.

(Dinkar,2015) describe that,the strength and weight of forensic evidence depends on the calculation of probabilities. In developing countries, forensic science evidence arrives at the courtrooms inadequately. It is an accepted fact in the legal and forensic communities that if evidence is not delivered to the courtroom in the form of computational probabilities, it will be worthless since that is the only means by which scientists can pass it to others correctly. Unfortunately, scientific experts only submit their reports indicating whether the patterns match or not. In fact, it is not enough to verify the probative value of the evidence because with this type of evidence it is difficult to determine individuality by excluding others who are likely to have similar characteristics. The probative value of a particular piece of evidence always depends on its ability to exclude possible suspects other than the accused. Within the legal framework, the probative value of specific forensic evidence is useful not only to prove a appropriate fact at issue in a case but also to disprove it. Because if a DNA sample taken from a crime scene matches a suspect's sample, it has probative value to link the suspect to the crime. Conversely, if there is no match, the suspect will be excluded.

There is no doubt about the role of forensic science in assisting the judiciary in dealing with matters beyond the jurisdiction of the judge. Today, however, forensic pathologists as well as stakeholders in the legal community are facing severe criticism at various levels for the reliability and screening capabilities of the two of the legal community. There are a number of issues and pitfalls that directly affect the reliability of forensic evidenced. This begins at the very first stage of the crime scene investigation and continues through to the trial stage. In the legal framework, the main issue is the difference between the scientific and legal communities on the field of interaction. It's time to uncover the real problems and fix them unless it leads to a serious wrongdoing.

(Prachi et al. 2021) describes the modern scenarios, problems of forensic science in India as a developing country, academic research activities, future directions and needs. Also explain that the application of forensic evidence requires uniform skill and expertise across different forensic testing laboratories. The justice system should be open to accepting forensic evidence in lieu of traditional evidence. Forensic laboratories lack scientists, investigators, materials and equipment.

For DNA matching work for organ and cadaver transplants, identification facilities should be established at these medical facilities even if they do not exist. The same goes for anthropological forensic records that specifically relate to remains in these facilities. But this article does not focus on the legal status of forensic evidence in the justice system and some of the problems victims face in cases.

(**Afridi ,2020**) This research focused on the key components of CJS and the concept and essence of forensics. Describe knowledge of forensic tools and services will enable investigators to identify and utilize evidence measures that would otherwise be impossible without forensic evidence. It is recognized as a precise and undeniable instrument of justice system.

Forensic analysis can make the difference between solving a crime with using traditional evidence and forensic evidence. Legal professionals may be faced with professional medical opinions that lead to different conclusions and must decide which one to follow. Forensics helps courts conduct scientific investigations and bring people to justice quickly by proving whether there is a relationship between an individual and an object. But, delays in the forensic process open the door to corruption, which in turn impacts the prosecution process. A systematic approach is essential to gathering forensic evidence that can help to ensure the validity and the evidence presented in court meets the required standards. The forensic laboratories must maintain the validity of a case and thus be at the heart of the prosecution.

This paper focuses solely on the use of forensic evidence in the criminal justice system. Although forensic evidence is also used in civil justice. This document does not describe the legal framework for the use of forensic evidence in Pakistan .

(**Kashem, 2017**) It also identifies the challenges associated with the use of forensic evidence in certain cases and uncovers the need to improve the quality and quantity of forensic services within the criminal justice system . The evidence described has an important role in catching the perpetrators but the assigned research failed to identify this due to some inherent limitations such as less than half of the evidence collected while the exhibits of many The case is collected after the arrest. More importantly, police were unable to provide a list of arrests where forensic evidence was used. However, the increase in forensic examination requests is also a good predictor of the demand for forensic evidence in criminal investigations.

Forensic evidence can make a significant difference in the outcome of a case, but only if the laboratory is provided with the right evidence and standards and has the time, expertise and resources to review it. Sufficient proof. Due to lack of training in recent advances, IO is unaware of the use of modern techniques in evidence collection. The Crime Scene Management study revealed that evidence collected from a crime scene can be contaminated and/or damaged due to improper storage facilities.

1.3 Problem Statement:

The present research proposed to investigate , depict the real scenario of how the forensic evidence are used in Bangladesh to administer justice as well as the major challenges the law enforcing agencies, lawyers and victims are facing in dealing with the forensic evidence and the way out to overcome those. This research convers with large number of case study and experts opinion. As the forensic labs are not accessible for me as a general public. Although today we have a lot of studies on the application of forensic science and evidence in Bangladesh perspective . But there is no previous research on this title. There may be problem to collect primary data as well as secondary data.

So, this proposed research can contribute to find out and the way out to overcome challenges to the implementation of forensic evidence in Bangladesh.

1.4 Objectives of study :

The general objective is to assess the impacts of forensic evidence in administration of justice in our country, challenges in providing expert opinion in certain cases problem facing by the victims in the cases. , application and implications of forensic evidences in our country. Also given the findings and recommendation . On the other side there is a main objective for this research .

The main objectives are:

- (i) To find out the causes of not being able to provide forensic evidence in some cases,
- (ii) To find out what extend the application of forensic evidence is correspondence with theory and practice in Bangladesh.

1.5 Scope and importance of the study:

Proposed research will help to find loopholes of laws and proper procedure of practical implications of forensic law and Evidence in Bangladesh.

Also hopes to enhance understanding for further studies on forensic evidence for making an analysis study on the implications of forensic evidence. This research tends to identify problem areas related to the collection, storage, transportation, and interpretation of forensic evidence. Based on the analysis of the data gathered for the study, recommendations shall be offered to improve the situation. Moreover, this proposed research will open a great opportunities for other researchers concerned with this area. Again this research will be very much helpful for the students of law to enrich their knowledge.

1.6 Research Methodology:

In the section above, the introduction to the subject is offered followed by the literature review, problem statement, and scope of study. In this section, I am going share the research methods or strategies to discover this subject .

1.7 Methods of the research:

The study design by using case study, qualitative methods are used and inductive approaches are selected. Research focuses on key interviews taken by the news reports and also online document-based analysis.

1.8 Data collection:

In proposed research data will be collected from secondary sources.

I will mostly depend with the secondary data reason behind it forensic labs and related administrative part are very secure, they will not allow me as a ordinary people.

Sources and Techniques of data Collection :

Secondary Data:

The Secondary sources will be books, journals, periodicals, articles published, weekly magazines, research reports, web-sites, monographs, government reports and other reports published by Government and NGOs on pertinent topics. IN addition, Online websites and portals related to this research field has also been included in this Study.

1.9 Data Processing and Analysis :

In this proposed research qualitative analysis method will be used where it fits and possible by maintaining reliability and by direct observed information. In this stage of data processing and analysis it will be tried to put best responsibility and it will be taken care in every level, so that, unexpected errors may be avoided. In case of data processing and analysis in this proposed research, care will be taken from the first. At first when received raw data is processed, to reform its error send gapes it will be kept sight to data completeness and legibility and eliminating inconsistency.

1.10 Limitations of Research.

The main limitation of the proposed research is its comprehensive reliance on journals, books and reports throughout the online. Further regard to practical scenario, unavailability of data in relation to the research concern may also be settled as another limitation. There have Another problem of time restriction. In fact it's so much tricky to complete a Research precisely within short time, with inadequate resources.

CHAPTER TWO

Definition, Classification and Significance of forensic evidence.

2.1:Definition.

Evidence is a legal instrument that helps prove or disprove facts. Evidence in the legal sense includes all testimony accepted by the court or required from witnesses of the court on the facts under investigation, and all documents submitted for examination by the court.¹There are many types of evidence that are provided to the court as required by law. Forensic evidence is also one of them. Evidence based on scientific data and scientific proof is called forensic evidence. Forensic evidence, on the other hand, is the application of science in legal proceedings. Analysis of critical data in court proceedings helps determine the guilt or innocence of potential suspects. These tests are usually performed using scientific, medical, or technical means. Forensic evidence establishes the relationship between medical facts and legal issues.

In the legal system of Bangladesh, the Forensic evidence interferes with Section 45 of the Evidence Act, 1872. Which provide that, If a court must make a decision on a foreign law, point of foreign science or art, or handwriting or fingerprints of an identity, the opinion of a person who is particularly familiar with this foreign law, foreign science or art, or identity, handwriting, or fingerprints are relevant on this facts. An expert is someone who has the skill and knowledge of foreign law, science or art and who has experience identifying handwriting and fingerprints in matters related to crime, criminal law and legislation. These standards form a strong link between law and science, ultimately leading the legal system to forensic law.

