The Use of Physical Evidence in the Investigation and Prosecution of Sexual Assault Cases

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Abstract

While the crime of sexual assault continues to increase in the United States each year, there is a need for improved protocols used in the investigation of sexual assault. The major focus of sexual assault protocols of law enforcement agencies and medical communities throughout the nation, including those in San Diego County, have primarily targeted the proper collection of physical evidence and the increased care of the sexual assault victim. Little focus, if any, has been directed to the importance of the forensic laboratory findings from the physical evidence that is collected from the victims, suspects, and crime scenes in sexual assault investigations, and the relationship of these findings to suspect identification and law enforcement outcomes. This study reviews 77 sexual assault cases with physical evidence that received laboratory examination from the San Diego Police Department Forensic Biology Unit between the years of 1998 and 1999. Based on the results of this study, it is apparent that physical evidence from sexual assault investigations plays an important role in the investigation and prosecution of sexual assault cases, physical evidence, by itself, can be used as an investigative tool, and current protocols involving physical evidence from sexual assault investigations should be improved.

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Chapter One

Introduction

Overview

Only recently with the advent of DNA databanks and the advancements in forensic DNA analysis, is physical evidence from sexual assault investigations used more often as an investigative tool rather than a prosecutorial tool. For the longest time, physical evidence in sexual assault investigations was used just as a tool for the prosecution to support charges against known suspects (LaCoss, 2000). Police departments across the country also lacked the necessary resources and funding to have their laboratories examine physical evidence from every sexual assault investigation, so the cases that did receive laboratory examination were again only chosen because of the possible value of the physical evidence in supporting the prosecution's charges against known suspects in each case (2000). Thus, many sexual assault cases never received any type of police crime laboratory analysis.

The Forensic Biology Unit (crime laboratory) of the San Diego Police Department was among the many laboratories that did not have the resources to examine physical evidence from every sexual assault case, and therefore only examined 77 cases between the years of 1998 and 1999 (San Diego Police Department Sex Crimes Unit, 2000). Although 77 is a small number compared to the 1,225 cases of sexual assault reported to the San Diego Police Department Sex Crimes Unit during 1998 and 1999, this does not mean that valuable information cannot be learned from reviewing the physical evidence that was examined in the 77 cases.

Problem Statement

To date few studies have reviewed the physical evidence examined by police crime laboratories from sexual assault investigations. It is known that the victim, suspect, and crime scene are the primary sources of physical evidence in sexual assault cases, but little is known about the specific pieces of physical evidence collected from each of the primary sources (Moreau & Bigbee, 1995). In addition, little is known about the association between the primary sources of physical evidence, forensic DNA analysis, suspect identification, and law enforcement outcomes. Finally, the differences and similarities of the specific pieces of physical evidence collected from the primary sources in adolescent versus adult sexual assault cases has never been looked at. It is hoped that by studying each of these elements that an increased understanding of sexual assault evidence can help the law enforcement and medical communities improve current protocols, used to determine if and when a forensic examination should be obtained in a case of sexual assault, thus improving the accuracy of suspect identification and exoneration of those falsely convicted.

Purpose and Objectives

The purpose of this study was to review the 77 sexual assault cases that received laboratory analysis from the San Diego Police Department Forensic Biology Unit between the years of 1998 and 1999, and determine if any association exists between the primary sources of physical evidence, forensic DNA analysis, suspect identification, and law enforcement outcomes in those cases.

The two primary objectives of this study are:

1. A determination of which specific pieces of examined evidence from the primary sources of physical evidence (the victim, suspect, or crime scene) are most associated with suspect and victim identification.
2. A determination of the differences and similarities of the forensic findings between the 25 female adolescent cases that received laboratory analysis versus the 51 female adult cases that received laboratory analysis. Their relationships to law enforcement outcomes are also reviewed.

Rationale

By determining that an association exists between the primary sources of physical evidence, forensic DNA analysis, suspect identification, and law enforcement outcomes in the 77 cases of sexual assault, it is hoped that this information will give insight into whether physical evidence from the victim, suspect, or crime scene should receive greater focus during adolescent and adult sexual assault investigations.

It is also hoped that this information will encourage law enforcement agencies and medical communities to improve their current protocols of determining if and when a forensic examination should be obtained in a case of sexual assault. By improving police and medical protocols, there should be an increase in the accuracy of suspect identification and when necessary, more exoneration of those falsely convicted.

Definition of Terms

1. Acid Phosphatase- An enzyme secreted by the prostate gland into seminal fluid (Saferstein, 1998).

2. Blood- The fluid that circulates in the heart, arteries, capillaries, and veins of a vertebrate animal carrying nourishment and oxygen to and bringing away waste products from all parts of the body (Merriam-Webster's Dictionary, 2000).

3. CODIS- Combined DNA Index System. A DNA databank created by the FBI (Budowle, 1999).

4. Condom- A sheath commonly of rubber worn over the penis as to prevent conception or venereal infection during coitus (Merriam-Webster's Dictionary, 2000).

5. Detective/Investigator- Generally, a senior police officer or detective who is selected and assigned to conduct follow-up investigations. A detective conducts interviews with victims, witnesses, and suspects, evaluates the forensic evidence, and depending on the case, submits laboratory service requests to have evidence analyzed. The detective determines the final disposition of the case, which might include submitting the investigation to the prosecutor for review (Archambault, 2000).

6. District Attorney- Prosecutes felony cases for the State. Also prosecutes misdemeanor cases for the County (Archambault, 2000).

7. DNA- Deoxyribonucleic Acid. Contains the genetic information of cells (Lewin, 1997).

8. Epithelial Cells- Cells that cover the surfaces of the body (Lewin, 1997).

9. Polymerase Chain Reaction- (PCR) The amplification (copying) of select genes in DNA by separating the double-stranded DNA and then marking the genes with primers and using a DNA polymerase to produce a copies of the selected genes (Lewin, 1997).

10. Probative- Serving to test or try: exploratory (Merriam-Webster's Dictionary, 2000).

11. Restriction Fragment Length Polymorphism- Refers to inherited differences in sites for restriction enzymes that result in differences in the lengths of fragments produced by cutting the DNA with selected restriction enzymes (Lewin, 1997).

