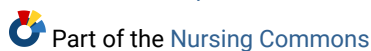2008

Implementing a forensic educational package for registered nurses in two emergency departments in Western Australia

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Implementing a Forensic Educational Package for Registered Nurses in Two Emergency Departments in Western Australia

A thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

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ABSTRACT

The results of violence are a major public health problem that infiltrates hospital emergency departments (ED) daily. Often, ED nurses are the first healthcare professionals to see patients, speak with family members, handle personal property and collect laboratory specimens. Such actions can be of extreme importance to the 27 different categories of forensic patients. To adequately address forensic patient issues, ED nurses need exposure to forensic education.

The aim of this research was to develop and evaluate the effectiveness of a clinical forensic education package on ED nurses' perceptions, knowledge and care of forensic patients. To accomplish this aim, this descriptive research study employed a multiple triangulation methodology design. Additionally, theoretical guidance was sought from Bandura's (1977) Social Cognitive Theory, Malcolm Knowles (1980) Adult Learning Principles and Lynch's (1990) forensic nursing integrated practice model. Forty nine treatment and control group nursing participants were recruited from two metropolitan Western Australian hospitals. In addition, 22 forensic and hospital stakeholders from 10 specialty areas were interviewed to explore and identify key forensic issues that confront Western Australian healthcare and forensic professionals.

Data was obtained from qualitative and quantitative means which included; semi-structured interviews, policy manual reviews, audits of nursing documentation, pre and post-test questionnaires, focus group interviews, and the researcher's observations. Data analysis indicated that the forensic educational package significantly increased participant's forensic nursing knowledge by 23.8%. In addition, data indicated that treatment group participants altered their documentation and clinical practices as a result of attending the forensic intervention workshops.

The study results suggest that a nurse focused approach can be an effective strategy to address the complex issues violence brings into the healthcare system by improving forensic knowledge, influencing nursing practice, and altering participant

perceptions regarding forensic patient care. Moreover, this study identified gaps in the amount and variety of available forensic educational material for nurses. As a result, a clinical forensic nursing self directed learning package was developed which aimed at fulfilling general forensic educational needs for all Registered Nurses across Australia and International settings.

DECLARATION OF AUTHORSHIP

This doctoral thesis is the candidate's own work and contains no material which has been accepted for the award of any degree or diploma in any other institution.

To the best of the candidate's knowledge, the doctoral thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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 Christine Marie Michel   December 12, 2007

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I would like to express my gratitude to all of the nurses who participated in this study and to all of the medical record staff who gathered the thousands of medical records I requested. You all made this study possible.

Lastly, thank you to all of the forensic and healthcare experts who provided me with their time and expert opinions necessary to develop such an educational package. I hope this is just the beginning of a long and prosperous collaborative approach towards forensic patient care in Western Australia.

I will pass through this world but once. Any good therefore that I can do, or any kindness which I can show to any human being, let me do it now. Let me not defer it or neglect it for I shall not pass this way again.

Pledge of Etienne de Greliet (1773 – 1855)

CHAPTER 1

INTRODUCTION

Working in the emergency department can be rewarding, exciting, tragic, and often unpredictable. However, it is the unpredictable environment that is often the attraction for many nurses. This story speaks to the unpredictability of patients and environmental circumstances. This is by no means an isolated case. Incidents such as this, unfortunately, occur with regularity and can significantly change lives. This is Thomas' story.

Background

Violence is a major public health problem worldwide. Each year, millions of people suffer permanent disabilities, live with physical and psychological scars and die from injuries related to violence. Violence is among the leading causes of death among people aged 15-44 years worldwide, accounting for 14% of deaths amongst males and 7% of deaths amongst females (World Health Organisation, 2002). Such individuals provide classic examples of forensic patients. In this study, a forensic patient will be considered any individual who has injuries and/or a medical condition/diagnosis that may intersect with the law.

Since the September 11, 2001 attack in New York and the Bali bombing on October 12, 2002, Australian citizens have become more conscious of the threat and prevalence of violence. On the front page of the West Australian, in December 2002, the headline read "Hidden Fears" (Gauntlett, 2002). This article summarised the top ten fears Australians have today. All but one of these top 10 concerns was associated with the field of forensics (issues such as paedophilia, incarceration of sex offenders, abuse of children, drug use and abuse, and domestic violence). The above article and many others like it (Pennells, 2002; Manton, 2002; "Terrorists tipped", 2003; Morfesse, 2004; "Toxic fumes", 2004; Mason and Eliot, 2005; McNamara, 2005) reflect the growing incidence and public awareness of violence and the resulting forensic issues that confront many Western Australians.

Hospitals emergency departments (ED) are often the first place a victim and/or perpetrator of violence will be brought to for medical treatment. Therefore, hospital staffs provide care to a variety of forensic patients daily. Research by Pasqualone

(1998) identified 24 forensic patient categories for whom ED nurses regularly provide treatment. Due to national and international incidences, Pasqualone revised her original list of forensic patient categories and increased the number of categories to 27 (Pasqualone, personal conversation June 22, 2003). The latest version of Pasqualone's forensic patient categories are seen in Table 1.1 below.

Table 1.1: Pasqualone's 27 Forensic Patient Categories

1. Abuse of the disabled	15. Occupation-related injuries
2. Assault and battery	16. Organ and tissue donation
3. Burns > 5% body surface area	17. Personal injury
4. Child abuse and neglect	18. Product liability
5. Clients in police custody	19. Questioned death cases
6. Domestic Violence	20. Sexual assault
7. Elder abuse and neglect	21. Sharp force injuries
8. Firearm injuries	22. Substance abuse
9. Food and drug tampering	23. Transcultural medical practices
10. Forensic psychiatric clients	24. Toxic exposure
11. Gang violence	25. Victims of mass destruction/ terrorism
12. Human and animal bites	26. End of life decisions: Do Not Resuscitate (NFR)
13. Malpractice and/or negligence	27. Control of communicable diseases
14. Motor vehicle trauma	

The above 27 forensic patient categories will be referred to throughout this study. This list serves as the starting point in this chapter which enables the researcher to identify the type of individuals that will be recognised as forensic patients. The remainder of this chapter will provide the history of forensics and forensic nursing, provide the justification for this study, state the aim and purpose of the study and list the seven study objectives. Lastly, this chapter will provide the reader with operational definitions which describe terms utilised regularly within this study.

History of Forensics

The term forensics is a Latin word describing the market place where lawyers met to debate [lat. Forens = market place] (Delbridge et al., 1991). Today, with the help of the media and improved telecommunications, most people associate forensics with death investigation and DNA evidence (Doyle, 2001). The Collins Concise Dictionary Plus (1989, p. 480) defines forensics as "anything pertaining to or connected with a court of law".

The beginning of forensic science is thought to have occurred in ancient China. Documents found in Chinese archives describe a magistrate, who in the seventeenth century AD, used primitive tools, collected evidence, used investigators to help study crime scenes, and interviewed suspects and witnesses (Owen, 2000). Since then the field of forensic science has grown steadily throughout the centuries.

Today the field of forensics is a sophisticated and complex science. To investigate crime, police, scientists, medical, and legal professionals utilise a variety of forensic techniques. Technology such as DNA analysis, photography, computer analysis, bite mark identification, and scanning electronic microscopy provide great support for many forensic cases. It is because of the ever-advancing scientific technology that the field of forensics continues to expand in capacity and complexity (Kiely, 2001).

With the advancement of forensic science technology comes the need to provide up-to-date information to medical professionals who provide treatment to forensic patients on a regular basis. According to Lynch (2006), there is now a greater focus on the needs of many living forensic patients, and not just the incarcerated, the mentally ill or the deceased who have been the primary target of forensic nursing care in the past. The public are becoming more aware of their medical and legal rights which add pressure upon hospital staff who provide healthcare (Pasqualone, 1998).

The Australian population and its health care needs are changing and the public is expecting and demanding more from medical professionals. Therefore, healthcare professionals need to consider and address how and which clinical forensic practices

are essential to incorporate into daily policies and procedures. In order to implement best practices, an examination of current knowledge and forensic nursing practices must occur.

Forensic Nursing

A thorough literature search revealed that there is no single agreed upon concept or definition of what constitutes a forensic nurse. Rather, there are a variety of separate categories and role descriptions under the broad field of forensic nursing. Burrows (1993, p. 900) suggests that a "forensic focus in health care relates to the therapeutic targeting of any aspect of a client's behaviour that links psychiatric symptomatology and offending behaviour". Lynch (1993), on the other hand, centres her vision for the role of the forensic nurse to be more focused and aimed at providing help and support towards victims of crime. Lynch (2006) further advocates differentiating the forensic nurse role into four areas; clinical forensic nurse, sexual assault nurse examiner, forensic psychiatric nurse and forensic correctional/institutional nurse. Finally, Whyte (1997) argues that nurses who work in correctional institutions are not really acting as a 'forensic nurse'. He further believes that unless the nurse has made a clear contribution to an assessment or evaluated a patient who was in direct pursuit of justice, a nurse does not act in a forensic nurse role. Therefore the questions that have been posed in recent nursing literature are; what is a forensic nurse and what does a forensic nurse do?

There is very little nursing literature that discusses the existence of forensic role development, forensic educational standards, forensic policy development or professional recognition outside of the United States. Much of the published literature from other countries describes various role descriptions and experiences of nurses working within "specialty forensic fields"- primarily that of mental health and incarcerated populations (Norman and Parrish, 2000; Mason, 2002).

Historically, the term "forensic nurse" utilised within the Australian nursing profession has usually been associated with nurses who provide care to persons in custody or mentally ill patients with corresponding legal issues (Whyte, 1997; Mason, 2002). This historic trend has dominated nursing literature from countries

such as the UK, United States, Australia, Canada, Scotland and New Zealand (Prebble, 2001; Mason; 2002; Meadows and Singh, 2001; Burrows, 1993; Saunders, 2000). However, over the past 15 years the term "forensic nursing" has taken on a new meaning especially in Canada and in North America. According to Gilson (2000, p. 1), the practice of forensic nursing offers an "unprecedented means of improving the community response to human abuse and interpersonal violence".

Each year, approximately a quarter of a million people are treated in hospital ED's across the Perth, Western Australia metropolitan area. In other words, approximately one in ten Perth residents visit ED's once a year (McCavanagh, Smith, Williams, and Brooks, 1998). Nurses are often the first ED healthcare professionals to see patients, speak with family members, handle personal property and collect laboratory specimens (McCracken, 2001; Mittleman, Goldberg, and Waksman, 1983). Without regular forensic education and training, ED nurses are left in the vulnerable position of trying to anticipate and/or address the needs of forensic patients unassisted. It is easy for ED nurses without forensic training to overlook, misinterpret or discard valuable forensic evidence (Duffin, 2006). Such mistakes or oversights can have wide-ranging consequences for hospital staff, the patient, their families, and any future legal proceedings.

As the population in Perth, Western Australian continues to grow, ED nurses will feel the rising pressures caused by complicated forensic issues in an already over crowded public healthcare system (Pryer, 2001; Ferguson, 2003; Armstrong, 2002; Australian Bureau of Statistics, 2001). Such pressures and lack of any best practice designed forensic education can only lead to errors in patient care, job dissatisfaction, and an increase in legal action directed at nurses and hospitals.

Pasqualone (1998) stated:

> Nurses must be educated with regards to the forensic issues
> surrounding the victims of trauma and violent crime…. If staffing and
> education is inadequate, the priorities of treatment may well out-
> weigh the importance of recognising, documenting and collecting
> evidence. If important evidence is destroyed and/or overlooked, a
> serious injustice could be rendered to the patient, suspect, or hospital.
> (p. 59)

Justification

To enable nurses to recognise and effectively manage forensic medicolegal cases in EDs they must have more knowledge (Gilson, 2000; Benak, 2001). Pasqualone (2003) and Lynch (1997) agree that there is a general lack of knowledge and awareness regarding forensic issues among nurses. It is essential that the nursing profession take the guesswork out of forensic patient care for ED nurses and other healthcare professionals. Nurses need to be provided with regular forensic education and forensic tools which assist them to care for forensic patients.

Hospitals are under enormous pressure to sustain high quality healthcare services in an environment of high demand, cost cutting and greater demands for hospital beds and emergency care (Health Reform Committee, 2004; Commonwealth of Australia, 2001). With shortages of ED nurses and doctors, the question of need and justification for specialised nursing educational programs surface (Armstrong, 2002; Pryer, 2001). The denial of such forensic services has the potential for issues such as negligence and malpractice to arise causing greater risks to patients, staff and hospitals. Atkinson and Williams (1992, p. 46) admit that "without such knowledge, ED nurses may act unethically or unwittingly place themselves at the risk of litigation". To prevent nurses from being exposed to such events, it is essential that advanced forensic education be initiated in EDs.

Care of forensic patients includes treatment of their immediate health issues, attention to patient's rights, collection of forensic evidence, discharge and referral needs as well as legal requirements (Kent-Wilkinson, 1999). If attention is not focused towards these issues, patients, suspects or hospitals could be subjected to serious injustice if important evidence is destroyed and/or overlooked (Pasqualone, 2003).

Patients usually interact with and are assessed first by Registered Nurses in EDs. Nurses need the knowledge that assists them in recognising potential forensic patients. Identification is the first step to improving the management of forensic patients needs. An improvement in forensic standards of care can improve criminal

justice outcomes. Such improvements can benefit the patient and the whole community (Gilson, 2000).

Clinical forensic education targeting ED nurses have been effective and successful internationally (Easter and Muro, 1995; Kent-Wilkinson, 1999; Benak, 2001). With sound forensic knowledge and skills, ED nurses can initiate forensic protocols. As a result, forensic patients receive specific attention without delay thus maximising overall patient outcomes.

