

A review of crime-scene examination and the forensic investigation process in sexual crimes: the example of Turkey

Abstract

The aim of this article is to review crime-scene examination and forensic investigation in sexual crimes, which have an important place among crimes against humanity. The application of forensic sciences starts at the crime scene, and crime-scene examination and forensic investigation are important in solving sexual-crime cases. During the forensic examination, DNA analysis provides the most significant evidence. Biological evidence, particularly DNA, is of primary importance and is most helpful in sexual-violence cases. Obtaining evidence immediately is indispensable for delivering criminals to justice and redressing victims' losses. If the individuals involved in the incident cannot be located, the DNA extracted from the evidence cannot be compared to those individuals' DNA samples. At this point, the importance of DNA banks comes to the fore. As is true of other crimes, DNA databanks are a necessity for fighting sexual crimes. One of the most significant deficits in Turkey's crime-fighting arsenal is the non-existence of such DNA databanks.

Keywords: crime-scene, sexual crime, DNA, victim

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Introduction

Sexual crimes are considered grave crimes against humanity. Because human beings in all societies share the same inherent rights to well-being independent of their religious convictions, culture, socio-economic level, or political affiliations, sexual crimes have been considered the most egregious type of crime against the privacy and the physical and spiritual integrity of individuals, after the capital crime of murder. Sexual crimes are an important social problem in terms of public health and legal aspects with their lifelong effects on the individual, family and society. Sexual crimes; verbally, it is a crime of violence leading to physical and emotional trauma involving a wide spectrum of events ranging from rape to rape. Sexual crimes punished according to violent sexual acts, as well as situations where the victim's consent is not available or the consent is invalid (the age of the victim or the psychiatric disorder in the victim, etc.) and the criteria set out in the laws of the country concerned.

Sexual violence occurs in every culture, at every level of society and in every country of the world, and it can take place at home, at school, at work and in many common living spaces.¹ In the Turkish penal code article 102, no gender concept for sexual assault crime is specified. There are crimes where the offender and the victim are of different genders, as well as crimes of the same sex.² In addition, it is thought that only men can perform sexual harassment and that women will not commit these crimes due to their roles in social life and they will be caught even if the crime is committed. Researchers working on this issue stated that even if women have sexual harassment about children during basic activities such as feeding and washing, it is difficult to detect this.³

Emerging data on a survey examining the quality of physical and sexual violence in Turkey, it reveals in a striking way the truth hidden guilt in sexual offenses:⁴

- 88.6% of the respondents, who dealt with domestic violence in terms of criminal procedure and execution law, stated that they

did not complain despite being exposed to domestic violence. On the basis of all types of violence, it is seen that only 7.6% of those who are exposed to violence resort to complaints. A very small proportion (50%) of sexual harassment and sexual assault events, which constitute the majority of sexual crimes, are reflected in judicial authorities.

- According to the General Directorate of Security in the results of a study conducted by a similar nature, although 97% of women encounter domestic violence in Turkey, these events are reflected in the law enforcement authorities only to 41%. Only 43% of these complaints, which are reflected in law enforcement authorities, are processed.

According to the Ministry of Justice data, 25 percent of rape cases in court are related to children, and it is observed that 650 child sexual abuse cases are sent to the Forensic Medicine Institute every month. In order to prevent this situation and increase the awareness of the society, IMDAT (Crime and Violence Practice and Research Center) and ASUMA (Acibadem University Crime and Violence Practice and Research Center) published a report on child abuse in 2016. According to this report, it has been stated that harassment or violence against children has increased by 90 percent in the last 4 years, and that only about five percent of rapists and one thousands of incest relationships have been sent to the police or court.^{5,6}

