THE EVIDENTIAL VALUE OF CRIME SCENE INVESTIGATION IN CHILD RAPE CASES

by

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submitted in part fulfilment of the requirements for the degree of

MAGISTER TECHNOLOGIAE

in the subject

FORENSIC INVESTIGATION

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: DR NJC OLIVIER

MAY 2008

PREFACE

The main focus of this dissertation was to evaluate the evidential value of crime scene investigation in child rape cases. There are two kinds of crime scenes that needed to be processed in sexual crimes. Firstly is the location of occurrence and secondly is the victim's body. The crime scene is in any crime the major source of information if correctly approach, but even more so in a child rape investigations. A few crimes rely so heavily upon physical evidence as does the crime of rape.

It is therefore essential that all rape investigators have first-class knowledge of proper crime scene investigation methods and techniques. Since crime scenes not properly protected or process may fail the investigation in court and as a result see the suspect acquitted.

The following physical evidence could link and assist the investigator to individualise the suspect during thorough crime scene investigation; body fluids such as semen, blood, saliva. Other evidence of physical nature commonly found at crime scenes includes fingerprints, footprints (impression evidence); soil evidence, hair evidence, and anything in general handled or left behind by the rapist at the crime scene.

This dissertation strives to provide the Investigator with answers on, how, where, and when to process the crime scene.

VOORWOORD

Die hooffokus van die navorsingsverhandeling was om die getuienis waarde van ondersoek op ‘n misdaadtoneel in kinderverkragtings te evalueer. Daar is twee misdaadtonele van ewe belang vir die ondersoekbeampte in ‘n verkragting ondersoek. Eerstens is die plek waar die verkragting plaas gevind het en tweedens is die liggaam van die slagoffer. Die misdaadtoneel is in enige misdaad ondersoek die hoof bron van inligting, maar is egter van nog meer waarde in kinderverkragting ondersoeke. Want slegs ‘n paar misdade is so afhanklik van fisiese getuienis, soos die misdaad verkragting.

Dit is daarvoor belangrik dat ondersoekbeamptes betrokke in verkragting ondersoeke oor die nodige kennis van misdaadtoneel ondersoek moet beskik. Aangesien ‘n misdaadtoneel wat nie die nodige beskerming of ondersoek geniet nie, tot nadeel van die ondersoek strek en tot die ontskuldig bevinding van ‘n verdagte kan lei.

Die volgend fisiese getuienis kan die ondersoekbeampte help om die verdagte identifiseer en met die misdaad te verbind; liggaam vloeistowwe soos manlike saad, bloed, spoeg. Ander fisiese getuienis wat algemeen op misdaadtonele gevind kan word, sluit die volgende in, vingerafdrukke, voet of skoen spore, grond, hare en enige iets in die algemeen wat deur die verdagte op die toneel agter gelaat is.

Die navorsingsverhandeling streef daarna om die ondersoekbeampte van antwoorde te voorsien op vrae soos hoe, waar, en wanneer om die misdaadtoneel te proseseer.

Acknowledgements

This dissertation is dedicated to my wife Ursula who has been my inspiration and driving force throughout my academic career. I couldn't have completed this dissertation if it wasn't for my wife, who encourages me to continue and to complete this dissertation under very difficult circumstances. I thank you for all your honest feedback. I also want to thank my sons Tiaan and Dwayne for their understanding and encouragement throughout the years of my studies.

Firstly, I want to acknowledge my Lord Jesus Christ who meet all my needs and who provided me with the ability to complete this dissertation.

Secondly, I want to express my appreciation towards my supervisor, Dr. Nick Olivier for his assistance and guidance's throughout my studies.

Lastly, but certainly not least I would like to thank all the detectives of the West Rand FCS who participated in this research.

This dissertation embodies the philosophy "He who thinks he can't, can".

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CHAPTER 1

GENERAL ORIENTATION

1.1 INTRODUCTION

Child rape – these two words have become a part of our daily lives (Geldenhuys, 2003:18). The rape and sexual abuse of young children is a universal phenomenon and South Africa has one of the highest occurrences of child rape in the Western world (Stones & Earl-Taylor, 2004). Zwane (2006), a captain at the West Rand Family Violence, Child Protection and Sexual Offences unit **(FCS)** alleged on 2006-07-11 at a West Rand FCS meeting, that the South African Police Service **(SAPS)** is neglecting crime scene investigation when it comes to investigating rape allegations. He referred to a rape case where the community went to the scene of the crime and found a cell phone belonging to the suspect. The community managed to trace the suspect through the cell phone and, as a result, arrested the rapist.

Ndlovu (2006:5) supports Zwane (2006) and accuses the police of not doing their job when visiting rape scenes to gather evidence, and, as a result, rape suspects are released at court because of a lack of evidence. Bower (2006), chairperson of the South African Society for the Prevention of Child Abuse and Neglect, supports Zwane's (2006) concern and argues that if one considers the low conviction rate in rape cases, it is clear that the crime of rape is not being taken seriously. She argues that the police officials dealing with child rape cases need special training, and she mentions the following reasons for the low conviction rate: (1) lack of forensic witnesses in child rape cases; (2) dockets disappearing; and (3) the withdrawal of cases because the court appearances are often too traumatic for the children. Bower (2006) recommends that attention be given to the training of police officials who handle these cases. She concludes by saying that police officials need to learn how to gather proof properly, and comments that the more thorough a police official is, the more chance there is for successful prosecution.

1.2 AIM OF THE RESEARCH

It is the researcher's intention to determine the evidential value of crime scene investigation in child rape cases.

1.3 PURPOSE OF THE RESEARCH

According to Denscombe (2002:25), there should be a reason for doing research; if not, it would be pointless spending money and time undertaking the investigation. The main purpose behind a research is the desire to solve a practical problem or to improve procedure (Denscombe, 2002:27). According to Denscombe (2002:26-27) and Welman and Kruger (2001:19), there could be different possible purposes for doing research. This study has focused on the following purposes:

1. The researcher wanted to **evaluate** the existing procedure that investigators use to process the crime scene, with the intention of determining its strengths and weaknesses and considering how this procedure could be improved.

2. Secondly, the researcher wanted to **explore** how investigators, nationally and internationally, process the crime scene for evidence. To accomplish this, the researcher has read extensively in an attempt to explore the field.

3. The researcher wanted to **apply** the new knowledge of international practice to develop good practice in South Africa. This has been done by recommending new procedure to enhance performance and to improve the conviction rate in court cases.

4. Because of the lack of knowledge among investigators, the researcher wanted to **empower** himself and others with the latest information in the field.

1.4 RESEARCH QUESTIONS UNDER INVESTIGATION

To concentrate on and address a research problem, it is important to formulate the research problem in the form of questions (Mouton, 2001:53).

Research questions specify exactly what is to be investigated. They are not the broad goals of the research that are directly investigated by the research, but specific things that are to be observed, measured and interrogated, in order to shed light on the broader topic. Research questions also express the basis for the design (Denscombe, 2002:31). The researcher has formulated the following research questions to address the research problem:

⇒ What does crime scene investigation entail?

⇒ What evidence of evidential value, in the rape of children, could be gathered from the crime scene?

⇒ What role does identification play in crime scene investigation?

1.5 KEY THEORETICAL CONCEPTS

De Beer (1999:15) comments that definitions concretise the intended meaning of a concept in relation to a particular study. The following definitions explain the key concepts of the research:

1.5.1 Crime scene

Van Heerden (1986:217) defines a crime scene as a field laboratory where objects of dispute can be located for laboratory tests at a later stage. Marais and Van Rooyen (1990:23) define a crime scene as the locality of hidden clues which can lead to the clarification or detection of the crime. It includes any other locality or place where physical clues concerning the crime can be found.

1.5.2 Forensic investigation

Pollex (2001:93) defines forensic investigation as an investigation aimed at instituting court proceedings and where some or other scientific knowledge is applied to a legal problem.

1.5.3 Rape

Rape is generally defined as an act of unlawful and intentional sexual intercourse by a man with a female without her consent (Snyman, 2006:449). Until 2006, the act of sexual intercourse limited the crime of rape to penetration by a male's penis of a woman's vagina. In Masiya v DPP 2007 ZACC 9 the definition of rape was broadened by the Constitutional Court to also include anal penetration of the female victim. On the other hand, the Constitutional Court ruled that anal penetration of a male victim still only constitutes indecent assault. However this is about to change, though by the time this research was completed, the latest draft of the Sexual Offences Bill was still under consideration by Parliament's portfolio committee on justice.

1.5.4 DNA

The Concise Oxford Dictionary (1995:654) defines DNA as a self-replicating material present in nearly all living organisms, especially as a constituent of chromosomes which are the carriers of genetic information. DNA or deoxyribonucleic acid is the human genetic blueprint of an individual (Gilbert, 2004:313).

1.5.5 Victim

Nel and Bezuidenhout (1997:157) define a victim as a person who, individually or collectively, has suffered harm, including physical or mental injury, emotional suffering, economic loss or substantial impairment of his or her fundamental rights, through acts or omissions that are in violation of criminal laws operative within a specific country, including laws proscribing criminal abuse of power.

1.6 RESEARCH DESIGN AND APPROACH

Welman and Kruger (2001:182-183) state that a research design is the plan according to which one obtains research participants and collects information from them to investigate the research problem. The research design consists of a clear statement stating the research problem, as well as the procedure for

gathering, processing and interpreting the observations intended to provide some resolution to the problem (Singleton & Straits, 1999:91).

The researcher used an empirical research design, since it involves the researcher going into the field and focusing on the personal experience of the participants in this study (Mouton, 2001:149). An empirical design is production of knowledge based on experience or observation (Maxfield & Babbie, 1995:4) and therefore the researcher only targeted investigators with rape investigation experience. The empirical design provides in-depth insights. However, the design's limitations are that the results cannot be generalised, since they constitute the views of individuals, measurements cannot be standardised, and the collection and analysis of data may be time-consuming (Mouton, 2001:150). Nevertheless, the researcher addressed the limitation through an in-depth literature study on the topic. Maxfield and Babbie (1995:4) believe that an empirical research is one way of knowing things about crime and criminal justice. The empirical research design for this study includes a thorough literature study and face-to-face interviews with FCS detectives in the South African Police Service, to investigate the research problem, as described by (Mouton, 2001:56).

The researcher used the qualitative approach, as described by Silverman (2000:1-7). The researcher decided on the qualitative approach, since qualitative research is exploratory, and the researcher sought to listen to the participants to compile a complete picture based on their ideas and personal experience (Creswell, 1994:21). By using the qualitative approach, an attempt was made to understand the evidential value of crime scene investigation in child rape cases, from an investigator's point of view. Primary data has been collected through an in-depth literature study and secondary data was obtained through structured interviews and case studies (Mouton, 2001:69). This approach is essential whenever previous research and theories yield very little information about the topic and issues, and when researchers want to enhance the validity of their interpretations by drawing on the experiences of those most involved in the research setting itself (Pope, Lovell & Brandl, 2001:369).

1.7 TARGET POPULATION AND SAMPLING

Population refers to the sum total of all the units of analysis (Bailey, 1987:81). The ideal target population for this research would be all investigators of FCS units in South Africa, since, based on the opinion of the researcher, they have the most experience in the investigation of rape crimes.

However, Welman and Kruger (2001:47) state that the research population is usually so large, that from a practical point of view it is simply not possible to conduct research on all, and therefore the researcher had to obtain data from only a sample of the population. The researcher therefore intentionally selected the West Rand FCS unit as a sample, because of the expertise of its members in the area of rape investigation, and since it was cost-effective for the researcher, who lives in Krugersdorp. The West Rand FCS unit represents all FCS units in Gauteng and in South Africa, since the FCS units throughout the country investigate the same types of crimes and the members had received the same national training. The West Rand FCS unit consists of 20 detectives, is one of nine FCS units in Gauteng (Family Violence, Child Protection and Sexual Offences Manual, 2006:1), and serves the following police districts: Krugersdorp, Roodepoort, Florida, Honeydew, Maraisburg, Westonaria, Randfontein, Mohlakeng, Zuurbekom, Bekkersdal, Toekomsrus, Munsieville, Kagiso, Magaliesburg, Hekpoort, Muldersdrif, Tarlton and some areas of Randburg.

All the detectives at the West Rand FCS met the criteria for inclusion; therefore, the researcher decided to include all 20 detectives identified on a name list. By doing that, the researcher gave each detective the same chance of being included in the sample, as described by Welman and Kruger (2001:53). Eighteen of the detectives agreed to participate in the research, one of the members was very ill and could not be interviewed, and one detective indicated that he chose not to participate in this research. Therefore, a sample of 18 out of a possible 20 detectives was used in this research. Of the 18 detectives interviewed, 13 were male and five were female. In terms of experience in rape investigations, eleven detectives had between three and

five years' experience, six detectives had between ten and fifteen years' experience and only one detective had less then three years' experience.

Regarding their ranks within the SAPS, six were detective constables, eleven were detective inspectors, and one was a detective captain. All the detectives in this sample had been involved in numerous rape and sexual assault investigations and have, in general, greater training and experience than the majority of the general detectives. The researcher also targeted and interviewed Dr. Jacklyn of Johannesburg Teddy Bear clinic. Dr. Jacklyn is a medical doctor and is regarded as an expert in the examination of sexually assaulted children in Gauteng. Dr. Jacklyn has more then 30 years' experience in the medical treatment of children. The researcher had obtained permission from the SAPS to undertake this research. The permission letter is attached to the dissertation as annexure 2.

1.8 DATA COLLECTION

According to Welman and Kruger (2001:127), one has to consider which data-collection method is the most appropriate in the particular population in question. Bauer and Gaskell (2000:355) define data as facts or evidence at the disposal proponent of an argument. Clarke (1999:67) believes that the most common qualitative research techniques are questionnaires, interviews, observation and documentary sources. The researcher decided on interviews and a thorough literature study, since, for the purpose of this research, these data collection methods would be the most appropriate techniques. Apart from these techniques, the researcher also made use of case studies (dockets) to support his research. Thorough docket analysis was done to obtain information on the crime scene investigation process.

1.8.1 Literature

An in-depth literature study, as suggested by Clarke (1999:67), was conducted in order to understand all the issues surrounding the topic. National and international sources in the field of policing, criminology and law, such as books, articles, theses, training material of the SAPS and Internet information

relating to the topic were consulted, to obtain relevant information on what has been published on the topic. The researcher searched the Nexus Database System (2006) and found that research of this nature had never been done at local level. The researcher could not find literature on the exact topic of research and searched literature sources with similar topics. In order to obtain greater numbers of sources, the researcher divided the research topic into the following concepts, namely, forensic investigation, crime scene investigation process, crime scene, identification and individualisation, physical evidence, rape, DNA and fingerprints. The researcher then searched the abovementioned sources for information that would cover and provide answers to the research questions.

1.8.2 Interviews

The researcher personally conducted structured individual face-to-face interviews and conversations with detectives of the West Rand FCS unit. The structured interviews were designed to gather relevant data from the detectives, to address the research questions. Welman and Kruger (2001:160) state that structured interviews are a collection of questions from a previously compiled questionnaire, known as an interview schedule, and the interviewer is restricted to the questions and their wording. While attending a child rape case, the researcher had an informal conversation with Dr. Jacklyn with regard to the extent of the genital injuries of children involved in rape. No formal interview schedule was used during the conversation. The researcher interviewed Dr. Jacklyn, since she is regarded as a specialist in Gauteng in the examination of child rape victims.

An interview schedule with open-ended questions, as described by Miller and Whitehead (1996:181), was used to interview the respondents. The advantage of open-ended questions is that it allows respondents to formulate their answers themselves. The questions were compiled from information gained from the literature study. All interview records were kept for later references and transcription. All participants felt comfortable with the interviewing process. The researcher requested permission from the SAPS to administer the interviews (see permission letter as per Annexure 2).

Welman and Kruger (2001:146) state that questions can be used to obtain the following types of information:

⇒ Biographical particulars - for example, age, educational particulars, etc.

⇒ Opinions, beliefs and convictions about any topic or issue.

⇒ Attitude - for example, attitude towards affirmative action.