Over the past 10 years there has been extensive evidence that the concept of the forensic nursing specialty is expanding (Kent-Wilkinson, 1999; Gilson, 2000; Moore, 2001; Pyrek, 2003; Campbell, Patterson, and Lichty, 2005). For example, internationally, comprehensive forensic nursing programs have been successfully introduced and implemented within 20 different countries (V. Lynch, personal communication, February 10, 2003). In addition, forensic nursing program descriptions, case studies, challenges, and successes have also been extensively documented in the literature (Gilson, 2000; Nelson, 1998; Kent-Wilkerson, 1999; Benak, 2001; Evans and Wells, 1999, Moore, 2001; Campbell, Patterson, and Lichty, 2005).

The current literature does not provide articles that have evaluated forensic nursing educational programs for ED nurses according to research based processes. Avenues investigated included online databases such as Ebscohost, PsychINFO, CINAHL, Joanna Briggs Institute, The Australian Resource Centre for Healthcare Innovations, ProQuest, as well as an internet search incorporating the search engines Google and Yahoo.com. Terms (individual and combination of terms) used to search for published literature included; forensic, nursing, emergency department, education, teaching strategies, adult learning, pre and pots-test design, behavioural change, social learning theory, and social cognitive theory.

The available literature generally outlined and described how healthcare professionals approached and cared for specific forensic patient populations. In other words, the available literature tends to focus on describing specific types of forensic nursing specialty skills, roles and associated programs such as; sexual assault nurse

examiner (eg., Ledray, 1992; Hohenhaus, 1998; Ahrens et al., 2000; Moore, 2001; Sievers and Stinson, 2002), mental health nursing (eg., Baston and Simms, 2002; Sharrock and Happell, 2002; Pryke, 2005), nurse death investigation (eg., Standing Bear, 1995), forensic evidence collection (eg., Easter and Muro, 1995; McCracken, 2001; Duffin, 2006) , and legal nurse consultants (eg., Wetther, 1993; Bogart, 1998; Chizek, 2003). The researcher could not find any literature that described and evaluated a forensic educational package that was suitable to all 27 forensic patient categories.

The difficulty in evaluating forensic nursing programs results from the fact that caring for forensic patients includes addressing medical, legal, and psychological issues. Therefore, identifying and measuring success is complicated. For example, some programs may identify success with an increase in the number of victims who report a crime whereas others may identify success with an increase in conviction rates. However, the researcher found one article by Campbell, Patterson, and Lichty (2005) whose objective was focused on evaluating the empirical literature concerning the effectiveness of sexual assault nurse examiner (SANE) programs.

According to Lynch (2006), a SANE program (sometimes referred to as a sexual assault response team or SART) consists of a:

> Group of professionals who work together to facilitate the survivor's recovery and the investigation and prosecution of the assailant by providing information, support, and crisis intervention, gathering evidence, and facilitating the movement of the sexual assault survivor through the legal system. (p. 706)

The registered nurses working within these programs are required to have advanced education in forensic examination of sexual assault victims. The amount of advanced training and the course specifications differ within the USA and other international countries.

Campbell, Patterson, and Lichty (2005) identified five domains which they used to evaluate SANE programs. These domains included; psychological effectiveness, medical/healthcare effectiveness, forensic effectiveness, legal effectiveness, and community change effectiveness. Overall, Campbell, Patterson, and Lichty (2005, p. 324) found SANE programs improved the way patient care was approached.

However, the authors caution the reader about drawing too many conclusions as "most of the published studies have not included adequate methodological controls or comparisons to rigorously test the effectiveness of SANE programs".

There has not been any published Australian research which describes and evaluates successfully implemented forensic nursing education packages, only literature that support such development (Evans and Wells, 1999; Saunders, 2000; Baston and Simms, 2002; Pavlik, 2004; Hofner, et al., 2005). Therefore, in order to successfully develop a forensic nursing educational package suitable for all 27 forensic patient categories, a broad based research investigative approach was required. The researcher therefore considered a multitude of adult learning and educational principles, teaching methods, and forensic science variables in planning this investigation. This will be discussed in more detail in Chapter 3.

Due to the predominance of the international forensic nursing movement, it seems logical to consider utilising similar ideas, protocols, and procedures. Initially, however, the researcher was required to investigate whether existing forensic educational material was applicable, effective and beneficial to nurses working in EDs within Western Australia. A comprehensive literature review would assist in providing an evidence based package that was informative, functional for the target group (forensic patient categories), and increasing the scope and standards of nursing practice in Western Australia.

In summary, to enable ED nurses in Western Australia to address forensic patient needs, nurses need to be provided with specialty forensic knowledge. International experiences have indicated that forensic nursing education can be effective and beneficial for improving forensic patient care (Kent-Wilkinson, 1999; Benak, 2001; Moore, 2001; Campbell, Patterson, and Lichty, 2005). There has been no published literature that describes and evaluates clinical forensic educational programmes for ED nurses. Therefore, to ensure best practice, it is essential that forensic educational material is developed and evaluated based on the forensic patient populations present in Western Australia.

The remaining discussions provided in this chapter will focus on the aim, purpose, objectives, and operational definitions which relate directly to this study. Such information will provide concise and expletory information that will help clarify the contents of subsequent chapters.

Aim

The aim of this research is to evaluate the effectiveness of a forensic education package on ED nurses' perceptions, knowledge and care of forensic patients.

Purpose

A multiple triangulation method will be used to evaluate the effects of a forensic educational package on ED nurses' perceptions, knowledge and care of forensic patients. The research project will discuss the need for advanced forensic nursing education and whether a nurse focused approach can be used as a strategy to address the complex issues forensic patients bring into our healthcare system.

Objectives

To fulfil the purpose of this study the objectives that will be explored and addressed will be to:

1. Explore the forensic requirements and key issues identified by forensic and healthcare stakeholders within the Western Australia community.
2. Develop an educational package and conduct forensic workshops that address deficits in forensic knowledge and clinical forensic skills as identified by Western Australia's emergency department Registered Nurses and forensic and healthcare stakeholders.
3. Describe the perceptions of Western Australia emergency department Registered Nurses regarding current roles and responsibilities needed to care for forensic patients.
4. Develop and evaluate the effectiveness of a forensic kit for Western Australia emergency department nurses containing forensic supplies and protocol sheets that provide evidence collection guidelines.

5. Evaluate the effectiveness of a forensic educational package in relation to changes in nursing assessment, documentation, perceptions, knowledge, and care of forensic patients.

6. Identify and discuss the relationships between the nursing participants' demographics and their knowledge, perceptions and practice of forensic nursing.

7. Discuss a potential need for change in forensic patient identification and assessment, availability of forensic evidence collection supplies, standards of practice, hospital policies and the implementation of ongoing ED forensic education.

Operational Definitions

1. Care of the forensic patient – Care provided to the forensic patient includes identification, assessment, interventions and/or evaluation.

2. Comprehensive – Being of broad scope or content (Hanks, 1989).

3. Forensic – Pertaining to or connected with a court of law (Hanks, 1989).

4. Forensic categories – A classification of traumatic injuries or violence, whether physical or psychological, which results in an interface of the health care and legal systems (Pasqualone, 2003).

5. Forensic nursing – The application of the nursing process to public or legal proceedings. It is the application of the forensic aspects of healthcare to the scientific investigation of trauma, and/or death-related medicolegal issues (Lynch, 2006).

6. Forensic patient – A patient whose medical injuries, history or complaint interface with the law.

7. Forensic stakeholders – Individuals that work within the forensic or healthcare field or take care of forensic patients within their work environment (Nurses, Police, Doctors, Forensic Pathologist, Legal Prosecutors, Social Workers, Counsellors, Referral Agencies, Hospital Administrators, Coroners).

8. Nurse – A person registered with the Nurses and Midwives Board of Western Australia. The terms nurse, ED nurse, and Registered Nurse will be used interchangeably depending on content.

9. <u>Triangulation</u> – A research design which uses a variety of methods, sources and data types to draw conclusions about one phenomenon (Polit, Beck, and Hungler, 2001).

Conclusion

Violence is a major public health concern worldwide. The repercussions of violence are felt by ED staff throughout Australia and the world. Many victims of violence regularly present to hospital EDs for treatment. Hidden within such presentations are often complex and ambiguous legal issues. The combination of a medical complaint that incorporates legal concerns classifies such patients as "forensic patients".

Emergency departments are on the front line when emergent healthcare is required by forensic patients. To provide comprehensive medical care and minimise any confusion that often accompanies forensic cases, ED nurses need to be provided with regular and up-to-date forensic education. Therefore, it is vital that a forensic educational package be developed which improves knowledge and standard of care. To date there are no forensic educational packages available for ED nursing staff. Therefore, the aim of this study was to develop a forensic educational package and evaluate its effectiveness with regard to ED nurses' perceptions, knowledge and care of forensic patients in emergency departments in Western Australia.

In order to accomplish this aim, the researcher was required to develop and implement a forensic educational package tailored for nurses working in Western Australia emergency departments. The theoretical framework that supported this project will be discussed in Chapter 2. In Chapter 3, the researcher will then provide a detailed description of the methodological approach utilized for the project. To simplify the outline of the extensive methodological activities undertaken, this discussion has been described under headings labelled Phase I to Phase IV.

Only one published study could be found that discussed the different types of forensic patients (Pasqualone, 1998, 2003). A replication study was required to identify whether the same forensic categories existed in Western Australia. The results of this investigation will be discussed in Chapter 4. All of the data collected

and its analyses will be outlined and discussed in Chapter 5. The researcher will then discuss the research findings in Chapter 6. Finally, the discussion in Chapter 7 will conclude with a focus on the practical implications and recommendations for further research in clinical forensic nursing.

<p align="center">*****</p>

The feeling of comfort can often be short lived. Often seconds make a difference. Seconds is all it took...

CHAPTER 2
LITERATURE REVIEW

Thomas had just started his new job with all of the excitement and enthusiasm of a young child beginning their first day of school. It was a new beginning, an exciting new adventure, so familiar and comfortable and yet so unpredictable. It was early in the morning and patients were already backing up at triage waiting to be seen while others were steadily arriving through the side doors on ambulance trolleys.

Introduction

Violence is recognised as a global public health problem (World Health Organisation, 2002). As a result, the nursing profession is faced with new educational needs which involve the specialty field of forensics (McGillivray, 2004). Often, forensic patients encounter healthcare professionals in Australian emergency departments prior to any contact with the police or other legal professionals (O'Brien, 2006). Consequently, many ED nurses are unknowingly caring for forensic patients on a daily basis.

Providing competent and effective care to forensic patients requires a Registered Nurse to have special skills and unique knowledge (Glittenberg, Lynch, and Sievers, 2007). A nurse must have a clear understanding of their professional scope of practice, State and Federal laws as well as understand forensic science principles (Hammer, Moynihan, and Pagliaro, 2006; Glittenberg, Lynch, and Sievers). These special skills and unique knowledge allow ED nurses to meet the demands of the diverse forensic patient needs (Benak, 2001). In this study, a "forensic patient" refers to any individual who seeks treatment for complaints that interface with or have the potential to interact with the law (Pasqualone, 1998). Therefore, in order for nurses to provide holistic and competent nursing care to forensic patients, nurses need to be provided with current and regular forensic education.

However, the nursing specialty of clinical forensic nursing is unknown to the majority of Australia's nursing arenas (Saunders, 2000; Evans and Wells, 1999). According to Lynch (2006), forensic nursing involves merging the forensic aspects of healthcare with the bio/psycho/social/spiritual aspects of patient care. Although most nurses regularly provide care to a variety of forensic patients, forensic nursing

concepts are especially relevant within the ED environment (Benak, 2001; Glittenberg, Lynch, and Sievers, 2007). According to Pasqualone (G. Pasqualone, personal communication, June 22, 2003), ED nurses regularly provide treatment to 27 different types of forensic patients. By definition, forensic nursing incorporates law and healthcare practices; as a result, forensic cases, on average, are not usually simplistic in nature (Butterworths, 2003). In view of such facts, logic suggests that effective forensic educational material must incorporate ideas from multiple sources and disciplines.

The incorporation of such a comprehensive approach was adopted to provide the researcher the best opportunity to develop a forensic educational package that would significantly impact on the nursing practice within the ED setting. According to Hammer, Moynthan, and Pagliaro (2006), theoretical models serve as a guideline and are an essential foundation in which nursing education and practice should be based. Unfortunately, the researcher could not find a single theory that could satisfactorily support the entire research project. Consequently, the researcher had to draw upon several theoretical perspectives to guide different aspects of this research study.

To address the complex nature of forensic nursing education, the researcher reviewed literature which described the International and Australian perspectives of forensic nursing. Following that discussion, details of the three theoretical models and teaching strategies which provided the guidance and support for the forensic educational package will be explained.

Context of Forensic Nursing

In its original meaning, the term "forensic" relates to public debates (Delbridge et al., 1991). However, a more modern usage of the term "forensic" relates to a connection with the legal system or some type of formal public debate in a courtroom (Bell, 2004). Today, the field of forensics has become sophisticated and complex. Forensic principles have become entwined with many other professions including that of healthcare. Therefore, when the term forensics is used as an adjective in conjunction with nursing, forensic nursing could be defined as the application of nursing to a

legal context. To completely explore the field of forensic nursing, the international and Australian perspective were examined.