12. Saliva-A slightly alkaline secretion of water, mucin, protein, salts, and often a starch-splitting enzyme (as ptyalin) that is secreted into the mouth by salivary glands, lubricates ingested food, and often begins the breakdown of starches (Merriam-Webster's Dictionary, 2000).

13. Semen- Fluid produced by the male reproductive organs containing sperm (Saferstein, 1998).
14. Sexual Assault- A wide range of victimizations involving attacks upon a victim in which unwanted sexual contact occurs (U.S. Department of Justice, 1999).

15. Sexual Assault Forensic Examiner- A specially trained medical professional, either a nurse or doctor, who performs the forensic examination and evidence collection on sexual assault victims and sometimes suspects (Archambault, 2000).

16. Sexual Assault Response Team- (SART) A multidisciplinary team approach to sexual assault that meets the medical and emotional needs of the victim and also meets the forensic needs of the criminal justice system (Archambault, 2000).

17. Short Tandem Repeat- (STR) Locations on chromosomes that consist of short sequences of nucleotides that repeat within a molecule of DNA (Saferstein, 1998).

18. Spermatozoa-Motile male gametes of an animal usually with rounded or elongated heads and long posterior flagella (Merriam-Webster's Dictionary, 2000).

19. Victim- One that is acted upon and usually adversely affected by an outside incident (Archambault, 2000).

Primary Sources of Physical Evidence in Sexual Assault Investigations:

1. **Victim**: For this study, the swabs/specimens of the victim and any other evidence collected from the victim's body during the SART examination were considered victim evidence.

2. **Suspect**: For this study, only swabs and fingernail scrapings, collected from the suspect during a forensic examination conducted at SDPD, were considered suspect evidence.

3. **Crime Scene**: For this study, the victim's clothing, suspect's clothing, and any other evidence associated with the victim or suspect that was found at the crime scene or was part of the crime scene were considered crime scene evidence.

Definition of SART Kit Terms (Spalding & Bigbee, 2001)

1. Anal/Rectal Swabs- Samples of the anal surfaces and contents are taken for identification and analysis of sperm cells and/or seminal fluid.

2. External Body Swabs- Samples are taken to collect any unexpected or extra evidentiary material (blood, semen, epithelial cells, etc.) found on external body surfaces.

3. Fingernail Scrapings- Wooden picks or scraping devices and tissues to collect debris are provided to allow removal of material (blood, hairs, fibers, etc.) that may have been deposited under the individual's fingernails.

4. Oral Swabs- Samples of oral contents are taken for identification and analysis of sperm cells and/or seminal fluid.

5. Penile Swabs- The surface of the penis is swabbed to collect blood or any other evidentiary material.

6. Pubic Hair Combing/Brushing- The pubic area is combed or brushed with a new comb or brush over a clean cloth or catch paper to recover any loosely adhering hairs or fibers.

7. Vaginal Aspirate- The vaginal contents are sampled by irrigation with a sterile fluid such as saline. This is intended to recover semen not recovered by swabbing. The wash is normally placed in a test tube.

8. Vaginal Swabs- Samples of vaginal contents are taken for identification and analysis of sperm cells and/or seminal fluid.

Law Enforcement Outcomes (Lindsay, 1998)

1. DA Charge: The District Attorney charges a suspect for the crime.

2. DA Reject: The District Attorney rejects the case for any number of reasons.

3. Inactivated: No suspect can be identified or linked to the crime.

4. Unfounded: Investigator finds that a crime was not committed or the victim lied about the details of the crime.

Limitations of the Study

Inclusion Criteria:

1. This study used a secondary data source. The data was originally collected for the purpose of conducting sexual assault investigations, and was not specifically collected for the purposes of this study.
2. This study was limited to reviewing all sexual assault cases that received laboratory analyses from the San Diego Police Department Forensic Biology Unit, between the years of 1998 and 1999, with the following conditions: each case occurred within the jurisdiction of the San Diego Police Department, each sexual assault victim was 14 years of age or older, and each case had pieces of physical evidence that received laboratory analysis from the SDPD Forensic Biology Unit.

Exclusion Criteria:

1. Cases without any physical evidence or without pieces of physical evidence that did not receive any type of laboratory analysis from the SDPD Forensic Biology Unit were not reviewed.
2. The cases in this study represent 6.3% of the total cases of sexual assault that were reported to the San Diego Police Department between the years of 1998 and 1999.

Research Hypothesis

It is hypothesized that there is an association between the primary sources of physical evidence (victim, suspect, and crime scene), DNA analysis, suspect identification, and law enforcement outcomes in sexual assault cases that occurred within the jurisdiction of San Diego Police Department between the years of 1998 and 1999.

Chapter Two

Literature Review

Physical Evidence

Physical evidence can be defined as physical objects associated with a crime or a tort (Ogle, 1995). Physical evidence can be found in many different forms and there are many different types of physical evidence. Physical evidence can assist in the investigation of a crime or tort if adequate steps are taken to recognize, collect, and preserve the physical evidence. Failure to properly recognize, collect, or preserve physical evidence could compromise and impede an investigation (1995).

Some of the ways in which physical evidence can assist in an investigation include: helping to reconstruct a crime scene, determining whether or not a crime occurred, linking an individual with another or with a crime scene, providing investigative leads to investigators, providing facts to a jury which may assist in the determination of the guilt or innocence of an accused, and providing evidence to link serial homicide or rape cases (1995). Physical evidence also has many advantages over testimonial evidence in a court of law. Some of these advantages include: providing a tangible object for the jury to see and take into the jury room, the defendant cannot distort the physical evidence, some cases cannot be solved without physical evidence, physical evidence is not subject to memory loss, and the credibility of physical evidence can be tested by an independent expert if the defendant so desires (1995).