1.8.3 Case study

Scholz and Tietje (2002:9) state that the case study approach presents an investigation into a contemporary problem within a real-life context. The case study allows an investigation to retain the holistic and meaningful characteristics of real life events (Mason, 1998:129**)** and to give a clear understanding of the modus operandi used by the perpetrator involved - for example, those actions over which the perpetrator had control when committing the rape. The researcher had received permission from the SAPS to obtain and analyse case dockets involving rape, from the West Rand area, for this research. A list of all cases investigated by the West Rand FCS unit and which were closed within the period 1 January 2006 to 31 March 2006, were compiled by the researcher from information gathered from the SAPS Crime Administration System (CAS).

The list contained 260 case dockets. After examining the case dockets, the researcher found that only 31 (11.9%) case dockets involved children, and these cases were purposely selected for examination. However, the researcher found only 27 of the 31 case dockets in the SAPS archives, and therefore only 27 dockets could be analysed for this research. From the interviews the researcher had gathered information from detectives, but by studying dockets the researcher could evaluate what investigators really do in practice. A case study can answer the question “what is going on?” (Bouma & Atkinson, 1995:110).

The following questions were asked when studying these cases:

1) Was the crime scene visited?
2) Were there any crime scene statements in the docket?
3) What evidence was found on the crime scene?
4) Were all exhibits handed in to the SAP 13 store?
5) Were any photographs taken at the crime scenes?
6) Were members of the LCR involved in the processing of the crime scene?

1.8.4 Personal experience

Apart from these techniques, the researcher also used his personal experience in the field of criminal investigation, in the evaluation and interpretation of the data gathered. The researcher has been a member of the SAPS for 20 years, twelve of which have been spent in the detective branch. Since 2002 the researcher has been an investigator in the West Rand FCS unit, where he specialises in the investigation of crimes against women and children. During this time at the West Rand FCS, the researcher has investigated more then 100 rape cases involving children and adults. The researcher obtained a BTech degree in Policing from Unisa, a National Diploma in Police Administration from Technikon SA, and is currently enrolled for his Master's degree in Forensic Investigation, at Unisa. The researcher has also completed a detective and FCS course with the SAPS, as part of his training as a specialist investigator.

1.9 DATA ANALYSIS

In an attempt to organise and analyse the data from qualitative studies, Leedy and Ormrod (2005:150-151) state that Creswell (1998) has described the data analysis spiral which is equally applicable to a wide variety of qualitative studies. Leedy and Ormrod (2005:150-151) comment that in using this approach, one goes through the data several times. The researcher followed the following steps described by (Leedy & Ormrod, 2005:150) to analyse the data:

Step 1: The researcher read through all the interview schedules, literature and case studies to obtain a whole picture of the data. The researcher then made a list of the topics that emerged in this research and clustered together the similar topics to form major topics. The researcher made use of index cards to categorise the literature and interviews into smaller themes.

Step 2: The researcher then examined the data and categorised the data collected from the interviews, case studies and literature to themes relevant to the research questions. During this process the researcher made memo's and notes to group certain data into possible categories and note the prelimary interpretations thereof.

Step 3: Thereafter the researcher handpicked the interview schedules one by one, comparing the respondents' answers with each other and with the topics under discussion. The respondents' answers were grouped and compared with different authors in the field to identify general themes and sub-themes to determine trends and reveal problem areas. All useless information was eliminated and necessary information was identified and categorised under the specific themes. The researcher discussed the different opinions of authors and searched for data that could corroborate or contradict the views and findings of the research.

Step 4: Finally, the researcher integrated and summarised the data by forming suggestions that explain relationships among the categories. The researcher analysed the different themes through several perspectives on each issue.

The researcher also discussed the findings of the case study and literature with colleagues, to obtain a better understanding of the research findings. This approach helped the researcher to establish the areas in which training should be focused on to improve investigation in child rape cases.

1.10 METHODS TAKEN TO ENSURE VALIDITY

Validity concerns the accuracy of the questions asked, the data collected and the explanation offered. Generally, it relates to the data and the analysis used in the research (Denscombe, 2002:100). Data and information obtained from literature, interviews and case studies were used in a combined fashion to establish patterns and trends to ensure trustworthiness and validity of data and information, as described by Bouma (1993:47). In order to ensure validity, as described by Mouton (2001:100), the researcher used numerous sources of information (literature, interviews and a case study). Information was gathered from specific books, journals, etc. in the relevant subject field, to ensure that information was gathered from reliable and valid sources. The interview questions were based on the research questions, to ensure that they measured what they were intended to measure as accurately as possible (Miller & Whitehead, 1996:183). All interpretations, analyses and conclusions were made on the basis of the data gathered from the literature, interviews and case studies, as explained by (Mouton, 2001:110).

1.11 METHODS TAKEN TO ENSURE RELIABILITY

Reliability generally relates to methods and techniques used to collect the data (Denscombe, 2002:100). The researcher described how the data was gathered and analysed, and how the sampling was done. The researcher followed a disciplined approach, as described by Bouma (1993:14), to accurately report the findings of the research. The researcher interviewed respondents who specialise in rape investigation and who are among the most experienced people to obtain information from for this research. The interviews were written down to provide a proper record for analysis, as suggested by Bouma (1993:14). The structured interview schedule that was used for all respondents ensures consistency in measurement, as stated by Miller and Whitehead (1996:186). The interviews were structured in such a manner that similar kinds of information have been obtained about each respondent to ensure consistency, and therefore the same questions were put to all the respondents. However, one should keep in mind that human

behaviour is never static (Merriam, 1991:170). Should interviews be conducted with the same respondents at a later stage, using the same interview schedule, it could well be that the answers to the same questions would be different. The reason for that is that the respondents might have gained experience or training in the meanwhile. The researcher also ensured confidentiality and anonymity by conducting the interviews in private, which gave the respondents the opportunity to express themselves freely. The structured interview schedule as instrument was tested by approaching several of the researcher's police colleagues not included in this research, to identify any potentional problems. The suggested changes were incorporated into the final interview schedule that was distributed to the detectives. This ensured that the interview schedule was easily understandable and clear before being used. Furthermore, the researcher did not make use of leading questions or influence the answers of the respondents in any way. All literature used throughout this research report, is acknowledged. The study of literature, case docket analyses and structured interviews, ensured a particular richness of data in this research.

1.12 ETHICAL CONSIDERATIONS

Leedy and Ormrod (2005:101) state that whenever human beings are the focus of research, one must look closely at the ethical implications of what one is proposing to do, and that most ethical issues in research fall into one of four categories, namely, protection from harm, informed consent, right to privacy, and honesty with professional colleagues.

1.12.1 Protection from harm

The researcher interviewed the respondents at their offices in a generally safe environment, and at no stage were their lives at any greater risk than normal day-to-day risk.

1.12.2 Informed consent

The researcher obtained permission from the SAPS Head Office in Pretoria and from the SAPS Provincial Head Office in Johannesburg, to conduct this

study Qwith members of the West Rand FCS unit. Furthermore, the researcher informed the participants of the nature of the research and gave them the choice of either participating or not participating (Leedy & Ormrod, 2005:102). The researcher obtained consent from all the participants by informing them that participation in this research was entirely voluntary and that they could expect no special rewards.

1.12.3 Right to privacy

The researcher ensured the participants that all information given would be treated with the greatest confidentiality, and that the information would only be used in this research, and that the findings would be made public. The researcher did not discuss the participants' responses with - or show them to - any person other than the supervisor of this research. The participants requested to take part anonymously, so each respondent was given a number, and at no stage were the respondents' names put on the interview schedule. The researcher instead referred to them as Respondent 1, Respondent 2, etc. (Leedy & Ormrod, 2005:102).

1.12.4 Honesty with professional colleagues

The researcher reported the findings in a complete and honest fashion, without misrepresenting the findings or intentionally misleading others about the findings. The researcher strove to maintain objectivity and honesty throughout the research (Merriam, 1991:178). All resources and people's ideas or words used, were acknowledged by the researcher during this research (Leedy & Ormrod, 2005:102).

1.13 RESEARCH STRUCTURE (CHAPTERS AND LAYOUT)

The research report is divided into five chapters in which the research design is presented, the research questions are discussed, and the research findings interpreted.

Chapter 2: Crime scene investigation – This chapter is about the meaning and importance of crime scene investigation. Furthermore, the researcher

discusses the crime scene investigation process, which includes the pre-investigate, the investigate and the post-investigate phase, as described by Van der Westhuizen (1996:20-21).

Chapter 3: Evidential value of the crime scene - The contents of this chapter are basic, and the focus is on the common physical evidence normally stumbled upon at child rape scenes. The researcher also discusses the victim's body as a source of information, and the elements of the crime of rape.

Chapter 4: The role of identification in child rape investigations – In this chapter the researcher discusses the meaning and the differences between identification and individualisation in physical evidence. The researcher also investigates the different identification categories, and concludes the chapter with a critical discussion on DNA and fingerprints as methods of human individualisation.

Chapter 5: Findings and recommendations – This chapter summarises the research findings, and some recommendations are made regarding the research results.

CHAPTER 2

CRIME SCENE INVESTIGATION

2.1 INTRODUCTION

The popular television series Crime Scene Investigations (CSI) has certainly highlighted the role of the crime scene investigator, and it has definitely raised interest in forensic science among many people today. Lee, Palmbach and Miller (2001:2) state that contrary to the way crime scene investigation is portrayed in some television programs or movies, it is not glamorous, or accomplished in an easy manner. Erzinqlioglu (2004:14) points out that crime scene investigation is not just the application of a set of laboratory techniques and methods involving the location, recovery and documentation of evidence at the crime scene, but is a mental attitude and a tendency to think in a particular way.

Crime scene investigators strive to establish leads and clues for investigators to investigate (Lee et al., 2001:4) and form the basis for successful investigations. Pepper (2005:13) contends that considering the ever-increasing importance of physical evidence in the detection and prosecution of crime, and the fact that the crime scene investigator is at the forefront of investigation, the skills and abilities of the crime scene investigator have never been more crucial.

2.2 LOCARD PRINCIPLE

Lee et al. (2001:16) and Marais (1992:23) state that the quote by the criminalist Edmond Locard - “every contact leaves a trace” - is the fundamental assumption on which crime scene investigation rests. Locard believed that whenever two objects come in contact with one another, material is transferred between the two objects; in other words, there will be some sort

of gross contamination (Gardner, 2005:25). The respondents were asked the following: What does the Locard principle entail? All respondents, except Respondent 10 (2006), were of the opinion that it refers to the scientific principle that “when two objects or items meet, evidence or traces will be transferred onto each other”. Respondent 10 (2006) did not know the meaning of the Locard principle. The Locard principle, according to Respondent 7 (2006), refers to “when two items make contact, the one item will leave traces on the other”. Therefore, if one considers the nature of the crime of rape, it is clear that there will always be body contact between the victim and the suspect, and therefore material will always be transferred between two or more objects. This implies that material will also be transferred to the location where the two objects come in contact, based on the Locard principle. The following are examples where the Locard principle is applicable to child rape investigation:

- Where pubic hair is transferred from the suspect to the victim, and vice versa, during sexual intercourse
- Semen from the suspect to the victim’s body (vagina and anus) during sexual intercourse
- Pubic hair and semen on exhibits, e.g. panties, clothing etc.
- Semen, pubic hair, fingerprints, footprints, etc. at the crime scene.

2.3. CRIME SCENE INVESTIGATION DEFINED

Before commencing a study on crime scene investigation, one should look at the key words in crime scene investigation and how they are defined.

2.3.1 Crime

Joubert (2001:46) defines a crime as “an unlawful and blameworthy conduct which is defined by law as an offence and for which punishment is prescribed”, and that a crime consists of four elements that need to exist simultaneously, namely, legality, conduct, unlawfulness and culpability.

2.3.2 Crime scene

There are many different definitions for the term “crime scene”. However, Van Heerden (1986:217) refers to the scene of crime as “a field laboratory” where objects of dispute can be located for laboratory tests at a later stage. Marais and Van Rooyen (1990:23) define a crime scene as the locality of hidden clues which can lead to the clarification or detection of the crime, and it includes any other locality or place where physical clues concerning the crime can be found.

The respondents were asked to define a crime scene. All the respondents commented that it refers to a place where a crime was committed. Respondent 16 (2006) defined a crime scene as “a place or area where a crime has been committed”. If the researcher compares the respondents’ opinions of a crime scene with that of Van Heerden (1986:217) and Marais and Van Rooyen (1990:23), it is clear that the respondents limit the crime scene to include only the place where a crime was committed. As a result, much information and many clues might possibly go undetected, since a crime scene also includes any locality or place where physical evidence concerning the crime could be found (Marais & Van Rooyen, 1990:23).

2.3.2.1 Victim’s body as a crime scene

Carney (2004:37) argues that in any rape investigation there are two crime scenes which have to be processed: firstly, the location of occurrence, and secondly, the victim’s body. Osterburg and Ward (1992:201) agree with Carney (2004:37) and state that the victim’s body constitutes a crime scene that may contain possible evidence that was transferred from the suspect. Savino and Turvey (2005:120) state that in addition to the location where the rape occurred, the victim’s body may, in fact, be the most important crime scene.

In contrast to the views of Carney (2004:37) and Osterburg and Ward (1992:201), who refer to two crime scenes in a rape case, Horsewell (2004:3) takes the view a step further and refers to three crime scenes, namely, the location, the victim’s body and the suspect’s body. Horsewell (2004:3)

classifies the suspect's body as a secondary crime scene. However, Hazelwood and Burgess (2001:262) disagree with Horsewell (2004:3) and argue that the suspect's body cannot be classified as a crime scene, since it is not a place where a crime has been committed. The researcher supports Horsewell view, and believes that on the basis of the Locard principle that assumes that "every contact leaves a trace", the suspect's body should also be seen as a crime scene.

The argument for the victim's body to be classified as a crime scene is based on the Locard principle, which assumes that every contact leaves a trace. The very nature of rape dictates that the victim's body is the focal point of the early investigation process (Hazelwood & Burgess, 2001:277), since the victim's body will contain evidence of sexual assault, such as bodily or genital injuries.

Therefore, if one analyses the definition of a crime scene given by Van Heerden (1986:217), it is clear that a rape victim's body should be classified as a crime scene, as in a case of rape there is forceful physical contact between the suspect's and the victim's body. Therefore, based on the Locard principle, which states that whenever two objects come in contact with one another, material will be transferred between the two objects, body material such as fluids and hair will be transferred to the victim's body - and vice versa, to the suspect's body - during sexual contact.

Carney (2004:37) agrees with Savino and Turvey (2005:120) and refers to the victim's body as a crime scene in sexual assault cases, since he believes it is almost impossible not to transfer physical evidence, such as body fluids and hairs from the suspect to the victim - or vice versa - during a rape (sexual intercourse). Genge (2002:149) refers to the bodies of the victim and the suspect as the scene of the crime. The respondents were asked to mention the two different crime scenes generally referred to in rape investigations. 17 of the 18 respondents referred only to the location of the rape as a crime scene. The above findings on crime scenes supports Bower's (2006) recommendation that attention has not been given to the training of police officials who investigate child rape cases, with regard to gathering evidence to

prove the suspect's guilt beyond reasonable doubt. Since only Respondent 4 (2006) distinguished the victim's body as a crime scene, the findings indicate a lack of knowledge among the respondents and the researcher, since most respondents are not familiar with the fact that the rape victim's body is considered to be a crime scene. Therefore, valuable evidence may be lost if the rape victim's body is not protected and processed as a crime scene.

Crime scenes can naturally be classified into two types, namely, the primary and the secondary crime scene (Gardner, 2005:67-68). This classification is based on the original location where the crime occurred (Lee et al., 2001:2-3).

2.3.2.2 Primary crime scene

Lee et al. (2001:2-3), Gardner (2005:67-68) and Horsewell (2004:3) describe a primary crime scene as a place or area where an incident occurred and where the majority - or a high concentration - of physical evidence proving the majority of the elements of the crime under investigation, would be found. For example, if the child was rape in the suspect's flat, the flat will constitute the primary crime scene.

2.3.2.3 Secondary crime scene

Horsewell (2004:3) states that secondary crime scenes are places or things where physical evidence relating to the incident may be found. The concept of a secondary crime scene can be explained more effectively by means of the following example: if a vehicle was used by the suspect to transport the child to a place where the raped occurred, the vehicle ought to be a secondary crime scene, and should therefore also be processed in the same way as the primary crime scene, to gather physical evidence.

