

Mini Review on Forensic Criminology: Science to Understand Criminal Behaviour

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Abstract

Forensic Science is a new way to solve the crimes in different ways. It has different branches to investigate the crime scene. Forensic Criminology is one of the branches of the forensic science, which helps to understand criminal behavior and their minds. Criminology is generally defined as the scientific study of crime and criminals. Criminology is bothered with the social and practical origins of law, the etiology and patterns of criminal behavior, and social responses to and management of this behavior. In alternative words, sociology is that the scientific study of the creating of law, the breaking of law, and management of the lawbreakers. Criminology is additionally acknowledge science, as when criminological information is provided and utilized by each criminal and civil courts, so as to make your mind up the problems before them. As associate degree evolving field of study, forensic sociology is presently multidisciplinary in nature. Forensic Criminology teaches us to solve and investigate the crime to keep within the circle of the forensic law. In this review article, forensic criminology has been explained including its significance and development. The article also concludes about the different types of crime and the difference between criminologists and criminalists.

Keywords: Forensic Criminology; Types of Crime; Rules of Forensic Evidence; Difference Between Criminologists and Criminalists

Forensic Criminology: An Introduction

Criminology presents a word quag to the neophyte. Sociology is that the scientific study of crime and criminals. As delineated in Terblanche, "Criminology, broadly, studies crime, criminals, victims, management and also the hindrance and control of crime. The foremost necessary role of specialize is to review crime, and to interpret and make a case for crime." It's conjointly multidisciplinary in each theory and observe. This comprehensive definition brings several researchers and practitioners from a spread of disciplines underneath a similar aegis [1]. However, it conjointly sets strict limits on what sociology is and WHO practices it. This is often as a result of the caveat that specializes should even be a scientist involved within the application of the methodology to downside finding and also the consequent development of knowledge domain. A helpful discussion relating to the connection between knowledge domain, the methodology, and also the mortal is provided in Chisum and Turvey. Medicine and also the law typically don't perpetually add harmony; as a result of the material body could be an advanced mechanism wherever even a general abnormality would be even medically however not wrongfully, as an example within the case of mental disease, section eighty

four of Indian legal code of 1860 speaks concerning mental disease. Mental disease is of the many varieties like half-wit, unsound mind (noncompos by illness), lunatic, and juicer person [2].

The law clearly states that, an individual is alleged to be wrongfully insane once he's incapable of knowing the character of the act or what he was doing is contrary to law however, medically mere folie like stress, depression, or abnormal acts of an individual will fall into class of mental illness. Hence, we tend to might conclude that not all medical mental disease is legal mental disease however all legal mental disease will fall into medical mental disease. The term sociology derived from the mix of Latin and Greek word. The word "crime" could be a Latin word which implies crime or accusation and Greek word named "logos" which implies science or society. The term sociology based in1885 by Italian law academician Raffaele Garofalo as "criminology". Sociology is that the scientific study of crime and criminals and its conjointly multidisciplinary in each observe and theory. The tip goal of sociology is to work out the causes for criminal act or behaviour and conjointly offer an efficient live to stop it. Those who study sociology are known as specialize. Criminologists are unit the one who dedicates themselves to the method of finding the crime. They analyze the varied dimensions of crime like frequency, causes, location, social relations; the impact of crime etc. Sociology generally consists of two branches particularly criminal biology and criminal social science. Criminal biology that deals with the causes of criminal behaviour and criminal social science deals with the result of criminal behaviour within the society. The item of sociology is to review the sequence of law creating, transgression, and reaction to law breaking from the aim of read of the potency of law as some way of management [2,3].

Scientific information is any knowledge, enlightenment, or awareness that comes from examining events or issues through the lens of the methodology. The build-up of knowledge domain in a very specific subject or discipline results in its development as a science. The classic definition of a science, as provided by architect, is "an orderly body of data with principles that area unit clearly enunciated," further as being reality oriented and having conclusions prone to testing. A powerful cautionary is required here. The employment of statistics doesn't build one thing scientific. The employment of a pc doesn't build one thing scientific. The employment of chemicals doesn't build one thing scientific. The employment of technology doesn't build one thing scientific [1]. Science is found within the interpretations. Was the methodology accustomed synthesizing the information at hand, and has that information been applied properly to render interpretations, with the required humility. The connection of scientists, the methodology, and science is thus: Scientists using the methodology will work at intervals

a selected discipline to assist produce and build a body of knowledge domain to the purpose wherever its theories become principles, and also the discipline as an entire eventually becomes a science. And also the discipline remains a science through the continuing building of knowledge domain [4].

