

## INFLUENCE OF FORENSIC EVIDENCE ON SEXUAL ASSAULT CASE TRIALS

Ankita Patel\*, Dr. S. L.Vaya\*\*

\*Research Scholar, Institute of R & D, Raksha Shakti University, Ahmedabad, Gujarat, India

\*\*Former Director, Institute of R & D, Raksha Shakti University, Ahmedabad, Gujarat, India

### ABSTRACT

*An extreme hike in magnitude of rape crimes has been observed during last couple of years all over the nation. This scenario recommends the strong need of reviewing the present functioning of our crime investigators and justice delivery system with special respect to sexual assault cases. Forensic science plays a crucial role in crime investigations and court proceedings. The present study is conducted to review the role of forensic evidence during the court trials of crime against woman especially sexual assault cases. This article contrasts the hypothetical capacity of modern forensic science techniques in the investigation of rape cases with observed results of present study. First, the potential of forensic scientific procedures are outlined. Then, empirical data of rape case judgements delivered by Gujarat High Court during the year from 2011 to 2015 are presented that describe the forensic evidence collected and examined in such cases and its impact on decisions to arrest, prosecute, adjudicate, and sentence offenders. The article concludes with a discussion of policy recommendations to enhance the impact of forensic science evidence in sexual assault investigations.*

**Key Words:** Court Trials, Criminal justice System, Forensic Evidence, Investigation, Sexual assault cases.

## I. INTRODUCTION

### RECENT SCENARIO OF SEXUAL ASSAULT CASES: GUJARAT STATE

As per Indian Law, Rape is defined under section 375 of Indian Penal Code (IPC). The rape offenders are punished under section 376 of IPC. Rape is violation of victim's fundamental right under Article 21 of the Constitution of India. Sexual violence, apart from being a dehumanizing act, is an unlawful intrusion on the right of privacy and sanctity of a woman. It is a serious blow to her supreme honour and offends her self-esteem and dignity as well. It degrades and humiliates the victim and where the victim is a helpless innocent child or a minor, it leaves behind a traumatic experience. A rapist not only causes physical injuries, but leaves behind a scar on the most cherished position of a woman, i.e. her dignity, honour, reputation and chastity. (Dhananjay Chatterjee Vs State of West Bengal, 1994).

Crimes against woman are remarkably increasing during last few years. This is evident from the crime statistics of Gujarat state provided by State Crime Record Bureau. The recorded crimes against woman in the state of Gujarat during the years of 2011 to 2015 are shown below. (State Crime Record Bureau, 2017)

TABLE 1: Crime Statistics of Gujarat State (2011-2015)

Year	Rape	Dowry Deaths	Cruelty by Husband or his Relatives	Assault on Women with Intent to Outrage her Modesty	Insult to the Modesty of Women
2011	439	30	6052	685	93
2012	473	21	6658	745	93
2013	732	29	7812	1243	77
2014	841	23	5991	1352	173
2015	503	12	4133	1164	73
<b>Total</b>	<b>2988</b>	<b>115</b>	<b>30646</b>	<b>5189</b>	<b>509</b>

(As per the data provided by State Crime Record Bureau, Gandhinagar, Gujarat)

## FORENSIC EVIDENCE IN SEXUAL ASSAULT CASES

Sexual assault crimes must be investigated meticulously and scientifically. Forensic science plays a crucial role during investigations. Any disciplines such as biology, chemistry, physics or engineering which can help in the evidence collection, preservation or analysis are included in forensic science. An expert in scientific field can perform analysis of the evidence and testify as expert witness in both criminal and civil cases. (Datta, 2008)

Analysis of forensic evidence is utilized in the investigation and prosecution of civil and criminal case proceedings. Often, it can avail to establish the culpability or inculpability of possible suspects. Forensic evidence is used to link crimes that are assumed to be associated to one another. Linking crimes aids law enforcement system to narrow the array of possible suspects and to establish modus operandi, which are used in recognizing and prosecuting suspects.(Datta, 2008)

The advanced forensic science techniques, like DNA fingerprinting, are very accurate and can be used for personal identification of offenders. Other serological tests for examination of blood, semen, saliva, vaginal fluid are also helpful during sexual assault case investigations. These techniques are used to link the unknown assailant to the crime when any of these biological evidences are left behind with the victim, her clothing or at scene of crime. Injuries on the body of victim also have significant evidentiary value. For example, Bite mark patterns can lead the forensic experts towards the identification of offender. Physical evidences may be found from scene of crime which are also significant to prove the existence of the accused at the place of occurrence.