Penal laws categorize crimes as occurring against property and against life. Sexual crimes have an important place among the crimes committed against both the physical and spiritual entity of the individual. Sexual crimes comprise persistent unwelcome looks, sexually offensive remarks or acts groping, the deriving of sexual pleasure without consent, and engaging in unwelcome sexual relations aimed at sexual satisfaction. In the Turkish penal code, sexual crimes categorized as sexual violence, child sexual abuse, having sex with adolescents, immoral attempts, obscenity, and sexual relations. In this specific category of crimes, actions that are significantly influential on

one's personality and actions that can be discerned from evidence on the victim's body are considered to be within the field of responsibility of the forensic sciences. The judicial process, particularly in sexual crimes, should be carried out immediately and properly because the incident is so sensitive for both the victim and the affected society, which monitors such incidents closely. All the steps taken to assess the evidence obtained from the crime-scene examination and to resolve the case should be carried out according to judicial regulations. Sexual crimes should be addressed from a multifaceted perspective, because this type of crime has judicial, medical, and social aspects. In the field of forensic sciences, the most frequent question asked about a crime is "Who committed this crime?" In most cases, the answer depends on analysis of the evidence obtained from the victim and/or the perpetrator during the crime-scene examination. It is usually a primary job of forensic-sciences personnel to determine the level of involvement of the suspects in the case in question.⁷

Forensic-science investigations start at the crime scene. The crime scene is a dynamic area that begins where the crime itself is committed and extends to all the places the perpetrator might have been after committing the crime. Only when the crime-scene examination, which is the most important phase of the preliminary investigation, is well-conducted can a criminal case be illuminated.⁸ The crime scene is an initial point that gives officials an idea of what exactly happened and provides necessary data regarding the conditions during the crime. The physical evidence collected from the crime scene may play a key role in solving the case. The primary objective of the first-responder teams is to prevent the loss or destruction of evidence that could assist with detaining the perpetrator(s) and shedding light on the case.⁹ The most important part of the crime scene is the body of the victim. Therefore, victims should not comb their hair, brush their teeth, take a bath, or change clothes. If the victim has been killed in addition to sexual assault, the evidence must be collected immediately. Because depending on the environmental conditions, it starts between 36 and 48 hours to begin to see the decomposition in the body.¹⁰

From a psychological perspective, investigators should approach victims and their relatives appropriately. The constant presence of sexual abuse incidents in the media, the publication of personal photos and videos, the length of the litigation process, and repeated medical examinations affect the psychology of the victims. These situations changed the approach to sexual crimes and provided the victim to be perceived as the duty of the society to provide support and take necessary measures during the trial process.¹¹ The victim should be treated with the utmost care and sensitivity because he or she has experienced a trauma. The victim re-experiences the incident and is traumatized again every time he or she reports it during medical examinations and in court. Due to the sensitivity of sexual-crime cases, victims' statements are usually taken by public prosecutors. The primary objective of this practice is to avoid repeated interrogations of the victim.^{12,13} Because in some cases that have been seen in our country, it can be seen in the reports published that the court applied "premature ejaculation" discount to the person who abused 50% mentally handicapped child, had good condition discounts and traumatized the child who was sent to the examination 5 times.

Crime-scene examination in sexual crimes, as with other criminal incidents, should be handled carefully. In Turkey, identification work and evidence collection are completed by the department of police, criminal presidency labs, or military police criminal laboratories. In addition, in the case of a murder, a forensic-science specialist collects the physical evidence from the corpse of the victim. When a forensic-

science specialist is not available, a department police officer or military police officer performs this job. If the victim is still alive, evidence collection and first aid should be conducted by specialized staff. Experts also start communicating with victims in the forensic interview rooms. The main aim is to make the victim feel safe, to deal with his needs first, then to obtain the necessary information. This application is carried out almost all over the world.¹¹

In many European countries and in the United States, well-equipped sexual-violence-response centers exist, staffed by specialists in this field. At these centers, victims of sexual assault are medically treated and provided with psychological support. Such structuring permits the careful collection of evidence and the rehabilitation of traumatized individuals. Unfortunately, such centers do not exist in Turkey. Incidents of sexual violence, with the exception of those that are officially filed, are unfortunately not illuminated.¹⁴

A key point to be stressed is the importance of properly and timely ensuring the security of the crime scene. The initial state of the crime scene should be recorded by specialized officers via cameras and video-camera recorders. If the crime began in one place and ended in another, then it is very likely that investigators will find evidence located somewhere between these two locations as well. Other places connected to the crime scene may also yield evidence. People involved in the crime-scene examination, as well as suspects, also must be investigated in order to gather any evidence they may provide. The crime scene's findings are packed up for transit according to legal procedure and delivered to the department's investigative units to be studied. These investigational units assess the data acquired about the incident, the perpetrator, and the victim. All these studies commissioned in the investigation and prosecution phases are made with the knowledge and upon the orders of the public prosecutors. These processes of crime-scene examination and evidence collecting should parallel the investigation and prosecution processes, which start immediately after the police informed of the incident.