Origin of Forensic Criminology

The word Criminology 'originated in 1890. The overall which means of the term is the scientific study of crime as a social development, of criminals and of penal establishments. Prof. Kenny (analyzed /defined/ described) that sociology could be a branch of criminal science that deals with crime effort, analysis and hindrance of crime. Sociology as a branch of data worries with those specific conducts of human behavior that area unit prohibited by society. It is, therefore, a socio-legal study that seeks to get the causes of criminalism and suggests the remedies to cut back crimes. Therefore, it flow that sociology and criminal policy area unit mutualist and reciprocally supports each other. Therefore sociology seeks to review the development of criminalism in its totality [5]. The matter of crime management primarily involves the requirement for a study of the forces in operation behind the incidence of crime and a spread of co-related factors influencing the temperament of the wrongdoer. This has eventually light-emitting diode to development of contemporary sociology throughout the preceding 2 centuries. The aim of study of this branch of data is to investigate totally different aspects of crime and device effective measures for treatment of criminals to bring forth their re-socialization and rehabilitation within the community. Therefore sociology as a branch of data incorporates a sensible utility in thus far because it aims at transfer concerning the welfare of the community as an entire [6].

The principles of sociology are effective tips for formulation of penal policy. The trendy clinical ways and therefore the reformatory measures like probation, parole, indeterminate sentence, open prisons, and alternative punditry establishments' square measure basically an outcome of intensive sociology researches throughout the 20th century. These measures have sufficiently incontestible the unusefulness of marketing offenders within the prisons and infliction of barbaric punishments [6]. Prof. Gillin has justly discovered that it's not the humanity at intervals the criminal however the criminalism at intervals the individual that must be checked through effective administration of criminal justice. Additional recently, criminologists and penologists appear to own in agreement that individuation of the bad person ought to be the last word object of penalisation, whereas treatment ways, the means that to realize this finish. The study of crime and criminal should

proceed on a scientific basis by fastidiously analyzing numerous aspects associated thereupon and should essentially recommend measures projected to suppress criminalism. It should be additional that with new crimes rising within the fashionable complexities of life, we have a tendency to appear progressively involved concerning the matter of crime. Nowadays damaging acts of devilment, highway, train and bank robberies, looting, bomb blasts, rape, illegitimate terrorist activities, skilled crimes, cyber crimes, criminalisation of politics, hijacking, etc., square measure perpetually increasing that have display a positive danger to human life, liberty and property. Fashionable criminologists, therefore, appear to be seriously involved with the matter of crime to safeguard the society from such anti-social activities of criminals. It's for this reason that the 2 branches of criminal science, namely, sociology and penology work hand in hand to understand the matter of criminalism in its correct perspective [7,8].

Criminology perhaps outlined as "the scientific study of the deed, correction, and bar of crime". Sociology (from Latin crīmen, "accusation"; and Greek -λογία, -logia) is that the scientific discipline approach to the study of crime as a personal and social development. Though modern definitions vary within the actual words used, there's considerable agreement that sociology involves the applying of the scientific method to the study of variation in legal code, the causes of crime, and reactions to crime. Sociology analysis areas embrace the incidence and kinds of crime likewise as its causes and consequences. They conjointly embrace social and governmental laws and reactions to crime. Sociology is knowledge base field within the behavioural sciences, drawing particularly on the analysis of sociologists and psychologists, likewise as on writings in law. Very important thanks to analyze knowledge are to appear at quantitative ways in sociology. In 1885, Italian law faculty member Raffaele Garofalo coined the term "criminology" (in Italian, criminologia). The French social scientist Paul Topinard used it for the primary time in French (criminologie) round the same time [7].