2.3.3 Investigate

Bennet and Hess (1987:5) state that the word "investigate" is derived from the Latin word "investigere", which means to track or trace. The Cambridge Advanced Learners Dictionary (2003:662) defines "investigate" as "to examine something, such as an event or situation carefully, to discover the truth about it".

Van Rooyen (2001:50) and Marais and Van Rooyen (1990:17) state that criminal investigation is a systematic search for the truth, and they argue that investigation means to observe, to question and to gather information that will reveal the truth. Criminal investigation, according to Van der Westhuizen (1993:297), can be described as the use of methods and techniques with required aid to discover, identify and to collect relevant information that can be used as evidence in criminal prosecutions.

Lambrechts and Theart (1996:1) define forensic investigation as a process to collect facts that can be used as evidence for court purposes, through which the associative part of an accused in the commission of a crime can be proved. The Oxford English dictionary (2004:118) defines forensic as “the application of scientific methods and techniques to the investigation of crime, relating to courts of law”. Pollex (2001:93) states “that forensic investigation is an investigation aimed at instituting court proceedings and where some or other scientific knowledge is applied to a legal problem”. Van der Westhuizen (1996:8) defines forensic investigation as “the applying of science in criminal investigation to individualise the crime or detect the alleged suspect by furnishing scientific proof of the suspect’s involvement in the crime”. If one therefore compares forensic investigation to criminal investigation, there is no real difference, since forensic investigation and criminal investigation are both based on the application of methods and techniques and are aimed at the institution of court proceedings - in other words, court-driven investigations (Van Zyl, 2005:14).

2.4 CRIME SCENE INVESTIGATION - THE FIRST STEP

Lee et al. (2001:1) state that crime scene investigation is the first and most crucial step in any criminal investigation. Gardner (2005:1) points out that crime scene investigation is an inherent task and duty of most criminal investigators. Lee et al. (2001:4) state that crime scene investigation is an investigation aimed at the crime scene, where the investigator seeks to discover all the aspects of the criminal activities at the crime scene; it is a process to locate and gather physical evidence from the crime scene. Lee et

al. (2001:49) continue and state that crime scene investigation is more than the processing or documentation of crime scenes; it provides the investigator with a starting point to investigate the alleged crime.

The respondents were asked what crime scene investigation entails. The researcher has tabled the respondents views on crime scene investigation as follows:

Frequency	Percentage	Respondents' views
1	5.6	It is to gather all evidence, physical or verbal.
2	11.1	It is to search the crime scene with the right people to look for evidence.
3	16.7	It is the collecting of materials for analysing purposes.
4	22.2	It is to visit the place where the crime was committed, to collect evidence and to interview witnesses to gather information.
8	44.4	It is a procedure where the detective gathers all forensic evidence at the scene of the crime for further analysing and to trace and link the suspect.
18	100	

Table 2.1

Table 2.1 shows that there is currently very little consistency between the respondents' views regarding what crime scene investigation entails. In general, the respondents all agreed that crime scene investigation is a process to gather and collect information. Respondent 4 (2006) stated that it is to visit and to process the crime scene for evidence and information. Respondent 5 (2006) argued that it is to gather evidence that can link the suspect to the crime. However, when one compares the views of the respondents with that of Lee et al. (2001:4), one finds that an integrated part of crime scene investigation is the documentation of the crime scene, and that

crime scene investigation is far more than merely the collecting of physical evidence, as was mentioned by the respondents. In fact, Adams, Caddell and Krutsinger (2004:2) warn investigators against the perception that crime scene investigation is seen as just the collecting and packing of physical evidence. Although all respondents indicated that they had completed the FCS course, it seems from their viewpoints that they do not fully comprehend what crime scene investigation entails.

2.4.1 The origin of crime scene investigation

Crime scene investigation is not new; a form of crime scene investigation can be traced back as far as 1750. Swanson, Chamelin and Territo (2003:4) report that Henry Fielding established a small group of volunteers in London, known as the "Bow Street Runners" in 1750. These volunteers hurried to scenes of reported crimes and began investigations, thus becoming the first modern crime scene detectives. Owen (2000:12) states that crime scene investigation as it is known today dates back to the 17th century in China, where a Chinese team of investigators studied crime scenes, examined physical evidence and interviewed witnesses and suspects.

However, it was only during the 1970's that crime scene investigation gained dramatically in popularity. Lee et al. (2001:19) state that during the 1970s many court decisions severely constrained investigators in their use of traditional interrogation techniques, and both investigators and scientists had to search for alternative sources to provide them with information. During these new developments investigators have realised that the crime scene contains a tremendous amount of information (Lee et al., 2001:20). As a result, investigations today rely greatly on crime scene experts to gather clues and evidence to prove the crime and the suspect's involvement.

2.4.2 Objectives of criminal investigation

An objective is different from an aim in that it describes more precisely a commitment which must be achieved within an appointed time and according to a specified standard (Van der Westhuizen, 1996:4).

Marais and Van Rooyen (1990:19), Van der Westhuizen (1996:4-7) and Bennet and Hess (2004:5) list the objectives of criminal investigation as follows:

- To identify the crime or to establish if a crime has been committed. This can be done by the investigation of the crime scene and by interviewing the complainant and witnesses.
- To gather evidence relevant to the investigation (including physical evidence left at the crime scene) and to determine the truth.
- To individualise the suspect - in other words, to compare all available information to identify and arrest the suspect.
- To recover stolen property, to restrict the victim's losses and to present the recovered property as evidential material.
- To assist the prosecutor in the prosecution process by means of presenting the collected information.

Gardner (2005:3) and Marais and Van Rooyen (1990:17) conclude that the objective of criminal investigation still remains, first and foremost, a search for the truth. Investigators have as much of a duty to disprove an allegation as they have to corroborate it (Gardner, 2005:3). Having established the meaning and the objectives of criminal investigation, the researcher will now discuss the objectives of crime scene investigation.

2.4.3 Objectives of crime scene investigation

Pepper (2005:13) argues that the objective of crime scene investigation is to recover physical evidence, and to ensure that the location of evidence can be accounted for all the way from the crime scene to the court, in order to secure

a conviction. Lee et al. (2001:113) and Ramsland (2001:XII) state that the objective of a crime scene investigation is, firstly, to locate all potentially relevant and meaningful physical evidence that could be used to link or clear a suspect or witness to a crime, and, secondly, to find information and evidence that proves a motive, and to identify the crime. Ogle (2004:2) takes the view further and argues that the basic objective of crime scene investigation is to reconstruct the event of the crime, in order to provide answers to what happened and who is responsible. The objective of crime scene investigation can therefore be summarised as an action to collect as much as possible evidence from the crime scene, to develop conclusions on how and why the crime was committed and who is involved (Gardner, 2005:75). In other words, the objective of crime scene investigation is to establish the truth about the crime under investigation. Therefore, if the researcher compares the objectives of criminal investigation with crime scene investigation, the researcher finds that crime scene investigation is limited in its objectives, since it is only aimed at the investigation of the crime scene. Furthermore, the objective of crime scene investigation is not to recover stolen property or to individualise the suspect, as in criminal investigation. The individualisation of the suspect is a process which is performed in forensic science laboratories and not at the crime scene.

The respondents were asked to explain the objective of crime scene investigation. Respondent 11 (2006) argued that it is to collect evidence and to gather information. The respondents views are grouped as follows:

- To gather information, through witnesses and physical evidence (7 respondents);
- To collect physical evidence (4 respondents);
- To gather evidence (3 respondents);
- To gather evidence that can link the suspect to the crime and the crime scene (3 respondents); and
- The collecting, bagging and transporting of material found at the crime scene to the laboratory, for testing and analysing (1 respondent).

2.5 THE CRIME SCENE INVESTIGATION PROCESS

The crime scene investigation process is more than just a crime scene search for evidence. Hazelwood and Burgess (2001:286) state that to many, the terms “crime scene investigation” and “crime scene search” mean the same thing. The crime scene investigation process is an organised, methodical, systematic and logical process (Lee et al., 2001:49). Therefore, any actions implemented at the scene of the crime must be correct, objective, systematic and thorough, in order to use the scene of crime meaningfully and to its full potential as a source of information (Van der Westhuizen, 1996:20).

Gardner (2005:75) states that there are certain sequences of procedures that need to be followed throughout the crime scene investigation process. Ogle (2004:209) agrees with (Gardner, 2005:75), and deals with the proceedings at the crime scene, stating that the actions at the crime scene will be determined by the specific facts of the crime - facts such as when and where the crime was committed, who the suspect involved is, and if the victim is able to communicate well. The crime scene investigation process is characterised by three essential conditions for success: organisation, thoroughness and caution (Fisher, 2000:53). However, when applying any processing model to a crime scene, the crime scene investigator should be prepared to go back at any given moment to a previous step and to repeat steps as deemed necessary. This is needed when the investigator discovers previously unobserved evidence. This going back and forth process is an integral part of crime scene processing. It happens all the time and at nearly every step of crime scene processing (Gardner, 2005:79).

Lee et al. (2001:17), Gardner (2005:1) and Horsewell (2004:8) state that the crime scene investigation process can be divided into different general stages; these are stated below. Other crime scene investigation sources may refer to these phases differently; however, they all share the same purpose, which is to provide an organised and logical process for the crime scene investigator (Gardner, 2005:2).

1. Control and protect the scene;
2. Assessment and walk through of the scene;
3. Documenting of the scene (notes, photographs and sketches);
4. Searching and collection of evidence;
5. Release the scene;
6. Analysis and interpretation of evidence; and
7. Case management.

However, Van der Westhuizen (1996:20-21) incorporates the above-mentioned stages in the crime scene investigation process into the following three phases: the pre-investigative phase, the investigative phase and the post-investigative phase.

2.5.1. The pre-investigative phase

The pre-investigative phase commences as soon as the first member arrives at the scene of the crime (Van der Westhuizen, 1996:21), and includes the control, protection, assessment and walk through phases, as described by Lee et al. (2001:17), Gardner (2005:1) and Horsewell (2004:8).

2.5.1.1 Control and protection

The term “first member” refers to the first representative of the police responding to the complaint, and is usually the nearest available police member, irrespective of the unit, who is dispatched to the crime scene. However, it is usually a member of the uniformed branch who attends to complaints (Ramsland, 2001:2). Fisher (2004:28) states that the success of the investigation depends greatly on the actions and steps taken by the first officer to arrive at the crime scene. Gardner (2005:59) states that the responsibility of no other role player at the crime scene is as clearly defined or as often described in crime scene references, as that of the first member. Marais and Van Rooyen (1990:28-30) and Van der Westhuizen (1993:18) state that taking control of the crime scene has a dual purpose; firstly, it is to prevent any disturbances at the crime scene; and secondly, to identify physical evidence and any possible witnesses.

The initial control of the child rape scene is essential, since it often happens that evidence is destroyed either by the public or by over-eager police officials, because there was either nobody or too many people who wanted to take control of the crime scene (Saferstein, 1981:31). Ramsland (2001:2) states that the first police official who arrives at the crime scene should remain in control until the investigator or crime scene team arrives. Only persons involved in the investigation should be given access to the crime scene (De Ladurantey & Sullivan, 1980:42), to avoid the disturbance of possible physical evidence.

The respondents were asked who is responsible for securing the crime scene. All the respondents stated that the first member is responsible for protecting and securing the crime scene, except for Respondent 7 (2006), who stated that the investigator is responsible for protecting and securing the crime scene. This indicates that most of the respondents know and understand the role of the first member at the crime scene, and are in agreement with the instruction given in circular 26/3/2 of 2007 (par. 1).

Circular 26/3/2 of 2007 (par.1) refers to incidents of poor conduct at crime scenes by first members (members who are dispatched to crime scenes first). The author of the circular, Division Commissioner Lamoer, alleges that the poor conduct at crime scenes by first members is hampering effective police investigations. According to circular 26/3/2 of 2007 (par.2), the role of the first member at the crime scene is just as important as that of any other member involved in the investigation, and first members should be made to understand the seriousness of the matter.

2.5.1.2 Assessment and walk through phase

Lee et al. (2001:57) state that once the scene is secure, the crime scene technician, together with the investigator who investigates the case, should conduct a walk through to assess the scene of crime. The crime scene expert, in the South African context is a highly trained and equip police official and are the equivalent of the crime scene technician (Geldenhuys, 2006:30). The crime scene expert is the principal processing expert on the crime scene.

Fisher (2000:51) states that when arriving at the scene, the investigator should first obtain basic facts from the first member already present. Gardner (2005:76) states that before any action can be taken at the crime scene, the investigator must assess the circumstances in order to decide on a plan of action. However, the assessment is an ongoing process and the investigator should adjust the processing plan when necessary (Gardner, 2005:76). Marais and Van Rooyen (1990:34), Horsewell (2004:370) and Van der Westhuizen (1993:24) state that the quick and preliminary walk through of the crime scene is necessary to determine the nature and extent of the crime scene, and also to identify possible physical evidence. However, when entering the crime scene, the investigator should proceed cautiously, mindful of potential physical evidence at the scene (Fisher, 2000:51). Since investigators are not exempt from Locard's principle of exchange, every action of the investigator taken at the crime scene has an impact (Gardner, 2005:75), therefore investigators should minimise the handling of items at the crime scene.

Marais and Van Rooyen (1990:33) report that the most common mistakes made by investigators at crime scenes are the following:

- Unnecessary handling of objects on the crime scene;
- Trampling on important foot and vehicle prints;
- Leaving of cigarette butts and burnt matches on the scene;
- The moving of furniture and objects;
- The addition of physical clues such as hair, by combing hair on the crime scene; and
- The use of basins, toilets, towels, etc. on the scene.

Gardner (2005:95) states that during this phase the investigators should walk through to familiarise themselves with the task and to determine access routes to and from the crime scene, to manage access and to avoid the disturbance of possible physical evidence. All visible evidence should be traced and mark by means of placing a label or marker next to the evidence.

Once the walk through is completed, a briefing should be held on scene, to inform all relevant role-players of conditions at the scene and of special equipment needed for processing the child rape scene (Hazelwood & Burgess, 2001:29).

2.5.2 The investigative phase (documentation phase)

The investigative phase starts with the documentation and searching of the crime scene (Van der Westhuizen, 1996:24). Fisher (2000:50-51) argues that using two crime scene investigators to search and collect physical evidence is the most effective way to process major crime scenes. However, Fisher (2000:50) believes that one crime scene investigator alone can do an effective job of searching and collecting physical evidence, but having two is better. Documentation of the crime scene is crucial (Gardner, 2005:129) and many cases have eventually been solved, not by a lengthily scientific analysis, but rather by the properly documented, seemingly insignificant detail located or observed at the crime scene (Lee et al., 2001:25).

Gardner (2005:129) states that crime scene documentation consists of the following key elements, namely:

- Notes and reports
- Photographs/videos
- Sketches.

Gardner (2005:129) states that each element supports the other and provides everyone with a clearer picture. The objective of the investigator should be to document the child rape scene in all possible ways, since documenting the scene in all the above ways requires the investigator to think and observe differently, and, as a result, a more complete picture of the crime scene is documented (Hazelwood & Burgess, 2001:290).

2.5.2.1 Note taking and crime scene reports

The respondents were asked what they regarded as the primary responsibility of the investigating officer at the crime scene of rape. They all agreed that the

main focus is to locate and gather evidence. This in itself is not wrong, since locating and gathering physical evidence is very important in convicting a child rapist. However, note taking is the first form of crime scene documentation and is the most important duty and responsibility of the first member and the investigating officer at the scene, according to Fisher (2004:77). Gardner (2005:203) and Joubert (2001:338) state that the first member and the investigator should, upon arrival, note everything that they observe at the child rape scene, as well as the contact details of all persons involved, including the victim, and all relevant information regarding the child rape. The notes should be taken down as soon as possible and investigators can use their pocket books and/or voice recorders to note all relevant information at the scene of crime (Marais & Van Rooyen, 1992:36). Note taking and the compiling of crime scene reports can be used, firstly, for reconstruction of the events found at the crime scene, and, secondly, to refresh the witness's memory before a court case (Joubert, 2001:339). This is because the prosecutor, defence and the presiding officer will, during the course of the trial, question the investigating officer about the findings of his/her investigation, the condition and appearance of the victim and the crime scene (De Ladurantey & Sullivan, 1980:47-488).