Crime-scene examination plays a critical role in illuminating the connections between the crime scene, the perpetrator, and the victim. Obtaining evidence immediately is the indispensable condition for being able to deliver criminals to justice and redress victims' losses. The crime scene and other places related to it are the sources for this evidence. Obtaining evidence legally, preserving it, investigating it, and analyzing it are therefore of great importance in achieving justice. Carrying out this objective is possible given proper and well-executed examination by trained crime-scene-examination specialists.¹⁵ The assessment of evidence obtained after crime-scene examination acquired a new dimension and became more efficient once DNA (deoxyribonucleic acid) analysis became available.¹⁶ The most common elements of physical evidence obtained from crime-scene investigations are fingerprints, blood, hair, sperm, and other bodily fluids. Biological evidence, categorized as physical evidence, is quite important because of the DNA it contains; it is studied by means of DNA analysis. DNA evidence is most important and helpful in sexual-violence cases in which the perpetrator's identity is under investigation. In the forensic sciences, identification is the ability to refer to an individual source by comparing two biological samples and finding that they genetically match and refer to the same individual source. For such comparison results to provide dependable evidence before the court, the examination techniques used must be legitimate scientific techniques. Evidence samples eligible for DNA analysis are limited to biological material that contains cells with a nucleus. Today the biological materials on which DNA extraction and typology can

be conducted include blood, blood stains, sperm, spermal fluids, tissue and organelles, bones, teeth, hair, nails, spit, urine, and other biological fluids. DNA, which forms the genetic structures of human beings, is of vital importance in forensic-science identification work because DNA is unique to every individual and shows the same features within all the cells of that individual. Across the globe, no couples or groups of people possess 100% matching DNA except for identical twins. This important feature of DNA can serve to confirm or disprove a suspect's involvement in a crime. Moreover, when the evidence obtained from two separate crime scenes is compared and matched, it is possible to claim the suspect's involvement in both incidents. Verifying a known suspect's identity, identifying a new suspect using matching DNA profiles from two separate incidents, proving the noninvolvement of other suspects, or exonerating individuals who were wrongly charged is possible, thanks to DNA data.¹⁷ The kind of crime is also important for these DNA investigations. DNA, which has minimum importance in forgery of document crimes, is of great importance in sexual crimes. However, in some cases, there are situations in the criminal procedure law that make it difficult to obtain biological material from the person. In order to conduct a molecular examination such as DNA examination in article 75/5 of the Turkish Criminal Procedure Code, there must be a crime where more than two years of imprisonment is foreseen.¹⁸

Every type of evidence requires a different sort of test, and every test has its own standards for assessment. To use the evidence acquired from crime scenes properly and according to its main objective, some infrastructural regulations are necessary. The evidence that arrives at the lab desk can provide credible information to the court only when it is properly examined and interpreted according to legitimate scientific techniques.^{19,20} Even after all of these strenuous examinations and scrutiny, some points still may not yield clarity. When the individuals involved in the incident are not somehow found, the DNA extracted from the evidence cannot be compared to those individuals' DNA samples. At this point, the importance of DNA banks comes to the fore. Forming DNA databanks is a necessity in fighting sexual crime, as with other types of crimes. One of the most important gaps in Turkey's crime-fighting ability is the nonexistence of such DNA databanks, because the most efficient way to locate individuals who have committed sexual crimes is through those databanks. Unresolved cases can only be illuminated in this way.²¹

A DNA databank is an archive that aims to identify the anonymous samples obtained in a judicial case. A national DNA database is a very important source of information for law-enforcement forces. Our country needs to found such a database, once it has settled the necessary legal infrastructure. Such databases enable law-enforcement forces to identify criminals and resolve cases as quickly as possible. This information source contains factual data, and its credibility is virtually unimpeachable. In sexual-crime cases, major problems confronted in illuminating the incidents include the following: failing to report the incident to judicial authorities; supplying wrong or incomplete information; trying to hide the identity of the perpetrator, especially when the perpetrator is a relative or close friend of the victim; cleaning the crime scene or the victim's taking a bath (causing the loss of possible evidence); not having specialized staff to communicate properly with the victim soon after the incident is reported; not having special units to conduct the procedures involved in following up with sexual-crime victims; a lack of well-educated and trained field staff in judicial institutions and units (i.e., medical staff such as paramedics, psychiatrists, crime-scene examination specialists, and so on); lack of coordination among related units and institutions; not having sufficient legal regulations on the field; and not having a DNA database.