Robert Ogle (1995), in his Crime Scene Investigation and Physical Evidence Manual, states that physical evidence is often categorized differently from one

geographical area to another, but the majority of jurisdictions classify physical evidence according to the following scheme:

1. Fingerprints (Friction Ridge Evidence)
2. Firearms (Firearms, Discharge Residues, Fired Components)
3. Biological Evidence (Blood, Semen, Saliva, Epithelial Cells, Others)
4. Trace (Microscopic, Transfer) Evidence
5. Document Evidence (Handwriting, Typewriting, Papers, Inks, etc.)
6. Physical Matching Evidence (Matching of items which have been broken apart)
7. Toxicology Evidence (Drugs, Poisons in body fluids and tissues)
8. Drug Evidence
9. Others (various evidence types not included in numbers 1-8)

Physical Evidence in Sexual Assault Investigations

According to Moreau and Bigbee (1995), there are three primary sources of physical evidence in cases of sexual assault. The three primary sources of physical evidence are the victim, suspect, and crime scene. Physical evidence from the victim is collected from the victim's body during a hospital conducted forensic evidentiary examination. Physical evidence from the suspect, if known, is collected from the suspect's body during a forensic evidentiary examination, usually conducted at a law enforcement agency. Physical evidence from the crime scene is collected from each location of the sexual assault, based on the histories of the victim and/or witnesses (Selig, 2000).

While any type of physical evidence may assist in the investigation of sexual assault, there are five types of physical evidence that are crucial to the majority of sexual assault investigations. They are hairs, fibers, blood, semen, and saliva (Spalding & Bigbee, 2001). Much of the literature written on sexual assault investigations refers to these five types of physical evidence because they appear frequently in sexual assault

cases, the sexual assault evidence collection kits are designed to accomplish the collection of these types of evidence, they will often corroborate the victim's testimony, they demonstrate the close contact and sexual nature of the crimes committed, they are difficult to see and easily overlooked, and modern forensic laboratories are well equipped to handle the examinations dealing with them (2001).

Role of Physical Evidence in Sexual Assault Investigations

It's important to note that physical evidence, whether it is collected from the victim, suspect, or crime scene, is critical to the investigation of sexual assault. The role of physical evidence in sexual assault crimes is to associate the victim, the suspect, and, if possible, the crime scene (Spalding & Bigbee, 2001). Based on the sexual nature of the crime of sexual assault, there are types of physical evidence that are particular to the victims, suspects, and crime scenes. These particular types of physical evidence are predominantly used to get a conviction in cases of sexual assault. According to Ferris and Sandercock (1998), these types of physical evidence assist in showing proof of recent sexual contact, assist in showing proof of force, and they assist in identifying the perpetrator.

California State Penal Code 261 defines rape (sexual assault) as an act of sexual intercourse accomplished with a person not the spouse of the perpetrator where 1) the person is incapable of giving legal consent because of a mental, developmental, or physical disability, 2) it is accomplished against a person's will by means of force, violence, duress, menace, or fear of immediate and unlawful bodily injury on the person or another, 3) a person is prevented from resisting by any intoxicating or anesthetic

substance or any controlled substance, and this condition was known or reasonably should have been known by the accused, and 4) a person is at the time unconscious of the nature of that act and this is known by the accused (Gould's Penal Code Handbook of California, 2000). Again, in order to increase the chances of getting a conviction in the case of sexual assault, proof that the elements of the crime of rape, as defined above, must be shown. Having physical evidence that provides this proof, and shows an association between the victim, the suspect, and possibly the crime scene can be very convincing to a jury in a court of law.

Physical Evidence and DNA

DNA, or deoxyribonucleic acid, is the fundamental building block for an individual's entire genetic makeup (Weedn & Hicks, 1998). It is a component of virtually every cell in the human body. DNA is contained in blood, semen, skin cells, tissue, organs, muscle, brain cells, bone, teeth, hair, saliva, mucus, perspiration, fingernails, urine, and feces. DNA is a powerful tool because each person's DNA is different from every other individual's DNA, except for identical twins. DNA can be collected from virtually anywhere and can be found on physical evidence that is decades old (1998). DNA and physical evidence usually go hand in hand because DNA is most commonly recovered from physical evidence collected from victims, suspects, and crime scenes. We must remember that in most cases today it's the DNA recovered from physical evidence that links a suspect to a crime or exonerates a person falsely convicted, not the physical evidence itself.

Physical Evidence as a Prosecutorial Tool

Historically, physical evidence by itself has been important in aiding investigators to solve crime, but has not been used as the main investigative tool (Peterson, Mihajlovic, & Gilliland, 1984). Physical evidence has mainly been used as a prosecutorial tool for several reasons. In a study by Horvath and Meesig (1996), physical evidence was seldom seen by police detectives as having any intrinsic value, therefore physical evidence was used primarily by detectives to strengthen their position for obtaining confessions from suspects. Limited resources for crime laboratories to keep up with technological advances, limited access for investigators to crime laboratory services, heavy caseloads, and the fact that prosecutors have historically driven laboratory work have all resulted in physical evidence being used more often to support the prosecution instead of being the main tool for investigators (Asplen, 1999; LaCoss, 2000).

Current Sexual Assault Protocols of Law Enforcement and Medical Communities

The shortage of crime lab resources across the country has severely limited the ability of law enforcement and forensic examiner programs to evaluate current sexual assault protocols as to if and when an evidentiary examination should be obtained. Any evaluations of sexual assault protocols have just focused on the Sexual Assault Response Team (SART) model, the improvement of care for the sexual assault victim, and physical evidence collection standards (Ledray, 2001). Most national, state, and institutional protocols recommend that sexual assault victims receive an evidentiary examination within 72 hours after the assault (Frank, 1996; ACEP, 1999). However, with the

availability of DNA amplification technology, evidentiary examinations can be performed beyond the 72-hour period (Ledray & Netzel, 1997).

Physical Evidence in Sexual Assault Investigations and Law Enforcement Outcomes

The research that has been conducted on sexual assault investigations and law enforcement outcomes is minimal, somewhat contradictory, and has not focused on physical evidence examined by police crime laboratories. For example, in one study conducted by Tintinalli and Hoelzer in 1985, it was concluded that there was no statistically significant correlation between spermatozoa found during hospital conducted evidentiary examinations, trauma of the sexual assault victim, and law enforcement outcomes. Du Mont & Parnis (2000) found nearly the same thing by concluding that neither the collection of spermatozoa, semen, and/or saliva during hospital conducted evidentiary examinations, nor the documentation of clinically observed injuries were significant in predicting law enforcement outcomes. Du Mont and Parnis (2000) then turned around and in the same study concluded that non-medical variables like the victim's age, use of alcohol, victim's relationship to the suspect, and the corroborating testimonial evidence of a witness were related to law enforcement outcomes. Studies done by Lindsay (1998) and Gray-Eurom, Seaberg, and Wears (2002) agree with the last conclusions by Du Mont and Parnis, and add that the use of a weapon by the suspect was significantly associated with law enforcement outcomes, but they also concluded that the presence of trauma to the victim was significantly associated with law enforcement outcomes. Another study by Rambow, Adkinson, Frost, and Peterson (1992) concluded

that the presence of spermatozoa or acid phosphatase from hospital conducted evidentiary examinations favored successful prosecution.