In practice, the case studies contained limited information about crime scenes, since only three of the 27 cases analysed contained some sort of crime scene notes. Marais and Van Rooyen (1990:185) point out that the investigator who arrives at the crime scene and decides that this particular crime will never be solved and therefore does not take any investigation notes, makes a big mistake, since once the crime scene has been released, all or most information at the crime scene will be damaged or lost for the investigation.

2.5.2.2 Photograph the crime scene

The use of photography in crime scene investigation has been widely practiced throughout the world. Savino and Turvey (2005:77) believe that photographs are one of the best ways to quickly and accurately document evidence. Gardner (2005:130) takes this point of view further and states that crime scene photography is the bread-and-butter of crime scene

documentation. Osterburg and Ward (1992:163) and Lee et al. (2001:66) point out that photos and sketch plans form an important part of crime scene investigation in general, since they provide a permanent graphic record of the appearance and position of victims, objects and physical evidence and their relationship to each other at the crime scene. Marais and Van Rooyen (1990:41) support the view of Osterburg and Ward (1992:163) and Lee et al. (2001:66) and state that the basic purpose of crime scene photography is to record the crime scene permanently. Horsewell (2004:146) states that close-up photos should be used frequently throughout crime scene investigation to record smaller seize evidence, such as blood and semen stains.

In the South African context, police members of the Local Criminal Record Centre (LCRC) are trained and equipped to photograph crime scenes (Geldenhuys, 2006:30). However, it stays the responsibility of the investigating officer to point out to the photographer what he/she wants photographed.

The information obtained from the 27 case dockets analysis indicated that no photos were taken of the crime scene or victim. The findings therefore show that in practice, FCS investigators do not make use of crime scene photos to support their investigations.

In *S v Fuhri* 1994 (2) SACR 829 (A) the court ruled that a photograph is admissible as evidence even if it was taken without human intervention. However, the photographer has to testify that the specific photo is, in fact, of the crime scene and that he took the photos on a specific date and time.

2.5.2.3 Sketch the crime scene

Fisher (2004:86) states that photographs alone are not sufficient for documenting a crime scene adequately. Crime scene sketches are another form of crime scene documentation. Fisher (2004:86) argues that photographs and sketches complement each other, and, therefore, sketching the crime scene should also be routinely done. The purpose of crime scene sketches, according to Marais and Van Rooyen (1990:41), is to support the

crime scene notes and photos and also to explain the crime scene and the location of important evidence. The sketch supports the photographs and notes and will ultimately complement the final report and provide a greater understanding of the crime scene (Gardner, 2005:163).

Members of the LCRC are, in the South African context, responsible for drawing crime scene sketches (Geldenhuys, 2006:30). The crime scene sketch may be nothing more than a freehand drawing with no scale, or it could be a document to scale. However, Gardner (2005:163) argues that whatever the quality of the crime scene sketch, it serves as a graphic document to show the layout, orientation and interrelationships of the scene and the evidence.

The 27 case dockets analysed revealed no crime scene sketches whatsoever, in any of the dockets. The findings once again highlight the importance of understanding proper crime scene documentation. Crime scenes have to be well documented (Horsewell, 2004:12) for the following reasons:

- It will provide the investigator with the basis to compile statements and reports at a later date;
- It will also provide the investigator with information of which he/she may not otherwise have knowledge; and
- It will assist the court in reconstructing the scene, providing the most reliable evidence.

2.5.2.4 Search the crime scene

Pence and Wilson (1994:100) engage with this problem of poor crime scene searching, and argue that investigators do not often search the crime scenes of sexual assault cases, particularly in interfamilial cases. Pence and Wilson (1994:100) state that investigators often see no point in visiting and processing rape scenes when the victim and suspect are related and live together. Fisher (2004:327) emphasises the need for proper crime scene investigation in rape cases, and he continues to say that few crimes rely as heavily upon physical evidence as does the crime of rape. Therefore, a crime

scene search can uncover evidence of the crime and can also support aspects of the child's statement (Pence & Wilson, 1994:100-101). Brown (2001:11) agrees with Fisher (2004:327) and states that one of the difficulties in prosecuting rape cases is the lack of physical evidence, and investigators have to look for physical evidence to support the victim's statement. Lee et al. (2001:118) argue that to search the crime scene properly it is necessary to view the crime scene in its entirety and not just as an evidence collection operation.

Therefore, the investigator assigned to the case will have to search the entire child rape crime scene to trace and locate physical evidence (Ogle, 2004:209).

The respondents were asked if they visit the crime scenes during their cases.

- 80% indicated that they always visit their crime scenes.
- 20% indicated that they often visit their crime scenes.

However, in practice the researcher found that FCS investigators do not often visit and process the crime scene in their cases. The case studies showed that in practice in only three of the 27 (11%) dockets analysed, were the crime scenes visited. The findings support Zwane's (2006) view that West Rand FCS investigators are neglecting crime scene investigation. The findings point out a major weakness, since the effectiveness of child rape investigations in practice greatly depends upon physical evidence (Fisher, 2004:327). The findings imply further that much physical evidence may go undetected and is therefore lost to the investigation process.

The case studies also indicate that no exhibits were found at the crime scenes; this may be an indication that the crime scenes were never properly searched. The researcher acknowledges the fact that exhibits are not always found at all crime scenes and that many child rape cases are reported to the police long after the raped occurred. However, this does not mean that investigators should not visit and search the rape scene for evidence.

2.5.2.5 Crime scene search methods

Lee et al. (2001:122) and Gardner (2005:1) state that there are basically six different search patterns, namely: the grid, spiral, wheel or ray, zone, strip, and link method. Other crime scene investigation sources may refer to these search patterns differently; however, they all share a common goal of providing structure and organisation to ensure that no physical evidence is overlooked. The specific method chose to search the child rape crime scene, on the other hand, is unimportant (Gardner, 2005:101), as long as the method is methodical and systematic.

Wheel method – with this method investigators start at the middle of the crime scene and then move to the outside (Lee et al., 2001:127). This method lends itself more toward outdoor crime scenes; however, it is seldom used in practice (Van Rooyen & Marais, 1990:54).

Spiral method - According to this method investigators start from the outside and work their way through to the centre point or vice versa (Gardner, 2005:106). Marais and Van Rooyen (1990:56) state that this method is more suited to outdoor crime scenes and is mostly effective if used in small areas.

Zone method – Marais and Van Rooyen (1990:56) and Lee et al. (2001:126) state that this search method is effective indoors and can be used to search a room. Gardner (2005:110-111) agrees with Marais and Van Rooyen (1990:56) and Lee et al. (2001:126) and states that according to this method the crime scene (room) is divided into various sectors or zones and each investigator is responsible for his/her own sector.

Strip method – This method can be equally well applied outdoors and indoors. The crime scene is divided into a series of narrow strips or lanes and each strip is searched by an investigator. This method is thorough, although simple, and can be carried out by one or more investigators satisfactorily (Van Rooyen & Marais, 1990:56).

Grid method – This method is an extension of the strip method and involves one or more investigators. The crime scene is divided into horizontal and vertical strips. This is a very thorough search method.

Link method – Marais and Van Rooyen (1990:53) do not describe or even mention this method. However, Lee et al. (2001:124) state that this method is often the most productive and common approach for crime scene searches. The method is based on the four-way linkage theory, seeking to find associations between the scene, the victim, the suspect and physical evidence. During this search method the investigator searches for physical evidence and clues that link or relate to a particular crime or action (Lee et al., 2001:124).

The respondents were asked to name the searching method they mostly apply in the search of the rape crime scene.

Frequency	Percentage	Search Method
1	5.6	Grid and spiral
2	11.1	Combination of searching methods, no particular one
3	16.7	Spiral
5	27.8	Zone
7	38.9	Grid
18	100	

Table 2.2

Table 2.2 shows that the respondents make used of different search methods when searching crime scenes. This is not wrong, since Lee et al. (2001:122) point out the fact that there is no single correct search method for a specific type of crime scene, and it is up to the experience of the crime scene investigator to evaluate all available information before making a decision.

2.5.2.6 Collection process

The collection process follows the assessment, documentation and search stages (Van Rooyen, 2001:56; Horsewell, 2004:27). The purpose of the collection process is to collect physical evidence for analysis at the crime laboratory to produce scientific information with evidential value (Gardner, 2005:347). The collection process will usually start with the collection of the most fragile or most easily lost evidence (Horsewell, 2004:27), and blood is perhaps the most fragile evidence found at the crime scene (Fisher, 2004:208). Horsewell (2004:27) believes that to collect the fragile evidence first, will avoid possible contamination and damage of the scene. The collection of evidence is a disturbing process, since some items of evidence or other structures may need to be moved or relocated before the rest of the crime scene can be processed, Lee et al. (2001:132). Once an item is removed from the crime scene, the context of the crime scene is changed forever (Gardner, 2005:77). Therefore, so that further evidence is not damaged or lost Lee et al. (2001:132) suggest that one person should be designated to collect the physical evidence. Fingerprints and biological material such as blood and semen can be very fragile and can easily be destroyed by human actions. Therefore, collecting this fragile evidence first should be done in such a manner that no other physical evidence is lost or damage. Fisher (2004:208) states that once biological fluids such as blood or semen are found, they must be collected and preserved in a prescribed manner that will ensure maximum benefit

2.5.3 Post-investigative phase

This phase is the rounding off phase of the scene search. The crime scene investigator and support services should ensure that all equipment used during the crime scene investigation is removed from the crime scene, before they move on to the next step - which is to release the crime scene. After a thorough review of the collected evidence and all prepared documents, release of the scene should be considered (Hazelwood & Burgess, 2001:295). The person in charge of the investigation should release the scene only if it is safe to do so, and should document the date and time of the release and the person to whom the scene was released. However, the

decision to release the scene should be made only after consultation with all the role-players involved, since after the release a warrant is usually required to re-enter the crime scene (Hazelwood & Burgess, 2001:295).

2.5.4 Analysing and interpretation phase

The analysing and interpretation of evidence is the final step of the crime scene investigation process (Gardner, 2005:348), and can be defined as the use of scientific methods, physical evidence, its interrelationship with the scene and other items of evidence (Gardner, 2005:349). However, the maintaining of continuity of physical evidence after it is removed from the crime scene is essential for the results of the investigation. The physical evidence must be handled in such a way that it reaches the forensic science laboratory undamaged and uncontaminated. The forensic scientist examines all related physical evidence found at the crime scene during this phase, to obtain context from the physical evidence that is separate and specific (Gardner, 2005:347). For example, in a child rape case, if the suspect claims no sexual intercourse, the presence of the suspect's sperm in a sample recovered from the victim's genitals will effectively indicate that the suspect had sexual intercourse with the victim (Gardner, 2005:347).

2.5.5 Case management

The detective is the principal investigator of a case and has the responsibility of maintaining the case docket (Adams et al., 2004:45). Marais and Van Rooyen (1990:187) state that the investigator in the SAPS makes use of a case docket or file (SAP 3), wherein all the investigation information, such as statements, photographs and documentation (Joubert, 2001:43) regarding the specific case, is kept. Each statement, photo or document should be filed in chronological order and be marked at the top with an index number. Marais and Van Rooyen (1990:187) state that the outside cover of a case docket can be seen as the file's title page and contains information such as the case number, the date on which it was reported to the police, the type of crime committed, the surname of the investigator and the particulars of the complainant or victim. Van Rooyen (2001:53) states that the detective has to investigate and present the case in such a manner that the prosecutor can

understand every detail of the case. Joubert (2001:43) states that the prosecutor relies on the information in the case docket to decide whether or not to prosecute.

2.6 CONCLUSION

Investigators have come to realise that proper crime scene investigation is critical to any forensic investigation, since any criminal system that depends on a confession will become less reliable and more abused than a system that depends on physical evidence (Fisher, 2004:xv). The beating or forcing of suspects to submit to confessions is not an option; therefore, investigators should be trained to move away from a confession-based system to an evidence-based system.

CHAPTER 3

EVDENTIAL VALUE OF THE CRIME SCENE

3.1 INTRODUCTION

Gilbert (2004:91) and Hazelwood and Burgess (2001:264) argue that all crime scenes contain physical evidence. Marais and Van Rooyen (1990:29) state that physical evidence is usually present at crime scenes and the fact that it is not always found, does not mean that there is no physical evidence at the scene of crime. The victim, the suspect and the crime scene are three major sources that provide valuable evidence in sexual assault cases (Hazelwood & Burgess, 2001:262).

Fisher (2004:327) argues that only a few crimes rely as heavily upon physical evidence as does the crime of rape, and in order to secure a conviction it has become increasingly important to focus on the recovery of physical evidence during the crime scene investigation process. In few other cases is the testimony of the victim viewed with as much mistrust by courts and sometimes even by prosecutors and police.

When dealing with child rape one is often confronted with the fact that these crimes are mostly committed in secret, that there are very few, if any, witnesses, and that the investigator has to look for alternative evidence. It is often the child's word against the word of an adult man (rapist) (Jordaan, 2004:2).

3.2 THE CRIME OF RAPE

Every crime is unique. There are legal elements for every crime, and therefore each crime represents an individual challenge to the investigator. All these elements must be present to prove a crime (Van Rooyen, 2001:52).

In the crime of rape, the act consists in the penetration of the woman's genital (vagina) by a man's genital (penis), and it is not necessary that the intercourse be completed - the slightest penetration is sufficient (Snyman, 2006:449).

In the South African context, the law distinguishes between common law rape and statutory rape. Snyman (2006:449) defines common law rape as "sexual intercourse by a male with a female without her consent". The absence of consent is the basis of the crime.

Statutory rape, on the other hand, is a contravention of the statutory provision of section 14(1)(b) of the Sexual Offences Act 23 of 1957 which states that consensual intercourse by a male with a girl between 12 and 16 years of age constitutes statutory rape and not common law rape. The difference is illustrated by the Supreme Court of Appeal (SCA) in Bloemfontein that remarked in *S v M* 2006 (1) SACR 135 SCA that if a male has sexual intercourse with a female person under the age of 16 years, consent by the female is no defence for the accused against a charge of under-age sex, and such action by the accused constitutes statutory rape.

However, Joubert (2001:117) states that there is an irrefutable presumption that a girl under the age of 12 years cannot consent to sexual intercourse, and sexual intercourse with such a person constitutes rape, even if there was consent.

Considering the definition and elements of rape, one of the basic objectives of the investigator should therefore be to find evidence that proves sexual intercourse (penetration) and also that sexual intercourse occurred without consent.

3.3 EVIDENCE

Evidence in its broadest sense is anything that tends to prove or disprove a fact in contention (Gardner, 2005:7). However, the researcher searched for

alternative definitions for the concept “evidence”, and found the following. The Concise Oxford Dictionary (2002:494) defines evidence as “a thing, object or a testimony that could be helpful in forming a conclusion or judgment in a court of law”. Joubert (2001:342) refers to evidence as valid information, which, if admissible in court, strives to prove facts at issue. Ivamy (1993:99) defines evidence as “that which, in a court of justice, makes clear, or ascertains the truth of, the very fact or point at issue, either on the one side or on the other”.

The respondents were asked to define the concept “evidence”. Their answers were grouped together as follows: three respondents stated that evidence is anything that can identify, link or prove a person’s involvement in an alleged crime. Another three respondents believed it is information found on the crime scene that can assist in proving that a crime was committed and who the suspect is. Five respondents believed that evidence is proof that a crime was committed. Seven respondents stated that evidence is anything that can link a suspect to a crime.

On the basis of the respondents’ views above, it seems as if the respondents have a fair understanding of the concept “evidence”; however, some of the respondents narrow the scope of evidence to something or someone that only links a suspect to a crime. This is not necessarily wrong, since it is important to find objects or people that may link the suspect to the crime. However, the respondents’ views imply that evidence is only something or someone that can link a suspect to a crime, and that may direct their attention away from valuable evidence which may prove a fact or issue in a criminal court.

Osterburg and Ward (1992:71), Gardner (2005:348), Fisher (2004:1) and Jackson and Jackson (2004:34) state that there are two principal sources of evidence for the detective to work with, namely, people (oral evidence) and objects (physical evidence). Both sources are commonly found at crime scenes and play a vital role throughout the investigation process (Gardner, 2005:7).

The evidence can either be direct, circumstantial, testimonial or physical (Ogle, 2004:1-2). Ogle (2004:2) defines direct evidence as “evidence that proves a fact without the necessity of an inference or presumption”. For example, in a child rape investigation, the criminal court may rule the findings by the medical doctor regarding the injuries of the child as true and correct, and, as a result, regard it as direct evidence.