International perspective

In 1975, in Alberta Canada, the chief medical examiner, Dr. John Butt, recognised that nurses could be a valuable resource in the field of death investigation. This resulted in the first extension of the traditional mental health and correctional forensic nurse role, that of a nurse death investigator. Expanding the roles within forensic nursing continued in 1976 with the development of Sexual Assault Nurse Examiners (SANE) programs in the United States of America (USA).

The stimulus to develop a SANE program began with the focus to better meet the needs of rape victims. Literature found that victims of sexual assault experienced long waits in EDs (Ledray, 1999; Littel, 2001). Therefore, to address the needs of this specific patient population, three US hospitals initiated SANE programs. The first three programs started in Memphis, Tennessee in 1976 (Speck and Aiken, 1995), in Minneapolis, Minnesota in 1977 (Ledray and Chaignot, 2001) and in Amarillo, Texas in 1979 (Antognoli-Toland, 1985).

Nurses along with other medical professionals, counsellors and advocates working in hospitals, clinics and other settings recognised that services for sexual assault victims were inadequate. When rape victims presented to EDs for care, they often waited four to 12 hours because their injuries were often seen as non-life threatening (Ledray, 1999; Littel, 2001). In addition, many emergency physicians were reluctant to complete the necessary exam (Littel). This was due to many factors that included lack of experience and training in forensic evidence collection (Bell, 1995; Lynch, 1997; Ledray, 1999; Littel), the time consuming nature of an evidentiary exam (Frank, 1996), and the potential of legal involvement in the future. The combination of such circumstances often led to evidence that was rushed, inadequate or incomplete (Frank; 1996; Lynch, 1996).

In 1992, 74 nurses came together and formed the International Association of Forensic Nursing (IAFN). The vision of this organisation was to bring together nurses who cared for patients who had healthcare and legal needs. Today, the current

roles recognised within the international field of forensic nursing include (Hammer, Moynthan, and Pagliaro, 2006):

1. Sexual Assault Nurse Examiner (SANE)
2. Forensic Nurse Photographer
3. Nurse Coroner
4. Forensic Nurse Death Investigator
5. Legal Nurse Consultant
6. Clinical Forensic ED nurse
7. Forensic Correctional Nurse
8. Forensic Gerontology Nurse
9. Forensic Paediatric Nurse
10. Forensic Mental Health Nurse
11. Forensic Nurse Educator/Researcher

Further international recognition for forensic nursing came with the publication of Pasqualone's Masters Thesis in 1998. The aim of her study was to identify the need for ED nurses to be forensically educated. Pasqualone believed that improved forensic nursing education required initiating a conscientious system founded upon the categorisation of forensic issues. Such a system was believed to assist ED nurses recognise, assess, collect, document, and report forensic cases. Pasqualone (1998) believed that forensic awareness assisted patients, local police and the entire legal community. Furthermore, Pasqualone thought that a direct and orderly process would allow and facilitate direct communication between all aspects of the medico-legal system and improve the management of any patient with potential forensic implications.

Forensic Nursing was recognised as a formal specialty by the American Nurses Association Congress of Nursing Practice in 1995, and standards of practice were approved in 1997 (International Association, 2003). After 10 years, the IAFN has approximately 200 international members. The expanded model and concepts of forensic nursing continue to develop and have been embraced by over 20 different countries including: Great Britain, United States, Canada, South Africa, Hong Kong, Zimbabwe, Scotland, Japan, Wales, Honduras, El Salvador, Costa Rica, Singapore, Germany, India, Turkey, Ireland, Sweden, Netherlands, and Cuba (B. Barsa, personal communication, November 17, 2007).

In North America and Canada there is a strong national recognition for the forensic nursing speciality. The forensic nursing speciality is recognised by the American Nurses Association [ANA], Emergency Nursing Association [ENA] as well by the American College of Forensic Examiners [ACFE] and the Federal Bureau of Investigation [FBI] (International Association, 2003). There are journals that focus on forensic nursing issues (Forensic Nurse Magazine, On The Edge, Journal of Emergency Nursing, Journal of Forensic Nursing) and several universities offer undergraduate and postgraduate forensic nursing degrees (Fitchburg State College in the USA, Beth-El College of Nursing in the USA, University of Texas at Austin in the USA, and the Mount Royal College of Calgary).

The Joint Commission on Accreditation for Healthcare Organisations (JCAHO) is an independent, not-for-profit organization in the United States that evaluates and accredits nearly 15,000 health care organizations and programs. Since 1951, JCAHO has been the predominant USA organisation responsible for standards-setting and accrediting health care facilities. JCAHO's services include; accreditation, performance measurement, patient safety, information dissemination, and public policy initiatives. For a hospital to receive full JCAHO accreditation, the facility must provide guidelines for forensic patient care requirements. JCAHO further stipulates that a forensic patient must be provided care by a person who is trained to recognize and evaluate the forensic patient's needs (Joint Commission, 2003).

In May 2002, a forensic nurse (Debbie Holbrook) was called to provide expert testimony at a hearing in Washington DC. The hearing was called to address widespread problems with DNA evidence collection. Ms. Holbrook provided testimony on her role as a forensic nurse and the importance of qualified forensic nursing care to sexual assault patients (Bell, 2002). The inclusion of Debbie Holbrook's testimony as a forensic nurse provided greater exposure about the expertise forensic nurses possess and highlighted how this nursing specialty provides forensic patients with high quality care.

In June 2003, the IAFN was awarded a grant of $50,000 from the Office of Violence Against Women, Department of Justice, USA. The grant was initiated so that national educational standards for health care and law enforcement in the care of

sexual assault victims could be established. The IAFN, with the help of a multidisciplinary panel of judges, prosecutors, law enforcement officers, physicians, nurses and advocates set out to determine the standards that outline who could train, who should be trained and how much training was needed for healthcare professionals who care for sexual assault victims (Arndt, 2003).

Fuelled by an increasing demand for information on forensic nursing science, the IAFN launched a peer-reviewed scientific journal (Journal of Forensic Nursing) in Spring 2005. In addition, as part of a national effort in the USA to better respond to sexual assault, the United States Department of Justice Office on Violence Against Women (OVW) has awarded the IAFN a $500,000 technical assistance grant. The IAFN became involved with the project as politicians and other government agencies recognised the benefit of the unique and extensive forensic nursing knowledge and experience held by IAFN members (D'Alesandro, 2005).

Australian perspective

Australia's history of receiving transported British criminals initiated this country's need for developing forensic healthcare services. Mental health services in Australia began in 1805 when a member of the first fleet, Charles Bishop, was declared a "lunatic". In 1811, the first asylum in Australia opened at Castle Hill, New South Wales. Since these early times, trends in Australian mental health have mimicked those in the British system (Neil cited in Meadows and Singh, 2001).

Forensic nursing services in Australia have developed in a similar fashion to that of the mental health services – ad hoc across the various states and territories. Therefore, there is little documented history of the true beginnings of forensic nursing in the published literature. Today, forensic nursing across Australia primarily focuses on work with patients who require mental health services or, are in some way, connected to the criminal justice system. Usually that refers to individuals who have been accused or convicted of a criminal offence. Mason (2002) believes that 'forensic' is generally accepted within nursing literature to denote those who work with mentally disordered offenders in secure psychiatric services of some description.

There are various State organisations throughout Australia that provide support for forensic nurses. These include; Australasian Association of Forensic Nurses Incorporated, Australian College of Mental Health Nurses Inc., Australian Sexual Health Nurses Association [ASHNA], and Psychogeriatric Nurses Association. All of these associations, except the first one mentioned, are designed for nurses who deal with a single forensic patient category. Furthermore, there is little national recognition, organisation or collaboration for the forensic nursing speciality. This is in extreme contrast to the North American and Canadian forensic nursing movement.

The obvious question that arises is why, since proven so successful, is the international forensic nursing model not being utilised in Australia? This is a complicated question that is worthy of discussion and investigation. At first glance the answer seems to be the lack of forensic educational opportunities. The expanded roles of the forensic nurse originated in Canada and soon followed in the USA (Lynch, 2006). Currently, there are strong educational, legal and professional opportunities for nurses interested in expanding their level of forensic knowledge and scope of practice in these countries (International Association, 2005). Without exposure to the idea of role expansion and corresponding educational opportunities, Australian nurses cannot move forward towards any of the nine speciality forensic nursing roles (Lynch, 2006).

Another obstacle in Australia may be attributed to "turf" conflict from and among other clinicians, physicians, and public (Swansburg, 1996; Pollard, 2004). Conflict among nurses is not a new phenomenon and is becoming a significant issue (McKenna, Smith, Poole and Coverdale, 2003; Lambert, Lambert, and Ito, 2004; Almost, 2006). According to Davis (2007), multi-generational conflict is the terminology currently being used in place of the better known concept of "nurses eat their young". This problem, Davis believes, stems from generational differences which create a very diverse work environment that is sometimes difficult, or even impossible for some, to practice in.

In addition to conflict between nurses, some healthcare physicians believe that the substitution of tasks away from medical practitioners to other health staff, including nurses, could compromise patient care leading to a reduction in quality and safety

outcomes (Australian Medical Association cited in Pollard, 2004; Australian Doctors' Fund, 2005). Furthermore, some discord between nurses and the public has been reported in the literature regarding the difficulty nurses have fulfilling public expectations. Some literature discovered that the public often had a different view regarding what the role of nurses should be. For example, Revill (2005) interviewed 15 nurses in the United Kingdom (UK) and found that nurses did believe that the public had feelings of unease about advance nursing roles. However, the feelings of unease were reported to focus on the fact that the public viewed the traditional caring and compassionate role of nursing, which involves hands-on care, as being replaced by a more technical, efficient kind of care. The nurses that Revill interviewed believed that such feelings stemmed from all of the changes the profession had undergone in recent years and the fact that the public had not been kept fully informed. Throughout the nursing literature there is evidence that some conflict and negative attitudes about advance nursing roles exist within the community and among healthcare colleagues (Revill). However, there is an abundance of literature that also supports the premise that nurses working in advanced practitioner roles are able to provide quality care with similar health outcomes when compared with care provided to patients by a doctor (Horrocks, Anderson, and Salisbury, 2002; Shum, et al., 2000; Kinnersley, et al., 2000; Organ, 2005; Campbell, Patterson, and Lichty, 2005).

In the past, nursing education across Australia closely followed the British tradition of the apprenticeship style of nurse education. However, from the mid 1970s to the early 1990s, Australian nursing education was replaced by university based education. This break with past tradition in which nurses were often seen as handmaidens of doctors, dutiful employees, and a caretaker at a patient's bedside, has provided an opportunity for Australian nurses to develop the discipline of nursing towards an advanced and scientific discipline (Stein-Parbury, 2000).

The issue of effective multidisciplinary cooperation between and amongst healthcare and legal professionals has been identified as a crucial issue that can contribute to the lack of forward movement and advancement within forensic nursing roles (Meserve, 1992, p.120; Wiese, Armitage, Delaforce, and Welch, 2005; Gilson, 2000). According to Goll-McGee (1999, p. 17), "teams working together will enhance the

result of service to people as they move through a system embodied by clinical service, legal order, and forensic protocol". Central to forensic nursing practice is the idea that a patient's medico-legal needs have to be recognised and incorporated into their plan of care. Therefore, there is an ongoing need to educate, clarify roles, develop clear practice standards, and form cohesive systems between health and justice system stakeholders (Saunders, 2000; Sekula, 2005).

A further stumbling block may be how the courts and the Australian legal profession view nurses in relation to their evidence collection skills and ability to act as an expert witness. According to Waight and Williams (2002), there are two essential preconditions that a person must fulfil to qualify as an expert witness; (1) the subject matter of the witness's evidence must be an area that requires a course of previous habit or expert study in order to attain knowledge about the subject matter and (2) the witness must be skilled through study and/or experience in that area. Ultimately, however, the decision to accept or reject a nurse's evidence and his/her testimony as one of an expert standard (as it pertains to forensic nursing) has yet to be determined in Australia (Staunton and Chiarella, 2003).

Overall, however, the main topic of concern appears to be lack of knowledge and absence of available educational opportunities for nurses within the forensic arena (Saunders, 2000). Knowledge creates awareness. The more knowledge healthcare stakeholders have about the effectiveness of different national and international systems, the greater the likelihood that changes may occur. Within the USA, Canada, and UK, literature suggests that having specially trained forensic nurses is beneficial to patients, the healthcare professional and is advantageous during legal proceedings (Kent-Wilkinson, 1997; Chizek, 2003, Mason, 2002; Campbell, Patterson, and Lichty, 2005; Pryke, 2005). The advanced forensic nursing roles predominantly discussed in such literature include; Nurse Death Investigators, Sexual Assault Nurse Examiners (SANE), Legal Nurse Consultants and Mental Health Nurses.

In recent years, there has been some supportive Australian literature regarding the emerging role of the mental health liaison nurses who work closely with ED staff (Evans and Wells, 1999). Such literature suggests that the effectiveness of these advanced forensic nurse practitioners results from special training, ability to follow

policies and protocols, as well as advanced legal and practical knowledge surrounding standards of care. Such a wide breadth of knowledge and expertise has led to increased patient satisfaction and legal effectiveness during prosecution (Crandall and Helitser, 2003; Chizek, 2003; Sievers, Murphy, and Miller, 2003; Ciacone, Wilson, Collette, and Gerson, 2000).

The recognition and development of the Nurse Practitioner role across Australia fosters hope for the realisation and need for further role advancement within the nursing profession. Across Australia, forensic nursing, as a diverse speciality, is in its infancy. However, Australia has begun to recognise the need to expand the availability and necessity of forensic education as well as the advanced practicing forensic nurse (Aston, 2006).