As you can see, studies have been conducted on sexual assault investigations and law enforcement outcomes, but because little research has reviewed the association between laboratory examined physical evidence from sexual assault cases and law enforcement outcomes, it is important to conduct this study. This study follows research conducted by Jennifer LaCoss (2000) where the associations between DNA analysis, conducted by a police crime laboratory, and law enforcement outcomes in 355 adult sexual assault cases were reviewed. LaCoss' study though, only looked at whether or not the cases received DNA analysis from the police crime laboratory and their relationships to law enforcement outcomes. Any of the specific pieces of physical evidence examined by the police crime laboratory were not reviewed in her study. This study aims to review the physical evidence from the adult cases that did receive laboratory analysis in her study, along with physical evidence from the adolescent cases that received laboratory analysis during the same two years, and their relationships to law enforcement outcomes.

Chapter Three

Methodology

Study Population

The study population is made up of 77 victims of sexual assault, with the assaults having occurred in San Diego County between the years of 1998 and 1999. The study population was broken down into two categories to distinguish the adolescent population (ages14-17) from the adult population (age18 and older). There was only one male (an adolescent) case out of the 77 cases reviewed. This one male case was taken out of the study population, so as to just include the females. The study population comprised in the tables, therefore, includes 76 female sexual assault cases that received laboratory analysis from the San Diego Police Department Forensic Biology Unit between the years of 1998 and 1999. This population consists of 25 adolescent (ages 14-17) victims of sexual assault and 51 adult (age 18 and older) victims of sexual assault.

A difference of one case exists in the amount of adult cases that received laboratory analysis in this study and the study done by LaCoss (2000). LaCoss' study only reviewed 50 adult cases that received SART examinations and received laboratory analysis. One case that did not receive a SART examination, but did receive laboratory analysis from the SDPD Forensic Biology Unit between the years of 1998 and 1999 is included in this study for a total of 51 adult cases.

Data Collection

In San Diego County an adolescent victim of sexual assault is taken to Children's Hospital to receive an evidentiary (SART) examination. Adult victims of sexual assault can receive an evidentiary (SART) examination from a number of different hospitals in San Diego County, but for this study all adult victims that received an evidentiary (SART) examination were from Villa View Community Hospital. The results of the evidentiary examinations for both the adolescent and adult victims of sexual assault are kept in a SART database operated by the County of San Diego.

As an employee of the County of San Diego, I was given access to the SART database. Demographic information of the victims, medical findings, and some information about the suspect (if known) are included. All evidentiary examination information entered into the SART database is obtained from the forensic examiner who fills out a Sexual Assault Response Team Data Form at the time of the exam (See Appendix). The only data used from the SART database for this study were the victim's histories about the starting and ending times of assault and the starting times/dates of the evidentiary examinations. A great deal of care was taken to remove any personal information that could possibly identify the victims, including their names and dates of birth.

A majority of the data used for this study was taken directly from the laboratory reports from the San Diego Police Department Forensic Biology Unit. In order to gain access to this data and data from other units that operate within the San Diego Police Department, it was necessary for me to complete a thorough background check. Copies of each of the completed forensic laboratory reports, from the 77 cases analyzed between

the years of 1998 and 1999, were obtained from the SDPD Forensic Biology Section Supervisor. The data used for this study from the forensic laboratory reports includes: the names of each piece of physical evidence submitted to the laboratory, the sources of each piece of physical evidence, the names of each piece of physical evidence that received laboratory analysis, the types of analyses each piece of physical evidence received, and the results of the analyses that each piece of physical evidence received. Each case was assigned a number by the SDPD, so any personal information that could possibly identify the victims, including their names and dates of birth, could not be used.

The last source of data for this study was the San Diego Police Department Sex Crimes Unit log. This log is a database designed to keep track of each sex crimes case. The only data used for this study from this database were the law enforcement outcomes of each case. This database gives information about the status of each case; whether the District Attorney charged a suspect in the case, whether they rejected the case, or whether the case is inactivated or unsolved.

Data Organization, Analysis, and Interpretation

All data for the purpose of this study was organized into tables constructed in Microsoft Word. All data analysis and interpretation was calculated by hand using a standard calculator.

Chapter Four

Results

A total of 1,225 cases of sexual assault, having occurred within the jurisdiction of San Diego Police Department, were reported between the years of 1998 and 1999. Of those cases, 757 cases were adolescent cases, with the victim being between 14 and 17 years of age, and 468 cases were adult cases with the victim being 18 years of age or older. A SART examination of the victim was performed in 161 of the adolescent sexual assault cases and 355 of the adult sexual assault cases. Of the sexual assault cases where the victim received a SART examination, 26 adolescent cases and 51 adult cases received forensic laboratory examination from the San Diego Police Department Forensic Biology Unit. It is important to keep in mind that the results of this study are gathered from a review of the 77 (26 adolescent and 51 adult) sexual assault cases that received forensic laboratory examination from the San Diego Police Department Forensic Biology Unit between the years of 1998 and 1999.

It is also important to remember that although many pieces of victim, suspect, and crime scene evidence were collected by SDPD, this study only reviewed the pieces of physical evidence that were examined by the SDPD Forensic Biology Unit. With that in mind, there were 6 adolescent cases and 19 adult cases where the physical evidence examined in those cases was only examined for semen and no other forensic laboratory tests were performed. Physical evidence from 20 adolescent and 32 adult cases received DNA analysis, with a known suspect being included as a possible contributor of the biological evidence (semen, blood, or epithelial cells) that received DNA analysis, in 15 of the adolescent cases and 17 of the adult cases. DNA analysis excluded a known

suspect as a possible contributor of the biological evidence (semen, blood, or epithelial cells) that received DNA analysis in 4 of the adolescent cases and 5 of the adult cases (Table 4.1).