2.2.Origin the word of forensic and scientific Evidence:

Forensic law refers to the methods used in the justice system to provide timely, accurate and compact information to decision makers. The word “forensics” is derived from the Latin word

¹ <https://www.merriam-webster.com/dictionary/evidence> retrieved on 7.12.2022

“forensis”, and means a forum where senators and others held debates and trials in Roman times, and multidimensional negotiations and negotiations in which people and things cooperate and participate in politics.² Law and economy as a space of truth discovery. With the advent of novelty, the importance of forensics has increasingly shifted to the realm of law, appropriately to medicine and later science, and more broadly to courtroom use. Going back to the history of forensic evidence evaluation, which is also part of medical jurisprudence, we can determine when forensic evidence is evaluated.

It is difficult to say exactly when medical jurisprudence using forensic evidence really began to influence courts. Forensic history dates back to the 7th century, when ancient China used fingerprints to identify documents and clay sculptures. Some scholars suggest that the journey of forensics began in China in the 13th century or even earlier.

Song Ci (1186-1249) was probably the first forensic scientist in ancient China to use forensic techniques and coined the term similar to medical law. In the past, ancient China surpassed the countries of Europe and North America, but with the advent of modern times, China lags behind the Western countries. In the 17th century, the official journey of forensics is said to have begun in Italy.

Paolo Zacchia (1584-1659) was an Italian physician, teacher, and forensic scholar who used the term forensics as equivalent to medical jurisprudence. However, although the formal journey of medical jurisprudence began in the 18th and 19th centuries, some researchers have found early developments in medical jurisprudence. Fingerprinting was used in his late 19th century, but pathology was highly evolved in his mid-20th century. In England, the University of Edinburgh had his Department of Medical Law in 1807.

Edmond Locard (13 December 1877 – 4 May 1966). French criminologist and forensic pioneer. He is called the father of modern forensic medicine. He is a proponent of forensic principles. “All contact leaves a trace”. However, medical evidence was rarely used in Bangladesh until the 19th and 20th centuries.³

2.3 Sources of forensic evidence:

Forensics evidence collect from different branches of science to examine DNA from blood samples, drug samples, paints, explosives, chemicals, toxins, skin, fingerprints, hair, handwriting, etc. Left at crime scenes. Discarded and decomposed corpses will be identified along with the cause of death. Perpetrators of sexual assault and rape are identified through DNA testing. Ballistics or weapons testing and cybercrime have been uncovered and tested by various forensic

² <https://www.legalserviceindia.com/article/I153-Forensic-Evidence.html> retrieved on 10.12.2022.

³ https://www.all-about-forensic-science.com/history_of_forensic_science.html retrieved on 10.12.2022.

scientists. These interdisciplinary applications of forensics make the legal system richer, more transparent and more efficient. Forensic evidence is regularly used in courts around the world, including Bangladesh the use of scientific evidence is increasing worldwide.⁴

Following areas are mentionable:

- Forensic pathology.
- Test of alcoholic intoxication.
- Fire and explosive science evidence .
- Chemistry, toxicology, and serology.
- Carbon neutrality of aviation sector and analysis .
- Tests used in questioned documents.
- Scientific detection of speeding.
- Accident reconstruction techniques.
- Forensic odontology (study of structure & disease of teeth) .
- Forensic entomology (study of insects and their relation with humans, environment, and other organisms) .
- Physical anthropology (anthropology is study of humanity, human behaviour, human biology, cultures, societies, and linguistics).

2.4 Scope and Significance of forensic evidence in the justice system.

2.4.1.Scope of forensic evidence.

- Personal identity, post mortem/ autopsy, exhumation, examination of biological stains and hair.
- Death in medico-legal aspects, causes of death- natural or unnatural, homicidal, suicidal or accidental and death certification on causes and manner of death
- Death from asphyxia, poisoning, submersion, drowning, starvation, cold, heat etc.
- Identification of various types of wounds and injuries .
- Sexual offences, virginity, pregnancy & paternity testing.
- Infanticide, Abortion, Sterilization, and question of competence, sanity, insanity.

⁴ <https://manassehandgill.com/2020/04/03/6-major-types-of-forensics-csi-evidence-presented-at-trial/> retrieved on 10.12.2022.

- DNA testing, DNA identification and DNA technology
- Bio-ethics and bioterrorism

2.4.2. Significance of forensic evidence in the justice system:

With the advent of technology, the need for forensic evidence cannot be denied. As modern criminals rely on new means to commit crimes, forensic science is very helpful in finding evidence through the medical process. By using forensic evidence, easily can detect crimes compared to the traditional evidence mechanism. Forensic evidence can point criminal investigations in the right direction.⁵

Forensic evidence provides scientific information about a suspect who committed a crime. The criminal has left the crime scene, but his or her testimony remains. Blood, saliva, semen, skin, hair and other things in the three large chambers can play an important role in detecting criminals. Forensic evidence is required to support the confession. Establish a connection between the crime scene and the suspect, or the suspect and the victim. Very important to confirmation or denial of an alibi (a claim or evidence that an act, usually a criminal act, was elsewhere at the time the act was allegedly committed). Forensic Evidence Proving the innocence of bystanders and the guilt of those involved.⁶

Forensic evidence Encouraging or inducing a confession or making a confession guilty in the face of scientific evidence convicting a person. Forensic evidence is quicker and sometimes cheaper than traditional methods. Complex legal issues can be resolved with the help of medicine, such as age determination, paternity, and maternity. Whether a person is a minor or an adult can be easily determined by Forensic evidence when a contract is concluded. In the case of life insurance, forensic science can easily determine whether the death was an accident or a natural death. Involving different experts increases the chances of getting better evidence. However, forensic or

⁵ <https://www.thedailystar.net/law-our-rights/law-analysis/news/the-importance-forensic-evidence-our-justice-system-1755037> retrieved on 11.12.2022.

⁶ <https://www.sciencedirect.com/science/article/pii/S1355030620303117> retrieved on 11.12.2022.

forensic/scientific evidence presents many challenges. But there are more opportunities than dangers. The importance of forensic evidence is enormous and contemporary.⁷

CHAPTER THREE

Forensic evidence in the context of Bangladesh.

3.1 Admissibility of forensic evidence.

Probable value is the likelihood that evidence will achieve its purpose of proving a relevant fact in question. This is one of the key elements of the admission of evidence, because the evidence admitted must be relevant, which tends to make the fact in question more or less likely, however it may be weak.⁸

There are two American cases that demonstrate the admissibility of forensic evidence. One is the Frye standard and the Daubert test.

The Frye Test and Frye Standard,

⁷ <https://futrlaw.org/application-forensic-evidence-bangladesh-long-way-go/> retrieved on 11.12.2022.

⁸ <https://blog.ipleaders.in/admissibility-forensic-evidence/> retrieved on 13.12.2022.

The court held: “Essentially, for the results of a scientific technique to be admissible, the technique must be sufficiently established to have gained general acceptance in its particular field.”⁹

The Frye Standard, also known as the General Acceptance Test, is a test used to determine the acceptability of scientific evidence. It stipulates that expert opinions based on scientific methods are permissible only if the methods are generally accepted as reliable in the relevant scientific community.

The Daubert test requires that (i) the theory is testable, (ii) the theory is usually peer-reviewed to reduce the possibility of error in the theory, and (iii) reliability and error rates are limited to 100 % confidence and zero error are not required, but the rate should be considered by judges and (iv) indicate a level of general acceptance by the scientific community.¹⁰

In the Case of Major Bazlul Huda & Others Vs. The State .

Says about admission of digital evidence or electronic evidence .A party seeking to admit a person’s statement or confession regarding recorded on a CD or videocassette, or an interview conducted by a television station on one or more relevant facts, must also present the original compact disc or videotape or the program has been aired on a television channel with confirmation of the program producer’s confirmation of the time and location of the program’s recording.And if accused denies the testimony or admission, the question of admissibility must be considered under applicable evidence law.¹¹

There is a difference between forensic evidence and digital evidence. Digital evidence is linked to the cyber world. And forensic evidence is collected from human body parts. Although some of forensic evidence are comes with digital format, like DNA database, fingerprint scan copy etc.The Evidence Act (Amendment), 2022 ,now incorporates the court’s admissibility of digital evidence under section 17.¹²Court admissibility of digital evidence means that from now , digital evidence will be admissible. But there is no mention of the admissibility of forensic evidence.