Discussion and conclusion

Successful enlightenment of a forensic case depends on the information collected by the researchers about the case, the methods and techniques used in the investigation and investigation of the crime scene, and the results of the analysis in the laboratory. If we consider these stages as a chain that is connected to each other, a little carelessness or mistake in any of them may lead to misinterpretation of the case, misleading legal authorities, loss of evidence or closure of the case due to lack of evidence. For this reason, it is of great importance for the course of the case that specialists are involved in the investigation of forensic cases, crime scene and laboratory investigations.²² Crime-scene examination in the aftermath of sexual crimes is of critical importance for the proper study of physical evidence by crime-scene examination specialists and lab staff. Delivering the evidence to the labs without any physical contamination and keeping the evidence-delivery chain unbroken is vitally important.²³

The biological samples found at the scene are often one of the strongest proofs in the elucidation of all stages of the incident and the identification of criminals or criminals. In the routine analysis of forensic laboratories, some screening and verification tests are based on microscopic, chemical, immunological and spectroscopic methods to determine the location of the body fluids at the place of the event and then to determine its origin. The next step is DNA analysis for identification on required biological evidence. The most important advantage of the screening and verification tests is the location of the evidence, as well as the elimination of unnecessary DNA analysis by eliminating the samples that are not evidence, thereby preventing waste of time and economic losses. It is important that the crime scene investigators, forensic biology laboratory staff, and forensic experts who interpret the results of the laboratory in various case files have sufficient knowledge of biological evidence. In routine applications, there are separate tests used to detect each body fluid. Because a high-reliability test for the detection of all body fluids from a small amount of biological samples with the same method has not yet been put into routine applications. In recent years, highly promising studies have been published by researchers working on this subject to develop new techniques and improve existing techniques.²⁴

In Turkey, suspect and/or victim identification are sometimes impossible, both in fighting crimes and in resolving ordinary, noncriminal incidents; therefore, a DNA databank is urgently needed to assist in case resolution. Another important aspect of suspect and victim identification and case resolution is the ability to analyze the samples at the crime scene immediately after the samples have been collected from the victim(s) and/or the suspect(s). Analyzing the samples instantly at the crime scene has been clearly shown to save time and reduce the number of staff required for investigation. Therefore, infrastructure-preparation work must promptly be done to pave the way for the creation of a DNA lab.²⁵

Eliminating the problems confronted in conducting the legal procedures of sexual-crime investigation depends on the coordinated cooperation of related units rather than workers' individual efforts. At this stage, the most important step to take in eliminating these problems is to clarify the roles of the related units or institutions and take urgent, coordinated action. Furthermore, these related units or institutions must be knowledgeable about their roles and ready to respond and troubleshoot at any time. Members of society should also play their parts to help provide proper and rapid solutions to the problems. Turkey also needs to open sexual-violence response centers in order to provide various kinds of support to sexually assaulted victims and, if possible, help identify the criminals and shed light

on cases.²⁶ At the same time, training should be given on good and bad approaches to children, families and society in terms of child abuse. This will provide children with the ability to recognize and prevent themselves from harassment. Employees such as civil society organizations, universities, teachers and psychologists working on these issues should take responsibility. Sensitivity to obtain evidence and procedures in the process of sexual crimes should also be given to the public in more detail, and helping the media to raise awareness by being more sensitive about this issue will make a big difference in solving crimes. As a result, man deserves an honorable life as he is human. Nobody should be subjected to the violence of another person throughout their lifetime, and again, nobody should consider violence to anyone else as a recognized right.

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Conflicts of interest

The authors declare that they have no conflict of interest.

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