Table 4.1

SEXUAL ASSAULT CASES THAT OCCURRED WITHIN THE JURISDICTION OF SAN DIEGO POLICE DEPARTMENT BETWEEN 1998 AND 1999								
	Total # of Cases	**# of Cases with SART Exams**	**# of Cases with SDPD Crime Lab Work**	**# of Cases Only Examined for Semen**	**# of Cases that received DNA Analysis**	**# of Cases where the *Suspect was Included**	**# of Cases with Unknown Suspects**	**# of Cases where DNA Excluded a Known Suspect**
Adolescents (Ages 14-17)	757	161	26	6	20	15	2	4
Adults (Ages 18+)	468	355	51	19	32	17	5	5
TOTAL:	**1,225**	**516**	**77**	**25**	**52**	**32**	**7**	**9**

*Suspect Included=The known suspect is included as a possible contributor of the biological evidence that received DNA analysis.

Tables 4.2 through 4.6 show the individual pieces of examined physical evidence from the 77 sexual assault cases that received laboratory analysis from the SDPD Forensic Biology Unit between the years of 1998 and 1999. The primary sources from which each individual piece of physical evidence was collected are shown, as well as the total number of pieces examined, the total number of pieces found to have semen, blood, or epithelial cells, the total number of pieces that received DNA analysis, and the total number of suspects included as possible contributors of the biological evidence found on the individual pieces of evidence that received DNA analysis. Tables 4.7 and 4.8 show the associations between the primary sources of physical evidence, forensic DNA

analysis, suspect identification, and law enforcement outcomes. The major findings of each table and the major findings between the adolescent and adult cases are outlined on the pages following each table.

Major Findings of Table 4.2

25 Adolescent Cases

- Average # of Examined Pieces of Crime Scene Evidence (Victim's Clothing) per Adolescent Case: **1.6 pieces**

-% of Total # with Semen: **17/40 or 42.5%**
-% of Total # with Blood: **5/40 or 12.5%**
-% of Total # with Epithelial Cells: **3/40 or 7.5%**

-% of Total # that received DNA Analysis: **16/40 or 40%**
-% of # that received DNA Analysis and Suspect was Included: **12/16 or 75%**

- Semen was found on **8 of 13 (61.5%)** individual pairs of women's underwear
- Semen was found on **3 of 8 (37.5%)** individual pairs of either pants, jeans, shorts, or skirt

-For Adolescents, DNA analysis of semen found on women's underwear is the most common piece of Crime Scene evidence associated with suspect identification.

51 Adult Cases

- Average # of Examined Pieces of Crime Scene Evidence (Victim's Clothing) per Adult Case: **1.1 pieces**

-% of Total # with Semen: **18/56 or 32.1%**
-% of Total # with Blood: **9/56 or 16.1%**
-% of Total # with Epithelial Cells: **1/56 or 1.8%**

-% of Total # that received DNA Analysis: **11/56 or 19.6%**
-% of # that received DNA Analysis and Suspect was Included: **2/11 or 18.2%**

- Semen was found on **10 of 25 (40%)** individual pairs of women's underwear
- Semen was found on **4 of 14 (28.6%)** individual pairs of either pants, jeans, shorts, or skirt

Major Findings of Table 4.3

25 Adolescent Cases

- Average # of Examined Pieces of Crime Scene Evidence (Other Evidence Associated with the Victim) per Adolescent Case: **0.64 pieces**

-% of Total # with Semen: **0%**
-% of Total # with Blood: **2/16 or 12.5%**
-% of Total # with Epithelial Cells: **0%**

-% of Total # that received DNA Analysis: **1/16 or 6.3%**
-% of # that received DNA Analysis and Suspect was Included: **0/1 or 0%**

51 Adult Cases

- Average # of Examined Pieces of Crime Scene Evidence (Other Evidence Associated with the Victim) per Adult Case: **0.45 pieces**

-% of Total # with Semen: **3/23 or 13%**
-% of Total # with Blood: **1/23 or 4.3%**
-% of Total # with Epithelial Cells: **1/23 or 4.3%**

-% of Total # that received DNA Analysis: **3/23 or 13%**
-% of # that received DNA Analysis and Suspect was Included: **2/3 or 66.7%**

Major Findings of Table 4.4

25 Adolescent Cases

- Average # of Examined Pieces of Crime Scene Evidence (Suspect's Clothing and Other Evidence Associated with the Suspect) per Adolescent Case: **0.32 pieces**

-% of Total # with Semen: **1/8 or 12.5%**
-% of Total # with Blood: **3/8 or 37.5%**
-% of Total # with Epithelial Cells: **1/8 or 12.5%**

-% of Total # that received DNA Analysis: **5/8 or 62.5%**

-% of # that received DNA Analysis and Suspect was Included: **1/5 or 20%**

-% of # that received DNA Analysis and Victim was Included: **4/5 or 80%**

51 Adult Cases

- Average # of Examined Pieces of Crime Scene Evidence (Suspect's Clothing and Other Evidence Associated with the Suspect) per Adult Case: **0.29 pieces**

-% of Total # with Semen: **2/15 or 13.3%**
-% of Total # with Blood: **2/15 or 13.3%**
-% of Total # with Epithelial Cells: **1/15 or 6.7%**

-% of Total # that received DNA Analysis: **6/15 or 40%**

-% of # that received DNA Analysis and Suspect was Included: **1/6 or 16.7%**

-% of # that received DNA Analysis and Victim was Included: **3/6 or 50%**

Major Findings of Table 4.5

25 Adolescent Cases

- Average Time Elapsed from Beginning of Assault to the Beginning of SART Exam for Adolescent Cases: **20.56 hours (14 cases)**

- Average Days Elapsed from Date of SART Exam to Date of SDPD Crime Laboratory Analysis for Adolescent Cases: **71.9 days (23 cases)**

- Average # of Examined Pieces of Adolescent Victim Evidence (from SART Exam) per Case: **3.8 pieces**

-% of Total # with Semen: **28/95 or 29.5%**
-% of Total # with Blood: **8/95 or 8.4%**
-% of Total # with Epithelial Cells: **2/95 or 2.1%**

-% of Total # that received DNA Analysis: **15/95 or 15.8%**
-% of # that received DNA Analysis and Suspect was Included: **9/15 or 60%**

-For Adolescents, DNA analysis of semen found on vaginal (internal, cervical) swabs are the most common pieces of Victim evidence associated with suspect identification.

