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Ethical Considerations in Forensic Science Services

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ABSTRACT: Forensic science has for a long time been the gateway through which many criminal investigations have traveled towards their eventual destination. The availability and use of forensic science services have been previously discussed in several studies, which revolve around the diverse problems of geographical areas. However, the reports have largely been confined to statistics regarding the laboratories and their related interactions with law enforcement agencies. A strategic question that has been left untouched is the availability and even the existence of truly neutral forensic science services in the United States. To what extent are forensic science services available equally to the police, prosecution, and defense? What, if any, are the influences that could affect the availability and reliability of forensic science services? These influences, if not properly accounted and controlled for, could ultimately affect the continued assimilation process of forensic science and the criminal justice system.

KEYWORDS: forensic science, jurisprudence, ethics

Crime is a burden to modern society, and society constantly seeks to relieve itself of that burden. A vital tool in society's struggle is forensic science. Forensic science, the science of the courtroom, has become irreplaceable during criminal investigations and presentations of evidence in court proceedings. Our system of justice demands proof "beyond a reasonable doubt"; scientific evidence helps provide it. In fact, the central and ultimate goal of forensic science is to convert suspicion into a reasonable certainty of guilt or innocence [1], the result of which is either the crux of the prosecutor's case or an exercise of the defendant's right to freedom. In performing this a hand-in-hand relationship between the forensic scientist and the prosecutor has arisen. In addition, a greater emphasis is placed on the way evidence is gathered and processed and on the interactional process of the investigator and the forensic science laboratory [2]. Overlooked, however, may be the questions of conflicting interests and neutrality. How interdependent are forensic science, its expert witnesses, and the various segments of the criminal justice system? Is there a clandestine relationship resulting in evidence being based on anything other than fact? These questions are not meant to imply a conspiracy, but rather to illustrate the differences in the availability, usage, and role of forensic science for the prosecution and the defense.

The modern age has brought a need for technical competence and efficiency in evidentiary procedures [3,4]. Today's criminalist has to have some expertise in areas never before anticipated. For example, computer crime has exploded with the rise of computer science. A new

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type of expertise is required from the document examiner [5], and a new kind of competence has quickly become a necessity. Crime does not wait for the forensic scientist to catch up. The need to constantly gain new knowledge, just to keep abreast of current law enforcement problems, is awesome.

“Under existing circumstances it would be impossible to state the need for all available resources of science and technology to bear upon the problems of law enforcement. The need is nationwide . . . all responsible opinion agrees the need is imperative” [6]. Dealing with these modern complexities demands the training and skills of experts [2,4]. Forensic science must seek and meet this challenge with more training and standards [7].

At present, however, the potential impact of forensic science is unrealized. Although the number and sophistication of forensic laboratories has advanced markedly in the past decade, laboratory performance has not reached a level of consistency; and management and underutilization are still unresolved problems. Professionals in this field have taken a passive position to issues such as the proper role of the laboratory in the overall law enforcement structure [8].

This role, if not adequately defined and administered, could lead to controversy and complexity, which could confuse the assimilation process of science and criminal justice. The issues to be addressed first are:

- the delegated and actual role of the forensic science laboratory,
- economic and other influences controlling laboratories,
- possible ethical complications, and
- the feasibility of neutral (professionally independent) forensic science services in the United States.

First, what role does or should forensic science play in the criminal justice system? Forensic science laboratories do not initiate their tasks or undertakings. Their actions are primarily a result of requests for services (see Ref 6, p. 6). In this way,

science plays a supportive role in the criminal justice system. It aids the investigator in establishing the *corpus delicti* of a crime, in reconstructing an incident, in identifying likely suspects, and in proving or disproving the association of particular evidence with a suspect. Laboratories also assist the police and prosecutors during trial procedures. Just as important, a defendant in a trial may be helped by . . . examinations [that] show no connection between physical evidence and the suspect or implicate another person altogether [9].

In its supportive role, forensic science has a dual function. The first and most obvious is the part forensic science plays while interacting with criminal justice agencies. In this capacity the forensic science laboratory becomes an extension of the agency. In reality, it may actually be part of the agency. The scientists work in an atmosphere of authoritarianism [10]. The tasks assigned by supervisory personnel reflect the priorities set by the organization. The results are then used by the police and prosecutor in establishing a case against the defendant. There is an acknowledgement of defense needs, but there are priorities based on funding and personnel [11]. However, what of the responsibility forensic science has to the defense?

The defense issue is clear, at its root, yet is clouded by many ambiguities. Forensic science examinations are supposedly made on behalf of the defendant as much as the criminal justice agencies [6], and protection of the defendant's rights are their primary concern [10]. Although there may be an attempt to free the suspect of guilt or divert suspicion to another [9], this does not necessarily help the defense unless the evidence is viewed from a defense perspective. The defense therefore must sometimes seek out the forensic science services and witnesses it needs to strengthen its case. However, as Lasser [12] explains,

The defense almost never utilizes scientific criminal evidence. For the indigent defendant, the reasons are obvious. Even if he is given competent counsel, he is not provided with an investigative

staff and funds. Even the defendant with funds has problems. By the time counsel is retained, the trail is usually cold. The key evidence frequently is in the hands of the prosecution, [and] it may be impossible to obtain access to it. Finally, a truly scientific study of a criminal case requires a broad spectrum of experts and a coordinator who knows what can be done and who can do it. Such individuals and a galaxy of specialists exist only in the largest cities.