However, the passing of the DNA Act in 2014 paved the way for more widespread use of forensic evidence. On the other hand, if the court deems it necessary or if one of the parties to the case doubts the veracity of this evidence, a forensic examination may be conducted.Under Section 45 of the Evidence Act, forensic evidence as an expert opinion is relevant fact in court. That is, such evidence is only expert opinion, not substantial evidence, because relevance does not mean

⁹ Frye v. United States (1928) 293 F. 1013

¹⁰ Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 590 (1993).

¹¹ 18 BLT (AD) (2010).

¹² The Evidence Act,1872 S 17.

admissible. Because all admissible evidence is relevant but all relevant evidence is not admissible. Section 46 of the Evidence Act 1872 – provides that facts, which would otherwise be irrelevant, are relevant if they support or contradict the opinions of experts, when opinions that is relevant.

Section 46A also states that, The expertise is sent to the court and not to the party on whose behalf that party is being questioned and that party is obligated to assist the court.

Therefore, Sections 45, 46 and Section 46A emphasizes that: The Court will rely, if necessary, on the skill of those with specialized knowledge of the facts in question. The court will base on the good faith statement of evidence presented by the expert concluded on the basis of scientific techniques Evidence deemed irrelevant will be deemed relevant in the eyes of the law if it is consistent with expert opinion.¹³

Section 60 of the Evidence Act makes it very clear that evidence of such a point of view must be the evidence of a person of the same opinion and that they must be considered as witnesses in the case.

Thus, we see that expert evidence helps courts to draw reasonable conclusions from the facts presented by experts, based on their opinions rooted in the professional skills they possess. Through research and experience. But experts are only advisors and not witnesses because they aren't present at the time of the crime happening, they just give an opinion through their research versus science. Also the principle of expert opinion is necessary. The opinion of an expert helps the court reach a conclusion.

They rely on it mainly because these experts are experienced in doing this type of research. Therefore, in Bangladesh, forensic evidence is used as secondary evidence rather than conclusive Proof. Again, for this evidence to be relevant, the requirement of Section 60 of the Evidence Act must be met. The part that requires oral testimony be direct in all cases, that is, if it concerns an opinion or the basis on which it is based, it must be the testimony of the person giving it.

3.2. Procedures for submitting forensic evidence in court.

Courts collect forensic evidence to seek justice in order to determine the cause of death, identify perpetrators, and other civil matters related to determining age, children, and parentage. In Bangladesh, there are no specific procedures given regarding the submission of forensic evidence. Specific law regarding the collection for the forensic evidence is not given, otherwise DNA Act, 2014. However, Procedure for the collection of forensic evidence from the dead body by the medical officer or magistrate are given under Section 174 and 176 of the Code of Criminal procedure. A post-mortem is done in case of any non-death or unnatural death like murder, suicide, accident. In such incidents, the police first prepares inquest report. That is, a inquest report is prepared detailing the condition in which the body was found. An autopsy was then sent to find

¹³ The Evidence Act, 1872 Ss 45-46A and S 60.

out more details about the death. The post-mortem doctors at the morgue, after seeing the report, first analysed the external condition of the body. The first report is made by looking at whether there are any injuries or lesions, colour of skin and tongue etc.

Police officer will make inquest Report to the death body with the date,time , make a sketch of the dead body. After that police officer will recorded to the B.P. form number 49.

After that, the corpse is dissected and the inside of the body including brain, lungs, liver is checked. As a result, doctors can understand if there is any injury inside the body, if there is bleeding or poisoning. If there are signs of injury. The doctors are cut various parts of the dead body. At this time, various parts of the body are also collected and sent to the lab for testing. After the post-mortem, the dead body is stitched back up and brought back to its original state. After completing postmodern, report will sent to the police officer with the signed of medical officer. If the dead is suspected and reason of death cannot identify the body parts or viscera will sent to the chemical lab. Report will deliver to the court. Under section 176 of the code of criminal procedure, the magistrate can do exhumation of death body by the medical officer. Death body will digging out of the grave,mud , water, grass inside and outside of the grave will collected and send for further investigation. The report will deliver to the court.¹⁴

For the collection of DNA, there also given provision under section 4 of DNA Act,2014 . Where says that, the Police officers will ask the victim, suspect, defendant, or person involved in a suspected crime to provide a DNA sample. Under no circumstances can the police force the person to provide a DNA sample.¹⁵

If the person to whom the DNA sample is requested does not provide consent within three hours, consent shall be deemed to have been refused and the fact of such refusal shall be submitted in writing on the prescribed form to the court of competent jurisdiction for an order collect to DNA samples.After hearing both parties and reviewing the documents, the court may order the collection of a DNA sample.Once the above procedures are completed, a DNA sample will be taken and sent to a forensic laboratory.For example, in rape cases, forensic evidence such as clothing worn by the victim, undergarments, bed sheets, internal vaginal swabs, microscopy slides, blood samples of the victim and/or defendant are collected. Vaginal swabs should be collected within 72 hours of the alleged occurrence. If the forensic examination is delayed by more than 72 hours, the aforementioned forensic documents must be sent to the laboratory along with the victim's blood sample.

To collect DNA samples from a murder suspect, the National Forensic DNA Profile Laboratory (NFDPL) requires forensic evidence that may have been left behind by the suspect, such as a weapon, pants, or a weapon. Shirt, hat, glasses, chewing gum, cigarette butts, toothpicks, etc.

To determine the identity of the deceased, blood samples from close relatives such as mother, father, husband, wife and children as well as biological samples or objects related to the case will

¹⁴ The Code of Criminal Procedure 1898, S. 176.

¹⁵ DNA Act,2014, S. 4.

collected. Samples should be wrapped and sealed in paper bags, do not use plastic bags or plastic bags. All forms must be accompanied by a transfer note (Form 1), a Sexual Assault Checklist for Victims (Form 3) and an Identity Form (Form 2) for the victim.

The Criminal Investigation Department (CID) is one of the former specialized units of the Bangladesh Police specializing in crime scene investigation, one of the most important functions of CID in detecting serious crimes. To carry out this procedure, CID must rely on its valuable professional opinions. CID has a forensics department made up of many different parts. Fingerprint office, with a team of fingerprint experts, is one of them. The Office of Fingerprints compares impressions of fingerprints obtained at crime scenes with those of suspects and former convicts. The office also maintain fingerprint records. The expert opinion rule under Section 45 of the Evidence Act provides for seeking expert opinion on science, Arts and forensic science. The search and examination rules under Sections 165 and 161 of the Criminal Procedure Code empower the investigating officer to attach anything and examine its maker. This procedure can be followed to cross-examine the makers of documentary evidence.¹⁶

A Summon or notice will be served to the coroner or medical experts to appear before the court on set time to testify .He is questioned like a common witness. That is, he must stand as a witness before the witness box and take oath before beginning his testimony. Relevant documents, post-mortem reports, or other scientific reports are submitted to the court prior to testify the experts. The forensic expert is examined including a examination in chief ,cross-examination, and re-examination.

It is very important to examine the relevant specialist because his interpretation of the facts stated in the medical legal reports is much more valuable than others.

3.3 Practical application of the Forensic Evidence in Bangladesh.

Post-mortem report is very important to know the exact cause of any death. The primary cause or concept of death is found in it. There are many ‘facts’ for not get an accurate autopsy report.