Australia needs to consider the broader aspect of forensic nursing. Currently, there is no regular forensic education provided to ED nurses on a continuing basis. Furthermore, international experiences have indicated that forensic nursing education can be effective and beneficial for improving forensic patient care (Kent-Wilkinson, 1997; Benak, 2001; Moore, 2001; Campbell, Patterson, and Lichty, 2005). Lastly, there has been no published literature that describes and evaluates clinical forensic educational programmes for ED nurses. Therefore, to meet and improve the education, services and care provided to all categories of forensic patients, a new approach is required. Mason (2002) mentions that nurses have the largest contact time with patients and that this provides the greatest opportunity for nurses to engage in therapeutic activity. Mason further advocates that there is a need to focus on the application of nursing interventions in a diverse area where crime interfaces with human suffering.

The direction of forensic nursing throughout Australia has started to develop. In the year 2000, the first world forensic nursing conference in the Southern Hemisphere was held in South Australia. The conference paralleled the theme that surrounds that of the IAFN. Also in 2000, a graduate program in the field of forensic nursing was initiated at Flinders University in Adelaide as well as a distance education graduate diploma in Correction Health and Forensic Nursing at the University of Western Sydney (Evans and Wells, 1999). Finally, in March 2006, Monash University began

a graduate certificate in forensic nursing and commencing, February 2007, Notre Dame University in Western Australia is now providing a graduate diploma course in clinical forensic nursing.

With all of these exciting advancements, nurses in undergraduate programs, communities and hospitals need support and exposure to forensic nursing education. Forensic education is vital for nurses working with patients and their families. Such knowledge is even more important to those nurses working in EDs across Australia. Most nurses would come into contact with at least one patient from the list of 27 categories of forensic patients each working day. However, on an average day, it is the ED nurse who would treat far greater numbers of patients who fall into one of the forensic categories (Pasqualone, 1998).

Today, forensic education for nursing staff needs to expand and move towards the international model so forensic nursing issues in Australia are confronted and standards of practice reviewed. According to Evans and Wells (1999), a forensic nursing pilot project in Victoria clearly demonstrated that there were benefits of developing advanced roles for forensic nurses. Their study demonstrated numerous benefits for the presence of advanced educated forensic nurses. These benefits included better response times, improved continuity of care and cost effectiveness (Evans and Wells).

The recognition of forensic patients and the collection of evidence could mean the difference between justice or its miscarriage. This means that nurses in EDs throughout Western Australia must be educated in the proper recognition, interpretation, collection, documentation and photodocumentation of not only the ramification of violence, but also the forensic evidence associated with it (Pasqualone, 1998).

Virginia Lynch (1997) founder and past president of the IAFN writes:

> The focus of forensic nursing is clearly identified as a vital
> intervention by healthcare in advocacy and ministration to victims of
> violent crime – the survivors, the deceased and the families of both.
> The wide range of components defining this focus may appear
> confusing to those without knowledge of the forensic sciences. Yet it

is the body of knowledge in its entirety that provides its strength. The identified problems in our society are great and multifaceted and require education and expertise that is equally diversified. In truth, the combined efforts of forensic science, medicine, law, nursing, and public health are required to deal with the complex problems of violence. (p. 3)

Conceptual Framework

To address the study objectives and maximise the outcomes, three theoretical perspectives were chosen to incorporate into this study (see Figure 1). The theoretical framework for this study blended concepts from three theories in order to best manage the complexity involved in the development of the forensic educational package. The theoretical models included: (1) a collaborative approach to nursing practice known as Lynch's Forensic Nursing Integrated Practice Model (Lynch, 2006), (2) an educational model known as Knowles adult learning principles (Knowles, 1980), and (3) a multifaceted behavioural theory developed by Bandura (1977) known as the Social Cognitive Theory (previously known as Social Learning Theory).

Virginia Lynch is known to be the pioneer of forensic nursing throughout the USA. She first proposed the development of a forensic nursing specialty in 1986 with her graduate research project (Hammer, Moynihan, and Pagliaro, 2006). Her graduate research titled, "Clinical Forensic Nursing: A Descriptive Study in Role Development" advocated for a multidisciplinary team approach to the identification of forensic trauma and evidence preservation (Lynch, 1990). Lynch's resultant integrated practice model was the first and remains the only current nursing practice model that defines and applies forensic concepts to nursing practice. As a result, its inclusion into this study was deemed essential and significant as there is no other model that speaks directly to both nursing and forensic concepts. Therefore, Lynch's Forensic Nursing Integrated Practice Model provided the framework that guided the structure and contents of the forensic educational package.

Malcolm Knowles was one of the world's leading authorities on adult learning principles (Knowles, Holton, and Swanson, 1998). Knowles's work describes the unique aspects of adult learning and provided the researcher with great insight about the type of teaching strategies that benefit the adult population. Therefore, the

Figure 1: Conceptual Framework for Forensic Educational Package
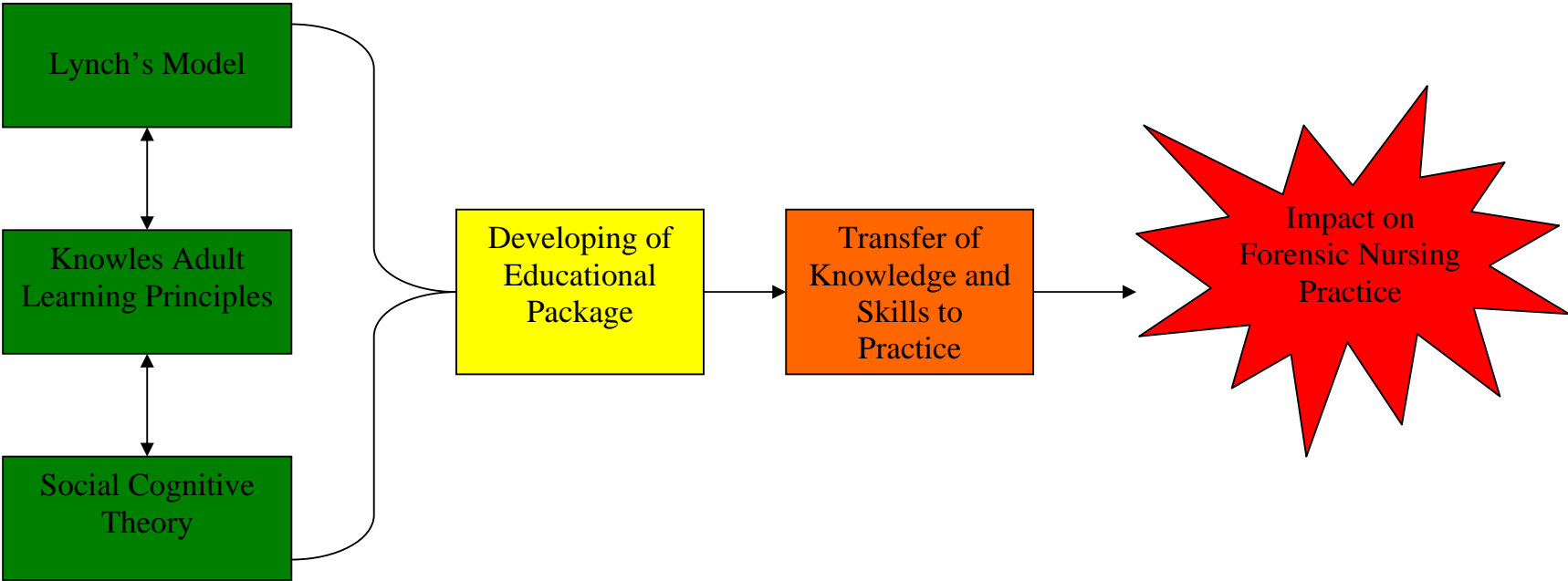
researcher believed that the adult participants in this study would benefit greatly if Knowles specific concepts of adult learning were incorporated into the delivery of this study's forensic educational package.

Lastly, the inclusion of the Social Cognitive Theory was important because it described how and why learning and behavioural change occurs. Since maximum outcomes could only be achieved in this study if participants altered their nursing practice behaviours, the researcher required input from a behavioural model that addressed such issues. Therefore, the objective of the following discussion will be to outline each of the models and how aspects from each of the three theoretical models guided and supported the development of the forensic educational package.

Lynch's forensic nursing integrated practice model

In 1990, Virginia A. Lynch proposed a theoretical framework for forensic nursing (see Figure 2). Since then her integrated practice model has provided the concepts and structure that guided many international forensic nursing programs and their policies and procedures (Ledray & Chaignot, 2001; International Association, 2003; Arndt, 2003; Rooms, 2004)**.** Lynch's model (see Figure 2) recognises that forensic nursing draws upon knowledge from Nursing Science, Forensic Science and Criminal Justice. Such a model proposes a complementary approach to that of the nursing profession in respect to its multidisciplinary approach to patient care (Lynch, 2006; Hammer, Moynthan, and Pagliaro, 2006).

Lynch's (2006) model emphasizes the importance and necessity of providing traditional nursing interventions with speciality forensic knowledge and skills. The multidisciplinary approach serves to assist with crisis care and the interactions between healthcare professionals and traumatized victims, offenders and family members. A central assumption to the forensic nursing theory is that integrating disciplines of social science, nursing science, and the legal sciences provide mutual benefits to the patient, healthcare institution, society, law and human behaviour (Lynch, 2006).

Figure 2: Lynch's Forensic Nursing Integrated Practice Model
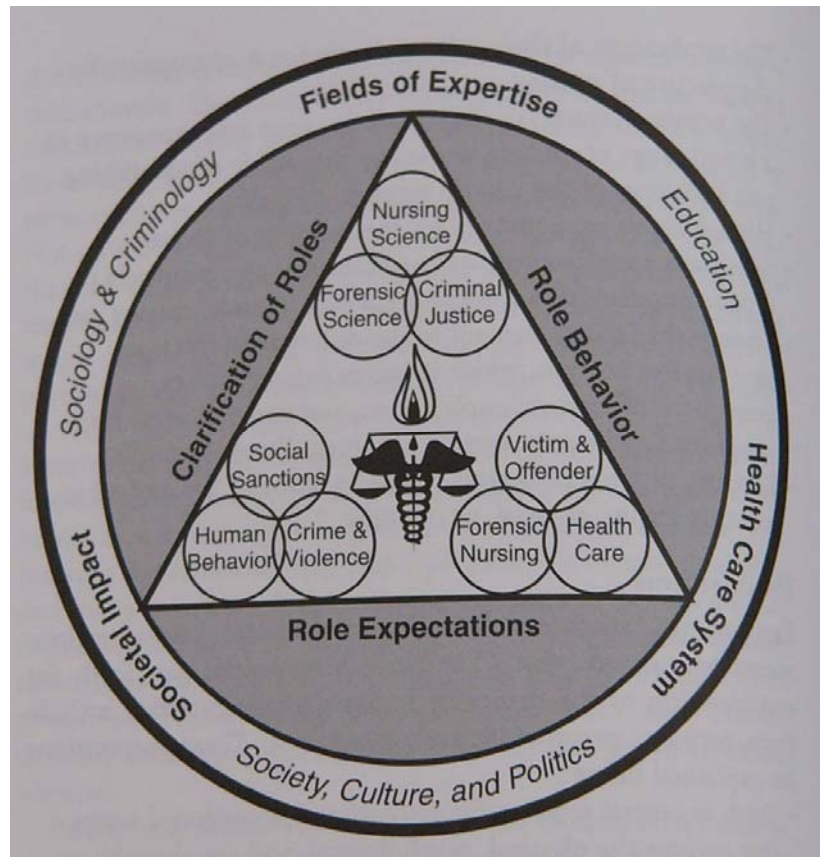
Reprinted with Permission (Lynch, 2007)

The outer circles seen in Figure 2 represent the interacting environments of society and education. The three main constructs are located at the triangle tips (field of expertise, health care system, and societal impact). At the top of the triangle under the field of expertise construct are three interlocking circles. These circles depict the areas from which forensic nursing draws knowledge. The interlocking circles pictorially represent the essential multidisciplinary coordination, communication, and cooperation that must exist amongst the various disciplines. The bottom left three circles represent the dynamics that dictate the role behaviour of the forensic nurse whilst the bottom right three circles represent the emerging disciplines and relationships of forensic nursing, with healthcare facilities as they relate to victims and significant others (Rooms, 2004; Lynch, 2006).

Lastly, the symbol located in the centre triangle is that of forensic science and the scales of justice intertwined with the Medical Caduceus. The eternal flame is

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positioned in the centre of the triangle and represents enlightenment in a new field of nursing practice. Overall, Lynch's integrated practice model depicts a complex but effective combination of law, science, forensic medicine and the biopsychosocialspiritual being of Nursing.

Clinical forensic nursing is a relatively new science to the Australian healthcare community. Outside the USA and Canada, there is a limited awareness about this speciality by Australian healthcare and legal professionals, law enforcement agencies, forensic science practitioners and the general public (Saunders, 2000). Professional awareness will continue to be restricted and development slow whilst there remains a limited amount of published clinical forensic nursing research. Therefore, in order for the concepts of forensic nursing, as outlined in Lynch's model, to filter into the patient care arena, three issues must be addressed. Firstly, current educational material must be provided to Western Australia nurses on a regular basis, secondly, nurses must increase their awareness regarding what forensic nursing involves, and thirdly, the collaboration between healthcare and legal domains must increase.

To enable such change in the current Western Australia mindset, nurses will need to be provided with educational opportunities. Nursing education and the rights of all individuals to be treated holistically and humanely must take priority (Lynch, 2006). Initially, forensically based education would have to focus on introducing the parameters of such practice along with aspects of basic forensic science. For example, nurses must be educated about who it is that can be classed as a forensic patient before any decision regarding the type of care that is implemented. Such educational issues could be addressed in a comprehensive forensic education package targeting ED nurses.