Circumstantial evidence, on the other hand, is not direct evidence, involves a series of facts, and is usually a chain of circumstances from which a fair assumption can be made as to the validity of the fact at issue (Ogle, 2004:2).

3.3.1 Testimonial evidence (Oral)

Testimonial (also called oral) evidence is collected through the interviewing and interrogation of witnesses, victims and suspects or subjects (Gardner, 2005:70), and can be either direct or circumstantial.

When a crime of rape is committed, an investigator is assigned to investigate the case. The investigator, inter alia, takes a written statement from the victim or complainant and other witnesses (Smit, Minnaar & Schnetler, 2004:48). Van Rooyen (2001:250) states that the victim or complainant is the most important witness in any case. Travers (1995:138) agrees with Van Rooyen (2001:250) and argues that successful investigation into any civil or criminal matter greatly depends upon the effective questioning of the complainant. Holmes and Holmes (2002:268) and Savino and Turvey (2005:39) state that the complainant can provide valuable information and can help the investigator to establish the facts of the case and identify possible witnesses and suspects. Therefore, the value of oral evidence should never be underestimated during crime scene investigations, and in many instances the oral evidence of the witness (testimony) will be the only evidence before court (Van Rooyen, 2001:59). Thus, the investigator, according to Williams (1991:17) should start his/her investigation at the crime scene, by interviewing the complainant and other possible witnesses.

The respondents were asked if they regard the interviewing of the complainant/witnesses at the crime scene as necessary. Seven of the respondents answered “yes” and motivated their answers by stating that the suspect might still be around at the crime scene, and therefore the victim could point out the suspect. Five respondents stated “yes” and motivated their answers by saying that it is easier for the victim to explain the events of the rape to the investigator and point out facts that are unclear, while at the crime scene. Six respondents answered “yes” and stated that the victim remembers the events of rape better (victim’s mind is still fresh) and therefore more information can be gathered when interviewing the victim or witnesses at the crime scene. The respondent’s views, above, imply that there seem to be some advantages in interviewing complainants and victims at the crime scene.

However, gathering information from a child between the ages of two and four can be very challenging. The reason for this is that some children in this age range can communicate very well verbally, while others are still speaking only in one or two word utterances. Therefore, when the investigator according to Friedemann and Morgan (1985:29), has to interview a child in this age group, for information, it is better to interview the person who reported the rape (complainant) and family and friends of the child, since some children may not at first speak to an unknown person.

3.3.2 Physical evidence

Obtaining physical evidence from the crime scene on the other hand is often the cornerstone for successful investigations (Lee et al., 2001:113). Ogle (2004:2) defines physical evidence as objects that are linked to the commission of a crime. Van Heerden (1982:216) alerts us to the fact that physical evidence is normally found at the crime scene, on the victim (if applicable) and/or on the suspect and his/her surroundings. Criminal courts refer to physical evidence as real evidence. Schivikkard and Van der Merwe (2002:367) define real evidence as “any thing, person or place that is observed by the court in order that a conclusion may be drawn as to any fact in issue”.

The respondents were asked what physical evidence entails. The respondents' answers were grouped together. Five respondents believed it is evidence that one can see, feel and smell. Two respondents stated that physical evidence is something one can see that proves a case. Another respondent mentioned that physical evidence is evidence that is collected from the crime scene. Ten respondents' commented as follows: "[p]hysical evidence is something that one can touch and see, such as blood and semen".

Respondent 1 described physical evidence as "something that you can see, feel and smell and what add[s] value to your investigation."

The respondents' views indicate that there is general agreement among them as to what physical evidence entails.

3.3.3 Physical evidence versus testimonial evidence

Physical evidence is often criticised in the courtroom; however, Houck (2004:128) states that many believe that it is more influential and reliable and provides more valid information about a crime, than eyewitness identification. Gardner (2005:23) argues that physical evidence has a superior influence and ability to testimonial evidence in defining what happened at any crime. Gardner (2005:23) believed that physical evidence is of more value than testimonial evidence. Respondent 17 (2006) argue that physical evidence can be analysed to identify and link the suspect to the crime.

Ogle (2004:4) and Butler (2005:33) agree with Gardner (2005:23) and state that physical evidence holds a number of advantages over testimonial evidence, because of the concrete nature of this type of evidence. Gardner (2005:348) states that there is one simple difference between testimonial evidence and physical evidence, which is that people lie and misperceive, and therefore testimonial evidence, though important, is neither the strongest nor the most objective evidence. On the other hand, physical evidence properly collected, evaluated and correlated, has the power to establish facts regarding an incident that are irrefutable by anyone.

The crime scene investigator can, however, overstate the physical evidence, misrepresent it or misunderstand it, but that is a problem associated with human weakness and not with the physical evidence (Gardner, 2005:348).
On the basis of the abovementioned, and considering the importance of oral and physical evidence, there should be no doubt that a balanced investigation should consist of oral, as well as physical evidence. The above findings imply that physical evidence should never replace the role of oral evidence; instead, both types of evidence should be regarded equally, because of their unique features. Therefore, the investigator should strive to collect evidence that allows the prosecutor to make an informed decision whether to prosecute or not (Smit et al., 2004:50).

3.4 PHYSICAL EVIDENCE COMMONLY FOUND AT CHILD RAPE SCENES

Physical evidence in criminal investigations, whether associated with child rape or not, represents an important and often critical aspect of the overall criminal investigation process (Hazelwood & Burgess, 2001:261). Hazelwood and Burgess (2001:221) state that various types of evidence play a crucial role in the successful investigation and prosecution of sexual assault cases, and it is therefore necessary to mention the types of evidence. Different types of physical evidence may add different values to a sexual assault case; however, it is often the insignificant evidence that provides important clues (Williams, 1991:18), for example, shoe- or footprints. Van der Westhuizen (1996:5) and Ogle (2004:208) state that the physical evidence most often encountered at crime and rape scenes includes the following: semen, saliva, hair, footwear impressions, soil, blood, fingerprints, clothing or articles from the suspect or victim, left at the scene.

The respondents were asked to name the physical evidence they look for, when processing child rape scenes. The respondent's various answers were tabled as follows:

Frequency	Percentage	Respondents' views
1	5.6	Body fluid or anything that can link, identify or prove the case.
2	11.1	Hair, semen, condoms, footprints, urine, cigarette butts, blood and glass objects for fingerprints.
3	16.7	Medical evidence and findings such as semen, cuts, tears and bruises on the victim's body, as well as fingerprints.
4	22.2	Anything from the suspect or victim that may contain body fluids or any other body material, for example, blood, saliva, hair and fingerprints.
8	44.4	Blood, semen, condoms, towels, sheets, clothes and torn underwear.

Table 3.1

Respondent 8 (2006) stated that investigators should look for panties, condoms, sheets and clothes containing blood.

If the respondents' answers in table 3.1 are compared with the views of the authors above, there is no great difference between them, and it indicates that the respondents are generally in agreement with Ogle (2004:208) on what physical evidence to look for at child rape scenes.

The results of the case studies showed that in practice no exhibits were found at crime scenes or handed in as evidence. However, the results are no surprise, since in only 11% of the cases were the crime scenes visited, and there was no indication that any crime scene expert attended the crime scene. It is however important for the child rape investigator to go out with the victim to identify and to conduct a proper search of the crime scene. Since, one of the difficulties in prosecuting a rape case is the lack of physical evidence (Brown, 2001:11).

Therefore when processing the rape scene, the investigator should look for substance and physical evidence that can prove sexual contact between the victim and the suspect (Adams et al., 2004:126). Semen is one such substance that can prove sexual contact between a victim and a suspect (Van der Westhuizen, 1996:208).

3.4.1 Semen

Physical evidence covers a wide range of possible items and material from the rape scene. However, Carney (2004:47) and (Fisher 2004:331) state that semen is the primary bodily fluid left behind by the rapist and can be found wherever the rapist ejaculates, assuming that no condom was used, and it is by far the most common sought after evidence at the rape scene. Ogle (2004:146) agrees with Carney (2004:47) and states that semen evidence may play a role in other types of crimes, but the majority of cases involving semen evidence are sexual assaults. The respondents were asked to name the most common biological material left behind at the rape scene.

- Semen (10 respondents);
- Semen and hair (four respondents);
- Semen and blood (three respondents); and
- Semen and saliva (one respondent).

Ten respondents supported Ogle's (2004:146) and Carney's (2004:47) view, and stated that semen is the most common biological material left behind at the child rape scene.

Ogle (2004:145) defines semen as the male ejaculate; therefore, only men can produce semen. Semen is a body fluid produced by the testes (male reproductive glands) and accessory sex glands, such as the prostate gland and seminal vesicles (Jackson & Jackson, 2004:124). Semen consists of 10% spermatozoa, the rest consisting of protein-enriched serum that combines the spermatozoa. However, it is important to note that DNA is not found in the seminal fluid, but in the actual sperm cells (spermatozoa), according to Gilbert (2004:316).

That points out the fact that DNA typing would not be likely from the semen of a sterile or sterilised man, since a sterile man cannot produce spermatozoa (Marais, 1992:126).

Inside the house, the investigator should look for bedding material, such as the mattress, sheets, blankets, comforters and carpets (Marais, 1992:126), which may contain valuable physical evidence, such as semen, hair, saliva and blood. However, if the rape occurred in an open field, the investigator should look for semen stains on gravel, stones, dry leaves and on pieces of paper lying on the ground near the place where the rape occurred (Marais, 1992:127). Ogle (2004:210) states that the use of a laser light or an alternative forensic light may be very helpful in searching for semen-like evidence at the crime scene, since the fluorescent light makes it possible for the semen to be detected. Semen usually displays a pale blue-white or orange fluorescence.

Geldenhuys (2006:41) reports that body fluid detection dogs are one of the latest methods and techniques introduced in processing crime scenes, such as rape scenes, in South Africa. These dogs were introduced in 2004 in the South African Police Service, and can assist crime scene experts in locating physical evidence, such as semen and blood at or near where the child describes the crime has occurred (Geldenhuys, 2006:43). Marais (1992:129-130) states that semen evidence could be analysed for the following:

- ⇒ The presence of human spermatozoa.
- ⇒ To distinguish between animal and human spermatozoa.
- ⇒ To establish the deponent's DNA typing.

3.4.1.1 Condoms

Savino and Turvey (2005:188) state that investigators should not overlook the importance of abandoned condoms found at rape scenes. The obvious reason is that condoms serve as a crucial source of semen. Used condoms lacking semen still have great value; for example, the suspect's skin cells left in the condom can be collected for DNA analysis. In addition to the condom, the

investigator should also look for the condom wrapper that may contain possible fingerprints or saliva if the suspect used his mouth to open it (Savino & Turvey, 2005:189). Respondents 8 (2006) and 9 (2006) believe that condoms are commonly found at child rape scenes, and investigators should always first look for and trace possible used condoms.

The case studies show that no semen or condoms were found at the crime scene, or handed in, in any of the 27 dockets analysed. The results of the findings raise some concern, since it seems that apart from the fact that investigators seldom visit the crime scenes, most rapists know and understand the value of semen and condoms in rape cases and therefore hide or destroy this evidence at rape scenes. On the other hand, one may argue that investigators should make use of crime scene experts more often, to try and improve the recovery rate of physical evidence at child rape scenes.

3.4.2 Saliva

Saliva evidence can be linked to any object that normally comes into contact with the human mouth, for example, cigarette butts, chewing picks, or glass objects (Marais, 1992:131). Fisher (2004:167) and Horsewell (2004:30) state that ashtray contents, such as cigarettes, cigarette butts and ash are frequently found at crime scenes, and just as frequently overlooked as potentially useful evidence. The following ashtray contents may contain saliva evidence and should therefore be collected for forensic analysis: cigarette butts, toothpicks, chewed matches and chewing gum.

On the other hand, cigarette packages are just as frequently found along with cigarettes, and can generate the possibility of fingerprints; furthermore, the serial numbers on the cigarette package may provide the investigator with information on the general location where the cigarettes were bought (Fisher, 2000:185). All the above physical evidence could be forensically analysed to retrieve possible saliva (Hazelwood & Burgess, 2001:327), with the aim of establishing a DNA profile or blood grouping, which could later be used to compare with the DNA profile of the suspect, if the suspect has been arrested (Marais, 1992:132).

3.4.3 Hair evidence

Some evidence at the crime scene simply draws more attention to itself than other evidence. For example, fingerprints on a glass object left behind at the crime scene, or semen stains on a blanket where the suspect raped the victim, may draw so much attention that other evidence, such as hair is largely ignored. Hair evidence, especially pubic hair, is often transferred to the crime scene or the victim's and suspect's body during the rape, and can provide the investigator with valuable information about the deponent, such as the age range, race, gender, and the part of the body from which it originates (Adams et al., 2004:43). Respondent 3 believes towels are generally possible sources of hair evidence, since they are commonly used by the suspect and victim to wipe their genital area after the rape. All 18 respondents indicated that investigators should search and collect hair and pubic hair evidence for DNA analysis. However, Gardner (2005:34) states that in most cases hair evidence can only be linked to class characteristics and not to individualisation, if the root material of the hair is lost or damaged, since DNA is found only in the root material of the hair (Gilbert, 2004:316).

Therefore, the real value of hair evidence is in the comparison of DNA. Hair samples recovered from the crime scene should therefore be compared to the samples collected from possible suspect[s] for DNA comparison and possible individualisation.

3.4.4 Footwear impressions

Lee et al. (2001:144) and Fisher (2004:225) point out that impression evidence such as footwear prints is one type of physical evidence commonly found at crime scenes, but it has not received much attention, according to Geldenhuys (2007:10).

Pepper (2005:48) states that the earliest known use of footwear marks left at the crime scene dates back to the latter part of the 18th century. Pepper (2005:48) supports Lee et al. (2001:144) and alerts us to the fact that offenders will always leave footwear marks at the scene of a crime. Lee et al. (2001:145) and Geldenhuys (2007:11) state that impression evidence, such

as shoe- and footprints, can be extremely valuable evidence. Footwear impressions can associate a victim, suspect or witness with a particular location at the crime scene, and it can also indicate the number of persons involved in committing the crime, for example, three different pairs of footwear impressions at a crime scene may indicate that three suspects were present and potentially involved in the crime.

Williams (1991:48) states that as a shoe is worn, the characteristics of the shoe and its sole change, and indentation marks and scratches will fortuitously enhance other characteristics. Williams (1991:48) states that as with a bullet marked by the gun that fired it, a footmark can be traced to a particular shoe by the accidental pattern of damage on the sole. Every person's bare footprint is also unique (Geldenhuys, 2007:11). Adams et al. (2004:79) state that a bare footprint will also reveal the approximate size of shoe that the person would wear, and there may be something unique about the shape of the foot or toes that may be used to compare it with the possible suspect's footprint.

Only one unique imprint is needed to identify a track. The value of foot- or shoeprints lies in the comparison of the print found at the scene with that of the possible suspect, for individualisation purposes.

3.4.5 Soil evidence

Fisher (2004:173) states that soil evidence is another common form of evidence found at crime scenes and may be found on the shoes and clothing of the suspect or victim. Adams et al. (2004:97) agree with Fisher (2004:173) and state that certain regions and neighborhoods have soil and rocks that are unique to the area. The value of soil evidence is that it may be used to link the suspect or victim to a specific location, if the soil found on them is unique to a specific area. On the other hand, Williams (1991:48) argues that soil evidence is not really valuable evidence, since soil types remain constant over large areas rather than over a small unique area, and it is therefore not possible to trace the soil to a small area such as a crime scene only.

However, Owen (2000:33) differs from Williams (1991:48) and agrees with Fisher (2004:173) and Adams et al. (2004:97), and argues that soil evidence can be very helpful in locating a specific crime scene, if the crime scene has not yet been established. The traces of soil evidence found on the suspect can suggest a particular location, especially when unusual soil ingredients or flora are involved. Owen (2000:33) and Adams et al. (2004:97) believe that soil may be just the evidence needed to link the suspect with the crime scene. The victim's and suspect's shoes and clothing containing soil should be collected and wrapped between layers of paper and placed in separate forensic paper bags for analysis and comparison with control samples taken from the crime scene, for possible links.