For example, if the body is frozen, it is difficult to know the time of death. Proper sample storage in the correct manner is also important. At the same time, forensic experts and related manpower and modern equipment are absolutely necessary. We are deficient in all of them. Because of this, the exact cause of death often does not match with the autopsy report. In a murder case, the investigation report cannot be submitted to the court without the autopsy report. Identifying the culprit, proving the crime, knowing the probable time of death to know whether it was murder or suicide – all in all, an accurate autopsy report is essential for the judicial process. But in our country, due to various reasons including shortage of forensic experts, mismanagement of mortuary, there

¹⁶ The Code of Criminal Procedure 1898, s.. 161 and s. 165

are wrong reports of autopsy. For this reason victim's family is deprived of justice.¹⁷ Many medical colleges, including district hospitals, do not have enough forensic experts. Inadequacy of specialized, modern and world-class training in forensics, hasty completion of autopsies due to lack of time as the number of dead bodies is more than expert forensic doctors, lack of standard infrastructure including modern equipment and cold storage, post-mortems without forming a board in case of dead bodies in complex and sensational cases. , lack of proper preservation facilities for viscera examination, reluctance of experts to testify, unusual delay in sending reports, supply of specimen containers, preservatives and chemicals, preservation with low-quality formalin are various problems. ¹⁸ As a result, many signs are lost. In the developed world, post-mortems are carried out in coordination with crime scene visits and evidence collection. This makes the autopsy report more likely to be accurate. But in our country there is no opportunity to visit the place of occurrence. The evidence that the police has is also not available in some cases. In addition, when the dead bodies come from different places, the signs are destroyed and decomposed due to lack of preservation system. As a result, autopsy reports are likely to be inaccurate. ¹⁹It was alleged that doctor Kazi Sabira Rahman was brutally murdered seven months ago at her home in Kalabagan of the capital. Although the nature of the murder is clear, the 'probable time' of the murder has not been investigated. Many are incompetent forensic experts. Doctor Sabira's body was taken to Dhaka Medical College Mortuary in the afternoon. Autopsy was done the next day after mortuary refrigeration. Body temperature tests often reveal possible causes of death. But it was not possible because Sabira's body was stored in a refrigerator. In many cases, time can be a big clue or key factor in solving the mystery of the murder.²⁰ But due to lack of modern equipment, inexperience and mismanagement it is not possible to determine it. In almost all the colleges, including Dhaka Medical College, the dead bodies arriving after 5 pm are not autopsied the next day. Post mortems were conducted at three medical colleges in Dhaka. The oldest morgue is Sir Salimullah Medical College. At least 20 police stations from Dhaka and surrounding areas come here for autopsy. The medical college has only three forensic experts where 10 are required. The persons are not well trained. This picture is in almost all medical colleges. At present there are less than 50 forensic experts in 39 government medical colleges in the country. However, more than two hundred forensic experts are required in government medical colleges and government hospitals across the country.

Post-mortem at Dhaka Medical College (DMC) hospital morgue, dead bodies are cut and torn with ancient hammers, knives and pliers. The mortuary under the medical college has been working in this manner since its inception. It takes hours to perform an autopsy on a dead body in this traditional manner. In many cases, the quality of post-mortem reports in this traditional method

¹⁷ <https://www.tbsnews.net/thoughts/bangladeshs-poor-application-forensic-science-criminal-justice-apathy-or-legal-ambiguity> retrieved on 15.12.2022.

¹⁸ <https://futrlaw.org/application-forensic-evidence-bangladesh-long-way-go/> retrieved on 15.12.2022.

¹⁹ <https://www.newagebd.net/article/94442/time-to-properly-use-forensic-law?fbclid=IwAR2C3mcYS8MNXq95rYH3eGfKntg5E2dcEPYG3gQ-N7oPGinusW9EJQUrg58> .

²⁰ <https://www.jagonews24.com/national/news/809788> retrived on 01.01.2023.

also raises questions. Digital portable x-ray machines are being used to detect any object in the body of a dead body in many countries which are behind us.

Through this, the tip of the bullet (projectile), pallet of bullets, bomb or splinters of such objects can be identified within two minutes. There is no such machine (digital portable x-ray machine) in any medical college or hospital in Bangladesh so far. In other words, for the autopsy of a person who died due to various injuries including gunshots, bomb blasts, stabbings, the dead body inevitably has to be subjected to incalculable cuts and tears. But the price of the digital portable x-ray machine is not too much, only five-seven lakh taka. But due to the lack of this one machine, autopsies are being done in the old way at Dhaka Medical Morgue. The other bodies have to be kept waiting for a long time. As a result, those corpses often rot.

In neighboring countries India-Nepal-Sri Lanka and many other countries, the forensic department cannot even think of an autopsy without this machine. According to the information of DMC Hospital, 1 thousand 598 people were autopsied from January 1 to December 2021. Among them, there were 95 bodies of unknown identity. It has been found that there are 5 refrigerators in the morgue of Dhaka medical college. 2 of them are broken. 1 in the state of not running. Every morning between 5 am and 8 pm post-mortem of 8-9 bodies is done here. The day the bullet-riddled body arrives, the whole day is spent cutting the body. As a result, other bodies need to be kept in there frigerator. But the fridge is only two! So, as there is no space in the fridge, the bodies have to be left on the floor. Due to such circumstances, there is a possibility that the evidence related to the dead body may also be destroyed. Many readily available, obvious and reliable signs are also being lost every day due to the process of decomposition of dead bodies. The mortuary should have modern equipment for mortuary. Adequate lighting should be provided. Must have trained dom. At the same time the concerned need to be focused on the work.

On the one hand, too many corpses compared to the manpower, on the other hand, less of the equipment and the absence of many useful accessories – due to these multifaceted complications, a proper autopsy is often not possible. As a result many reports contain wrong reports. Based on that report, the related case is also being conducted in a wrong way – the concerned police officers are claiming that.

The mortuary of DMC Hospital have old equipment and dilapidated furniture. It is as if the signboards are revealing the grim condition of the morgue. Due to the shortage of experts and appropriate equipment, the post mortem reports of many homicides discussed across the country have led to public doubts, concerns and debates. Even in many brutal murders, the police, courts and relatives have to accept it as a suicide due to the wrong report found in the post-mortem. Sometimes the situation in the morgue reaches even worse. In many cases, the autopsy department of this largest hospital in the country is completely dependent on mortuary assistants or domes. Forensic reports are coming out wrong due to neglect of autopsy.²¹

In 2018, a woman named Roshan Ara died due to a ‘wrong surgery’ by four doctors at Bangabandhu Sheikh Mujib Medical University (BSMMU). The autopsy report of the body was

²¹ <https://www.dhakaprokash24.com/special-report/news/4911> retrived on 01.01.2023

submitted to the Shahbag police station by the DMC Forensic Department after almost two years. AL Mahmud Faizul Kabir, Director (Complaints and Investigations) of the National Human Rights Commission commented that it took two years to submit the post-mortem report of a dead body is violation of human rights. Why did it take more than two years to give the autopsy report? In this regard, the head of the forensic department Dr. Sohail Mahmud said, After the autopsy of Roshan Ara's body (in 2018), we briefed the family and journalists. We do autopsies here (DMC) on dead bodies from all over the country. Also Prepare reports. Given lecture to the classroom and also take exam. Often our doctors have to testify in court. Also Work with few people.

Moreover, the report from histopathology was delayed by one year. Immediately after the report came from there, we prepared the report according to the rules, after the arrival of the police, we gave it to the police. Sometimes the report is given priority when the police or court calls for it. In any of the discussed cases the police issued requisitions, we did not receive any written requisitions from the thana police. The police also came late in the place. ²²According to the Police Resolution of Bengal or PRB Act, a copy of the post-mortem report must be handed over to the investigating officer of the police at the time of handing over the dead body from the mortuary. Accordingly, the report should be written in the morgue. However, in view of the reality, that time has been increased to 24 hours under the government guidelines. But no one knows the exact time of handing over the body from Chittagong Medical College Hospital mortuary.

The rules for providing post-mortem report are stuck in PRB and government guidelines. No post-mortem report is provided on time. The police alleged that even after hours, days, months and years passed, most of the post-mortem reports were not available. Even after months of withholding the autopsy report in the morgue, the information about the money game was found in the morgue office. Various employees of the forensic medicine department take this money from the police investigating officers in related cases. Although the family of the deceased is the source of this money, the autopsy reports are withheld as there are no relatives of the unidentified body. In some cases, due to the time constraints of submitting the charge sheet of the case, this report has to be taken at the expense of the pocket money of the investigation officer concerned with the police.