Lynch's interactive model assisted with all aspects of the general design and content of the forensic educational package. Three of the essential components that were considered during the educational package development are captured at the apexes of the triangle in the outer circle (societal impact, healthcare system, and field of experts). These three components corresponded to the main issues the researcher considered when the initial framework of the educational package was being

planned. The researcher believed that in order for the educational package to be successful and effective, contributions from both medical and legal stakeholders were essential. Without the cooperation and assistance from medical and legal professionals, the collaborative approach upon which the package was based, could not be sustained. In other words, if one or more of the key stakeholders decided not to participate, then the collaborative process between agencies would weaken and become less efficient.

Lynch's forensic nursing model incorporates the dominant constructs of nursing that were taken into account during the development of the forensic educational package. Such constructs included that of; person (victim, suspect, offender, human behaviour), health (healthcare institutions, nursing science, individuals, and groups), nursing (nursing science, forensic nursing), and environment (experience, societal impact, and healthcare systems). In addition, internal issues (role clarification, expectation, and behaviour) and external components (sociology and criminology; social, cultural, and political factors; and education) outlined in Lynch's model were also considered. Overall, Lynch's model provided guidance about the importance of flexibility and a dynamic interconnection among components.

Therefore, the effectiveness of the forensic educational package was dependent, in part, on the ability to effectively coordinate all aspects of patient care including any interactions among scientific, medical, social work professionals, victims, suspects, perpetrators, families, and the community. According to Lynch (2006, p. 23), the model "embraces integration … and its cyclic illustration speaks to the models emphasis on continuance, perpetuation, and balance". Lynch further states, "balance is achieved when justice is served – to those who have been victimized, to those accused of crimes not committed, to offenders, and to society as a whole". Therefore, the design and contents of the forensic educational package was heavily guided by Lynch's interactive model.

Aside from the forensic contents of the package, the researcher was concerned about how the educational package content could best be disseminated. To increase the chances of participants absorbing the material, the researcher utilised Knowles adult learning principles. The adult learning principles provided guidelines about how the

material could be taught to maximise outcomes. The following discussion will review Knowles adult learning principles and its application in this research.

Adult learning principles

All of the participants involved in this study could be defined as adult learners (over 18 years old). Therefore, to maximise learning opportunities, the researcher wanted to consider the types of learning needs adult learners required and how best to address such needs (Spouse, 2001; Caudron, 2000; Young and Diekelmann, 2002; Shannon, 2003). Therefore, the researcher utilised Knowles (1980) adult learning principles to guide the implementation of the three forensic workshops. The utilisation of such principles has been shown to improve the uptake of knowledge (Kaufman, 2003; DeWitt, 2003). According to Knowles (1980), traditional, behaviourist and cognitive theories of learning explain only how to instruct and did not facilitate lifelong learning.

The principles and theories of adult learning are well supported in the literature (Knowles, 1980; Lowry, 1993; Kaufman, 2003; Puliyel and Puliyel, 1999). Knowles' principles are based on the psychological definition of what it means to be an adult; that is, the idea that individuals become adults when they become responsible for their own lives and become self-directed (Knowles, 1975). Therefore, to maximise the learning experience for the adult participants in this study and enhance outcomes, Knowles adult learning principles served as a guide for this study's proposed methodology and teaching strategies employed during the forensic workshops.

The theoretical formulation of the art and science of helping adults learn was first described as "andragogy" in Europe in the early 1960s (Kaufman, 2003). Knowles later introduced the term "andragogy" to North America and included five basic assumptions. According to Kaufman, most theorists regard andragogy as not really a theory of adult learning but rather guidelines on how to teach adult learners who tend to be self-directed and independent. According to Knowles (1980) adult learners will learn most effectively if five key principles are considered. The five key principles advocated by Knowles will be discussed below.

Firstly, Knowles (1980) believed that adults are independent and self directing. To encourage and develop such traits in learners, Knowles felt that opportunities must exist for the learner to develop and practice skills, ask questions when needed, identify their own knowledge and skills gaps, and reflect critically on their learning outcomes (Kaufman, 2003). Therefore, the challenge for the researcher was to discover how to serve as a facilitator and resource person whilst encouraging self-directed learners.

Secondly, Knowles (1980) believed that adult learners must know why they need to learn something before they undertake it. This principle highlighted the idea that the researcher had to inform participants what they and their patients would gain from implementing forensic nursing concepts and also any consequences for not utilising such information. Therefore, in this study the researcher presented short case scenarios so that the participants could discover the gap between where they were at the beginning of the workshops and where they wanted to be after the conclusion of the study. Such activities were implemented to encourage participants to become more conscious of the new knowledge and skills presented during the forensic workshops.

Thirdly, Knowles (1980) believed that new learning should be presented in the context of real-life situations. In other words, Knowles felt that adult learners only devote energy to learn something if they perceive the information would help them perform tasks or deal with problems that they confront in their real life environment. For this study, the environment was the ED workplace. Therefore, the workshop information needed to be presented in contexts to what ED nurses would face in their daily routine when caring for forensic patients.

Fourthly, Knowles (1980) believed that adult learners were more motivated to learn if they had internal pressures such as increased job satisfaction, self-esteem and quality of life issues. Knowles also believed that to deal successfully with adult learners, educators must deal with the "mental habits, biases and presuppositions" that cause the adult learners to close their minds to new ideas. This idea suggested that the adult learner must first accept what is being taught before the educational material can be absorbed and deemed useful by participants.

Finally, Knowles (1980) proposed that adult learners typically have a greater amount and a different quality of experiences than younger learners that must be considered when developing teaching styles, needs and goals. Knowles believed that by tapping into the experiences of group participants through group discussions and problem-solving activities, the teacher could reinforce the learners self concept.

To maximise the effectiveness of the educational interventions, all five adult learning principles were utilised and implemented during the three forensic workshops. Knowles principles provided the researcher with guidance about how to reinforce the workshop material. The adult learning principles allowed the researcher to support and maximise the learning opportunities of the adult learner by encouraging, recognising and providing positive reinforcement (Knowles, 1980).

Having addresses two of the theoretical underpinnings, the next challenge the researcher confronted was how to encourage participants to change their behaviour. In order for the researcher to comment on the effectiveness of the educational package, changes in participant behaviour needed to occur. To guide the researcher on the best ways to encourage behavioural changes among participants, aspects of Bandura's Social Cognitive Theory were incorporated into the delivery of workshop material. A complete discussion of how this theory was used in this study will follow next.

Social cognitive theory

Albert Bandura is one of America's well known psychologists whose initial research interests focused on the role of social modelling in human motivation. Initially, Bandura developed the "Social Learning Theory" but changed the name to "Social Cognitive Theory" (SCT) in order to include evolving developments. Today, the SCT focuses on motivational factors and self-regulatory mechanisms that contribute to individual behaviours (Bandura, 1977).

Bandura's SCT theory adopts a cognitive-behavioural approach that addresses the interaction between the way individuals think and act (Sternberg in Bahn, 2001, p. 112). In Bandura's (1977) SCT, behavioural, environmental and personal factors are seen to all interlock and influence an individual's learning ability. Bandura's SCT

was chosen to further assist and support the development of the educational package in this study because of the focus on behaviour modification and motivational factors. The incorporation of certain aspects of this theory into this study helped to enhance program efficiency and effectiveness (Sharma, 2005).

Bandura (1977) views individuals within a social context and suggests that the social nature of people explains learning. In other words, Bandura suggested that one person can strongly influence how others respond. Moreover, Bandura viewed learning as the result of interaction between individuals and their environments. Due to the social nature of nursing and the frequency in which nurses work in teams within the ED, the researcher believed that this principle of the SCT could further improve this study's methodological outcome (Bahn, 2001).

To increase the likelihood that participants would change their nursing practices and utilise the tools contained within the educational package, the researcher believed that positive attitudes about change and tolerance towards new practice ideas needed to exist within the ED environment. Therefore, the researcher encouraged participants to support and help one another when caring for forensic patients. The researcher hoped that cohesiveness among research participants would counteract any negative influences the research participants may encounter. Additionally, the researcher believed that positive attitudes among and between participants could influence how other ED staff responded to the research study thus maximising the likeliness for successful outcomes.

According to Bandura (1977), people learn about behaviour (except for elementary reflexes) from either direct experience or by observation. Furthermore, human behaviour is learned through modelling or observing others to determine how new behaviours should be performed. Bandura argues that practicing new skills is essential because just watching others perform a skill (modelling) is not likely to change behavioural habits on its own. Consequently, Bandura suggests that paying attention to modelling can strengthen or weaken previously learned behaviours. The concept of modelling is a well utilised teaching strategy in connection with healthcare education under the traditional idea of "See one, do one, teach one" (DeWitt, 2003).

Bandura's belief in the importance of observational learning and modelling by others is confirmed by his statement, "most human behaviour is learned observationally through modelling: from observing others, one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action" (Bandura, 1977, p. 22). The forensic educational package developed for this research included three one hour intervention workshops. During the workshops, participants were able to watch the researcher perform evidence collection skills and were then given time to practice the same skills under supervision. The combination of providing structured information coupled with modelling new behaviours was used by the researcher to encourage behavioural changes.

Bahn (2001) advocated that Bandura's social aspects of learning together with a collaborative approach, and the use of peers and expert practitioners as role models was what should be incorporated into nursing education. Therefore, the collaborative aspect of education was central to the development of the forensic educational package. Furthermore, both Lynch (2006) and Hammer, Moynthan, and Pagliaro (2006) agree that the care of forensic patients is best accomplished through cooperation and a multidimensional approach. Woods, Duffy, Morris, and Carnes (2002), found that incorporating Bandura's conceptual framework resulted in learners reducing their fears and defences about potentially anxiety-producing activities and creating favourable attitude and behavioural changes.

To maximise the learning outcomes for participants, the researcher was guided by one of the main constructs outlined in Bandura's (1977) SCT; self-efficacy. Bandura advocated that human behavior and motivation are prime indicators in the beliefs people have about their capabilities. In other words, Bandura believed that how people behave can be predicted by the beliefs they hold about their capabilities (self-efficacy). There are numerous citations in health related literature that advocate for the incorporation of the self-efficacy construct. Such literature illustrates how consistently the self-efficacy construct can be a predictor of behavior and advocates for its application into practice settings (Stajkovic and Luthans, 1998; Pajares, 1996, 2003; Pajares and Valiante, 1997; Joy, 2004; Manojlovich, 2005; Lytle, 2005; Sharma, 2005; Dilorio et al., 2006 ; Evans, Wilson, Buck, Torbett, and Williams, 2006).

In this study, the researcher needed participants to have a belief and the perception that he or she had the capability to acquire specialty forensic knowledge and perform evidence collection and documentation skills taught proficiently and independently. Therefore, the researcher focused on incorporating teaching techniques that would support study participants in a way that would most likely result in participants following the study protocols and procedures. According to Bandura (1997), people with perceived high self-efficacy are more likely to approach difficult tasks as challenges to be mastered rather than threats to be avoided.

For example, in this study, the researcher incorporated interactive discussions regarding past forensic patient case studies and practical skills sessions as teaching strategies. Such activities were thought to provide participants with time to review and openly explore forensic issues and also practice their clinical forensic skills in a supportive environment. Reynolds, Yaroch, and Franklin (2002) and Kratt, Reynolds, and Shewchuk (2000) discovered that the practice of simple cognitive and behavioral skills was more likely to increase perceived self-efficacy.

Therefore, the researcher was confident that if the three intervention workshops were conducted using teaching methods that focused on building participants self-efficacy, participants could experience increased confidence. Participants who experienced a greater level of self confidence might then translate such confidence into being more confident in regards to using their forensic knowledge and skills in the clinical setting. Such increases in self-efficacy, should theoretically, manifest into an increase in knowledge as well as behavioral practice changes (Bandura, 1977).

With the guidance of Lynch's Forensic Nursing Integrated Practice Model, Knowles adult learning principles, and Bandura's SCT, the educational package consisted of strong contents. However, to support the contents of the educational package, the researcher had to give great thought as to how best to present all of the content to the participants. To confront this last challenge, the researcher needed to explore what type of teaching strategies would best suit this study. A discussion about what teaching strategies were instigated in this study and the reasons behind such decisions will be discussed below.

Teaching strategies

The transfer of knowledge and skills is the ultimate goal of education (Spouse, 2001). The construct of transfer is important in nursing education as it reflects the ability of individuals to access and utilise intellectual resources and apply context into situations where those resources may be relevant (Lauder, Reynolds, and Angus, 1999). The evidence presented by Lauder, Reynolds, and Angus suggested that the development of higher level skill knowledge and constant practice were essential to achieve transfer.

In this study the achievement of transfer was vital. However, the challenge arose when the researcher had to decide how best to achieve this goal along with the other study objectives. From the plethora of published literature on teaching strategies, the approach adopted by the researcher was to incorporate a multi-faceted approach. The use of various teaching methods to break the routine, address the different learning styles of learners, and gain better learning outcomes seemed to be the most successful approach (Davis,1999; Fink, 1999; Spouse, 2001).

Overall, in this study, discussion, didactic lectures, practical skill sessions, case studies, and small group work were the teaching methods utilised. According to Caudron (2000), adults report to learning best through personal experience, group support and mentoring. Caudron argued that mentoring is the primary way that transformational learning occurs. According to Gardiner (1998), involving learners in discussions fosters retention of information and improves the application of knowledge to new situations. Furthermore, Gardiner suggested that discussions were much better than lectures at increasing the development of higher-order thinking skills.