3.4.6 Fingerprints

Latent fingerprint impression evidence remains the best evidence for identification of the suspect, according to Ogle (2004:210). However, only one respondent (3) mentioned that investigators should look for fingerprints at the crime scene. Fingerprints should always be considered at child rape scenes, since they may produce very helpful evidence in linking the suspect to the crime scene (Horsewell, 2004:162). This subject is covered in detail in Chapter 4.

3.4.7 Blood

Butler (2005:33) states that blood evidence is the most commonly tested substance in forensic laboratories, followed by semen. Marais (1992:113) states that blood is commonly found on almost any type of crime scene and should not be ignored in crimes where blood is normally not expected. The investigator is more then likely to find blood at a child rape scene (Ogle, 2004:131) and the first step when finding blood at the crime scene is to photograph it on the scene (Adams et al., 2004:81). Ogle (2004:131) states that blood evidence can assist the investigator in establishing elements of a crime. For example, bloodstains found at the crime scene may support the victim's statement of rape and may be an indication of a struggle and injuries. Marais (1992:115) states that blood patterns at the crime scene can provide the investigator with valuable clues and information.

Blood patterns, such as drops of blood, blood splashes, blood smears and pools of blood at the scene of crime can provide valuable evidence (Van der Westhuizen, 1996:202). A splash of blood can give an indication of direction and force, for example, the sharp point of the blood spot indicates the direction of movement.

Furthermore, blood should always be collected at the rape scene, since blood contains DNA. The DNA typing established from the blood evidence should be compared with samples of the possible suspect and with samples in the DNA offenders database, to establish individualisation; in other words, the DNA results can tell that the blood comes from one specific person only.

Marais (1992:119) states that the collection of blood evidence should be left to trained crime scene technicians. Butler (2005:38) states that bloodstains should be thoroughly air-dried before being sealed in separate forensic paper bags or boxes. The blood sample should be packaged in a paper bag or envelope and not in a plastic bag, since water condenses in a plastic bag and can speed the degradation of DNA molecules, according to Butler (2005:38). The use of paper bags prevents condensation and sweating of the evidence (Horsewell, 2004:313).

3.4.8 Objects lost or forgotten at the crime scene

Often the rape investigator will find objects which the suspect lost or perhaps forgot at the crime scene. Fisher (2004:182) states that offenders sometimes leave items behind which they believe have no further use. Whatever the reason, these objects can be extremely valuable and may help to link the offender to the crime scene.

Tissue paper or a piece of cloth, which the suspect used at the crime scene after cleaning himself, may contain semen or skin cells that could be forensically analysed to establish DNA profiling. Occasionally, a suspect leaves an item that at first glance may not seem important to the case, such as instrument used to commit the crime, as well as clothing, a wallet, an ID book, bank card and slips. Fisher (2004:53) contends that the description and

location of objects should be recorded in notes and close-up photos, before they are collected. Fisher (2004:182) argues that clothing found at the crime scene may contain valuable information about the suspect, such as body material, or personal particulars such as the initials or name of the owner. Furthermore, the size of the clothing article may also give an indication of the physical characteristics of the suspect.

3.5 SUSPECT

A suspect is a person who is under suspicion and under investigation by the police or private investigator and who is not yet cleared by the investigation (Zulawski & Wicklander, 1993:5). The same evidence found on the body of the victim can also be found on the body of the suspect, based on the Locard principle. The following articles and control samples should be collected from the rape suspect, to be compared with evidence found at the crime scene and on the victim's body. The DNA profile gathered from the control samples of the suspect should be compared to the DNA typing established from the evidence found at the crime scene, for possible links.

- ⇒ All clothing worn at the time of the rape
- ⇒ Head hair sample
- ⇒ Pubic hair sample
- ⇒ Blood sample
- ⇒ Saliva sample
- ⇒ Photographs of any fresh injuries.

3.6 MEDICAL EXAMINATION OF THE RAPE VICTIM

Great care is needed to preserve the physical evidence in both the location and the victim's body (Carney, 2004:37). The protection of the victim's body starts the moment the first member of the police arrives at the scene or when he/she interviews the victim at the police station. The investigator should advise the victim not to undress or take a shower or bath before the medical examination. If the victim has already changed her clothes, the clothing worn

by the victim both before and after the rape should be collected, since it may contain evidence such as semen stains, saliva, and scalp or pubic hair from the suspect (Ogle, 2004:212). The clothes of the perpetrator should also be collected, since it may also contain physical evidence.

Most of the physical evidence found on and in the victim's body is of a delicate nature, and therefore time is of real importance (Fisher, 2004:328). Lee et al. (2001:189) state that the victim should therefore be taken to the hospital as quickly as possible. Carney (2004:49) states that when the victim arrives at the hospital, medical personnel, including a doctor, will first interview the victim as part of the examination. Fisher (2004:334) states that the doctor plays a key role in cases involving rape. The purpose of the medical examination is clearly not only to collect possible physical evidence. Gilbert (2004:336) explains that the medical examination has a dual purpose of medically assessing the victim's health, as well as collecting evidence of investigative value. Ogle (2004:214) states that the medical examination of a child rape victim typically includes a physical examination for injuries, as well as treatment for those injuries and for sexually transmitted diseases. Respondent 16 (2006) argued that the medical findings of the victim are vital evidence, and investigators should seek to obtain this evidence in all child rape investigations.

3.6.1 Injuries to the victim's body

The child's body is systematically examined for injuries and physical evidence. The most organised method of examination starts at the head and neck and ends with the examination of the genitals and rectum (Hazelwood & Burgess, 2001:371). Physical injuries are often minimal in child rape cases and the investigator will need to rely on medical findings of the genital area. However, in at least five out of 27 cases studied there was some sort of physical injuries to the victim's body, which indicates that some sort of force was applied by the suspect. The location of any cuts, bruises, lacerations or contusions, however, should be noted in the medical report (J88). The findings of the medical examination are noted on a J88 form for court purposes. In *S v Hlongwa* 2002 (2) SACR 37 (TPD) the High Court remarked that a J88 form is commonly

used by district surgeons and medical practitioners to record their findings after conducting a medical examination. Savino and Turvey (2005:133) state that physical injuries can confirm the child's account of the rape, and demonstrate that force was used. For example, bruising on the arms may indicate that the victim was grabbed by the arm, the so-called pressure injuries. Bite mark injuries are commonly found on rape victims, as the suspect normally bites the victim on the neck and upper body area, to control the victim. These and other injuries should also be photographed, according to Jacklyn (2005).

3.6.2 Genital trauma evidence

The crime of rape involves penetration of the vagina, and therefore the doctor's examination should include the vaginal area. The purpose of the genital examination is, firstly, to swab for possible semen (Hazelwood & Burgess, 2001:377), blood, and to collect all possible physical evidence, such as loose pubic hair and foreign material on the victim's genitals; secondly, to document and photograph all injuries and findings, including tears, abrasions, redness, swelling, scars and stains, to prove penetration (Hazelwood & Burgess, 2001:393).

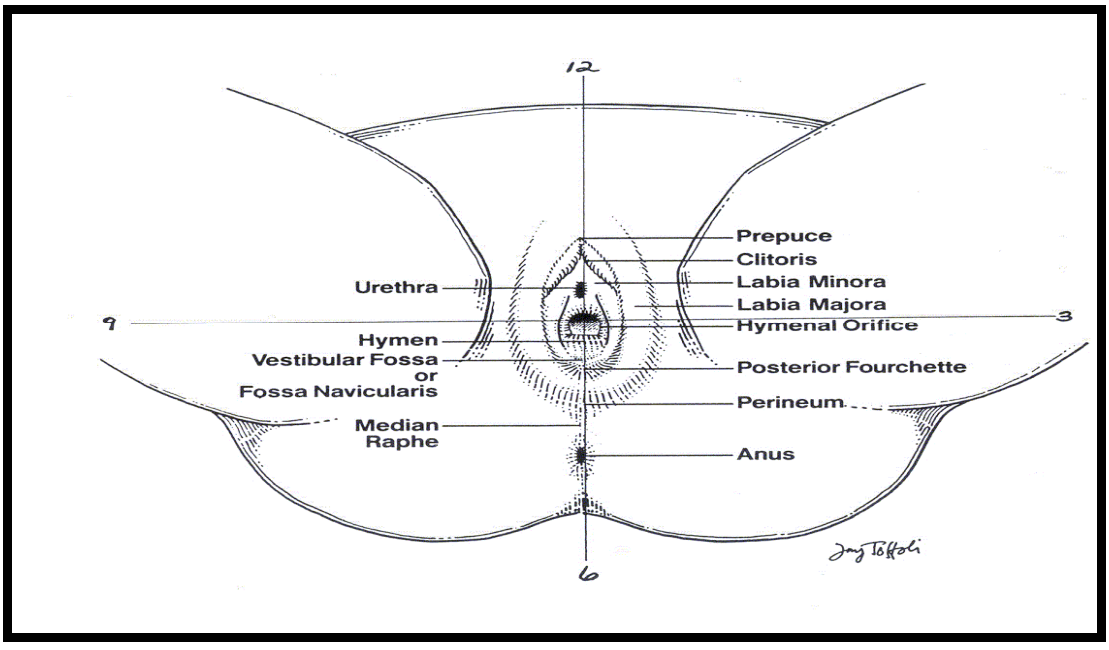

Figure 3.2 shows an anatomical sketch of female genitalia (Investigation and Prosecution of Child Abuse, 2004).

Savino and Turvey (2005:136) suggest the use of a colposcope during genital examination of children. The colposcope magnifies the genital injury, allowing it to be photographed, since the injuries around the vaginal area are often so small that they cannot be seen with the naked eye.

The hymen is a thin membrane which partially or completely covers the vaginal entrance (Manual for the Family Violence and …, 2006:2). It consists mainly of connective tissue and contains very few blood vessels. It is flexible, to an extent, and will not necessarily be torn as a result of minor, careful penetration, for example, a finger. However, if the hymen is suddenly penetrated, it will tear. Due to the minimal number of blood vessels, there is little or no bleeding as a result of the penetration.

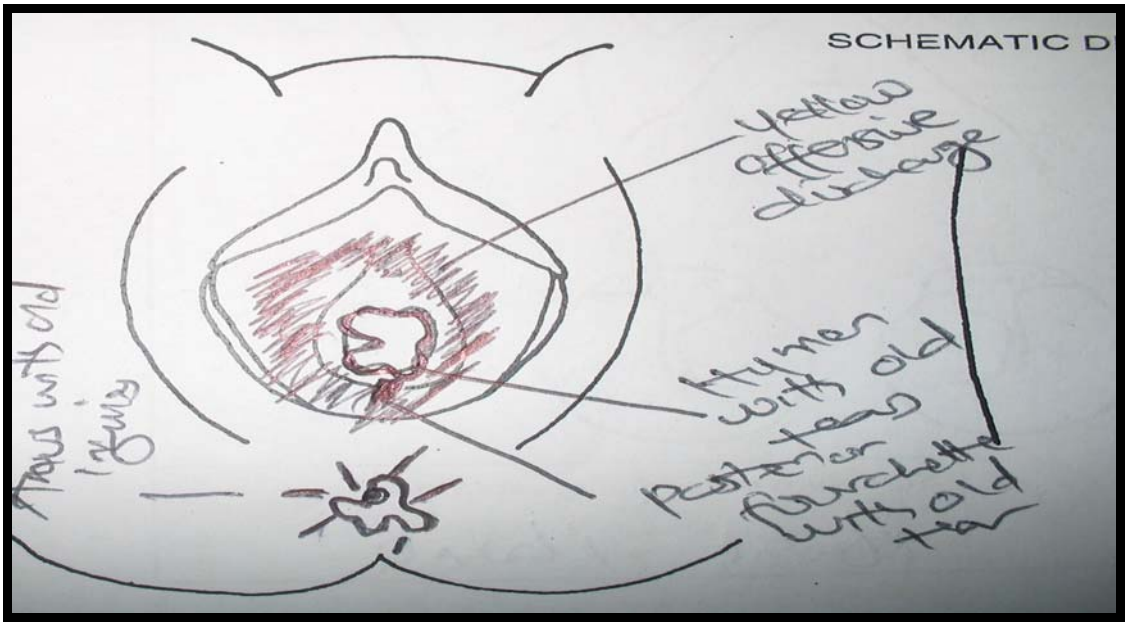

Figure 3.1 shows genital trauma of a 4-year-old female victim. Photo taken by the researcher from a case docket analysed.

There are muscles which are located on the underside of the perineal area. When these muscles are voluntarily contracted, the entire area is pulled forwards and upwards, causing the anterior-posterior measurements and cross-measurements to reduce; thus, the sectionary view of the vaginal canal is reduced. On the other hand, when forced penetration occurs, there is a resistance in the tissue area, resulting in certain typical injuries (Manual for the Family Violence and …, 2006:2) caused by the abnormal angle of

penetration. These injuries and tears are usually located in the posterior area and may cause profuse bleeding. Jacklyn (2005) a doctor at the Teddy Bear Clinic and a specialist in the examination of child rape victims, agrees with the Manual for the Family Violence and …, (2006:2) and states that with the exception of childbirth, tears around the posterior area between the 3 o' clock and 9 o' clock area are caused solely by forced intercourse and are characteristic injuries of rape. Savino and Turvey (2005:136) state that trauma to the hymenal orifice will not only indicate penetration, but is also an indication that the penetration was forceful.

Fisher (2004:329) and Hazelwood and Burgess (2001:375) state the following: the examination of both the victim's body and the genital area concludes the examination

3.6.3 Collection of physical evidence from victim's body

Sexual Assault Evidence Collection Kits (SAECK) are used by medical personnel at different hospitals throughout South Africa to collect physical evidence from the victim's body for forensic analysis during the medical examination (Jacklyn, 2005). Similar procedures and Sexual Assault Evidence Collection Kits are used in most Western countries throughout the world.

Figure 3.3 shows a sexual assault evidence collection kit used throughout South Africa. Photos taken by the researcher.

Hazelwood and Burgess (1999:63) state that SAECK are specially designed to be used for the recovery of certain physical evidence from the victim's body, in strict keeping with legal and forensic requirements.

Most of the physical evidence found on the victim's body is of a delicate nature and can be easily destroyed. Time is therefore of real importance, and smears and swabs of the victim should be taken within 72 hours after the sexual assault. Savino and Turvey (2005:120) agree with Carney (2004:50) but contend that even if 72 hours have expired, there may be potential evidence available for collection if the victim has not changed or bathed. Biological fluids such as semen recovered on swabs are among the most important pieces of evidence in sexual assault cases (Hazelwood & Burgess, 2001:321). During a medical examination, the doctor will take swabs from the vaginal area and from the area where the suspect ejaculated, to collect physical evidence such as semen, saliva, blood and hair. The victim's panty may contain semen and hairs that were transferred from the victim's body to the victim's panty (Ogle, 2004:147). Therefore, the doctor should include the victim's panty which was worn during and after the rape, in the sexual offences collection kit, for forensic analysis.

Fisher (2004:330) states that the collection of physical evidence in rape cases is used for three major purposes:

3.6.3.1 To establish penetration

Fisher (2004:330) argues the fact that the presence of semen in the vaginal area is suggestive of vaginal penetration. However, Snyman (2006:449) point out that in *R v Theron* 1924 EDL 204 the court made a remarkable decision: it found that despite the fact that the 15-year-old girl at the time of the sexual assault fell pregnant by reason of the accused assault upon her, there was no satisfactory evidence of any form of penetration. The medical evidence, which was accepted by the court, was to the effect that at the time of the medical examination, the genitals of the victim showed no signs of bruising, inflammation or penetration, and the hymen was still intact and not lacerated. The district surgeon concluded that the victim might have become pregnant

due to the semen of the accused spilt outside the victim's vagina, but near it. Therefore, the accused could not be found guilty of rape, but only of attempted rape. Therefore, the presence of semen in the vagina without penetration is possible, but most unlikely.

On the other hand, the absence of semen evidence does not exclude penetration. In fact, the absence of semen could be caused by the following reasons: the time period between the rape and medical examination was too long; or, the suspect wore a condom or did not ejaculate in the vagina; or, the doctor did not take an adequate sample; or, seminal fluid may be present from consensual intercourse.