Post-mortem reports of cases that are generally understood to be murders or murders are readily available. But the post-mortem report of suicide or unidentified bodies is not prepared even after months to years. Delay in preparation of post-mortem report may lead to change of actual cause of death. The doctor and the investigating officer of the case may also be affected by the long time gap between post-mortem reports. At various times, the victims have been raising allegations of changing the post-mortem report in exchange of money. According to PRB rules, the post-mortem report is the carbon copy handed over to the policeman or constable along with the dead body after the post-mortem. But the detailed report was delayed. Accidents can occur within this delay. A post-mortem report as per rules. There is nothing in law or regulation that says detailed report. Properly following the provisions of CRPC and PRB related to post-mortem does not give in to

²² <https://www.deshrupantor.com/last-page/2020/12/04/262392/> retrieved on 01.01.2023.

any pressure, intimidation or greed at a later stage. Legal experts believe that the path to justice for the affected person is also ensured. However, those concerned say that the autopsy report is stuck in the morgue day after day, month after month, mainly due to the lack of manpower and the lack of forensic experts. Apart from this, the autopsy report is also withheld for the viscera report. That is why important events are reported earlier.

Niptara Age 23 years. She used to live with her husband Alamgir in a rented house in Kalsi Dighi Par area of Bandar Thana of the city. On September 11, the police found his dead body inside the house with the door hook attached. Taking into consideration the surrounding conditions, initially the police thought that he had committed suicide. Still, the husband was arrested under suspicion and sent to jail through the court showing arrest under section 54. According to the Police Resolution of Bengal or PRB Act, the medical authority is required to provide a copy of the post-mortem report to the investigating officer of the police within 24 hours. But that rule is far away! The post-mortem report of Niptara was received by the police on October 28 in 2020, exactly 51 days after her death. The post-mortem report, falsifying the police's opinion, came out with a report of 'hand strangulation'. The autopsy report, which was supposed to be available within 24 hours, was received after 51 days. As a result, the accused who was arrested and imprisoned on suspicion of Article 54 took advantage of the legal weakness and went on bail and went missing.²³

Many policemen are over-enthusiastic and try to divert the case by making false reports. Victims do not file a case when they go to the police station. In many cases, due to the negligence of the police, many dead bodies are being taken away by their families without post-mortem, claiming death in road accidents or suicide. But these include traumatic deaths (homicide). These incidents could have been detected if the bodies were properly examined. The cases could have been murder cases.

Jisan Hossain, a class nine student of Perab Adarsh High School, Kandapara, Rupganj, Narayanganj was beaten to death in 2020. The police handed over his body to his family without making a report. The school students and residents of the area formed a human chain and demanded justice for this murder. However, the police said that it a natural death. A month after writing in the newspaper, Jisan's body was removed from the grave and sent to Dhaka Medical College Morgue for post-mortem. An autopsy revealed that Jisan was beaten and strangled to death. Locals said that on August 22, terrorists brutally beat him and threw him away in Golakandail area of Rupganj. Next He was admitted to Dhaka Medical College Hospital with serious injuries. He died the next day. The body was sent to DMC morgue for post-mortem. As the place of incident is outside Dhaka, the Shahbag police station of DMP was informed as per rules. The officer in charge of Shahbagh police station handed over Jisan's body to the family after declaring natural death without filing a report. Such kind of incidents are happening all over the country.²⁴ Many affected families are deprived of justice. The investigation showed that every

²³ <https://www.cvoice24.com/special-news/news/35343> retrieved on 01.01.2023.

²⁴ <https://www.dailyjanakantha.com/national/news/541271> retrieved on 03.01.2023.

day helpers in the hospital mortuary are taking pictures of dead bodies through mobile phones and preparing status reports at the police station. A huge syndicate including the ward master of the morgue of Dhaka Medical College Hospital is involved in this. Morgue helpers bring dead people to the hospital. Take a picture of the body through the mobile phone and send it to the police station to report the situation. In this way, the victims of Surathal's manipulation are deprived of justice. Hundreds of incidents ranging from murders to unusual deaths are hidden. The real accused got away. The word of judgment cries silently. The DNA of the rape victim and the evidence is tested, but DNA samples of the accused are not available. Thus in many rape cases the examination remains incomplete as the police cannot produce the accused. There are only two laboratories for DNA (deoxyribonucleic acid) testing in the country. The DNA lab of the Police's Criminal Investigation Department (CID) is accounting for missing the accused in about 30 percent of the samples received in rape cases so far. The main reasons include absconding, confession of guilt, settlement of the plaintiff with the accused. According to the National Lab, apart from murder, rape and other crimes, DNA tests are done to find out the identity of a person who wants to live abroad, prove paternity, anonymous dead. With DNA profiling, an individual can be identified from even minimal biological samples. DNA profiling is done by collecting samples from rape victims and accused or suspected persons and crime scenes. Then they are compared to find similarities or differences. The government has amended the Suppression of Violence against Women and Children Act 2000 by keeping death penalty as the maximum penalty for rape. The amended law has made DNA testing mandatory in rape cases. But what if the DNA of the accused is not found? The answer to the question is still unknown. On the other hand, the question of consent for the victim is also looming large. At least 1,349 people were raped across the country from January to October 2021. Among them, 277 people were victims of gang rape. 46 people were killed after the rape. 13 people committed suicide due to rape.

In the first 10 months in 2021 about 2,000 cases have come for DNA testing at the CID lab. More than two-thirds of these were rape cases. At the same time, the National Forensic Lab received samples from around 5,500 cases. Among them, 353 rape cases. About two-thirds of these are rape cases. The lab is run under the multi-sectoral project of the Ministry of Women and Child Affairs to prevent violence against women. DNA profiling of 22,000 samples has been done in this lab since 2006.

Initially, these samples were tested outside Dhaka in seven labs of Chittagong, Rajshahi, Khulna, Barisal, Rangpur, Sylhet, and Faridpur Medical College Hospitals. The samples sent from the court in which DNA is found, are sent to Dhaka for testing. Also a departmental forensic lab has been opened at the office of the Special Superintendent of Police, Criminal Investigation Department (CID) at Giletla, Khulna.²⁵

²⁵ <https://www.prothomalo.com/bangladesh/crime/%E0%A6%86%E0%A6%B8%E0%A6%BE%E0%A6%AE%E0%A6%BF-%E0%A6%AA%E0%A6%B2%E0%A6%BE%E0%A6%A4%E0%A6%95-%E0%A6%A1%E0%A6%BF%E0%A6%8F%E0%A6%A8%E0%A6%8F%E0%A6%AA%E0%A6%B0%E0%A7%80%E0%A6%95%E0%A7%8D%E0%A6%B7%E0%A6%BE%E0%A6%85%E0%A6%B8%E0%A6%AE%E0%A7%8D%E0%A6%AA%E0%A7%82%E0%A6%B0%E0%A7%8D%E0%A6%A3> retrieved on 03.01.2023.

Investigation of the case is delayed due to lack of forensic lab. At present, the evidence of various cases has to be sent to the forensic lab of the CID in the capital Dhaka and Rajshahi. It takes one to three months to get the report from there. Various crimes including murder, rape, robbery are happening every day in different parts of the department. Police, RAB and law enforcement agencies are collecting evidence from the scene. Earlier, these evidences had to be sent to the forensic lab of the CID in the capital for testing. From January 1 2021, evidence other than DNA and cyber-related evidence has to be sent to CID's forensic lab in Rajshahi. But due to delay in receiving the report, the charge sheet filing process is getting delayed.

In this regard, CID Khulna Special Superintendent of Police Anichur Rahman said that DNA, cyber, handwriting, hand and foot prints, shoe prints, fake notes, ballistics, photography and other types of tests are conducted in the forensic lab. In many cases investigations cannot be completed without expert opinion on evidence. The delay in getting the report leads to undue delay in completing the investigation of the case. Even after the collection of evidence is completed, the investigation cannot be completed until the forensic report is received. ²⁶DFM (Diploma in forensic medicine) students are preparing themselves as specialists without any guide or proper guidance. Court appearances of coroners are part of their duties which are also mandatory. It is incomprehensible when time is spent on autopsies five days a week appearing in court, teaching DFM students or doing administrative work. It will be a punishable offense if anyone else signs the original report after post-mortem by DFM students. CRPC states that no post mortem can be conducted by anyone other than the minimum government medical officer. In that case it is not understandable how private DFM students do autopsy. There is no clear account of money received from private medical .²⁷

The police are relying on the forensic report after the Surathal report to find out the cause of the unusual death. Based on that report, the investigating agencies submitted the final report to the court. However, serious mismanagement is going on in the entire process including conducting this autopsy and preparing the report. Autopsy reports are also wrong in important cases. The investigation of the case turns around. The criminals got away. Generally, the forensic department is not very accountable to anyone. In many cases the department also reports on important cases. The investigation cannot proceed in the right direction. The forensic department has to go through various limitations.