Scope and Significance of Criminology

Criminology is Associate in nursing inter-disciplinary field of study, involving students and practitioners representing a large vary of activity and social sciences moreover as various natural sciences. Sociologists vie a serious role in process and developing the sector of study and sociology emerged as an instructional discipline housed in social science programs. However, with the institution of colleges of sociology and therefore the proliferation of educational departments and programs concentrating specifically on crime and justice within the half of the twenty century, the sociology emerged as a definite skilled field with a broad, knowledge domain focus and a shared commitment to generating data through systematic analysis [9]. One final goal of sociology has been the event of theories expressed with ample exactness that they'll be tested, victimization knowledge collected in a very manner that permits verification and replication. As a subdivision of the larger field of social science, sociology attracts on scientific discipline, economics, social science, psychiatry, biology, statistics, and different disciplines to elucidate the causes and interference of criminal behavior. Subdivisions of sociology embody criminology, the study of jails and prison systems; bio-criminology, the study of the biological basis of criminal behavior; feminist sociology, the study of girls and crime; and criminalistics, the study of crime detection, that is expounded to the sector of rhetorical Science [10]. Abundant analysis associated with sociology has targeted on the biological basis of criminal behavior. In fact, bio-criminology makes an attempt to explore the biological basis of criminal behavior. Analysis during this space has targeted on body abnormalities, secretion and brain chemical imbalances, diet, medical specialty conditions, drugs, and alcohol as variables that contribute to criminal behavior [11].

Criminology has traditionally vied a reforming role in respect to legal code and therefore the criminal justice system. As Associate in Nursing applied discipline, it's created findings that have influenced legislators, judges, prosecutors, lawyers, Probation officers, and jail officers, prompting them higher to raised perceive crime and criminals and to develop better and additional human sentences and coverings for criminal behavior [11]. Criminologists conjointly study a bunch of different problems associated with crime and therefore the law. These embody studies of the Victims of Crime, focusing upon their relations to the criminal, and therefore their role as potential causative agents in crime; misdeed and its correction; and the media and their respect to crime, as well as the influence of porno. Verity result of sociology upon practices within the criminal justice system remains subject to question. Though variety of commentators have noted that studies in sociology have light-emitting diode to important changes among criminal laws within the numerous states, different critics have recommended that studies in sociology haven't directly light-emitting diode to a discount of crime [12]. The Supreme Court disagreed, though the bulk did question the validity of the findings, of study's it command that the study didn't establish that officers in Georgia had acted with discriminatory purpose, which it didn't establish that racial bias had affected the officials' choices with relation to the death sentence. Consequently, the death sentence profaned neither the change nor the Eighth Amendment. Sociology has had additional of a bearing once states and therefore the national think about new criminal laws and sentencing provisions. Criminologists' theories are usually debated within the context of the corporal punishment and crime management acts among legislators and policymakers.

During this light-weight, sociology is maybe not at the forefront of the event of the criminal justice system; however it most definitely works within the background within the determination of criminal justice policies [13].

Typologies of Crime

The ancient Romans classified their crimes as, those against the gods" and people and people and people. As late because the eighteenth century, some English lawyers merely listed crimes alphabetically. The French of the first nineteenth century created a categorisation with 3 categories: [13]

- Serious crimes (felonies)
- Medium serious crimes (misdemeanors) and

• Crimes of a petty character (violations)

The lot of serious crimes were classified into classes supported the hurt those crimes entailed, like hurt against life, against physical integrity, against honour, against property, and so on. These days the French categorization is usually accepted worldwide, though lawyers and criminologists might dissent on the desirability of lumping numerous crime varieties along into classes. Lawyers, after all, is also far more inquisitive about the procedural consequences that result the categorizations, whereas criminologists is also far more involved with sociology implications for learning differing kinds of perpetrators and making schemes of crime bar. There also are political concerns in making a categorisation. As an example, the criminal codes of the previous communist countries had massive classes of political crimes that got the foremost outstanding place in those codes [12].

They enclosed several crimes that in Western democracies area unit classified in different classes, like property crimes or crimes against the person, or which will haven't any counterpart in the least. The categorisation in U.S.A. law seeks to accommodate each the established legal typology as an example, that employed in the Model legal code we tend to and therefore the sociology objectives that area unit thus necessary for the study of crime from a social science and behavioural perspective. These classes are: [9]

- Violent crimes
- Crimes against property
- Structure criminalism and
- Drug, alcohol and sex-related crimes.

The U.S. has over one crime drawback. One drawback is high, although presently declining, rates of street crime (including kill, assault, rape, robbery, and burglary). A lot of this sort of crime is committed by associate degree alienated and dangerous underclases. Another is that the drug-crime drawback, that is coupled to the primary drawback. Some drug-intoxicated people commit crimes as a result of they need lost their inhibitions whereas beneath the influence. There also are crimes that stem from the drug business and crimes that arise from economic necessity, as a result of users would like cash to shop for a lot of medication. Then, too, there's the organized-crime drawback that is tangled with the drug-crime drawback to that extent as drug traffic is that the major supply of financial gain for organized-crime teams. Additionally, there's a pink-collar crime drawback. It, too, is coupled to different forms of crime. As an example, federal investigators uncovered a theme in 1998 by any crime families and half a dozen Wall Street stockbrokers to commit stock fraud [7].