The probative value of the physical evidence depends on the circumstances of the case; an item of evidence may be pivotal in the prosecution of one case but may be insignificant in another. (James & Nordby, 2005)

Despite these developments and limitations, there has been very less empirical research studies conducted in India evaluating the real impact of forensic evidence to successful case adjudication. (Johnson, Peterson, Sommers, & Baskin, 2012)

## II. OBJECTIVES

The present study is conducted with following objectives:

- To find out the importance of forensic evidence and forensic expert reports during investigation and court trial.
- To critically evaluate the usefulness of forensic expert opinions in successfully delivering judgements
- To find loopholes in system, if any, due to which forensic evidence fails to be obligatory during court trial

## III.METHODOLOGY

The judgments delivered for crimes recorded under section 375, Indian Penal Code by Hon'ble Gujarat high court during the years from 2011 to 2015 are considered for the present study. The judgements are collected from judgement database of Gujarat Bar council and other web sources.

These judgements are studied to critically with reference to research objectives to evaluate the role played by reports of forensic science laboratories. Forensic reports are proved useful or not, and to what extent, is evaluated. The details of each judgement, case facts, results obtained after judgement study like type of crime, category of forensic evidence collected, forensic evidence appreciated or not by court of law; if not, level of attrition and reason behind it etc. are noted. The statistical evaluation of data is done.

## IV. RESULTS AND INTERPRETATION

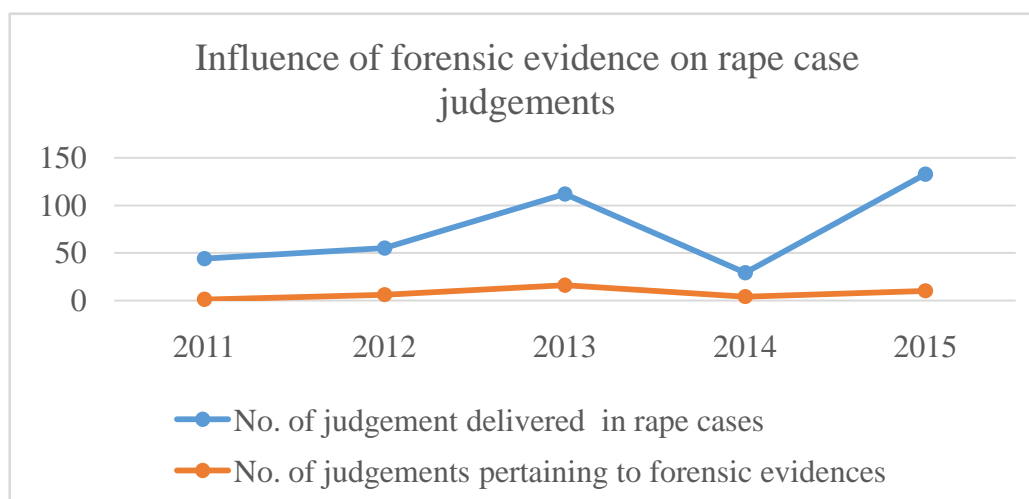
The results obtained after thorough analysis of judgements are as follows.

TABLE 2: Influence of Forensic Evidence on Rape case judgements

Year	No. of judgement delivered in rape cases	No. of judgements pertaining to forensic evidences	Percentage
2011	44	1	2.27

2012	55	6	10.91
2013	112	16	14.29
2014	29	4	13.79
2015	133	10	7.52
<b>Total</b>	<b>373</b>	<b>37</b>	<b>9.92</b>

CHART 1: Influence of forensic evidence on rape case judgements



Out of almost 373 judgements delivered by Hon'ble high court of Gujarat (as retrieved from database) in the rape cases during the period from year 2011 to 2015, total 37 case judgements are found in which forensic evidence has aided during case investigations and trial. This is approximately 9.92 percent of the total rape case judgements. The year wise number of total delivered rape case judgements and judgements pertaining to forensic evidences are presented in Table-2. Chart-1 is the graphical representation of this data.