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<https://samakal.com/wholecountry/article/210150155/%E0%A6%A2%E0%A6%BE%E0%A6%95%E0%A6%BE%E0%A6%B0%E0%A6%BE%E0%A6%9C%E0%A6%B6%E0%A6%BE%E0%A6%B9%E0%A7%80%E0%A6%B0->

²⁷ <https://www.jagonews24.com/opinion/article/638704> retrieved on 05.01.2023.

There are some signs of rape. If there is a delay in the medical test, the symptoms are lost. The court sentences based on the evidence. But in the eyes of law there is a thing called circumstantial circumstances and evidence.

The police have to resort to forensic reports to unravel the cause of the unusual death. Based on the post-mortem report, the investigating agencies submit the final report to the court. However, the work of preparing this report was done with terrible mismanagement. As a result, most autopsy reports are incorrect. In these autopsies suicide is called murder and rape death is natural death.

Although there are clear signs of murder, the concerned officials say that it was suicide. Autopsy is completely dependent. A crime as heinous as murder is not investigated by police officers. And money transactions, negligence and bias of the investigating officer. As a result the entire investigation process is failing.²⁸

CHAPTER FOUR

Legal framework for forensic evidence in Bangladesh.

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<https://barta24.com/details/%E0%A6%9C%E0%A6%BE%E0%A6%A4%E0%A7%80%E0%A7%9F/53032/%E0%A6%A1%E0%A7%8B%E0%A6%AE-%E0%A6%A8%E0%A6%BF%E0%A6%B0%E0%A7%8D%E0%A6%AD%E0%A6%B0-%E0%A6%AE%E0%A7%9F%E0%A6%A8%E0%A6%BE%E0%A6%A4%E0%A6%A6%E0%A6%A8%E0%A7%8D%E0%A6%A4--%E0%A6%85%E0%A6%A7%E0%A6%BF%E0%A6%95%E0%A6%BE%E0%A6%82%E0%A6%B6-%E0%A6%AA%E0%A7%8D%E0%A6%B0%E0%A6%A4%E0%A6%BF%E0%A6%AC%E0%A7%87%E0%A6%A6%E0%A6%A8-%E0%A6%AD%E0%A7%81%E0%A6%B2!> Retrieved on 05.01.2023.

4.1 Legal Framework of forensic Evidence in Bangladesh:

Legal systems around the world are enriched with functional forensic evidence laws or rules that prescribe procedures for collecting fingerprints, DNA, chemicals, and toxins from corpses, crime scenes, rape victims and detecting crimes. Our justice system also aspires to the fair use of forensic laws within our judicial system.²⁹

I will try to cover the existing legal framework regarding forensic evidence in Bangladesh. The current laws in Bangladesh are as follows:

- i. **Section 45 of Evidence Act,(amendment)2022:** It deals with forensic art, fingerprints and handwriting. According to this, certain types of forensic evidence can be examined by the experts that persons specializes in foreign law, science or art, or handwriting or fingerprint recognition and he can make a statement about his results in that examination in court and it will be treated as valid evidence.
- ii. **Section 174 of Code of Criminal Procedure, 1898:** This prescribes the terms of inquest investigation and autopsy in the field of forensic pathology by the police.
- iii. **Section 176(2) of Code of Criminal Procedure, 1898:** If there is uncertainty about the post-mortem report or if the corpse is buried without postmodernity and the cause of death is not determined, this empowers the magistrate or court to order exhuming corpses from graves, it's a matter of forensic evidence.
- iv. **Section 509-510 of Code of Criminal Procedure, 1898:**It allows the court to decide on the admissibility of reports from government-appointed forensic chemists, ballistics specialists and serologists without personal appearance. And section 509 of the Criminal Procedure Code provides that the testimony, investigation, etc. Of a civil surgeon or medical witness may be taken into account at any stage of the trial or any proceedings.
- v. **Prevention Women and Children Act, 2000:**Section 23 of this ,Discuss the acceptability of evidence from physicians, test chemists, serologists, fingerprint specialists, handwriting specialists, and ballistics specialists.
- vi. **Section 48 of the Acid Control Act, 2002:** It requires the government to set up chemical laboratories to analyse the type, amount and level of acid used in an offense.
- vii. **Sections 464 of Code of Criminal Procedure and section 84 of the Penal Code, 1860:** These prescribe the procedure for the trial of a lunatic. Forensic psychology and psychiatry will assist the court in this matter.

²⁹ <http://lawyersclubbangladesh.com/en/2021/12/07/legal-framework-for-introducing-forensic-evidence-in-the-criminal-courts-of-bangladesh>

- viii. **Sections 6 and section 7 of the Pornography Control Act, 2012 :** This related to digital forensics including computer forensics, data analytics forensics, database forensics, mobile device forensics, network forensics, video forensics, audio forensics.
- ix. **The DNA Act, 2014:** The DNA Act deals with the provision of collection and analysis of DNA samples as well as the establishment of a national DNA database. We can call it a kind of forensic evidence. Section 4 of the law states that an investigative police officer may request a DNA sample from a suspect or suspect. If the suspect is a minor or has a physical or mental disability, ask the suspect's legal guardian for a form. Section 5 says that DNA samples will be taken from the crime scene if anything is found. And article 6 states that no DNA samples may be taken without the written consent of the suspect or their legal guardian and the presence of at least two witnesses. Section 7 states that if a request is made under Section 4 and is not accepted within 3 hours, the person will be deemed unwilling to provide a sample and in that case, the sample will be considered a record. According to the prescribed form. Section 8 provides that a court may order a DNA sample to be taken from a suspect or defendant after giving both parties a reasonable opportunity to be heard. Section 37 states that DNA reports made pursuant to this section may be used as evidence in any procedure. The provisions of this law apply to all criminal proceedings.
- x. **Articles 48, 66, 122 of the Constitution of the Peoples' Republic of Bangladesh:** These respectively prescribe the minimum age of the president, deputy and electorate. Any dispute over age restrictions must be resolved by scientific and physical evidence
- xi. **Sections 11 and 12 of the Contract Act, 1872:** These regulate, one's age of adulthood and mental state as well as the ability to enter into a contract.
- xii. **Section 3 of the Majority Act, 1875:** This Set 18 as the age of majority for those residing in Bangladesh.
- xiii. **Section 4 and section 2 of the Child Marriage Restraint Act, 1929:** These regulations set the marriage age of men and women. Regarding marriage, not only to determine the age but also to determine the relationship between the bride and groom as brothers and sisters, scientific or DNA testing may be required.
- xiv. **Section 19 of the Code of Civil Procedure, 1908:** It settles lawsuits for damages to people. Damage caused to a person as a non-contractual liability or tortuous liability can be assessed by analysing the physical evidence and the opinions of the relevant experts.
- xv. **Sections 42 and also Section 62 of the Consumers Rights Protection Act, 2009:** This section covers the procedure for collecting and sending food samples to a laboratory to check for the presence of contaminants. Section 62 of the law provides that in order to determine the veracity of a product defect allegation, the judge must, if he considers that it is impossible to determine the veracity of the claim without analysis or examination, suitable products . Samples of this product should be sent to any appropriate laboratory with instructions to verify the presence of any defects. The

³⁰ https://www.academia.edu/es/43364619/Forensic_Use_of_Scientific_and_Physical_Evidence_in_Bangladesh .

- product report sent to the laboratory for analysis must be submitted to the Court of First Instance within 02 (two) months from the date of submission of the analysis report. This procedure will also be considered forensic evidence.
- xvi. **The Pure Food Act, 2013:** Specifies a procedure for using scientific reports as evidence of whether an adulterant has been used in a food.
 - xvii. **Section 50 of The Narcotic Control Act, 1990:**Says the government will set up chemical laboratories to test chemicals under this law and appoint chemists for this purpose. All chemical test reports in this section are forensic evidence. But the provisions of this law are limited to the proceedings conducted under this law as it is a special law made for a particular purpose.
 - xviii. **Section 10 of The Digital Security Act, 2018:**This law allows the government to establish one or more digital forensic laboratories to achieve the goals of the law, which will be governed by the Digital Security Authority established under section 5 of the law. The law also allows for the development of rules to define the use and operation of laboratories. According to this section, any other laboratory established by the government before the enactment of this law can be used for this law. Section 11 of the law states that the company must ensure the quality of each digital forensic laboratory according to the standards set forth by this rule.