In conjunction with his adult learning principles, Knowles (1980) suggested that there were some situations that required direct didactic instructions, such as when learners were being introduced to new and strange subjects. It was the researcher's belief that some of the topics relating to clinical forensic nursing (such as evidence collection and maintaining chain of custody) fitted such a description. Research by Burr, Storm, and Gross (2006) also found that the use of a didactic approach allowed for the presentation of a more technical content and further demonstrated that a

greater amount of information could be presented over a shorter period of time. Finally, Burr, Storm, and Gross found that interactive approaches offered participants the opportunity to apply newly acquired knowledge and to problem-solve with colleagues.

Overall, this study adopted the use of a comprehensive curriculum separated into three, one hour workshops. The researcher incorporated a variety of interactive teaching methods during each of the workshops sessions. The forensic educational package was further guided by aspects of adult learning principles, social learning theory and Lynch's forensic nursing integrated practice model in order to encourage and facilitate participant learning.

Conclusion

There was not a single theory that could support the different aspects of this research project independently. Instead the researcher chose to utilise aspects from three different models to provide the framework for this study including; Lynch's forensic nursing conceptual model, Bandura's Social Learning theory and Knowles adult learning principles. In addition, a variety of teaching strategies were incorporated into the three intervention workshops. Each framework assisted with different aspects of the project and was necessary to develop a broad based forensic educational package designed for the specialized group of nursing professionals working in the ED. Overall, this study called for an approach that was collective, collaborative, and interactive.

Adult learning is about promoting active learning. According to Knowles, in order to optimise adult learning, the context of the educational material must be grounded in experiences that learners deem relevant and practical (Puliyel and Puliyel, 1999). By applying the principles of adult learning, the researcher believed the participants were more likely to have their learning needs met, be able to maintain the interest and support of the participants, and improve the impact of the educational package in terms of the study's objectives.

The advantages of applying Bandura's social cognitive theory into this study lies in its focus on the social aspects of learning. Because this study took place in a very social environment – the emergency department, it was essential for the researcher to consider the complex interactions that occur between the person and environment.

Finally, the researcher called upon several teaching strategies in order to blend theory with practice. Strategies included lectures, demonstrations, practical exercises, computer aided instruction, flow diagrams, and self evaluation opportunities. All of the introduced teaching strategies and theory applications were designed to improve participant interaction and learning opportunities and thus maximise the effectiveness of the forensic educational package.

To meet and improve the education, services and care provided to all categories of forensic patients, a new approach is required. The new approach must include theory to order to maximise outcomes. To illustrate the relevance of theory, Chapter 3, will provide a detailed description of the study methodology which demonstrates how the above three models were integrated into this study. Moreover, Chapter 3will be divided into four phases to explain the various methodological activities. Chapter 3 will also explore all of the ethical issues which were confronted by the researcher during this study.

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Daniel had been helped from his car and wheeled into the resuscitation room slumped over and semi-conscious. Daniel's family were standing back and watching as Thomas started his assessment. The family could provide little assistance except to say "he has not been well for the past couple of days". Thomas had seen it all before. Young Daniel was not unique. Drug abuse was all too common in the emergency department. Family members usually stood by with fear, confusion, helplessness, anger, and love flowing in their tears.

CHAPTER 3

METHODOLOGY

Thomas had heard the same devastating story before. He knew what to expect or so he thought. He had seen the shattered lives, lost youth and the trail of broken dreams that had divided families and friends. Often it was the innocent bystanders most affected by such behaviour. The collateral damage was often so costly. But it was Thomas who would end up as Daniel's target that day.

Introduction

All researchers have different beliefs and ways of viewing and interacting within their surroundings. As a result, the way in which research studies are conducted vary. However, there are certain standards and rules that guide a researcher's actions and beliefs. Such standards or principles can be referred to as a paradigm. To gain a better understanding of why and how the researcher chose the methodological approach in this study, an initial discussion will be completed about the paradigm that best fits the focus of this study.

Following a discussion about the research paradigm, the aim of this chapter is to discuss the research design and methodology utilised in this study. In order to describe the variety of research activities undertaken during this study, the data collection activities and associated analysis methods will be systematically discussed under four phases. For ease of discussion, the study activities will be described in the order in which the researcher completed them. The order of the study activities have been outlined in Figure 3.

Research Paradigm

According to Taylor, Kermode, and Roberts (2007, p. 5), a paradigm is "a broad view or perspective of something". Additionally, Weaver and Olson's (2006, p. 460) definition of paradigm reveals how research could be affected and guided by a certain paradigm by stating, "paradigms are patterns of beliefs and practices that regulate inquiry within a discipline by providing lenses, frames and processes through which investigation is accomplished". Therefore, to clarify the researcher's structure of inquiry and methodological choices, an exploration of the paradigm adopted for this study will be discussed prior to any discussion about the specific methodologies utilized in this study.

This study utilised a triangulation approach to explore and guide the development and evaluation of a clinical forensic nursing educational package. The use of both the qualitative and quantitative methodologies was necessary to encompass the different aspects of forensic science and nursing's holistic approach to patient care. According to Lynch (2006), providing forensic patient care requires objectivity and neutrality while attending to the various human dimensions of health and well-being. To address the diversity and complexity of such nursing and forensic issues, a mixed methodology was necessary.

According to Weaver and Olson (2006), the paradigms most commonly utilised in nursing research are positivist, postpositivist, interpretive, and critical social theory. The quantitative methodology shares its philosophical foundation with the positivist paradigm (Weaver and Olson). The positivist paradigm arose from the philosophy identified as logical positivism and is based on rigid rules of logic and measurement, truth, absolute principles and prediction (Halcomb and Andrew, 2005; Cole, 2006; Weaver and Olson). The positivist philosophy argues that there is one objective reality. Therefore, as a consequence, valid research is demonstrated only by the degree of proof that can be corresponded to the phenomena that study results stand for (Hope and Waterman, 2003).

In this study, such rigid principles lend themselves more to the scientific forensic aspects such as scientific knowledge, logic and measurement incorporated into this study (Weaver and Olson, 2006; Lynch, 2006). However, such inflexible beliefs did not have the capacity to accommodate the investigatory aspects of this study that dealt with the social and human experiences. As a result, qualitative methodologies were also incorporated into the research design (see Table 3.1).

The qualitative methodology shares its philosophical foundation with the interpretive paradigm which supports the view that there are many truths and multiple realities. This type of paradigm focuses the holistic perspective of the person and environment which is more congruent with the nursing discipline (Weaver and Olson, 2006). Additionally, the interpretive paradigm is associated more with methodological approaches that provide an opportunity for the voice, concerns and practices of research participants to be heard (Cole, 2006; Weaver and Olson). Cole further

argues that qualitative researchers are "more concerned about uncovering knowledge about how people feel and think in the circumstances in which they find themselves, than making judgements about whether those thoughts and feelings are valid" (p. 26).

Table 3.1: Summary of the Research Paradigms

Characteristic	Positivist View	Interpretive View
Purpose	The researcher will predict and explain changes in forensic knowledge of HospC participants	The researcher will interview the stakeholders and recognise the value and depth of the individual content
Beliefs	• One truth exists • Must be objective	• Many truths and realities • Different people have different perceptions, needs and experiences
Research Methods	Quantitative	Qualitative
What Study Data is Based Upon	Measurable outcomes from questionnaire data	Descriptive, explanatory and contextual words of interview data
Study Sample	Clear and precise inclusion and exclusion data	Representatives who are able to provide expertise from different points of view.

Due to the complex nature of the research study, there was no single paradigm that could satisfactorily deal with all of the required methodological aspects. Therefore, the researcher found it necessary to combine the quantitative/positivist paradigm with the qualitative/interpretive paradigm. The blending of both paradigms provided the researcher with the ability to statistically analyse the scientific data whilst also recognizing the complex psychosocial and emotional factors that influence patient care issues. The discussion that follows will further elaborate and describe in detail how each paradigm and methodological approach was implemented in this study.

Research Design

In this descriptive study, qualitative and quantitative data collection techniques were used including; semi-structured interviews, chart audits, pre and post-test questionnaires, focus group interviews, and the researcher's field notes of personal observations and conversations. Additionally, to provide a more complete and

Figure 3: Methodology Flow Chart

Phase 1	Phase II	Phase III	Phase IV
Questionnaire development • Validity testing • Reliability testing (HospA) HospA • Replication Pasqualone's study	Stakeholder interviews HospB • Policy & procedure manual review • Pre- and post-questionnaire • Pre- and post-chart check audits HospC • Policy & procedure manual review • Pre-test questionnaire	HospC • Forensic workshop • Forensic kit • Information sheets & posters • Pocket prompt cards • Forensic resource file • Journal • Phone log • Locked cabinet	HospC • Post-test questionnaire • Pre-, 2 month post & 4 month post-chart check audits • Forensic kit audit • Journal collection • Phone log audit • Focus group interviews • Follow-up interviews

multidimensional understanding of the issues, a triangulation methodology design was employed (Taylor, Kermode, and Roberts, 2007). In the section below, the discussion will be divided into two main headings; that of descriptive research and triangulation.

Descriptive Research

In order for the researcher to gain different perspectives and draw attention to different factors that affect forensic practice in Western Australia, descriptive research methods were employed in this study. According to Polit, Beck, and Hungler (2001, p. 180), descriptive methods are used when the researcher seeks to "describe, observe, and document a naturally occurring phenomenon which cannot readily be ascribed an objective value". In other words, descriptive research deals with questions that look to explain what things are like and describe relationships but do not predict relationships between variables or the direction of the relationship. Depending on what is to be described, descriptive research can be very concrete or more abstract (DeVaus, 2002). At a concrete level, data collected is often strongly quantitative in nature (Polit, Beck, and Hungler, 2001). In this study, data will be collected in the form of participant demographics, chart audit data, monitoring of implementation tools, and data collected from the pre and post-test questionnaires. In addition, more abstract descriptive research, in the form of stakeholder interviews, was also included. According to Morse and Richards (2002), qualitative descriptive approaches are extremely helpful because evidence of experience and knowledge can be easily missed when quantitative methods are used.

In this study, semi-structured interviews were incorporated into the study design because the researcher believed that open ended questions would be the most efficient way to collect data from stakeholder participants. Open ended questions are thought to allow an individual time and scope to discuss their perception and knowledge (Morse and Richards, 2002). DeVaus (2002) believes that descriptive research can play a key role in highlighting the existence and extent of problems which can stimulate interventions and actions that lead to policy change.

The intent of stakeholder interviews was to investigate and describe current forensic practices occurring in Western Australia. According to Taylor, Kerrmode and

Roberts (2007), qualitative interviews attempt to "make meanings" from individual accounts and experiences. Forensic patients are usually treated in partnership by medical and legal professionals (Lynch, 2006). Therefore forensic and healthcare stakeholders who work in the field have the best ability to contribute, enhance links and increase the successful integration of services (Haddow, O'Donnell, and Heaney, 2007). The incorporation of stakeholders in this study was to enhance the understanding of the current issues and experiences confronting forensic and healthcare professionals working with and providing care to forensic patients.

Triangulation

Multiple triangulation methods were utilised in this descriptive study. Triangulation involves the application and combination of several research methodologies in one study (Schneider, Elliott, Lo-Biondo-Wood, and Haber, 2003; Taylor, Kermode, and Roberts, 2007). There are four common types of triangulation discussed within the literature including: data triangulation that involves time, space, and persons; investigator triangulation which uses multiple observers; theory triangulation that uses more than one theoretical perspective to interpret the study phenomenon; and methodological triangulation that involves using more than one methodological strategy during data collection. According to Halcomb and Andrew (2005), the use of multiple data sources and methods to cross-check and validate findings increase the depth and quality of the results and also provides valuable guidance to nursing practice.

Triangulation provides in-depth data, increases the confidence in the research results as well as enables different dimensions of the problem to be considered (Barbour, 2001; Jones and Bugge, 2006). A combination of methods is thought by some to improve the consistency and accuracy of data by providing a more complete picture of the phenomenon (Roberts and Taylor, 2002; Halcomb and Andrew, 2005; Williams, Rittman, Boylstein, Faircloth, and Haijing, 2005; Jones and Bugge, 2006). Morse (1991) cited in Minichiello, Sullivan, Greenwood, and Axford, (1999, p. 258) believes that triangulation is a means by which the researcher is able to "capture a more complete and holistic portrait of the phenomena under study".

In this study, the researcher employed methodological, data, and unit of analysis triangulation. Each of these aspects of triangulation will be discussed individually below and study examples provided to help illustrate the concepts. Firstly, methodological triangulation will be explored which can be sub-divided into within and across-method triangulation (Schneider, et al., 2003; Halcomb and Andrew, 2005).

Methodological triangulation

Methodological triangulation, according to Taylor, Kermode, and Roberts (2007), involves using two or more research methods in one study at the level of data collection or design. Across-method triangulation involves combining research strategies usually qualitative and quantitative methods. Such an approach is common in nursing studies (Jones and Bugge, 2006; Halcomb and Andrew, 2005). In this study, for example, data from stakeholders interviews were utilised to reinforce and complement the data from quantitative chart audits because concepts mentioned by the stakeholders were checked during the chart audits. Complementary findings in a study make a more valid contribution to theory and knowledge development, enhance diversity, and enrich the understanding surrounding the study's objectives and goals (Schneider, et al., 2003; Macnee and McCabe, 2008).