3.6.3.2 To establish non-consensual intercourse

It is surprisingly common to find bite marks on the body of a victim (Williams, 1991:41), especially in cases of child rape and sexual assault. Bite marks and bruising on the victim's body constitute very useful evidence and may indicate that the victim did not consent to intercourse (Fisher, 2004:330). The victim's clothing may also have evidence of forcible removal, such as rips in the fabric or buttons torn from the clothing (Ogle, 2004:147).

3.6.3.3 To provide information to link the suspect

Fisher (2004:330) states that the suspect's identity may be established by the usual means such as eyewitnesses, and through fingerprint identification. However, in a rape case the suspect's identity is often determined by DNA typing, through the analysis of physical evidence such as semen, skin cells and hair found on the victim's body. The role of identification in child rape investigations will be discussed in detail in the following chapter.

3.7 CONCLUSION

Physical evidence is crucial in child rape investigation, and provides the investigator with leads to start his investigation. This chapter analyses the evidential value of crime scenes in child rape investigations. Furthermore, the findings in this chapter provide an indication of the value of crime scenes in

gathering proof to convict the suspect in child rape investigation. Child rape investigation involves numerous challenges, as these cases are difficult to prove, due to lack of physical evidence. In this chapter the researcher has clearly illustrated the evidential value of the crime scene in child rape investigation, with regard to identifying and linking the suspect. Finally, the discussion of the various aspects in this chapter clearly illustrates what evidence of evidential value can be gathered from a child rape crime scene and the victim's body.

CHAPTER 4

THE ROLE OF IDENTIFICATION IN CHILD RAPE INVESTIGATION

4.1 INTRODUCTION

The first attempt to identify people on a rational, scientific basis was developed during the second half of the 19th century by the French forensic scientist Alphonse Bertillon (Erzinqliouglu, 2004:83).

There are principles of great importance when one considers crime scene investigation. One such principle is the Locard principle. However, another principle that is of equal importance to crime scene investigation is the principle of individuality. It means that no two objects, fingerprints or people are identical. It means that they are distinguishable in principle (Erzinqlioglu, 2004:84). Fisher (2004:93) and Marais (1992:4-5) state that the primary objective of any investigation is to locate evidence (witnesses) or physical evidence (objects) that can assist the investigator to establish the suspect's identity or to individualise the evidence to one unique person.

Fingerprints are usually thought of first when considering methods of individualisation. However, new forensic methods and techniques have emerged to address and solve crimes; one such technique is individualisation through DNA profiling (Campbell, 2000:94). DNA profiling offers the investigator the ability to individualise the physical evidence found at the crime scene to one unique person.

4.2 IDENTIFICATION

Identification is based on the presumption that everything is unique and distinctive in that it has certain individual and class characteristics (Marais, 1992:19).

Fisher (2000:6) states that some police investigators believe that every item of physical evidence can be associated with one individual source. This is not always the case, however. Fisher (2000:6) states that most physical evidence may only be associated with a class or group, and therefore this physical evidence has identification value only. Fisher (2004:7) states that identification means that items with the same properties share a common source and can be classified or placed into groups. Gardner (2005:23) states that the concept of identification refers merely to the identification of something or someone belonging to a specified class or group. To explain the concept “identification”, take, for example, a piece of material found at a child rape crime scene. It can be analysed and traced back to a specific group or class of material (Gardner, 2005:23). In other words, the piece of fibre can be traced back to the kind of material used in the manufacturing thereof, and is useful in that it can be concluded that the piece of fibre came from the shirt worn by the suspect or person wearing a similar shirt. It is therefore clear that the material found at the crime scene can be placed into a group or class of materials with similar fibres. However, no matter how much testing is done on that piece of material, the conclusion will always be the same - that is, the results cannot be individualised to one unique source, but rather to a class or group with similar characteristics (Fisher, 2004:9).

The respondents were asked to define the concept “identification”. Their answers were grouped as follows:

- Four respondents stated that it refers to the identification marks found on an object.
- One respondent stated that identification refers to evidence that can prove some facts of a case.
- Three respondents stated that it refers to the different characteristics of physical evidence.
- Five respondents mentioned that the term identification refers to the uniqueness of any object or person; objects can be compared to establish identity.

- Five more respondents referred to the term “identification” as a term used when a person has been identified through physical evidence.

The views of the respondents show many different meanings of the term, and indicates that most of the respondents do not understand the real meaning of the term.

4.3 CATEGORIES OF IDENTIFICATION

The positive identification of the suspect involved in a crime is of vital importance (Marais, 1992:18). The scientific comparison and classification according to fingerprints is the most reliable method of identity (Marais, 1992:25). Marais (1992:24) states that the most common and ordinary methods of identifying a suspect are through visual, documentation, photos and unique personal qualities. There are different categories of identification, according to Van Heerden (1986:195), namely, situation identification, witness identification, victim identification, imprint identification and culprit identification.

4.3.1 Situation identification

Situation identification begins with the gathering of information (Van der Westhuizen, 1996:17). Situation identification entails the evaluation and identification of the crime. The investigator, on the basis of his knowledge and experience, should firstly determine whether a crime has been committed, and if so, what crime (Marais, 1992:2).

Situation identification is therefore of fundamental importance, since mistaken identification of the crime may lead the investigator in the wrong direction (Marais, 1992:3). The objective of situation identification is to locate evidence to identify the crime and the suspect, and to link the suspect with the crime and the crime scene (Gardner, 2005:14).

The investigator of a child rape should observe the crime scene situation in general, and evaluate the people and their involvement in the crime (Van der Westhuizen, 1996:21).

Proper situation identification during crime scene processing will in most case scenarios enable the investigator to establish what crime was committed, and how (Van Heerden, 1985:14). Savino and Turvey (2005:67) comment that a great deal of information can be recovered from the crime scene through careful observation, such as, for example, the general nature of events and their potential sequence. Gardner (2005:76) agrees with Savino and Turvey (2005:67) and states that the most basic aspect of crime scene processing is observation. Savino and Turvey (2005:67) state that in a case of child rape, the investigator should bear in mind that the following interaction could have occurred - and not necessarily at the same location:

⇒ The offender will have approached the victim.
⇒ The offender may have attacked the victim.
⇒ The offender may have moved the victim to a quiet place for privacy.
⇒ The offender may have transported the victim in a vehicle.
⇒ The offender will have departed from the scene.

4.3.2 Witness identification

Witness identification plays a role in assisting the investigator to obtain factual evidence regarding the suspect and the role he played in the commission of the crime (Van Heerden, 1986:195). Witness identification is also used to establish the nature of events and elements of the crime, through eyewitness statements. Furthermore, witness identification is often used by investigators to compile identity kits of suspects or to identify the suspect on photos, or TV programmes, such as Police File. However, witness identification is challenged by human error, such as inadequate observation and faulty association, and it is therefore not always the best type of identification.

4.3.3 Victim identification

Victim identification is mostly related to murder cases, and refers to scenarios where the identity of the victim (dead) is unknown (Marais, 1992:4). However, in child rape investigations where the victim is still alive, the identification usually does not present a challenge. However, if the victim's identity is unknown, clothes, jewellery, watches and other personal belongings of the victim may have unique engraving marks which could assist the investigator with the positive identification of the victim (Marais, 1992:4). On the other hand, scientific identification methods such fingerprints and DNA profiling is often used to establish the identity of the victim (dead) through an individualisation process.

4.3.4 Imprint identification

Imprint identification is based on the Locard principle (Lee & Harris, 2000:14). Thus, imprint identification is based on the assumption that all objects possess unique, individual characteristics which are transferred when they come into contact with suitable surfaces (Marais, 1992:145).

Imprint identification strives to identify and individualise a suspect by comparing a questioned imprint to a control imprint or object (Van der Westhuizen, 1996:6). Imprint identification generally consists of fingerprints and foot imprints. For example, a fingerprint can be individualised and traced back to its donor.

However, imprint identification will only be of value if it can be individualised to a specific and unique person (suspect).

4.3.5 Culprit identification

Van Heerden (1986:198) states that culprit identification refers to the positive identification of the suspect. The collection of information and facts in order to determine the identity of the suspect and his part in the crime remains the core of any investigation (Marais, 1992:4). During the collection process, the investigator can make use of personal descriptions, sketches, identification

parades, incidental identifications, photo identifications, voice identifications and modus operandi, to identify the suspect.

The respondents were asked to indicate which sources they mostly rely on to identify and trace the suspects in their rape cases. The respondents' answers were grouped as follows:

- ⇒ Ten of the respondents rely mostly on the information gathered from the victim to identify their suspects.
- ⇒ Four of the respondents rely mostly on witnesses to identify their suspects.
- ⇒ Another four respondents rely mostly on informants to identify their suspects.

These results demonstrate that most respondents rely on their victims, to identify and trace their suspects. This indicates the importance of effective questioning of the victim/complainant, as emphasised by Lee et al. (2001:24) and shows that people (complainant, witness and informant) are by far the most common method used by the respondents to identify and trace their suspects. Marais (1992:24) states that apart from the positive identification by people, the investigator should still continue with scientific methods to prove the suspect's identity beyond reasonable doubt.

4.3.6 Origin identification

One of the purposes of visiting the crime scene is to locate physical evidence that can be individualised to trace the donor (suspect). In a case of child rape, the investigator should identify body material or solids such as blood, semen and hair, that can be analysed with a view to individualising them and determining their origin (Van Heerden, 1986:198) - in other words, to individualise the unknown substance to one unique person or donor.

4.3.7. Action identification

Action identification refers to the modus operandi - in other words, the method - used by the suspect to commit the crime (Van Heerden, 1986:198). The scientific study and classification of the suspect's modus operandi may be a valuable source of evidence to identify the suspect. Marais and Van Rooyen (1992:66) argue that although this type of identification is not admissible in a court of law, it certainly has great individualisation value for the investigator - for example, if the suspect gives the same type of gifts to all his victims after he has raped them.

4.4 INDIVIDUALISATION

Following identification is the concept of individualisation. Marais (1992:20) argues that there is a clear distinction between individualisation and identification. Horsewell (2004:6), Marais and Van Rooyen (1990:20) and Marais (1992:20) state that the concept of identification is of lesser value than the concept of individualisation, since with identification an object is identified to a specific class or group.

However, with individualisation forensic scientists will continue with their analysis to determine if a particular sample is unique, even among other members of the same class (Lee et al., 2001:184). For example, a fingerprint found at a crime scene can be placed into a group, for example, a whorl or loop. In addition, the fingerprint evidence can go beyond identification - it can be individualised to one unique person. Gardner (2005:24) states that the concept "individualisation" adds significant value to the concept of identification, since one can individualise a person or object and can therefore identify the origin or donor of the physical evidence found. Marais (1992:20-22) and Marais and Van Rooyen (1990:20) define the concept of individualisation as follows: "[i]t is a process that takes place through comparison to another and is used to establish that a dispute sample, when compared, is from the same origin". Horsewell (2004:6) states that individuality or uniqueness is those attributes that make one thing different from all others that are similar to it.

The individuality of an item depends on establishing that the person or object is one of a kind within its class. Marais (1992:22) states that the process of individualisation starts at the crime scene and ends in the court, when evidence regarding the identity of a person or object is heard. The individualisation process goes through different identifications and comparisons, before the individualisation of a person or object is established.

The respondents were asked to define the concept “individualisation”. The respondents defined the concept as follows:

- Eight of the eighteen respondents defined the concept as the comparison of two samples, to see if they are the same.
- Six respondents stated that individualisation refers [to the fact] that each person is unique from another.
- Two respondents stated that individualisation proves that the semen, for example, found on the victim, came from the suspect. It is proved that it came from only one individual.
- Two respondents indicated that individualisation means that things are different.

If the researcher compares the answers of the respondents with the view of Gardner (2005:24), it seems that most respondents had a good idea of what individualisation means.

If the concept “individualisation” is compared to “identification”, one finds that “individualisation” goes well beyond “identification”, since individualisation implies that physical evidence, such as semen, found at the crime scene, comes from one source and one source only. In other words, the physical evidence can be individualised to one unique source (single person), after a series of identifications (Fisher, 2004:5).

4.5 HUMAN IDENTIFICATION THROUGH FINGERPRINTS

Marais (1992:176) states that each person's fingerprint is unique; therefore, one of the best ways to scientifically prove a person's identity is by means of fingerprints. Gardner (2005:26) agrees with Marais (1992:176) and states that up to the year 2005, no fingerprints from different individuals have ever been found to be identical. Horsewell (2004:162) states that the first fingerprint comparison techniques have been attributed to Juan Vucetich of Argentina, who established the identity of an individual in a murder case through the use of fingerprints in the provincial town of Necochea, in 1892. Since then and throughout the 20th century, fingerprints have become widely used in the identification of individuals (Horsewell, 2004:161).

A fingerprint is an impression of an area of friction ridge skin left upon a surface (Horsewell, 2004:172). Fingerprint identification relies on the detail contained in the friction ridges that are unique and unchanging. Marais (1992:181) states that a person's fingerprint can be divided into the following four categories; arch, loops, whorls and composites. Fingerprints as an identification method represents a research topic on its own and it is not the researcher's aim to discuss the topic in detail. The researcher will, however, briefly discuss the abovementioned fingerprint categories.

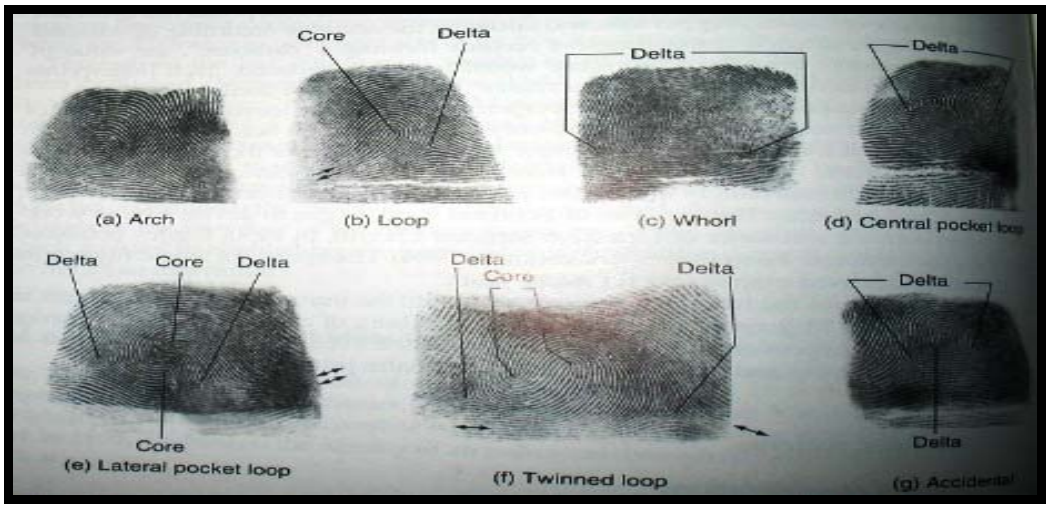

Figure 4.1 Different types of finger marks indicating the presence and position of the 'core' and the 'delta' (Horsewell, 2004:164).

Arches – Horsewell (2004:164) states that ridges in arch patterns generally flow from one side of the finger to the other without any form of recurve that would create a ‘delta’ point (Figure 4.1a). For examples of the ‘delta’ point. See figure 4.1 (b-g).

Loops – Ridges in a loop pattern flow from one side of the finger (Horsewell, 2004:165) with at least one of these ridges recurving and exiting the finger on the side from which it came. See (figure 4.1.b).

Whorls – Ridges in whorl patterns flow from the side of the finger, with some completing a full circuit with two delta points (Figure 4.1). Horsewell (2004:165) states that the ridges completing the circuit may be circular or elongated.

Composites – Composites include patterns in which various combinations of the arch, loop or whorl are found in the same fingerprint (Horsewell, 2004:165).

Gardner (2005:26) argues that fingerprint evidence is one of the most common forms of evidence sought in crime scene investigations. Fingerprint impressions gathered from the crime scene have a dual purpose (Marais, 1992:185). Firstly, it is to compare the fingerprints found at the crime scene with the existing SAPS fingerprint records to establish the identity of a person or suspect; secondly, it is to eliminate the fingerprints of the complainant or individual generally staying at the premises (crime scene). Ogle (2004:210) argues that latent fingerprint impression evidence remains the best evidence for identification of the suspect, when the suspect is unknown to the victim. Ogle (2004:210) states that a latent fingerprint is a permanent record of the presence of a suspect at the crime scene.