4.2. Gaps in the legal framework.

After studying all of the above laws, I noticed that there are some gaps in the legal framework of forensic law. Such as, Bangladesh's current legal framework for the presentation of forensic evidence in trials is inadequate. Most of the provisions in our legal system have been enacted greater than 100 years in the past and feature now no longer been changed to use the commonly general medical ideas advanced over the years.

There are special laws in our country which are direct provisions for conducting forensic evidence, but the main point is that because of their scope, these provisions do not apply to general criminal investigations. Used of this special laws are limited and used only for that particular law. Although recently Evidence Act allow digital evidence in the court. Though, The Criminal Procedure Code of 1898 and the Bengal Police Regulations of 1943 provide no direct provisions for the collection and conduct of forensic evidence. Some relevant provisions of the Criminal Procedure Code are incomplete and insufficient. For the exhumation of the dead body there is not given any time limit. Any binding is not given to the Medical officer. Section 112 of the Evidence (Amendment) Act of 2022 deals with conclusive evidence of the legitimacy of a child born within

280 days from the date of the marriage in existence or after 280 days. From the date of annulment of the marriage, provided that the woman remains single.

In addition, the provision provides a means to overturn such a presumption by providing evidence of non-contact between alleged spouses during the said period. This does not apply to a dispute over a person's motherhood but not his or her paternity. This provision is now obsolete because providing proof of non-access is long and sometimes difficult. Therefore, DNA fingerprinting is the most appropriate way to draw logical conclusions. There is also a lack of regulation in existing laws. For example, the Information and Communications Technology Act has made changes to the following laws regarding documentation. Definition of "document" in Section 29 of the Penal Code and differences exist in the law and practice regarding autopsies. Deoxyribonucleic Acid (DNA) Act 2014, statutory provisions regarding sample collection, storage, destruction, liability for misuse of information, etc. Has been described. Under the DNA Act, DNA reports are also admissible as evidence in court proceedings. However, despite existing DNA testing procedures, the controversial amendment to the Women and Children Punishment Prevention Act of 2000 (WCRPA) added an additional provision (Section 32A). DNA testing is required for all violations under WCRPA. Section 32A requires that in the case of all offenses committed under WCRPA, DNA testing must be conducted on victims and defendants, regardless of whether they consent to such testing or not. . However, DNA evidence cannot assist courts or investigative authorities in every rape case.

For example, one of the most contentious issues in a rape case is whether sexual relations between the victim and the accused are consensual. While DNA evidence can help conclusively decide whether the defendant was involved in the conduct in question, it cannot prove the victim's consent when both parties agree that sexual intercourse is not possible. Took place.

DNA testing requirements apply not only in rape cases but also in all other offenses committed under the various provisions of WCRPA. Needless to say, DNA testing may not be required for all violations filed under WCRPA and will probably vary from case to case. Mandating DNA testing in all such cases risks further delaying investigations and placing unnecessary pressure on DNA laboratory resources. ³¹The legal provisions for autopsies are contained in Section 174 of the Criminal Procedure Code (CrPC) and Sections 303 to 308 of the Bengal Police Regulation (PRB). By law, an autopsy is performed before a judicial investigation is conducted by the officer in charge of the police station concerned. Police officers must send the body for autopsy to the nearest civilian doctor if there is doubt about the cause of death, or when for any other reason the officer deems necessary. The corpse must be accompanied by a copy of the investigative report and a triple-copy challan on B.P. Form 49. After completing the autopsy, the physician must write a report on Form B.P. 50 and a copy of it was sent to the Superintendent of Police, who filed it before the relevant court.

³¹ <https://www.thedailystar.net/opinion/news/mandating-dna-evidence-all-violence-against-women-cases-1984661> retrieved on 24. 12. 2022.

The autopsy report helps the officer draw a reasonable conclusion about the true cause of death. So he will have to look at the report very carefully as every word in the report is very important to the investigation of the cause and manner of death. Unfortunately, most investigators barely understand the autopsy report because it's written in the language of medical science. Under PRB Rule 306(b), police should send inquest report to or autopsy report a Civil Surgeon if they have any doubts about any part of the medical report, but the actual scenario is quite different. To make matters worse, the autopsy report did not reveal a true cause of death. As a result, thousands of dead are buried without proper investigation in Bangladesh. Lawmakers should pay more attention to modernizing the existing judicial system.

To ensure party's basic right to a fair trial, we need to increase the use of forensic science and enact specific legislation on the use of forensic evidence. The government should proactively in address this situation by amending the main law governing the criminal justice system in Bangladesh by adding new provisions on forensic evidence management. A committee of competent and strong experts will be established to ensure the use of forensic evidence in criminal proceedings, including the regulation of the criminal justice system and the provision of equipment. Forensic evidence provides a general provision that applies to the courts in order to strengthen our judiciary and also respect the constitutional order to establish the rule of law.

CHAPTER FIVE

Case Study

5.1 Case study on the use of forensic evidence in Bangladesh.

As like other countries, Bangladesh has also used forensic evidence to identify criminals and determine the cause of death. Progress in forensic science is effective in many ways but there are cases still pending due to lack of proper forensic reporting. There are some cases that can be mentioned: The murder of the journalist couple ‘Sagar Sarowar and his wife Meherun Runi’ and the murder case of ‘Sohagi Jahan Tonu’ are the most relevant to forensic evidence. In the case of murder of the journalist Sagar and Runi, It was discovered that no organ tests were performed on the first autopsy in the double murder case, which is one of the most important pieces of forensic evidence. Two and a half months after the murder, a court order was issued for a second autopsy. But the corpses were heavily decomposed at the time. In addition, a significant number of people entered the crime scene, which also contaminated DNA samples that were later discovered in the laboratory. Exhumation have been done 99 times but we have not been able to determine the cause of death yet. According to forensic experts, if the test is done at the first autopsy, everything will be easier.

In the case of Sohagi Jahan Tonu’s murder,

Six years have passed since Sohagi Jahan Tonu was found dead behind a bush in Comilla Cantonment, not far from her home.³² two autopsies were performed. And The first autopsy report was harshly criticized by everyone, claiming that Tonu had not been raped at all.

The second autopsy report revealed that the semen of three people had been found in the corpse. Some important cases like this are sometimes sponsored by members of political parties, and some government officials also act outside of their work ethic, out of personal gain or under political pressure.

In Bangladesh there are also cases which are resolved by Forensic evidence.

³² <https://www.dhakatribune.com/nation/2022/03/20/six-years-on-no-breakthrough-in-tonu-murder-investigation-> retrieved on 05.01.2023.

BLAST and Others vs Bangladesh and Others (Prohibition of the “Two Finger Test”³³ Law enforcement , medical professionals and women’s rights advocates, as well as government officials, are widely concerned that the so-called “two-finger test” is being carried out by doctors or by the physician across the country for raped women and girls they said this process is unscientific and has no forensic value. Two-finger examination offers no medical or legal benefit to a rape victim and can otherwise cause emotional harm, as it violates the rights of a rape victim. In Bangladesh there was also used this process for the raped case. This is the violation of Articles 27, 28, 31, 32 and 35(5) of the Bangladesh Constitution.

BLAST, after months of research and prior consultation on the matter with relevant experts and review of its own work, as well as coordination and connection with relevant organizations, has submitted a writ petition on this issue with five leaders on human rights, women and development organization.

They argued that, the practice of “two-finger checks” leads to a violation of the physical and mental integrity or dignity of women and girls who are victims of rape, and their right not to be subjected to cruel treatment, inhuman and degrading, as guaranteed by Articles 27, 28, 31 and 35(5) of the Constitution.

In 2018, the High Court Division issued a ruling in response to BLAST’s written request. The court also issued eight guidelines including special training for medical staff examining rape victims, training in special procedures for health care providers, and a ban on the use of medical devices . Bans the use of degrading terms such as habituated to sexual intercourse.