51 Adult Cases

- Average Time Elapsed from Beginning of Assault to the Beginning of SART Exam for Adult Cases: **20.66 hours (41 cases)**

- Average Days Elapsed from Date of SART Exam to Date of SDPD Crime Laboratory Analysis for Adult Cases: **78.5 days (50 cases)**

- Average # of Examined Pieces of Adult Victim Evidence (from SART Exam) per Case: **3.4 pieces**

-% of Total # with Semen: **55/171 or 32.2%**
-% of Total # with Blood: **17/171 or 9.9%**
-% of Total # with Epithelial Cells: **11/171 or 6.4%**

-% of Total # that received DNA Analysis: **31/171 or 18.1%**
-% of # that received DNA Analysis and Suspect was Included: **18/31 or 58.1%**

-For Adults, DNA analysis of epithelial cells found on external body swabs are the most common pieces of Victim evidence associated with suspect identification.

Major Findings of Table 4.6

25 Adolescent Cases

- Average # of Examined Pieces of Suspect Evidence (from Forensic Exam) per Adolescent Case: **0.36 pieces**

-% of Total # with Semen: **4/9 or 44.4%**
-% of Total # with Blood: **0/9 or 0%**
-% of Total # with Epithelial Cells: **4/9 or 44.4%**

-% of Total # that received DNA Analysis: **9/9 or 100%**

-% of # that received DNA Analysis and Suspect was Included: **3/9 or 33.3%**

-% of # that received DNA Analysis and Victim was Included: **4/9 or 44.4%**

-For Adolescents, DNA analysis of epithelial cells found on penile swabs of the known Suspect are the most common pieces of Suspect evidence associated with victim identification.

51 Adult Cases

- Average # of Examined Pieces of Suspect Evidence (from Forensic Exam) per Adult Case: **0.49 pieces**

-% of Total # with Semen: **6/25 or 24%**
-% of Total # with Blood: **3/25 or 12%**
-% of Total # with Epithelial Cells: **3/25 or 12%**

-% of Total # that received DNA Analysis: **20/25 or 80%**

-% of # that received DNA Analysis and Suspect was Included: **9/20 or 45%**

-% of # that received DNA Analysis and Victim was Included: **6/20 or 30%**

-For Adults, DNA analysis of epithelial cells found on penile swabs of the known Suspect are the most common pieces of Suspect evidence associated with victim identification.

Major Findings of Tables 4.7 and 4.8

25 Adolescent Cases

-In **12** out of **16** (**75%**) Adolescent cases in which the DA charged a suspect, either DNA analysis of evidence from the victim, crime scene, or a combination of DNA analysis of evidence from more than 1 primary source identified a known Suspect and/or the *Victim.

-In **7** out of **16** (**43.8%**) Adolescent cases in which the DA charged a suspect, DNA analysis of only Crime Scene evidence identified a known Suspect and/or the *Victim.

-In **2** out of **16** (**12.5%**) Adolescent cases in which the DA charged a suspect, DNA analysis of only Victim evidence identified a known Suspect.

-% of Adolescent cases where the DA charged and evidence was only examined for semen and/or blood and no DNA analysis was performed: **3/16 or 18.8%**

51 Adult Cases

-In **17** out of **32** (**53.1%**) Adult cases in which the DA charged a suspect, either DNA analysis of evidence from the victim, crime scene, suspect, or a combination of DNA analysis of evidence from more than 1 primary source identified a known Suspect and/or the *Victim.

-In **3** out of **32** (**9.4%**) Adult cases in which the DA charged a suspect, DNA analysis of only Crime Scene evidence identified a known Suspect and/or the *Victim.

-In **8** out of **32** (**25%**) Adult cases in which the DA charged a suspect, DNA analysis of only Victim evidence identified a known Suspect.

-In **4** out of **32** (**12.5%**) Adult cases in which the DA charged a suspect, DNA analysis of only Suspect evidence identified the Victim.

-% of Adult cases where the DA charged and evidence was only examined for semen and/or blood and no DNA analysis was performed: **11/32 or 34.4%**

* Remember that DNA analysis of crime scene evidence associated with the suspect can identify the victim.

Chapter Five

Conclusions

As stated previously, that although 77 is a small number compared to the 1,225 cases of sexual assault reported to the San Diego Police Department Sex Crimes Unit during 1998 and 1999, this does not mean that valuable information cannot be learned from reviewing the physical evidence that was examined in those 77 cases. Based on the results of this review many conclusions can be made.

Physical evidence, by itself, can be used as an investigative tool, and all types of physical evidence should be examined in sexual assault investigations. This includes crime laboratories analyzing more than one type of evidence in each case, when enough evidence is possible, and not neglecting cases where only crime scene evidence is collected. It is possible to identify a suspect with only crime scene evidence. Even if a woman denies a SART exam or there is delayed reporting, crime scene evidence should be considered to identify a suspect. Law enforcement and forensic examiner protocols should not just focus on whether the victim has had a SART exam within 72 hours of the assault or be discouraged if an exam has not been performed.

Suspect evidence is very important and forensic examinations of known suspects should always be conducted when possible. In cases where physical evidence found on the suspect is all investigators have to go on, law enforcement and forensic examiners must recognize that whatever potential evidence was transferred from the suspect to the victim was most likely also transferred from the victim to the suspect. Investigators need to make certain that a complete sexual assault kit is also collected from the victim. While it appears that victim evidence from adult cases is being collected and analyzed by the

crime laboratory more often than that of the adolescent cases, and crime scene evidence from adolescent cases is being collected and analyzed by the crime laboratory more often than that of the adult cases, thorough SART examinations of both adolescent and adult sexual assault victims must continue. It is not known as to why there is such a difference between the adolescent and adult cases, but investigators cannot be biased when conducting an adolescent or an adult sexual assault case.

Finally, DNA training for law enforcement officers and forensic examiners needs to increase. With it being possible to find DNA almost anywhere and with faster, more efficient DNA analysis techniques, it is important that law enforcement officers are educated and trained to collect everything they can from sexual assault investigations. The entire range of possible biological evidence may be found on victims, suspects, and crime scenes and may prove useful in solving a case. Forensic scientists and investigators must also communicate to bridge the gap between what goes on in the investigative field and what takes place in the crime laboratory.