Data triangulation

Data triangulation can be described as the use of multiple sources of data to obtain differing views about a situation in a single study (Roberts and Taylor, 2002). For example, in this study, data was collected from various interviews, pre and post-test questionnaires and by reviewing nurse participant's documentation within patient medical records. Multiple data sources help validate the findings by exploring different views of the situation under investigation (Taylor, Kermode, and Roberts, 2007). Data triangulation can be divided into categories of time, space, and person (Roberts and Taylor).

Time triangulation involves researchers collecting data at different points in time such as time of day; at different days of the week, or at different months of the year (Rinaldi, Carpenter, and Speziale, 2006). In this study, however, the goal was not to compare participant knowledge between shifts or from one month to the next.

Instead, the researcher was interested in evaluating an educational intervention over time. Therefore, for this study, only two types of data triangulation were utilised: space and person.

Space triangulation involves the collection of data from multiple sites (Roberts and Taylor, 2002). In this study, for example, data was collected from two hospitals emergency departments. Analysis from both sites helped evaluate the effectiveness of Phase III activities of this research and also increased the validity and strengthened the study (Begley, 1996; Halcomb and Andrew, 2005).

Person triangulation implies that data was collected from more than one category of person (Roberts and Taylor, 2002; Taylor, Kermode, and Roberts, 2007). For example, in this study, participants included ED nurses as well as key forensic and healthcare stakeholders. The use of various legal and healthcare professionals provided greater insight into a variety of issues including: hospital administration, staffing, costing concerns; medical practices; Western Australian legal requirements and governmental policies; current evidentiary processes; as well as existing investigatory practices. Such data was utilised to support, supplement, and validate the information gained from published forensic material as well as the research data.

Unit of analysis triangulation

The unit of analysis triangulation as described in Begley (1996) is the use of two or more analysis approaches to validate the same set of data. In other words, the use of differing qualitative techniques or different families of statistical tests helps verify results. The researcher rarely found this type of triangulation discussed in current literature; however, there was some dated literature that described this topic (Kimchi, Polivka, and Stevenson, 1991; Begley, 1996; Bergen and While, 2000). In this study, to evaluate the effectiveness of the forensic education package, several levels of analyses were conducted. For example, by comparing pre and post questionnaire responses and then interviewing and analysing the interviews the effectiveness of the educational package was assessed at a participant level. In addition, data from the chart audits and focus group interviews also provided qualitative and quantitative data which assisted towards the analysis and evaluation of the package effectiveness.

Methodology

Due to the complexity of this research project, a true experimental design was not able to be conducted. However, a quasi-experimental design is similar to that of a true experimental design except that the participants are not randomly assigned to the control and treatment groups (Schneider, et al., 2003; Taylor, Kermode, and Roberts, 2007). It was therefore decided to employ a descriptive a pre-test, post-test type of design. Details of how this was utilised in this study is explained below.

This descriptive research study employed a multiple triangulation methodology design in order to develop and evaluate the effectiveness of a forensic educational package (see Figure 4). Theoretical guidance was sought from Bandura's (1977) Social Cognitive Theory, Malcolm Knowles (1980) Adult Learning Principles and Lynch's (1990) forensic nursing integrated practice model. Participants included 49 treatment and control group nursing participants from two metropolitan West Australian hospitals. In addition, 22 forensic and hospital stakeholders from 10 forensic specialty areas were also involved. Qualitative and quantitative data was collected across four phases from semi-structured interviews, policy manual reviews, audits of nursing documentation, pre and post-test questionnaires, focus group interviews, and the researcher's observations. The following sections will describe the research sites, the sampling and the data collection tools.

Research sites

"Forensic patients", as defined by the research protocol, were identified according to their medical complaint and/or medical history and not by their age, sex, race, religion or cultural background. Therefore, it was crucial that research sites sought for this study provided emergency medical treatment to both adult and paediatric patients. There were three Metropolitan hospitals that provided emergency medical treatment to both adult and paediatric patients who also provided similar medical treatment facilities (see Table 3.2).

All three participating hospitals had many similar characteristics which was important because the researcher believed that having dissimilar sites may affect participant characteristics. In other words, the researcher wanted the hospital sites

Figure 4: Schematic Review of the Research Design

Research Design

Methodological Triangulation
(Qualitative & Quantitative)

Data Triangulation
(Qualitative & Quantitative)

Person Triangulation
- ED Nurses
- Stakeholders

Space Triangulation
- HospB
- HospC

Unit of Analyses Triangulation
Thematic Analysis, T-tests, Descriptive statistics
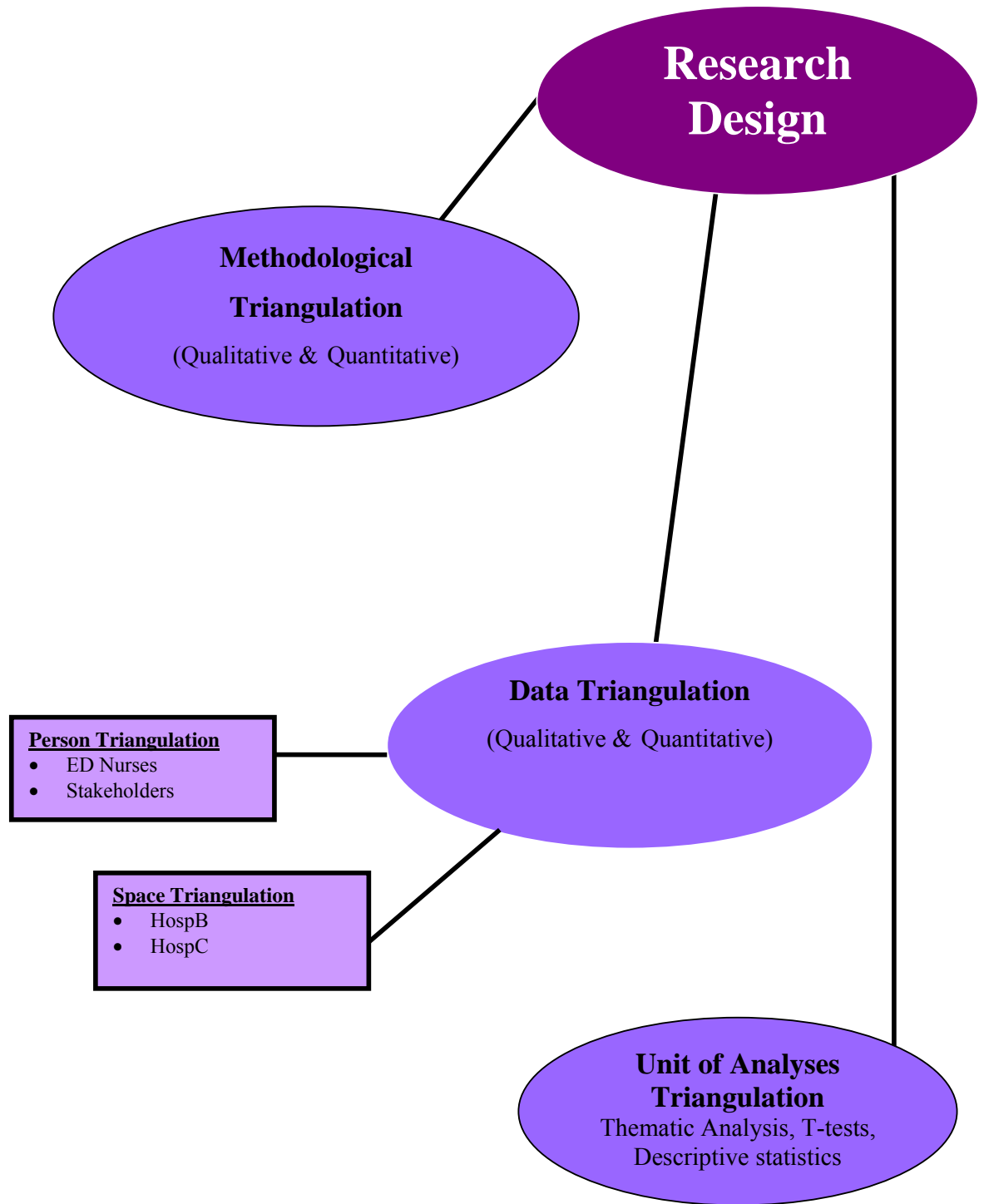
Table 3.2: Characteristics of the Research Sites

Hospital Characteristics of the Three Research Sites			
Characteristic	**HospA**	**HospB**	**HospC**
Geological Location	Peripheral Southwest Metropolitan	Southwest Metropolitan	Northwest Metropolitan
Hospital Classification	Public Teaching	Public Teaching	Public & Private Teaching
Community Catchment Size	123,337	175,734	252,734
Average Number of ED Patient Presentations Per Year	28,000	40,000	41,5000
Bed Capacity	82	450	235
Type of Medical Services Available	• Adult & Paediatric ED • Acute Trauma Services • Paediatric Ward	• Adult & Paediatric ED • Acute Trauma Services • Paediatric Ward • In-patient Psychiatric Services • Day Procedure Unit • Adult Intensive Care Unit • Adult Cardiac Care Unit • After hours GP Clinic	• Adult & Paediatric ED • Acute Trauma Services • Paediatric Ward • In-patient Psychiatric Services • Day Procedure Unit • Adult Intensive Care Unit • Adult Cardiac Care Unit • After hours GP Clinic

and the participants' to start with similar characteristics and features so that any differences discovered in post intervention findings could more likely linked with the intervention and not environmental factors. Some of the similarities in hospitals characteristics included that all three hospitals transferred paediatric patients who require intensive care unit (ICU) services to the metropolitan paediatric hospital. In addition, the treatment and control sites had in-patient mental health facilities as well as adult intensive care and coronary care units, paediatric units and day procedure units. Two metropolitan hospitals were excluded as potential research sites because the researcher had worked in the emergency departments before and any existing bias could not be ruled out. No attempt was made to include the only paediatric hospital in the State because of confidentiality and anonymity issues as well as the exclusion of adults from this hospital.

Overall, the three participating hospitals (HospA, HospB, and HospC) provided a wide range of characteristics and similar medical services that offered the greatest opportunity for this study to encounter numerous forensic issues. Some of the features of these hospitals included; a large size facility, a large number of patients seen in the ED per year, a reasonable proximity to the researcher which enabled the researcher to travel to all facilities without undue hardship (the longest travel time was two hours round trip), and a willingness by the hospitals to participate in the research project. For example, the two peripheral hospitals serve as a catchment area for large outlying northern and southern communities. Both of these hospitals had limited resources and often transfer critical patients to a larger tertiary metropolitan hospital. Therefore, forensic issues such as evidence collection, documentation, chain of custody and inter-facility communication, which are central themes within this study, had a significant relevance within each of the facilities. The following discussion will outline the demographics, why, and how each site was chosen for specific study activities.

Hospital A

HospA is a southwest peripheral metropolitan public teaching hospital that served a community catchment site of approximately 127,337 people. The hospital ED treated approximately 28,000 patients in the ED per year (Australasian Society of Emergency Medicine, 2003). After stabilization, all serious trauma and psychiatric

patients are transferred to nearby larger tertiary hospitals for ongoing care. HospA does not have any acute psychiatric services or intensive care facilities on the premises.

HospA was used to replicate Pasqualone's (1998), *27 Forensic Patient Categories,* and conduct initial investigations into the reliability and validity of the pre and post-test questionnaire tool (a thorough discussion of the replication study is provided in Chapter 4). HospA allowed Pasqualone's study to be replicated with data obtained from a hospital that most closely mimicked the original research parameters. All study activities conducted at this hospital site were conducted during Phase I (see Figure 3).

Hospital B

HospB is a southwest metropolitan teaching hospital that served as a trauma receiving centre for the Southern Region and outlying peripheral hospitals. HospB provides acute and in-patient psychiatric services, acute trauma services, ICU and CCU facilities and has a 30 bed paediatric ward. This hospital treated approximately 40,000 patients in the ED per year (Australasian Society of Emergency Medicine, 2003) and served a community catchment area of approximately 175,734 people. Nurses working in this hospital ED served as control group participants.

The allocation of treatment and control group sites was based on the number and type of healthcare services each hospital provided. For example, the ED staff at HospC treated the second largest number of patients per year in the State (Australasian Society of Emergency Medicine, 2003). Therefore, the researcher believed that the larger volume of patient presentations provided the best opportunity to encounter diverse forensic issues. In addition, large patient volumes provided the best opportunity for participants to trial all aspects of the forensic educational package.

Hospital C

HospC is a northwest metropolitan hospital that caters to both private and public patients in the northern region. In this hospital, therefore, all individuals who had private health insurance and those who did not were all treated equally in the same

ED. However, if patients required hospital admission, individuals could then choose whether they wanted to be admitted as a private or public patient. HospC served a community catchment area of approximately 252,734 people. This site was chosen because it was the second largest ED receiving centre in the metropolitan area and the largest ED that catered for adult and paediatric patients. HospC treated approximately 41,500 patients in the ED per year (Australasian Society of Emergency Medicine, 2003). HospC provides acute and in-patient psychiatric services, acute trauma services, ICU and CCU facilities and has a 24 bed paediatric ward. Nurses working in this hospital ED served as treatment group participants.

Overall, the researcher believed HospB and HospC provided the greatest opportunity of acquiring participants that were as representative as possible to ED nurses throughout Western Australia. In addition, both hospitals had the greatest variety of patient services for adult and paediatric patients. Furthermore, HospB and HospC had similar demographics in reference to the community populations they serve, types of medical services they offer, nursing staff numbers, and number of ED patients treated per year. Finally, HospB and HospC were both accredited with the Australian Council on Healthcare Standards which is an independent, not-for-profit organisation responsible for conducting organisational assessments to ensure healthcare organisations meet quality and safety practice standards (Australian Council, 2007).