Gardner (2005:28) states that there are a couple of important considerations that the crime scene technician should take into account when processing a crime scene for fingerprints:

⇒ Fingerprints are quite enduring and have been found in circumstances where one would never imagine the possibility exists. Gardner (2005:28) states that far too often, fingerprint technicians arrive on the scene and because someone has touched or moved items in the scene, they do not even attempt to recover fingerprint evidence.

⇒ There is really no way to accurately predict when and where fingerprints will be deposited at the crime scene (Gardner, 2005:28).

When processing the scene for fingerprints, the crime scene investigator should, among other objects, look for glass objects such as ashtrays or glasses handle by the suspect. Fingerprints recovered from the crime scene greatly depend on which surfaces are examined. Gardner (2005:28) states that the nature of the surface determines what techniques are used. Fisher (2004:53) states that other objects found at the crime scene that may contain fingerprints include the suspect's wallet, ID book, bank cards, and instruments used to threaten the victim. Fingerprint evidence may also be found on the inside of the toilet lid and on the flush lever if the suspect or victim used it at the child rape crime scene. It seems that in practice, child rape investigators do not realise the value of fingerprints in the investigation process, especially in the identification of the suspect, since in none of the 27 cases analysed were fingerprint experts utilised at the crime scene.

4.6 HUMAN INDIVIDUALISATION THROUGH DNA

New forensic methods and techniques have emerged to address and solve crimes. One such technique is DNA individualisation (Campbell, 2000:94). Gilbert (2004:313) states that DNA - deoxyribonucleic acid - is the human genetic blueprint of an individual. Gibbs (2003:60) states that Dr. Alec Jeffreys and his colleagues developed the genetic fingerprint in 1984 by using DNA to positively individualise individuals.

4.6.1 Genetic Blueprint

Every individual's DNA is different from that of other individuals, except that of identical twins (Campbell, 2000:95), since identical twins are formed from one fertilised egg. Their DNA is identical, and therefore individualisation through fingerprinting is still the only effective way to separate identical twins (Genge, 2002:144).

DNA is the building block for the human body which we inherit from our parents, and virtually every cell in the human body contains DNA (Genge, 2002:144). Buckleton (2005:2) agrees with Genge (2002:144) and argues that most human DNA is present in the nucleus of the cell, and each cell consist of 46 chromosomes made up of DNA. The 46 chromosomes are the building blocks of A, G, C and T that form the DNA chain (Bennet & Hess, 2001:124). DNA language consist of an alphabet of only four letters, namely, T, C, A and G. These letters stand for the four nitrogenous bases found in the DNA: thymine, cytosine, adenine and guanine. Though this alphabet is very short, an enormous array of different sequences of nucleotides can exist in a single strand of DNA, which is normally hundreds of thousands to millions of nucleotides long. DNA is made up of two strands forming a double helix (similar to a spiral staircase in structure). The bases A, G, T and C pair with each other in a specific way, A always pairs with T and G always with C on opposite strands of the helix (Hazelwood & Burgess, 2001:310). This pairing is called complementary base pairing and it is the fundamental principle behind all DNA analysis (Hazelwood & Burgess, 2001:31). Gilbert (2004:314) explains that DNA consists of two strands of randomly stacked chemicals that intertwine to form a double helix resembling twisted rope and it is the particular appearance of the bands that provides the comparative image for positive identification.

4.6.2 DNA criminal intelligence database

The real value of DNA lies in the comparison of questioned samples with DNA profiles kept in a DNA Criminal Intelligence Database (DCID). On a TV programme called Focus (2007), it was alleged that the SAPS have established a DCID that contains approximately 25 000 profiles of DNA. De

Beer (2006:78) states that during 2004-2005, 50 969 DNA exhibits were analysed and 44 467 were finalised. In 256 instances, suspects were linked to another case not related to the one of the initial arrest, by using the DCID. A further 407 cases were linked by means of DNA examination, without any suspects with whom to make comparisons.

4.7 LATENT FINGERPRINTS VERSUS DNA

Every object touched is a potential source for fingerprint and DNA evidence. Ogle (2004:210) states that with the introduction of DNA profiling, semen evidence is virtually equivalent to latent fingerprints for individualising the suspect of sexual assault crimes. Therefore, Savino and Turvey (2005:186) state that when one compares fingerprint evidence with DNA evidence, a decision should be made regarding the benefits that this evidence holds for the specific case. In most cases it will only be either the one or the other evidence to be collected from the specific surface. Savino and Turvey (2005:186) continue and say that the collection of one type of evidence might rule out the collection of the other, if the same surface is being considered. For example, swabbing a surface for DNA over a possible fingerprint may smudge and ruin the value of the fingerprint, and on the other hand, dusting and lifting a possible fingerprint might destroy possible DNA evidence, if sharing the same surface.

Savino and Turvey (2005:186) state that there are no set rules; therefore, the investigator should make a decision regarding which evidence to collect. However, evidence found containing possible DNA can be examined years after it was originally produced, and this is what makes DNA such a powerful method of human identification (Campbell, 2000:101). On the other hand, Campbell (2000:101) states that several factors can affect the DNA contained in physical evidence left at the crime scene, including environmental factors such as heat, sunlight, moisture, bacteria and mould. Fingerprints, on the other hand, can only be obtained - at the most - three days after they were deposited by the individual, since fingerprints consist of approximately 98% water, and the remaining 2% is a combination of grease and oil (Gardner,

2004:27). DNA testing is a relatively long and expensive process, according to Pelser (2004:26) and Gardner (2004:24). Pelser (2004:26) states that criminal courts throughout South Africa identify the delay in obtaining laboratory results as their most common problem with the use of DNA evidence.

4.8 CONCLUSION

In this chapter the researcher has examined the different characteristics of physical evidence and the value it could add in rape investigations. The researcher has discussed the categories of identification and provides some insight on the terms “identification” and “individualization”. Finally, the researcher has discussed fingerprints and DNA as methods of human identification and has come to the conclusion that DNA should never replace fingerprints as a method of human identification. Instead, DNA should be used as a complementary method of human individualisation. DNA profiling is an excellent method and technique and can be used to link or to rule out suspects in child rape investigation. Gilbert (2004:317) is of the opinion that DNA may well be the most significant breakthrough in forensic science since the development of fingerprinting.

CHAPTER 5

FINDINGS AND RECOMMENDATIONS

5.1 INTRODUCTION

The aim of the research was to determine the evidential value of crime scene investigation in child rape cases.

To address the research problem, the following research questions were all asked:

⇒ What does crime scene investigation entail?

⇒ What evidence of evidential value, in the rape of children, could be gathered from the crime scene?

⇒ What role does identification play in crime scene investigation?

5.2 PRIMARY FINDINGS

The findings are based on information obtained from the respondents', case studies and from national and international sources in the field. It is clear from the findings in this research that the respondents have various shortcomings when it comes to knowledge of proper crime scene investigation. These shortcomings may lead to investigation failure, such as when photographs or notes are not taken during the processing of the crime scene.

Furthermore, based on the Locard principle, the rape victim's body contains crucial physical evidence and should therefore be regarded as a crime scene. Great care should be taken in protecting and processing the victim's body; if this is not done, evidence that is lost or damaged could affect the investigation negatively.

The following are primary findings that relate to the research questions:

5.2.1 Research question 1

What does crime scene investigation entail?

Finding 1

Crime scene investigation is more then just a crime scene search for physical evidence. It is an organised, methodical, systematic and logical process that starts at the crime scene and includes the following:

- Control and protection of the scene
- Assessment and walk through of the scene
- Documenting of the scene (notes, photographs and sketches)
- Searching and collection of evidence
- Release the scene
- Analysis and interpretation of evidence
- Case management.

Finding 2

The researcher established that from the respondents' point of view there is a lack of knowledge on what crime scene investigation entails and they are not familiar with the concept "crime scene investigation" as described by the literature. The respondents believe that it is only a process involving the gathering and collecting of evidence from the crime scene. However, it is clear that crime scene investigation is far more then just searching for and collecting of evidence, and should include the documentation and analysis of the evidence as well. However, not in any of the case dockets analysed were there photographs or sketches. This shows clearly, if one compares their views on crime scene investigation, that the respondents do not understand the importance of well-documented crime scenes.

Finding 3

No crime scene photos were taken in any of the case dockets analysed, and only three of the case dockets held some sort of crime scene notes.

5.2.2 Research question 2

What evidence of evidential value in the rape of children could be gathered from the crime scene?

Finding 1

The researcher discovered that the following evidence is commonly found at most child rape crime scenes: semen, saliva, hair, footwear impressions, soil, blood, fingerprints, and clothing or articles from the suspect or victim, left at the scene.

Finding 2

If the respondents' answers are compared with the literature on the topic, there is not a big difference between them, and it seems that the respondents had good workable knowledge on what physical evidence to search for at a child rape scene.

5.2.3 Research question 3

What role does identification play in crime scene investigation?

Finding 1

Identification is a relative concept and is not only relevant with regard to the suspect. Throughout the crime scene investigation process, witnesses, physical evidence and the elements of the crime are identified by the investigator, in an attempt to solve the crime.

Finding 2

There is a clear difference between the concepts "identification" and "individualisation". "Identification" merely refers to the identification of something, while "individualisation" refers to the uniqueness of an object or

person. Therefore, the concept “identification” is of lesser value then “individualisation”.

Finding 3

The respondents offered many different explanations for the term, and most of the respondents are not sure of the real meaning of the term “identification”. However, most of the respondents seem to understand the concept “individualisation”.

5.3 SECONDARY FINDINGS

The researcher also made some secondary findings with regard to the facts of the research.

5.3.1 Victim’s body as a crime scene

Finding 1

Van Heerden (1986:217) refers to the scene of crime as “a field laboratory” where objects of dispute can be located for laboratory tests at a later stage. Therefore, if one analyses the above definition of a crime scene, it is clear that a rape victim’s body should be classified as a crime scene, as in a case of rape there is forceful physical contact between the suspect’s and the victim’s body. Therefore, based on the Locard principle which states that whenever two objects come in contact with one another, material will be transferred between the two objects. Body material, such as fluids and hair will be transferred to the victim’s body and vice versa to the suspect’s body during the sexual contact. Therefore, based on the findings in the research, a rape victim’s body can be classified as a crime scene.

Finding 2

Only one of the 18 respondents referred to the rape victim’s body as a crime scene.

5.3.2 Objectives of crime scene investigation

Finding 1

The objective of crime scene investigation is to collect as much evidence as possible to develop conclusions on how and why the crime was committed and to identify a possible suspect[s]. However, the objective of criminal investigation still remains first and foremost a search for the truth.

Finding 2

All the respondents agreed that the objective of crime scene investigation is to gather evidence. However, three respondents had a more complete understanding of the objectives and mentioned that the objective is to use the collected physical evidence to link the suspect to the crime and the crime scene. None of the respondents mentioned the objective of crime scene investigation as a search for the truth. This may hamper the objectiveness of an investigation, since investigators may hide the truth in an attempt to link the suspect to the crime.

5.3.3 Crime Scene

Finding 1

The researcher discovered that a crime scene is more then just a location where a crime was committed. It includes the locality of hidden clues which can lead to the clarification or detection of the crime. The crime scene can also be classified as a field laboratory where objects of dispute can be located for laboratory tests at a later stage. Crime scenes can be classified into two basic types, namely, primary and secondary crime scenes.

Finding 2

All the respondents commented that it refers to a place where a crime was committed.

5.3.4 Locard Principle

Finding 1

The Locard principle is based on the fundamental assumption that when two or more objects come into contact with one another, the one object will always transfer something of itself to the other object and also receive something from the other object.

Finding 2

Seventeen of the respondents understood the Locard principle; only one did not know the meaning of it.

5.3.5 Physical Evidence

Finding 1

Physical evidence includes any evidence that can be observed in a criminal court, in order to draw a conclusion to a fact at issue, and can be presented in any physical form, such as a fluid, a gas, a solid, or a person.

Finding 2

The respondents have some basic knowledge about what physical evidence entails; however, none of them mentioned that a person can be classified as physical evidence.

Finding 3

There are extensive and urgent implications for detective training arising from the findings of this research. In none of the case dockets analysed was any physical evidence found at the crime scenes. This may point to a lack of knowledge, which indicates that investigators do not know where and how to look for physical evidence, or that investigators do not understand the importance of visiting or processing crime scenes.

Finding 4

In only 11% of the cases analysed were the crime scenes visited. This may indicate a lack of knowledge regarding to the importance of crime scene investigation in child rape cases. It may explain why no physical evidence was found on the crime scenes in any of the cases analysed.

5.4 RECOMMENDATIONS

The following recommendations are made on the basis of the findings of the research: The aspect of neglecting the use of photography and note taking in crime scene investigation is a matter of concern. Therefore, it should be addressed by the SAPS as soon as possible, through proper management control mechanisms. Since all child rape investigations can benefit greatly from crime scene photos and notes.

The researcher recommends that the following topics should be incorporated in the training programme of detectives to equip them with specialised skills and knowledge regarding proper crime scene methods and techniques:

- The different phases in crime scene investigation process
- Skill training of investigators on crime scene investigation
- The use of expertise at the crime scene
- Objectives of crime scene investigation
- The use of crime scene photos and video recordings
- The use crime scene notes and sketches
- Rape victim's body as a crime scene

More research on crime scene investigation is needed to support training in this field. The researcher recommends that additional research be done on the following areas, to equip all investigators with specific skill and knowledge to promote proper crime scene investigation.

- The investigators attitude towards crime scene investigation
- Pre - scene interviewing of the victim and witnesses
- Interviewing and statement taking

- The role of the investigator at the child rape scene
- The role of the victim at the child rape scene
- The role of the public at the child rape scene
- The child rape victim and the trail process
- The effectiveness of police investigation in child rape

5.5 CONCLUSION

The immediate challenge of the SAPS management should be to improve investigators understanding of proper crime scene investigation in child rape cases. It is evident from the case studies that there are some shortcomings among child rape investigators of the West Rand FCS. The case studies have shown a real challenge with regard to crime scene investigation. The most common problem related to the investigation of child rape is the absence of physical evidence, crime scene photos, notes, sketches and video recordings. The results indicate that investigators of child rape failed to visit and process crime scenes. Therefore, the researcher believes that investigators can benefit to a great extent from applying proper crime scene investigation techniques, since the crime scene forms such a critical part of child rape investigation.

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Annexure 1

INTERVIEW SCHEDULE FORM

UNISA

Evaluating the evidential value of crime scene investigation in child rape cases

Details of respondent: No. ___ Date _____

Constable	
Sergeant	
Inspector	
Captain	

Gender: Male Female

1. Do you investigate child rape cases
2. How many years do you have experience in child rape investigations
3. Did you completed the FCS course
4. Did you complete the general detective course

5. What does crime scene investigation entails?
6. What are the aims of crime scene investigation?
7. Name the different phases involved in the crime scene investigation process?
8. In sexual assault cases such as rape, investigators refer to two different crime scenes, name the two crime scenes referred to.
9. What do you understand from the Locard Principle?
10. Name the different crime scene searching methods?
11. Which searching method do you apply most, motivate your answer?
12. Who is normally responsible for protecting crime scenes in your cases?
13. Rape victims are often first seen by the uniform member who responds to the call, what is the 1st member's responsibility at the child rape scene?
14. How much time on average do you spent on crime scene investigation?
15. Do you visit the crime scene in all your investigations?
16. What constitute rape, in other words explain the term rape?
17. Define the term crime scene?
18. Where do most child rapes do occurs, name the location. For example in a swimming pool, near the child's home?
19. What is the value of the crime scene in child rape investigations?
20. What do you regard as the primarily responsibility of the investigating officer during the crime scene processing process?
21 Define the concept physical evidence?
22. What physical evidence do you look for when processing the child rape scene?
23. What is the most common biological fluid found at child rape scenes?
24. What does the term "chain of evidence" refer too?
25. Do you regard the interviewing of witnesses at the crime scene as necessary, motivate your answer?
26. Define the concept identification?
27. Define the concept individualization?
28. What is the value of physical evidence in child rape investigations?
29. On whom or what do you rely mostly to trace suspects in your cases, for example witnesses, informant, victim, physical evidence?

30. What role does identification plays in crime scene investigation?
31. What possible physical evidence in child rape investigations contains DNA?