Future Research

Since this study only reviewed female sexual assault cases where the victims were 14 years of age and older, more studies for victims that are 13 years of age and younger need to be performed. More studies for male victims of sexual assault need to be performed as well. In the future, this same study could be conducted on a larger scale with a larger population, and could be conducted by every police department across the country.

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Table 4.2

1998 AND 1999 SDPD CRIME LABORATORY WORK—25 FEMALE ADOLESCENT SEXUAL ASSAULT CASES (AGES 14-17)											
Crime Scene Evidence Associated with the Victim	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Suspect Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Suspect Included**
Victim's Clothing:	-Women's Underwear……...	13	8	7	6	1			2	1	
	-Pants/Jeans/Shorts/Skirt……..	8	3	2	2	1					
	-Shirt/Blouse/Sweatshirt……...	7	1	1	1	1					
	-Bra……	3	1						1	1	1
	-Men's Underwear (i.e. Briefs, Boxers)	2	1	1		1					
	-Night Gown……	2	1	1							
	-Dress……	1	1	1	1	1					
	-Socks……	1	1	1	1						
	-Robe……	2									
	-Jacket……...	1									

1998 AND 1999 SDPD CRIME LABORATORY WORK—51 FEMALE ADULT SEXUAL ASSAULT CASES (AGES 18+)											
Crime Scene Evidence Associated with the Victim	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Suspect Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Suspect Included**
Victim's Clothing:	-Women's Underwear……...	25	10	3	1	6	1		1		
	-Pants/Jeans/Shorts/Skirt……...	14	4	4	1	2					
	-Shirt/Blouse/Sweatshirt……...	7	1			1					
	-Bra……	4									
	-Men's Underwear (i.e. Briefs, Boxers)	1									
	-Dress……	1	1	1							
	-Swimsuit……..	1	1	1							
	-Jacket……...	1	1	1							
	-Hospital Gown……	1									
	-Shoes……	1									

Suspect Included= The known suspect is included as a possible contributor of the semen, blood, or epithelial cells found on the individual pieces of evidence that received DNA analysis.

Table 4.3

1998 AND 1999 SDPD CRIME LABORATORY WORK—25 FEMALE ADOLESCENT SEXUAL ASSAULT CASES (AGES 14-17)											
Crime Scene Evidence Associated with the Victim	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Suspect Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Suspect Included**
Other:	-Bedding (i.e. Sheets, P. Cases, etc.)…	6				1	1				
	-Mattress (Section)……	2									
	-Carpet……..	2									
	-Car Interior……...	1									
	-Car Seat……	1									
	-Sleeping Bag……	1				1					
	-Wall Sample…….	1									
	-Sofa……..	1									
	-Rug……...	1									

1998 AND 1999 SDPD CRIME LABORATORY WORK—51 FEMALE ADULT SEXUAL ASSAULT CASES (AGES 18+)											
Crime Scene Evidence Associated with the Victim	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Suspect Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Suspect Included**
Other:	-Bedding (i.e. Sheets, P. Cases, etc.)….	12	1								
	-Car Fender……...	3	1	1	1				1		
	-Car Interior……...	2									
	-Piece of Plastic…….	1	1	1	1	1	1				
	-Tampon/Sanitary Pad……...	1									
	-Desenex Powder Bottle……	1									
	-Carpet……...	1									
	-Car Seat……	1									
	-Car Glove Box…….	1									

Suspect Included= The known suspect is included as a possible contributor of the semen, blood, or epithelial cells found on the individual pieces of evidence that received DNA analysis.

Table 4.4

1998 AND 1999 SDPD CRIME LABORATORY WORK—25 FEMALE ADOLESCENT SEXUAL ASSAULT CASES (AGES 14-17)											
Crime Scene Evidence Associated with the Suspect	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Victim Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Victim Included**
Suspect's Clothing and Other:	-Pants/Jeans/Shorts……	1									
	-Shirt/Sweatshirt……	1				1	1	1			
	-Men's Underwear (i.e. Briefs, Boxers)	1				1	1	1			
	-Socks……	1									
	-Shoes……	1									
	-Belt……...	1									
	-Condom (*)……..	1	1	1	1				1	1	1
	-Glass Bottle……..	1				1	1	1			

1998 AND 1999 SDPD CRIME LABORATORY WORK—51 FEMALE ADULT SEXUAL ASSAULT CASES (AGES 18+)											
Crime Scene Evidence Associated with the Suspect	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Victim Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Victim Included**
Suspect's Clothing and Other:	-Pants/Jeans/Shorts……	3	1	1		1	1	1			
	-Shirt/Sweatshirt……	3				1	1				
	-Men's Underwear (i.e. Briefs, Boxers)	2									
	-Socks……	1									
	-Shoes……	1									
	-Belt……...	1									
	-Jacket……...	1									
	-Baseball Cap……	1									
	-Condom (*)……	1	1	1	1				1	1	1
	-Tissue……...	1								1	1

Suspect Included=The suspect is included as a possible contributor of the semen found on the suspect's evidence. This is done to show that the semen does match the known suspect .

Victim Included= The victim is included as a possible contributor of the blood or epithelial cells found on the individual pieces of suspect evidence that received DNA analysis.

*Condom is only probative if you can show the victim's DNA on the condom.

