

Importance of direct, physical, and circumstantial evidences in acute sexual assault of children

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Abstract

Successful prosecution in cases involving the youngest victims is predominantly supported by verbal evidence and testimony, as physical evidence often lacks the necessary robustness to ensure conviction. Extensive research has consistently highlighted the absence of discernible physical indicators such as injuries, sexually transmitted diseases, and seminal fluid in cases of child sexual assault. Nevertheless, a meticulous and rigorous forensic investigation focusing on anogenital injuries, coupled with a comprehensive examination of direct and circumstantial evidence, holds immense potential in bolstering medico-legal findings. Although the rate of successful convictions in these cases remains dishearteningly low, the judicious and effective utilization of forensic tools can significantly augment the probative value of verbal statements. In this study, a comprehensive analysis of various real cases involving acute child sexual assault underscores the paramount importance of subjecting blood stains, semen profiles, fecal material, saliva, and clothing to meticulous forensic examination. These evidential resources serve as indispensable tools in establishing objective facts and substantiating the veracity of verbal statements and testimonials. By bridging the gap between verbal accounts and factual evidence through the meticulous application of forensic techniques, a substantial contribution can be made towards achieving justice in these highly distressing cases.

Keywords

DNA, Physical Evidences, Crime Scene Investigation, Sexual Assault, POCSO

Introduction

In general, consequences of mental or psychological trauma is appeared to be limited to mind, nonetheless, its precise communications between nervous system, endocrine system and immune system may affect physical well-being in long-term (Brower, 2006; Fagundes et al., 2013). Child sexual abuse (CSA) is suitable example to understand the long-term of impact of psychological trauma. According to previous studies children facing CSA goes through post-traumatic disorder, panic disorder, and substance abuse (Chen et al., 2010). In rare cases it leads to schizophrenia and antisocial personality disorders (Johnson, 2004). According to UNICEF at least 120 million girls under age of 20 have been forced into sexual acts (UNICEF, 2022). In developing countries CSA is not well reported due to social shame and long-term stigma. According to current affairs notes on CSA in India by ClearIAS, only 3% cases are reported to police (Clear IAS, 2023). A recent study by Tyagi and Karande (2021) reported that incidents of rape in India is close to 23 every 100 citizens. Authors of

this study also claimed that physical abuse of children in investigated Indian states were as maximum as 66%. In many of these cases culprits are either known to the victim or a close relative, leading undefined underreported cases (Human Right Watch, 2013; Markwei and Osei-Hwedie, 2019; Mollamahmutoglu et al., 2014).

A report by Paine and Hansen (2002) related various factors with undisclosed and unrecognized CSA. Factors behind non-disclosure of CSA mostly include, manipulation by culprits or relatives into silence that if not will turn against the victim. Guilt and self-responsibility are few of the common reason that stop victim from disclosing incidents (Murray et al., 2015). Due to hugely diverted and disoriented information, victims become least likely to affirmatively put forth evidence against real culprits. In such cases role of microscopic and chemical inspection of crime scenes become important tool for collection of convincing science-based evidences. It is to be noted that in an event of sexual aggression, forensic medical examination must be carried out in no less than 72 hours (Gomes et al., 2014; Connery, 2013; Burg et al., 2011; Newton, 2013; Johnson et al., 2012; Magalhães and Vieira, 2013). However, unorganized and unregulated sampling of evidences may jeopardize the substantiality in case and would turn into advantage for culprits in court of law. Forensic areas such as medicine, genetics and toxicology can obtain substantial evidence that can act as proof in the final report against culprit (Gomes et al., 2014) that standardized protocol for forensic examination is necessary in cases of acute sexual assault. These protocols follow strict guidelines for evidence management and may vary in different countries (Magalhães et al., 2015). In case of sexual aggression both forensic and biological evidences play crucial role. Thus, in the present study a combination of both evidences was characterized to provide significant support during investigation of real cases.

Methods

A total of 8 cases of acute sexual assaults on minors were investigated between period of 2010-14. Table:1 lists out the case identification based on Indian Penal Code (IPC), police station, and location of crime. In all cases constant presence of blood was evident, thus, chemical tests were made mandatory. All presumptive tests were carried out at the site of crime scene. Benzidine test was performed for presumptive test on suspicious blood stains. To perform the test benzidine was used in acetic acid medium followed by addition of 3% hydrogen peroxide. Upon application, in case of presence of blood stain an immediate blue-green colour was developed due to positive peroxidase enzyme activity (BPR&D, 2000). Presence of faeces were also investigated to confirm sodomy. Investigation was directed to collect evidences such as blood stain, oil drops, faeces, hair and contraceptive barriers for further analysis in the forensic laboratory. Appropriate permissions and consents have been procured before publishing the present analysis of reports.

