Forensic Science Essay, Research Paper

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Forensic Science and Investigations

The word forensic basically means the key to solve a crime. Science is the technology used to help forensic teams to analyze and solve crimes. What can look obvious to the naked eye could actually be a whole other story. Hair samples can determine many things about a person or animal when collected from forensics. There are many job opportunities with a good salary and many openings within the job. This paper will discuss a case where forensic science is needed and how crucial it is in any case.

When arriving at the crime scene Geberth (1997) notes that there are certain procedures the investigators and forensic teams must abide by. When they arrive they have to document just about every thing, especially the important things. They have to go through a checklist, like the time of day, the weather, and interviews with officers, suspects, witnesses, and family members. When examining the body the forensic investigators record name, address, and the sex of the victim, determine the death, and they have to take pictures. Also they must stabilize the scene with barriers of rope or whatever is necessary. Collecting evidence is also important. They must make sure they do not get their fingerprints and other things like hair, saliva, etc? on the evidence. There is a whole lot to do when arriving, but those are the main and important ones.

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When documenting there is a lot to be recorded. There are three basic steps when an investigator records a crime scene. First of all the investigator must do a thorough investigation. They should gather as much information as possible, as in the time of the

report, who notified the investigator, condition of the body when arrived. Record all of the facts in a clear and logical order. They need to make sure which facts are opinions and the actual facts.

Secondly, the information must be collated and the notes are organized. The investigator must review all of the information that was gathered from him/herself and other investigators. All of the information that was gathered cannot be put into the report, one has to decide what is important and what is not. The investigator needs to organize the material in a logical order so it is understood by anyone who may read it. The report must have steps of the investigation when taken whether they are good or bad.

The third step is writing the report. If all of the material is organized and collected, it should be simple to write the report. All of the data has to be complete and accurate. The writing and language it was written in should be precise and able to read. The whole report should be brief but still hold necessary information.

One case in particular is the case of a suicidal hanging staged as a homicide. These kinds of suicides are rarely discovered by crime scene investigators. A man was

found dead in his bedroom by his roommate. The cord that he hung himself with was suspended over the closet door and fastened around the inside doorknob. He had a sock in his mouth which stayed in place by a bandanna tied around his mouth and the back of

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his head. The victim’s hands were harnessed behind his back with a pair of handcuffs and his ankles were tied together with a coaxial cable and no suicide note was found.

The forensic investigation of the scene found some fascinating facts. There were no forced entries into the apartment or bedroom and the front door was locked from the

inside. The roommate stated that nothing was stolen, and there was one hundred forty dollars in cash was in the living room. By this analysis it is obvious that no one had broken to commit some type of crime.

Also a wooden chair was found upright directly in front of the victim. There was evidence of struggle and any restraint that he had on himself could easily be removed. The investigators found on the handcuffs a quick release lever, which can open the cuffs without a key. The closet door that had the cord attached to it was approximately 6′6 and the victim was 6′0. The problem was that there was not any notable stretching of the cord.

The victim’s ex-girlfriend said that they had broken up and the day before he was found dead he had bought her about one hundred dollars worth of flowers that she did not accept, and he was always depressed once they ended their relationship. The victim had also made comments to his ex-girlfriend and family members that there was some kind of motorcycle gang after him and if he dies expect foul play.

From all of the evidence that was collected from the forensic investigators, it was

conclusive he had staged his death as a homicide. It was suspected that the victim intended to elicit sympathy and guilt from the ex-girlfriend over the failed relationship (Adair & Dobersen, 1999). The crime scene investigation should help determine when

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some sort of staging has taken place. Without recognizing these types of clues may lead to uncalled-for, postponed and expensive investigations.

According to Geberth (1983) you are suppose to “remember, once an item of evidence has been removed or altered it is impossible to restore it to its original position

or condition” (p.6). Everyone needs to work together in crime scenes, there is no I in team. Collecting evidence is very crucial. It is very important that a body or anything around the crime scene is not moved. Some cases are harder to solve than others though, even if nothing is moved around.

Let’s say in order to identify a body that has been dead for a while and the skin is shriveled or wrinkled. It is said that if you take a needle full of water and inject it into the skin with water the finger will fill up to it’s original contour. In a raped victim if traces of dried semen is found on the body, forensics use a 100% cotton ball moistened with distilled water. Then let it air-dry, put the cotton ball in a sterile container to send to the lab.

A lot can be determined from hair samples also. The hair can decide whether or not it has come from a human or animal, and if it is a human it can tell what race the person is (Savolainen & Lundeberg 1999). Where the hair has grown on the body is also something else that can be determined. If the hair was pulled, fell, or cut out and if the person is diseased, this too can be resolved from forensics. From the shaft of the hair the blood type is held there. If the hair is pulled from the roots the sex and other genetic markers can be found.

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According to the Virginia Division of Forensic Sciences (1999) there are some openings all over Virginia for the field of forensics. There are many fields in forensics, from being evidence supervisor to being a toxicologist. There are very important qualifications dealing with forensics and each field has different qualifications, but a lot of them are the same, and each requires a valid driver’s license.

The salary range for a forensic scientist supervisor is $46,183 – $72,103, Richmond Virginia. Some of the qualifications one must have are knowledge of chemistry, laboratory experience, and laboratory safety. A Bachelor’s degree in chemistry or closely related field required. Experience performing examinations in two or more of the following areas: glass, paint, explosives, synthetic fibers and fire debris analysis. Also they must be able to manage multiple tasks efficiently, analyze and interpret data, develop sound conclusions, maintain accurate records, and analyze, and solve technical problems. A color blindness test may be required

Toxicologist’s salary range from $48,544 – $75,788. The qualifications for a toxicologist are is a Ph.D. in toxicology, chemistry, biochemistry, pharmacology or related scientific field and experience in toxicological analyses required. Certification as a Diplomat of the American Board of Forensic. $30,929 – $48,287 is the paying salary for an electronic technician supervisor. Some of the qualifications for a technician supervisor are extensive training and/or experience in electronic operations, trouble shooting and repair of automated scientific instrumentation.

It is pretty obvious that forensic science is very important. If it was not for the technology and the forensic teams a lot of harsh and unexplained crimes would have

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never been solved. Everyday forensics is learning something new about DNA, hair samples, and so much more. A couple of movies to see about forensics are Kiss the Girls and Bone Collector. Even though these are only movies they are still really good and they give you a really good idea about the different fields of forensics. We have come far into the century with sciences and knowledge, and we use them to our advantage and to

help society. Forensics plays a meaningful role in the police field.

Bibliography

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