White-Collar Crimes: (Otherwise referred to as crime in suits)

These crimes also are referred to as business/economic and political crimes. These are crimes committed by folks of high social position within the course of their occupations. They seldom involve violence; however they involve important public hurt. White collar crime victimizes everybody and nobody, economic prices touch massive population; estimate of cost: two hundred billion, fourteen x price of street crime [9].

Workplace Crime: These embody crimes committed against employers by workers for individual gain; and activity Crime: a private or group's misappropriated use of their skilled position to secure one thing valuable, found in the least levels of the labour force, e.g. fraud;

Structure Crime: Committed by the decision-makers of a company or it should involve government participating in criminality for company or structure advantage as hostile personal gain. Different forms of offences falling beneath this category are unit coercion, commercialism merchandise that area unit familiar to be unsafe or defective.

Strategic Bankruptcy: an organization that is with success sued declares bankruptcy and therefore avoids having to pay and company is then reorganised into new company that is evident of personal/company liabilities.

Chauvinistic Crime: These crimes area unit committed within the name of achieving necessary national goals, actions taken outside legitimate channels, e.g. violation of law, "protecting" national security, unacknowledged warfare, imprisonment, failure to manage pollution, tax laws, etc.

Crimes against International Law: The international crimes area unit the key criminal offences thus selected by the community of nations" for the protection of interests common to all or any human kind.

Hate Crime: A criminal act actuated by racial or different bias like faith, ancestry, sexual orientation or physical incapacity.

Laptop Crimes, web, or Cyber Crimes: even as computers will serve legitimate commerce, governments, and researchers, the world web is additionally accessible for

criminal Schemes, exploitation, and use by gangdom. Laptop crime usually refers to criminal activity wherever a laptop or network is that the supply, tool, target, or place of against the law.

Criminologists and Criminalists

By currently it's evident that this perception is to a fault slender and unacquainted with by the varied history of sociology observe. Sociology was end remains an applied discipline for several, as we'll demonstrate throughout this text. Truth is told, the primary crime laboratory scientists were truly remarked by job title and general description as "criminologists." this is often mirrored within the pages of what's arguably the terribly 1st rhetorical science textbook printed within us, Crime's Nemesis. During this groundbreaking text, the author refers to observe of crime detection and proof examination because the field of "scientific criminology" and to those operating in it as "scientific criminologists". He additional refers to himself, in daring letters on the quilt page, as "LUKE S. MAY, specialist, Director, The Scientific Detective Laboratories; President, The Institute of Scientific sociology." The word criminalist is absent, whereas the works of Hans Gross square measure cited repeatedly at intervals. Duayne Dillon, then Chief of the Criminalistics Laboratory for the workplace of the Sheriff-Coroner in Contra Costa County, California, wrote the introduction to the second printing of Osterburg's text mentioned in Bradford. He sheds lightweight on the difficulty of exactly however the criminalist is outlined as break free the specialist, whereas crediting the authors of Introduction to Criminalistics with serving to engender community acceptance for the term [13,14].

Most forensic science authors have truly attributable the formulation of contemporary criminalistics as a discipline to the same Jurist and faculty member of sociology Hans Gross, in no little half as a result of he coined the term criminalistic from that our use of the terms criminalistics and criminalist were derived. However, it should be admitted that the term criminalistic interprets virtually from Austrian-German to English as sociology. What is more a criminalist, by Gross's definition, was a student who studied the causes of crime, the behaviors and motives of criminals, and also the scientific strategies of their identification, apprehension, and prosecution. Sociology, it should be understood, may be a large field with several subdisciplines [13]. History teaches USA that rhetorical science and also the sub-discipline of criminalistics square measure among them, aboard others like criminal investigation, rhetorical science, victimology, criminal identification, and many, many more. The failure to acknowledge and embrace these relationships may be a manifestation of skilled dissociation and foreign policy that

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fosters knowledge base metal object and prevents skilled development [15].