TABLE 3: Type of Evidence and its applicability

Evidence type	No. of cases	percentage (within cases pertaining to forensic evidence)	No. of cases where evidence appreciated	No. of cases where evidence withheld
Biological	33	89.19	25(75%)	8 (25%)
physical	4	10.81	3(75%)	1(25%)
chemical	0	0.00	0	0
Firearm	0	0.00	0	0

Fingerprint	0	0.00	0	0
Questioned Document	1	2.70	0	0
Toxicological	0	0.00	0	0
Medical	20	54.05	16(80%)	4(20%)
Psychological	1	2.70	1	0

Table-3 shows the breakup of different categories of forensic evidence which are considered for the present study and the quantity of judgements pertaining to those types of evidences encountered during analysis. During the investigation of these, in 89.90 percent cases biological evidences are found. Medical evidences are taken into 54.05 percent cases. Physical evidences are taken into consideration within 10.81 percent cases. One case is found pertaining to psychological evidence. Cases pertaining to other evidences like chemical, toxicological, fingerprints and firearms are not found in during judicial assessment of rape case judgements. The question is whether there was, in fact, no forensic evidence other than these at these scenes or whether the evidence existed but was not collected.

Biological evidence is the principal type of evidence found during analysis. Major types of biological evidence encountered are blood, blood stained clothes, semen, vaginal swabs, saliva and pubic hair. Bodily injuries and Post mortem report (in the cases of rape followed by murder) are the main medical evidences which came across during the study.

All the evidences paly crucial role right from the investigations to final verdict of the court. However, some evidence gets appreciation by court, whereas some get rejected by court. The cases pertaining to appreciated and withheld evidences are also shown in the table-3. Approximately 20-25% evidences are withheld by the court. This is very crucial because very less number of cases get support of forensic evidence, whereby such rejection would affect case adversely.

Some common reasons for evidence drop are encountered during the present study. This loopholes make the evidence preventable. Certain lacunas are found at level of investigating agency, Forensic laboratory, pancha/witness, prosecution and court.

At investigating agency level, the reasons behind refusal of scientific evidence by judicial court encompasses failure or delay in sending evidence to Forensic Laboratory, use of improper

evidence collection techniques and investigation done in careless way. This void on the part of the investigating agency proves to be fatal for the innocent and victim person.

Other gaps are found at the Forensic laboratory and prosecution level. The inappropriate functioning of scientific experts and public prosecutor also affects unenviably to the efficacy of forensic evidences. The hostility of pancha/witness also turns the evidence ineffective during the case trials.

## **V. CONCLUSION AND RECOMMENDATIONS**

### **CONCLUSION**

The present study on sexual assault case judgements revealed that cases pertaining to forensic evidences are trifling. Approximately 10 percent cases are found where forensic evidence have played role to some extent during case trial. 25 percent of this 10 percent cases, forensic evidence got refused by court of law due to certain reasons. This means out of total only 6.4 percent sexual assault cases are supportively influenced by forensic evidence.

The loopholes and gaps at various stages should be filled so that all forensic evidences in future can become inevitable and reliable evidence which would assist in building strong forensic support system to help investigation and court trial.

### **MANAGERIAL RECOMMENDATIONS**

- Need for strengthening the existing forensic science laboratories
- Deploy police technicians in police stations
- Create scientific temper among police and Judiciary
- Employ policemen with forensic science qualification/knowledge
- Evolve an appropriate training policy for both forensic scientists and police
- Utilization of R&D results
- Need for research and Development in Forensic Science

- Improvement through quality assurance programme

### ACKNOWLEDGEMENT

I would like to express my deepest gratitude to State Crime Record Bureau for providing Gujarat State Crime Records and Raksha Shakti University for persistent assistance and encouragement.

### References

- Datta, A. (2008). Forensic Evidence: The Legal Scenario. *Legal Service India*.
- Dhananjay Chatterjee Vs State of West Bengal (Supreme Court of India January 11, 1994).
- James, S. H., & Nordby, J. J. (2005). *Forensic science: An introduction to scientific and investigative techniques (2nd ed.)*. Boca Raton, FL: CRC Press.
- Johnson, D., Peterson, J., Sommers, I., & Baskin, D. (2012). Use of Forensic Science in Investigating Crimes of Sexual Violence: Contrasting Its Theoretical Potential With Empirical Realities. *Violence Against Women, 18*(2), 193-222.
- State Crime Record Bureau. (2017, May). Gujarat State Crime Data 2011-2015. Gandhinagar.