Bangladesh National Women Lawyers’ Association (BNWLA) Vs Bangladesh. ³⁴

On May 6, 2006, the daily Janakhantha and Jugantor published news about determination of guardianship of seven children a former DIG who claimed to be the father of seven children born at the same time. Bangladesh National Women Lawyers’ Association (BNWLA) and Bangladesh Society for the Enforcement of Human Rights (BSEHR) moved to the Chief Metropolitan Magistrate Court to conduct DNA testing of the couple and the children to verify paternity and their kids. When the court ordered the tests to be conducted, the former DIG and his wife refused to cooperate. Subsequently, the Bangladesh National Women Lawyer’s Association (BNWLA) and BSEHR applied to the Supreme Court, asking for permission to have their DNA tested.

On August 6, 2008, HC asked the authorities of Dhaka Medical College to carry out the examinations under the supervision of the Supreme Court and ordered BNWLA and BSEHR to bear all costs. Based on DNA test reports, HC on August 14 of the same year ruled that the former DIG and his wife were not the biological parents of these seven children. Court sentenced Anisur

³³ Case No: W.P. No. 10663/2013.

³⁴ BNWLA vs BD(WP no 5359 of 2006).

Rahman and his wife Anwara Rahman to 31 years imprisonment as the couple was found guilty. The court also gave custody instructions to the BNWLA to keep them in the 'Proshanti' home until they turned 18.

In Mrs. Khaleda Akter VS State³⁵ the court took the view that if for the purpose of recording certain matter on magnetic tapes and showing it on television by application of technology a CD, cassette or tape that should come within the definition of the document and held that audio cassette and video shall be admissible in evidence. In the new amendment of our Evidence Act in 20 November 2022, there is given the Admissibility of the digital document and insert under the section 3 of the Evidence Act.

Raintree hotel rape case,

The prosecution failed to prove the charges beyond a reasonable doubt because DNA testing and evidence failed to substantiate the rape allegations.³⁶

Then In the Biswajit murder case .

On 9 December 2012, Biswajit tailoring shop workers were killed by Bangladesh Chhatra League (BCL) fighters near Bahadur Shah Park in Old Dhaka during the national roadblock program run by the BNP.

In 2013, Dhaka Speedy Trial Tribunal-4 gave judgement in the murder case based on video clips, photographs and newspaper clips. This evidence are admissible as evidence even without the author's endorsement. The trial court sentenced 8 accused to death and 13 to life imprisonment by using digital evidence.

Paracetamol Cases .

On 22 July , 2014, a Dhaka Court delivered judgement against the Adflame Pharmaceuticals, the country's first-ever judgment against drug adulterators. The verdict was made based on scientific evidence presented by scientists at the Drug Testing Laboratory. This case was filed in 1992. The case filed in 1992 again restarted in 2009.

From June to August 2009, 28 children across the country died from kidney failure due to taking syrup and paracetamol suspension allegedly manufactured by Rid Pharma.

Negligence, inefficiency and incapacity of the Drug Administration in dealing with the case led to the vindication of all the indicted whose pharmaceutical company allegedly manufactured the poisonous paracetamol saccharinity that at least 28 children was killed in 2009. On July 22, 2014, a drug court sentenced Adflame Pharmaceuticals' managing partner, Dr. Helena Pasha, his brother and the company's chief administrative officer,

³⁵ 37 DLR (1985) 275.

³⁶ <https://www.tbsnews.net/bangladesh/crime/raintree-hotel-rape-case-judiciary-failure-348424> retrieved on 05.01.2023.

Mizanur Rahman and Nrigendranath Bala, production managers, each received 10 years in prison for violating Section 16(C) of the Drug Control Ordinance 1982 for manufacturing adulterated drugs. This is the first court ruling in Bangladesh's history to convict drug manufacturers of counterfeiting life-saving drugs.³⁷

CHAPTER SIX

Recommendations and conclusion

6.1 Findings and Recommendations

From the above discussions and case studies, we can understand that the establishment of expeditious and fair trials by an independent and impartial tribunal also protects the fundamental rights of the public, will never be achieved if we discard the scientific and forensic evidence. Through forensic evidence, we can establish fair justice and guarantee the rights of citizens. In Bangladesh, although forensic science is considered a trustworthy discipline, there are various relevant factors, in addition to those discussed earlier, that affect the reliability of the application of the technique. This technique in the case.

The list includes:

- Unethical behaviour of doctors.
- Change of manipulation as there is opportunity to change autopsy report.
- Means of corruption and political pressure .
- .Lack of development of professionalism and lack of accountability of medical professionals for negligence.
- Existing legal framework does not support that much .
- Investigators, lawyers and judges are not very habituated with forensic science knowledge .
- There are around 30 forensic labs in Bangladesh and most labs are lacking of manpower to do their jobs.
- Young medical practitioners are not interested to be specialized in forensic science.
- Lack of trained person.

³⁷ <https://www.thedailystar.net/frontpage/childrens-death-toxic-syrup-case-designed-be-doomed-1322053> retrieved on 08 .01.2023.

- lack of research about Forensic science.
- Lack of financial support from government.
- Lack of digital forensic lab .
- Lack of people awareness.
- forensic science as neglected discipline .
- Absence of specific code of ethics for physicians and medical professionals.
- lack of national database for identification of evidence and so on.

6.2 Recommendations.

To improve the current stage of forensic science and evidence for making more complete and to improve the quality of the justice system of Bangladesh the following changes must be done according to the current state of forensic science:

i. Specialized equipment must be provided to the Bangladesh Police Department and Forensic Services that need to be equipped with the latest scientific technology so that they can identify, arrest and arrest criminals quickly and accurately. It would also allow the judiciary to convict perpetrators of criminal offenses and clear those suspected and falsely accused of crimes.

ii. There should increase funding for the forensics department. The increase in funding will also allow the Department to send more staff abroad for specialized training related to forensic science and technology.

iii. In Bangladesh, local training program should is needed. Local training will allow everyone who are interested in a career in forensic science but cannot afford the training overseas outreach training and on-site knowledge. This will increase staff from which the department also can work as a forensic experts and investigator.

iv. In every district there should have forensic lab and office. It will be easy for the transportation and will take less time for Forensic evidence processing.

V. Separate laws are needed for forensics and the use of forensic evidence. We also need a separate code of conduct for forensic scientists. Courts sometimes dismiss forensic reports as false and fabricated, which not only prolongs the trial, but also reduces the likelihood of achieving justice by damaging physical evidence. This is because current law does not provide adequate guidance on the collection and preservation of physical evidence.

Vi. One of the main barriers is the procedural issue of bringing scientific and physical evidence to court. The forensic expert must appear in court for questioning relevant case they are treated as

like as an ordinary witness. There is no separate room outside the courtroom for the physicians. Such practice discourages professionals from participating in the preparation of medical legal reports by collecting and comparing samples. In addition, taking advantage of the adversarial system, lawyers ask inappropriate or irrelevant questions to experts, this cause unexpected delays in the procedure.

Vii. In Bangladesh Police officer have duty to investigate the criminal case. According to the law they have to investigate unnatural death for preparing inquest report . After that inquest report will deliver to the medical officer for further inquiry about the cause of the death. But the reality is that most police officers do not have enough specialized knowledge of how to describe the various injuries on the body, including the various changes that develop after death. To overcome this problem, a cadaver system or medical examination system should be introduced. Police officer should well trained before preparing inquest reports.

Viii. Like criminal law, civil law is not enforced by the police in our country and a separate body has not yet been established to assist the court. For this reason there should create separate body for carry inquiry of civil cases.

ix. Coordination between police, judges, magistrates, lawyer and forensic experts is required to ensure a high standard of forensic investigation.

x. The programs of our law faculties are not designed with an interdisciplinary approach. The study of forensic science is virtually unknown in our legal education as very few public and private universities offer undergraduate and graduate programs in law that include this subject in their curriculum. Every university should have a course with the name of forensic and scientific evidence.

xii. Mass media also should come forward to making awareness about Forensic science and technology.

Xiii. DNA databases containing genetic profiles should be treated with the utmost respect and care to protect people's privacy.

6.3 Conclusion

I hope this brief journey through the various problems and pitfalls in the application of forensic evidence in theory and practice has created enough interest for readers to delve deeper into the application of discipline in the legal system of Bangladesh. The message I want to give my readers that inadequateness are in every branch.

Therefore, the ultimate task of the judicial and administrative authorities is to monitor the system so that employees can be involved in this branch will be accountable and also improve service quality. It's time to enact a special law in Bangladesh on forensic procedure to tackle the whole topic of forensic science.

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