Development in Criminology

The history of primitive societies and early medieval amount reveals that human thinking in those days was predominated by mysticism and every one human relation were regulated through myths, irrational and non secular tenets prevailing in a very explicit society. This in alternative words meant that small attention was dedicated to the motive, setting and science of the wrongdoer within the effort of crime. Moreover, in absence of any definite principle for the steering of these was involved with the criminal justice administration, punishments were usually haphazard, impulsive and irrational. This case prevailed till the tip of seventeenth century. Thereafter, with the amendment in human thinking and evolution of contemporary society, sure social reformers took up the explanation for criminals and devoted their attention to analysis of crime effort. This finally light-emitting diode is to the emergence of sociology as a branch of data through development of various colleges of sociology [15]. The theoretical dimension of sociology encompasses a long history and concepts regarding the causes of crime are often found in philosophical thought over 2000years past. as an example, in Politics, Plato's student, Aristotle (384-322 B.C.), declared that poorness engenders rebellion and crime. Non secular students targeted on causes as numerous as natural human would like, deadly sins, and therefore the corrupting influence of Beelzebub and alternative demons. The validity of such theories was supported in non secular authority and that they weren't viewed as theories, subject to verification through any kind of systematic observation, measure and analysis [16].

Rational, realistic philosophies regarding folks and society grew in prominence throughout the eighteen century. Enlightenment philosophers like Charles Louis de Secondat, Voltaire, Cesare Beccaria and Bentham criticized political and legal establishments and advocated social reforms supported the belief that folks were rational, thoughtful beings. Such ideas set up the primary major faculty of organized, naturalistic thought of legal code, guiltiness, and acceptable responses to crime the Classical faculty. Such views were known as realistic as a result of they created theories locating the causes of crime in natural characteristics of folks as hostile hostile accentuation evil causes. Classical theorists assumed that almost all folks were capable of rational calculation of gains and prices which guiltiness was an alternative [16]. Laws were to be designed and implemented supported that principle. Up to date deterrence theory, rational alternative theory and social learning theory in sociology incorporate these same assumptions. The

origins of a lot of systematic sociology, however, square measure set within the late eighteenth-century writings of these wanted to reform criminal justice and penal systems that they perceived as cruel, inhuman, and impulsive. These previous systems applied the law unevenly, were subject to nice corruption, and infrequently used torture and therefore the capital punishment indiscriminately [17].

Criminologists of the first nineteenth century argued that legal punishments that had been created below the steering of the classical faculty failed to sufficiently take into account the wide variable circumstances of these found themselves within the gears of the criminal justice system [17]. Consequently, they planned that people who couldn't distinguish right from wrong, significantly kids and unsound persons, ought to be exempted from the punishments that were ordinarily dispensed to mentally capable adults had committed constant crimes. Alongside the contributions of a later generation of criminologists, called the positivists, such writers argued that the penalisation ought to match the criminal, not the crime. Later within the nineteenth century, the positivist faculty of sociology brought a scientific approach to sociology, together with findings from biology and drugs. The leading figure of this faculty was the Italian Cesare Lombroso (1836-1909). Influenced by Charles R. Darwin's theory of evolution, Lombroso measured the physical options of jail inmates and over that criminal behavior related with specific bodily characteristics, significantly skeletal, and medicine malformations. In line with Lombroso, biology created a criminal category among the human population. Ensuing generations of criminologists have disagreed raspingly with Lombroso's conclusions on this matter. However, Lombroso had a lot of lasting impact on sociology with alternative findings that emphasised the multiple causes of crime, together with environmental causes that weren't biologically determined [17,18].

Organized for the aim of rising police coaching is therefore standardize the police-training curricula. In 1946, this movement developed into the institution of the Society for the Advancement of sociology, that modified its name to the yankee Society of sociology in 1957. Initial efforts of this organization targeted upon scientific crime detection, investigation, and identification; crime bar, public safety, and security; enforcement administration; administration of criminal justice; traffic administration; and probation. The vankee Society of sociology has since attracted thousands of members together with lecturers, practitioners, and students of the criminal justice system. Studies of sociology embody each the theoretical and therefore the pragmatic, and a few combined parts of each. Though some aspects of sociology as a science square measure still thought-about radical, others have developed as standards within the study of crime and criminal justice [19].