S. No.	Unit Case No.	FIR No.	Under Section	Police Station
1.	MFSU/BHL/18/10	101/10	302, 201 IPC	Mandal
2.	MFSU/BHL/07/12	94/12	363, 376, 394 IPC 3(i) (xii), 2(v) SC/ST Act	Pratap Nagar
3.	MFSU/BHL/41/12	264/12	302 IPC	Mandal
4.	MFSU/BHL/46/12	260/12	376 IPC	Bheemganj
5.	MFSU/BHL/10/13	43/13	363, 376, 326 IPC 3, 4 POCSO Act 2012	Sadar
6.	MFSU/BHL/55/13	277/13	3, 4, 7, 8 POCSO Act 2012	Gangapur
7.	MFSU/BHL/60/13	615/13	3, 4 POCSO Act 2012	Pratap Nagar
8.	MFSU/BHL/56/14	115/14	302, 376 IPC, 3/4 POCSO Act 2012	Kachhola

Table:1
Details of cases of acute child sexual assaults from district Bhilwara, Rajasthan

Result and Discussion

In developing countries with restricted patriarchal society, the aftermath of CSA causes immense psychological pressure on the victim and their relatives to not discuss on the crime or the culprit. The reason for this is to wash away the incident from memories of society in a time-bound manner. It is however debatable that the reprehension is obscured by such censorship. Nevertheless, successful conviction in the case does motivate victim and close associates to have dignified life (Yilmaz, 2021), however, continuous psychological and mental health assessment may be required. In the present study importance of direct and circumstantial evidences were detailed in establishing events of acute sexual assault. Blood stains at the crime scene played crucial role in joining the events of crime (Ogle, 2004). According to Butler (2005) blood test is the most examined evidence followed by semen in case of sexual assault. Following are details of such real cases where sampling from crime scene has supported immensely in conviction.

Case No. MFSU/BHL/7/12

The current study documents a notable observation regarding the accused's utilization of a bicycle to transport the underage victim to the location of the crime. During the course of the investigation, it was discovered that one of the spokes of the rear wheel was broken, and upon meticulous scrutiny, traces of stains resembling blood were detected on the metallic ring, spoke, and mudguard of the aforementioned wheel. Comprehensive chemical analysis confirmed the stains to be blood, thereby corroborating the victim's account of sustaining a foot injury caused by the bicycle during her transportation to the crime scene.

Additionally, blood samples were successfully retrieved from the floor and surrounding vicinity, as described by the victim. The accused in this case happened to be the victim's cousin, who cunningly manipulated and enticed her with promises of food and monetary rewards. The compelling presence of blood samples at the crime scene and on the transportation vehicle serves as compelling evidence against the perpetrator, harmonizing effectively with the victim's corroborative statement.

Case No. MFSU/BHL/10/13

Present case reported acute sexual assault of a minor. The victim was traumatized by the event to the extent that detail of crime could be practically impossible to procure. Victim's lip was detached and she was bitten at several places. During investigation of crime scene piece of lip was recovered, along with belongings of accused. Blood stain was also spotted at the crime scene which altogether made strong case against the convict and resulted into lifetime imprisonment.

Case No. MFSU/BHL/60/13

A minor was strangled while away for defecation. The present case reported use of knife by the accused which injured fingers of the victim. The victim managed to escape and reported the incident to police. Based on evidences collected from the site such as blood smeared soil, fecal matter and plant parts, approved victim's statement as valid.

Case No. MFSU/BHL/46/12

In the present case a minor girl was reportedly sexually assaulted. According to her she was lured by her cousin for food and money and forced into sex. Blood stain was recovered from the street and nearby wall as explained by her. Statements recorded by the police as per her explanations were corroborated to the evidences collected from the crime scene.

Case No. MFSU/BHL/56/14

In the present case a minor girl was abducted and murdered, her body was recovered from a dense forest near village where she resided. Site observation revealed soil and stone smeared with blood. Below the waist victim's body was covered with blood and it appeared that wearing garment or part of it was used to strangulate. Sexual assault was evident and accused was identified based on circumstantial evidence.

Case No. MFSU/BHL/55/13

In this case, a middle-aged man allegedly inserted finger in the vagina of a 4 years old girl. Presence of blood in the undergarment was investigated as penetration may injure genitalia of young child. Thorough examination of blood stain found on accused shirt and undergarment of victim indicated positive similarities. The chemical evidences played important role in conviction of the case.

Case No. MFSU/BHL/18/10

In the present case a body of a minor boy was recovered with grievous injuries on the neck. Presence of unwrapped condoms and tore wrappers were found at the crime scene. Both evidences were collected for examination of semen and possible saliva on the tore wrapper. Besides hair, greasing ointments and victim's underwear also examined to make strong case against the accused.

Case No. MFSU/BHL/41/12

Another case where body of 12-year-old boy was found with severe injuries on the neck. Presence of oily matter was found at the site, indicating potential sexual assault. Chasingdown source of origin of the lubricant could provide substantial support in the case against accused. Body of the deceased also contained fecal materials adhered to attire.