The defense faces several problems in its use of forensic science. First, are the services readily available to the defense, especially to public defenders? If so, what restrictions on their use exist, especially in diverse geographical regions? The forensic science services directly associated with law enforcement agencies may be compelled to work solely for the prosecution: it may take a court order to allow the defense to have access to forensic science facilities and results. In addition, the availability of these services may be controlled by the location of the arrest and the subsequent trial. Not all jurisdictions have the same facilities, nor do the same rights of access apply [13]. All of this confuses and possibly hinders the true role of the forensic scientist for the defense.

A second important aspect is the economic and other influences controlling forensic science facilities. A facility's funding is usually closely associated with a law enforcement agency. This tie may have overt or subtle effects on the laboratory's performance. Economic pressures on control mechanisms of testing may have an adverse effect on reliability, and economic considerations may also limit the availability of these facilities to the defense (even to public defenders).

More important, other influential factors may exist. The prosecutor may request processing of only certain evidence and then may decide on which results to introduce to the courtroom. This circumvents any authority that the forensic science laboratory might have. Additionally, certain political ideologies may be reflected in the hiring and termination practices of the host organization. These ideologies, if strong enough, could influence the reliability of the procedures and services rendered. For example, political cronies could be hired for these facilities. Such so-called experts might be appointed with little or no training, and have little chance to upgrade it [7]. Further, if a technician or scientist feels threatened with loss of rank or employment by political or similar influences, there remains the possibility, no matter how slight, that the work may also be influenced.

Also influencing the quality of work is the availability of funding, for both the law enforcement agency and the defense. Laboratories have budgets, and their work, caseloads, and personnel may have limitations. Certain tests may be shortened or avoided for economic reasons. In addition, funding of the defense may affect the quality and extensiveness of defense-related use of forensic science services.

The public defender or court-appointed lawyer faces even greater restraints. How can we honestly state that a trial is fair without equal access to services? "The most reasonable formula is to provide services and facilities at public expense to the extent that refusal of funds in a particular case will work an undue hardship on the defendant. The harm to the indigent caused by denial of aid must outweigh the economic good to the state from a refusal. If a crime is serious enough to require provision of an attorney, then it is serious enough to require provision that the appointment be effective" [13]. If there is a denial of opportunity, then there is a denial of freedom. Hence, the subtle controls of these services by monetary demands may affect the proclaimed function of forensic science.

Two final questions revolve around the previously mentioned points: Are there ethical considerations arising from the influences surrounding the use of forensic science services? Also, are neutral forensic science services a logical and feasible alternative?

To consider the first question, we must acknowledge that a congenial relationship exists between law enforcement agencies and most current forensic science service facilities. These relationships arise simply from the close interaction of agency and service personnel. The question remains, however, of whether such relationships in any way interfere with the defendant's rights.

Equally important is the use of "impartial" experts in trials by both prosecution and defense. Each side uses "its" experts to increase the credibility of its case. However, "the traditional concept that experts are impartial suggests that when a physician is asked to evaluate a litigated case, he should decide what the outcome should be irrespective to which of the parties has engaged him. A lawyer would presumably have to obtain many such evaluations until he could find an expert whose opinion happens to be advantageous for the client. The cost of obtaining these opinions would allow justice only for the very wealthy clients. Such a construction of impartial is clearly impractical and unfair" [14].

The control of selection and presentation of the experts and their testimony lies in the hands of the employer. After acceptance of employment, decisions about testimony are made by the supervisor or the prosecution, not the witness [15]. The expert witness realizes that the testimony must be presented so that it is advantageous to the prosecutor, if the prosecutor is to use the witness again. The defense's only recourse is to cross-examine the witness or present expert testimony of its own. Calling expert witnesses for the defense involves funding problems and a reluctance by experts to take a chance on having their credibility and reputation faltering upon attack from the prosecution. Thus the defense is sent looking for its impartial witness. There are independent facilities and resources available; "if they did nothing else, their occasional appearance as witnesses would perform an invaluable function of keeping the official laboratories on their toes" [1]. Something, however, is amiss in the current system.

A logical alternative may be a neutral forensic science service that is set up without any direct dependence on a law enforcement agency. Its services would be offered to the prosecution and the defense equally. The generated reports and findings would be available early to both parties involved. This could help alleviate any avoidable injustices. Further, employing the standards set by the American Society of Crime Laboratory Directors [16] would increase reliability. This is one possible solution to an important problem, which can be solved if time and effort are exerted to accomplish the task. If ethical considerations within forensic science are to be improved, by upgrading the system as it is now constructed or initiating new procedures within the process, the system will not weaken, and society as a whole would benefit.

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