Rules of Forensic Evidence

The most necessary operate of rhetorical investigation is to prove the defendant is either guilty or innocent However; the courts had relied heavily upon the non-scientific proof because of the shortage of facilities. Within the study that is conducted in 2011 shows that only the forty seven cases in Supreme Court and High Courts during which the desoxyribonucleic acid has vie a crucial role. Out of those forty seven cases, urban centre tribunal alone sets 23.4% selections. Only 4.7% and 2.3% rape and murder cases acknowledge desoxyribonucleic acid proof. The area of rhetorical science in India has yet, not been amalgamated. Many time neither decide nor the professional person nor even the police appreciated the advances or the intensive, promising potentialities of the science and therefore the fusion of latest technologies, methodologies, modalities, and analysis. Multitask associate degree multi-professional nature of rhetorical science need an inter-professional approach, which is many time lacking. The Committee on Reforms of Criminal Justice System additionally indicated that this level of application of rhetorical science in crime investigation is somewhat low inside the country, with solely 5-6% of criminal cases are named the FSLs and Finger Print Bureau place along. The reasons for restrictive use or reluctant use of rhetorical are various like, [20-22]

- (a) Lack of technological development
- (b) Misuse of physical proof
- (c) Poor maintenance of a sequence of custody
- (d) Delayed dispatch of physical proof to the court

(e) Generally, failing to grant details of the aforementioned proof.

Hence, it's clear that the pertinence of rhetorical in India is restricted compared to different countries. This state of affairs should be modified in order to resolve the unfinished cases. Although there are laws about rhetorical and additionally there are different laws that are enacted in India to bring out the importance of rhetorical, still its usage is low [21].

Conclusion

Criminology, as a branch of knowledge, is concerned with those particular conducts of human behaviour which are prohibited by society. It is, therefore, a socio-legal study which seeks to discover the causes of criminality and suggests the remedies to reduce crimes. The principles of criminology serve as effective guidelines for formulation of penal policy. Criminology is an inter-disciplinary field of study, involving scholars and practitioners representing a wide range of behavioral and social sciences as well as numerous natural sciences. This article is briefly explained about the forensic criminology and its significance. It also includes that how the

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forensic science is helped to resolve the crimes.

References

- 1. Williams A (2014) Forensic criminology. CRC Press.
- 2. Fulton B (2011) Introduction to Forensic Science and the Law. Inf Technol Libr, pp: 34-44.
- 3. Wilson K (2011) 5th Annual Australian and New Zealand Critical Criminology Conference. Cairns Campus.
- 4. Hirschi T (2017) On the compatibility of rational choice and social control theories of crime. Reason Crim, pp: 105-118.
- 5. Dave PY (2020) A Path of Sympathetic to the Forensic Science from the Sight of Forensic Anthropology. J Forensic Res 11(5): 1-8.
- Allen RJ (2015) A Note To My Philosophical Friends about Expertise and Legal Systems. Humanamente 8(28): 71-86.
- 7. Steven M, Joseph Peterson L, John Ryan R, Pauline Houlden J (1986) Forensic Science and The courts: The Uses and-Effects of Scientific Evidence in Criminal Case Processing. Office of Justice Programs.
- Merck MD (2013) Crime Scene Investigation. Vet Forensics Anim Cruel Investig 2nd (Edn.), pp: 17-35.
- 9. Marumo Y (2003) Forensic Examination of Soil Evidence. Japanese J Forensic Sci Technol 7(2): 95-111.
- 10. (1995) Introduction to Forensic Science and The Law, pp: 1-21.
- 11. Kolflaath E (2019) Relative plausibility and a prescriptive

theory of evidence assessment. Int J Evid Proof 23(1-2): 121-127.

- 12. Ward T (2020) Explaining and trusting expert evidence: What is a 'sufficiently reliable scientific basis'?. Int J Evid Proof 24(3): 233-254.
- 13. Barar M (2015) The Role of Chemistry in Processing Crime Scenes. Int J MediPharm Res 2(1): 10-16.
- 14. Nirgrini MJ (2012) Benford's Law: Applications for forensic accounting, auditing and fraud detection. Wiley.
- 15. NFSTC (2013) A simplified guide to crime scene investigation. National Forensic Science and Technology Center, pp: 20
- 16. Trestrail JH (2000) Criminal Poisoning. Investigational Guide for Law Enforcement, Toxicologists, Forensic Scientists, and Attorneys. Springer.
- 17. Siegel LJ (2016) Criminology: The Core. CENGAGE.
- 18. GN K (2009) Criminology.
- 19. Benjamin W (1981) introduction to criminal psychology 3: 675-687.
- Nissan E (2013) Legal evidence and advanced computing techniques for combatting crime: An overview. Inf Commun Technol Law 22(3): 213-250.
- 21. LaGrange TC, Silverman RA (1999) Low self-control and opportunity: Testing the general theory of crime as an explanation for gender differences in delinquency. Criminology 37(1): 41-72.
- 22. Nissan E (2018) Computer Tools and Techniques for Lawyers and the Judiciary. Cybern Syst 49(4): 201-233.