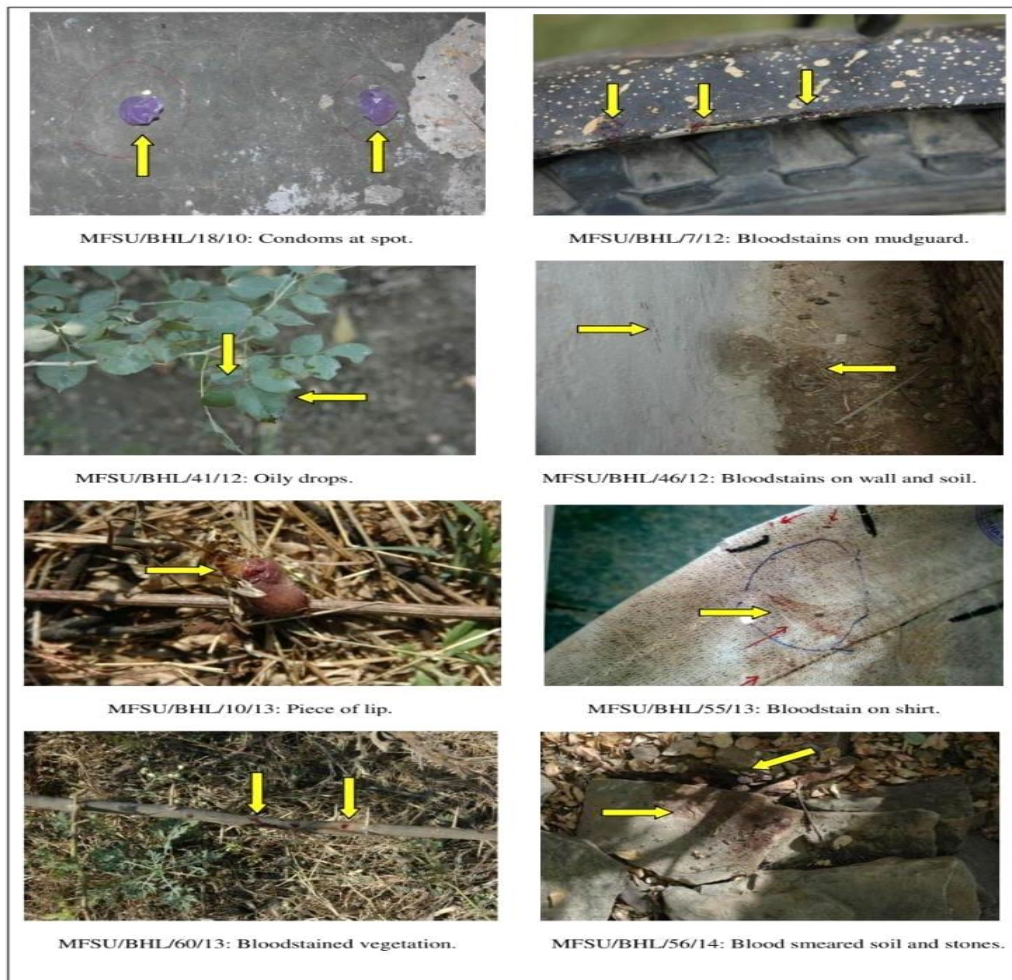


Figure-1

Original photographs from the crime scene of respective cases

In case of child sexual abuse, it is extremely difficult to extract facts and relate to the physical evidences. A study by Bower (2006) reported low conviction rate in child sexual abuse. Physical evidences are primarily identified at the crime scene, these potential evidences establish strength of association with the deceased or the victim (Van Heerden, 1986; Konala and Lankapalli, 2013). Earlier studies have evidently shown blood evidence and faecal materials can provide solid evidence against criminal. However, there are some studies which debate on substantiality of faecal materials as it is difficult to perform test on these samples (Physical Evidence Handbook of Kentucky State Police). Enos and Beyer (1973) reported that in case of rectal penetration, presence of sperm in the faecal material could provide important clue in establishing facts. Many other studies reveal that in such cases presence of bodily mucus and blood may contain culprit's genetic identity (Savino and Turvey, 2011; Johnson et al., 2012). Savino and Turvey (2011), also claimed that presence of faecal matter can be investigated on the suspects clothing, as it may transfer during assault. Presence of lubricants at the site also reveal forced penetration and to avoid unintentional injury (Finkel, 2009). Presence of lubricant, grease, or oil can supplement physical evidence, especially when biological evidence is unavailable (Maynard et al., 2001). Similarly, evidences such as clothing play important role in providing substantial evidence in identification of accused and sequence of events described by victim (Choudhary and Sharma, 2012; Schiro, 2013). A study by Christian et al. (2000) claimed that clothing and linen should be vigorously pursued as traces of blood can remain stable for long periods following the criminal event. Collection of blood, semen, hair and other biological samples also support in procuring DNA based evidences which plays robust role in investigation of sexual assaults (Truman, 2001). DNA profile present at the crime scene can be compared with the suspects and official database to establish individualization (Coetzee, 2008).

Conclusion

Forensic evidences play crucial role in linking elements between statements made by both parties. In an event where statements are vague due to trauma, obscurity, death and lack of substantial direct evidence natural record of presence and struggle support law enforcers to ensure justice. In the presented cases of acute sexual assaults, actual events were mostly from victims those statements were compromised due to immaturity and circumstantial deaths. Evidences such as blood stains, semen profile, faecal material, saliva and clothing played important role in affirming robust case against culprits.

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