Table 4.5

1998 AND 1999 SDPD CRIME LABORATORY WORK—25 FEMALE ADOLESCENT SEXUAL ASSAULT CASES (AGES 14-17)											
SART Exam Evidence Associated with the Victim	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Suspect Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Suspect Included**
Swabs/ Specimens of the Victim and Other:	-Vaginal (Internal, Cervical) Swab……..	19	10	8	5	4					
	-External Genitalia/Vaginal (Ext.) Swab..	19	10	5	4	2					
	-Rectal/Anal (External) Swab……..	16	4			1					
	-External Body Swab……	20	3	1					2	1	
	-Oral/Saliva/Throat Swab…….	19									
	-Tampon/Sanitary Pad……..	2	1			1					

1998 AND 1999 SDPD CRIME LABORATORY WORK—51 FEMALE ADULT SEXUAL ASSAULT CASES (AGES 18+)											
SART Exam Evidence Associated with the Victim	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Suspect Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Suspect Included**
Swabs/ Specimens of the Victim and Other:	-Vaginal (Internal, Cervical) Swab……..	49	17	8	4	10					
	-External Genitalia/Vaginal (Ext.) Swab..	36	16	4	2	3	1				
	-Rectal/Anal (External) Swab……..	22	6	3	1	2					
	-External Body Swab……	46	12	4	2				11	9	7
	-Oral/Saliva/Throat Swab…….	13	1			1					
	-Tampon/Sanitary Pad……..	3	2	1	1	1					
	-Matted Pubic Hair Cutting……..	1	1	1	1						
	-Vaginal Aspirate (2mm in a Tube)……..	1									

Suspect Included= The known suspect is included as a possible contributor of the semen, blood, or epithelial cells found on the individual pieces of evidence that received DNA analysis.

Table 4.6

1998 AND 1999 SDPD CRIME LABORATORY WORK—25 FEMALE ADOLESCENT SEXUAL ASSAULT CASES (AGES 14-17)											
Evidence Associated with the Suspect	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Victim Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Victim Included**
Forensic Examination: (Conducted at SDPD)	-Penile Swab…… -External Body Swab…… -Fingernail Scrapings……	5 2 2	4	3	3				4	4 2	3 1

1998 AND 1999 SDPD CRIME LABORATORY WORK—51 FEMALE ADULT SEXUAL ASSAULT CASES (AGES 18+)											
Evidence Associated with the Suspect	**Individual Pieces of Evidence Examined**	**Total #**	**Semen Found**	**DNA Work Performed**	**Suspect Included**	**Blood Found**	**DNA Work Performed**	**Victim Included**	**Epithelial Cells Found**	**DNA Work Performed**	**Victim Included**
Forensic Examination: (Conducted at SDPD)	-Penile Swab…… -External Body Swab…… -Fingernail Scrapings…… -Penis Ring…… -Pubic Swab……	10 6 7 1 1	5 1 	8 4 1 1	7 1 1 	1 2 	1 2 	1 2 	3	3	3

Suspect Included=The suspect is included as a possible contributor of the semen found on the suspect's evidence. This is done to show that the semen does match the known suspect.

Victim Included= The victim is included as a possible contributor of the blood or epithelial cells found on the individual pieces of suspect evidence that received DNA analysis.

Table 4.7

LAW ENFORCEMENT OUTCOMES OF 26 ADOLESCENT (AGES 14-17) SEXUAL ASSAULT CASES THAT OCCURRED WITHIN SDPD JURISDICTION BETWEEN 1998 AND 1999				
Primary Sources of Evidence, DNA Analysis, & Suspect Identification	**DA Charged**	**DA Rejected**	**Inactivated**	**Unfounded**
DNA Analysis of only **Crime Scene Evidence** Identifies a known Suspect and/or the Victim	7	2		
DNA Analysis of only **Victim Evidence** Identifies a known Suspect	2			
DNA Analysis of only **Suspect Evidence** Identifies the Victim				
DNA Analysis of ***More than 1Type of Evidence** from the same case Identifies a known Suspect and/or the Victim	3	1		
DNA Analysis of only Crime Scene Evidence **Does Not** Identify a known Suspect and/or the Victim		2		
DNA Analysis of only Victim Evidence **Does Not** Identify a known Suspect			2	
DNA Analysis of only Suspect Evidence **Does Not** Identify the Victim				
DNA Analysis of *More than 1 Type of Evidence from the same case **Does Not** Identify a known Suspect and/or the Victim	1			
Crime Scene Evidence was **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis		3		
Victim Evidence was **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis	1			
Suspect Evidence was **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis				
Both Crime Scene and Victim Evidence from the same case were **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis	2			
TOTAL NUMBER OF CASES:	**16**	**8**	**2**	**0**
PERCENTAGE OF TOTAL NUMBER OF CASES:	**61%**	**31%**	**8%**	**0%**

Note: Each individual sexual assault case falls into only one category.

*This category does not include DNA analysis of suspect evidence identifying a known suspect. If DNA analysis of suspect evidence identified the victim, along with the crime scene and/or victim evidence identifying a known suspect, then it was included.

Table 4.8

LAW ENFORCEMENT OUTCOMES OF 51 ADULT (AGES 18+) SEXUAL ASSAULT CASES THAT OCCURRED WITHIN SDPD JURISDICTION BETWEEN 1998 AND 1999				
Primary Sources of Evidence, DNA Analysis, & Suspect Identification	**DA Charged**	**DA Rejected**	**Inactivated**	**Unfounded**
DNA Analysis of only **Crime Scene Evidence** Identifies a known Suspect and/or the Victim	3	1		
DNA Analysis of only **Victim Evidence** Identifies a known Suspect	8	3		
DNA Analysis of only **Suspect Evidence** Identifies the Victim	4			
DNA Analysis of ***More than 1Type of Evidence** from the same case Identifies a known Suspect and/or the Victim	2			
DNA Analysis of only Crime Scene Evidence **Does Not** Identify a known Suspect and/or the Victim	1	1	2	
DNA Analysis of only Victim Evidence **Does Not** Identify a known Suspect	1			1
DNA Analysis of only Suspect Evidence **Does Not** Identify the Victim		1		
DNA Analysis of *More than 1 Type of Evidence from the same case **Does Not** Identify a known Suspect and/or the Victim	2	1	1	
Crime Scene Evidence was **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis			1	
Victim Evidence was **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis	2		1	
Suspect Evidence was **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis	1			
Both Crime Scene and Victim Evidence from the same case were **Only** Examined for Semen and/or Blood and SDPD Forensic Biology Unit **Did Not** Perform Any DNA Analysis	8	4	2	
TOTAL NUMBER OF CASES:	**32**	**11**	**7**	**1**
PERCENTAGE OF TOTAL NUMBER OF CASES:	**63%**	**21%**	**14%**	**2%**

Note: Each individual sexual assault case falls into only one category.

*This category does not include DNA analysis of suspect evidence identifying a known suspect. If DNA analysis of suspect evidence identified the victim, along with the crime scene and/or victim evidence identifying a known suspect, then it was included.