Sampling

To obtain participants for this study, the researcher used purposive sampling because random sampling was not possible due to the study design. Purposive sampling involved the researcher making a conscious decision about which individuals and which hospital sites would best provide the desired information (DeVaus, 2002; Burns and Grove, 2007). This type of non-probability sampling was chosen in order to provide the researcher with the most useful data upon which to develop, implement and evaluate the forensic educational package.

Such a sampling technique was appropriate and advantageous for this study because; (1) the researcher required specific forensic experts and healthcare leaders who practiced in specific fields and had speciality knowledge, (2) there were limited

hospital sites where the nurses were confronted with forensic patients across the life span, and (3) it was not practicable or economical for the researcher to include larger forensic and nursing populations throughout Australia (DeVaus, 2002; Burns and Grove, 2007). In total, there were two groups of research participants recruited. These included; (1) forensic and healthcare stakeholders, and (2) Registered Nurses working the ED. The recruitment process for each group will be discussed below.

Stakeholders

Individuals included as potential stakeholders were those professionals who provided forensic patients with medical care, biological and scientific professionals involved with processing, documenting and reporting of forensic evidence collected, and legal experts involved with any legal proceedings. Stakeholders considered essential for inclusion into the study were those identified in forensic literature as being involved with forensic patient cases and the researcher's personal experience of professionals who have contact with forensic patients either through the healthcare, scientific or legal profession (Lynch, 2006). Consequently, a list was compiled of all healthcare and forensic stakeholders who by virtue of their professional responsibilities have some type of connection to forensic patients (see Table 3.3).

Table 3.3: Key Stakeholders

Forensic and Healthcare Stakeholders

▪ Nurse Manager of ED
▪ Clinical Nurse Specialist for ED
▪ ED After Hours Hospital Duty Manager
▪ ED Medical Directors/Consultants
▪ Department of Health Representative
▪ Forensic Police (one interviewee from each specialty unit)
    o Child abuse unit
    o Forensic detectives
    o Domestic violence unit
▪ Forensic Scientist
▪ Coroner
▪ Forensic Pathologist
▪ Defence Attorney (2)
    o Solicitor
    o Queens Counsel

After identifying the desired stakeholders, the researcher called each stakeholder at their place of employment to investigate whether they would be interested in

participating in this study. During the phone conversation, each stakeholder was provided with information about the researcher, the research project, and the level of commitment their acceptance of participation in the research project would entail. Once the stakeholders agreed to participate, a time and place for an interview was arranged at the participant's convenience.

In total there were 10 healthcare and 11 forensic stakeholder interviews conducted. All but two of the 21 semi-structured interviews took place during a three month period. The interviews took place at a location within the work place of the participants and lasted between 45 and 90 minutes. All but one of the interviews was tape recorded with the participant's approval. One participant felt uncomfortable talking whilst being recorded so the researcher respected the participant's wishes and took copious shorthand notes instead. Occasionally the researcher was required to ask the participant to repeat some information as the researcher did not want to write down information erroneously.

None of the contacted stakeholders declined to participate. However, the researcher was unable to include a representative from the Western Australia State Department of Public Prosecutors (DPP). The DPP's office requested a written abstract and a list of interview questions to be sent to their office. As requested, this information was provided along with a copy of the participant consent form. After two weeks, the researcher contacted the DPP office but was unable to speak with any department manager. Instead, a message was taken by the secretary and the researcher was informed that a DPP representative would return the phone call within two weeks. After two weeks without a response from the DPPs office, the researcher contacted the DPPs office again to enquire about the progress of the previous phone message. Another message was taken and again the researcher was informed that she would be notified as to any decision about this matter within two weeks. No contact from the DPP office was forthcoming and a final attempt to gain consent on this matter never eventuated.

However, two independent private defence attorneys did agree to participate and represented the legal profession for this study. Both defence attorneys had extensive experience working with forensic clients. One attorney had 10 years prior experience

working as an ED nurse, while the other defence attorney was a very experienced Queens Counsel (QC) barrister. A QC is "a mark and recognition by the Sovereign of the professional eminences of the counsel upon whom it is conferred" (Nygh and Butt, 1998, p. 361).

Registered Nurses

There were two groups of nurses that participated in this research project. Nurses recruited from HospB were classified as control group participants and nurses recruited from HospC were classified as treatment group participants. The target number of nursing participants desired from each hospital was 30. This number of participants was thought to be a realistic expectation as this number represented over 60% of the total number of nurses employed in each of the hospital EDs. A description of how the two participant groups were recruited will be described below.

Study mortality is the dropout rate of participants that occurs between the pre and pos-test data collection (Schneider, et al., 2003). To enable the researcher to compare the control and treatment group's data, the researcher needed a low dropout rate across both research sites. However, this factor was difficult to prepare for and anticipate. There were several activities the treatment group participants were asked to complete over an extended period of time. If a majority of participants dropped out from a particular group, then the comparison of data between groups would be less effective or deemed impossible.

Another strategy employed by the researcher was to utilise a suitable comparison group. A control group was to provide a comparison against the treatment group. The activities specific to each participant group is outlined in Figure 5. The researcher considered recruiting both the control and treatment group participants from the same hospital and randomly allocating participants into the two groups, however, the potential for contamination was thought to be high. Firstly, hospital nursing staff work in close proximity within the ED setting often due to physical space restrictions. In addition, ED nurses frequently work in teams, especially when patient acuity demands it. Therefore, contamination of data could be a problem between members of the control and treatment groups if both types of participants were working side by side in the same hospital ED setting. Furthermore, nurses observe

each others work practices, listen, watch and are exposed to "talk" within the work environment.

Figure 5: Control and Treatment Group Activities
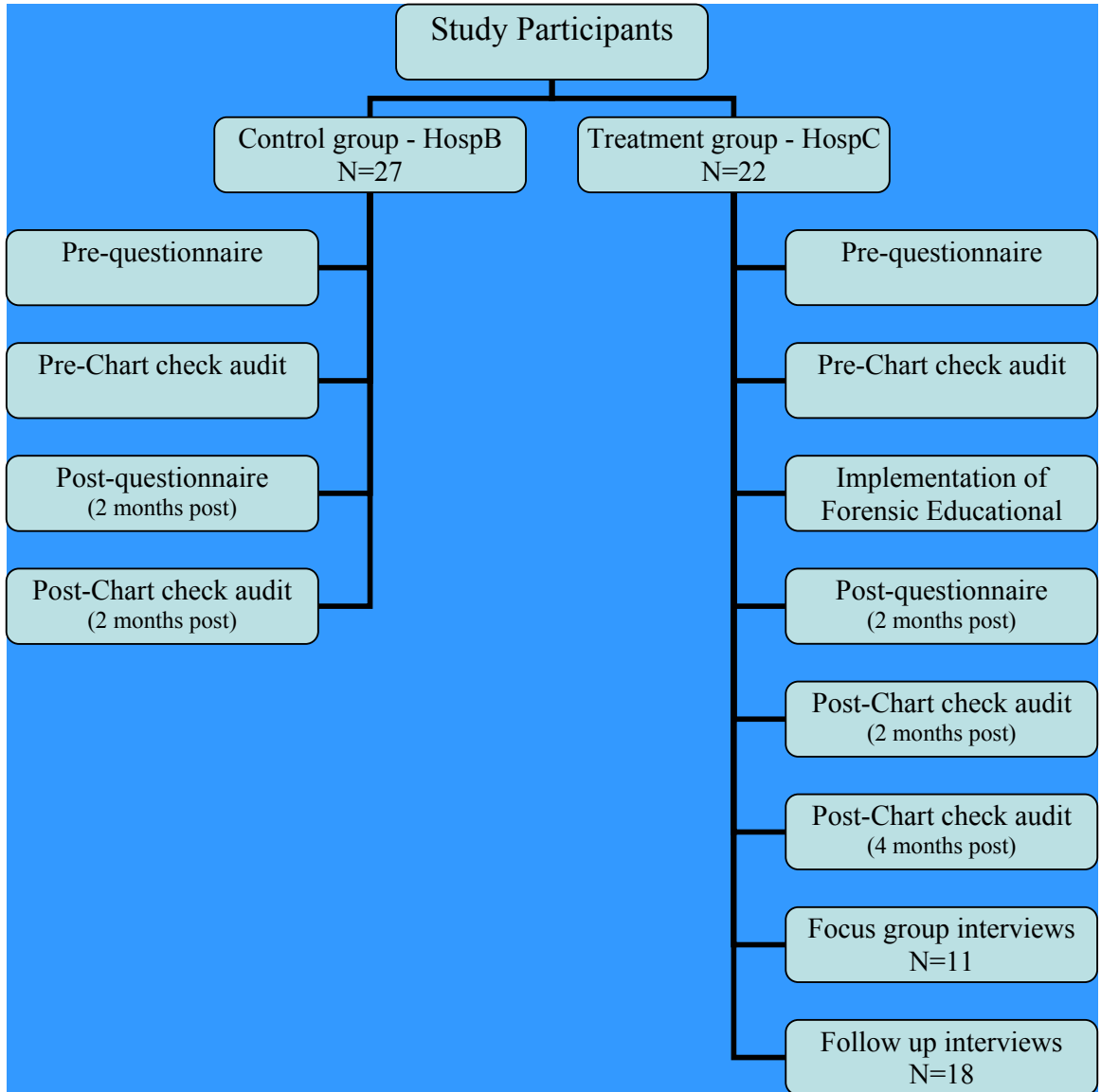
According to Bandura (1977), most human behaviour is learned from observing others and such information serves as a guide which individuals will act upon. Therefore, even if the researcher stressed the importance of participants not discussing the forensic workshop contents and their role within the study, the researcher believed that significant contamination could not be prevented. After considering all of these factors, the researcher believed that the most practical and

methodologically sound option was to have the control and treatment group participants come from different ED environments. Consequently, control group participants were recruited from Hospital B and treatment group participants from Hospital C.

To minimise participant differences, the researcher chose a non-equivalent control group design. Such a design involves the study participants (control and treatment group participants) to be recruited from two different hospital EDs who have similar characteristics. Schneider, et al. (2003) believed that such a design is commonly used in nursing research and is relatively robust. Minichiello, et al. (1999, p. 116) argued that a non-equivalent control group design, "can provide quite good control for history, maturation, testing, and instrumentation".

The recruitment process was identical for both treatment and control group participants. The recruitment process and all data collection for control group participants (HospB) occurred first during Phase II. Upon completion of study activities at HospB, the researcher pursued the recruitment of treatment group participants at HospC. This approach was necessary in order to reduce delays. Due to a change in hospital ownership and administrative changes, the ethics application from HospC was delayed by six months. The ethics approval from HospC was obtained six months after that of HospB (see Appendix 1). Therefore, permission to approach HospC nurses for participation interest was postponed until after the new management had settled into their new roles.

Initially, fliers (see Appendix 2) and a corresponding information letter (see Appendix 3 and 4) about the research project were posted in the nurses' staff room. The information letter outlined the purpose of the study and described the type and number of activities in which the treatment and control group participants would be asked to complete should they volunteer to participate in the research project.

Once the research flier and information letter had been posted, recruitment lectures were arranged with the assistance of the ED nurse manager and staff development nurse. The allocated time for the research recruitment presentations was 45 minutes

at each hospital. These sessions were arranged and conducted as any other regular educational activities that occurred for ED nurses.

To maintain consistency, all of the recruitment lectures were presented by the researcher. In addition, the same outline was used for each session and was based on the information contained within the control group information letter. Once nurses volunteered to participate, a consent form was obtained, and each participant was provided with a pre-test questionnaire. Every participant was given a copy of their signed consent form to keep in their records.

The inclusion criteria (see Table 3.4) were established to increase the chances of obtaining enough data for each participant and to minimise the extent of variation between participant populations. For example, inclusion criteria two stated that nurses needed to be regular hospital employees and work at least two shifts per week in the ED. The researcher believed that unless the employee worked a minimum amount of shifts that the chances of collecting enough charts to audit during the two audits would be severely compromised. This reasoning extended to the situation of casual employees and the need for participants to have patient contact time and not have a predominate number of shifts allocated to coordinating nurse roles (inclusion criteria #3). The role of the coordinating nurse in the ED is the nurse leader who is responsible for managing nursing staff and interacting with other healthcare staff to ensure efficient and effective patient care. Since casual employees do not have regular rostered shifts and nurse coordinators do not have set patients allocations, there was doubt as to how much data would be available during data collection.

Inclusion criteria four stated that only nurses who worked in the ED for greater than three months and who were not a first year graduate nurse could be included in this study. The researcher believed that the pressures that accompany being a new employee were not an ideal or stable background in which to commence this research project. Furthermore, graduate nurses working at HospB and HospC have an established work schedule that dictates each nurse will rotate through specific hospital departments on a four monthly roster. Therefore, involvement in this study would not be appropriate nor likely to produce sufficient data.

Lastly, inclusion criteria five stated that only nurses who have not had any previous formal forensic education could be included in this study. For this study, formal education was considered any structured forensic workshop or University course containing forensic information that a participant attended in the last three years. The researcher believed that if participants had any type of formal forensic training, such knowledge may bias the data. Previous forensic knowledge could alter questionnaire scores and influence nursing practices. Therefore, such bias would not provide a true reflection of the educational package's effectiveness.

Table 3.4: Inclusion Criteria for Registered Nurse Participants

Nursing Participant Inclusion Criteria
1. Registered Nurses holding a current licence with the Nurses Board of Western Australia (NBWA).
2. Nurses working full or part time (at least two shifts per week) in the emergency department (casual employees did not meet this requirement).
3. Nurses who work two shifts per week which must include patient contact time (Coordinating nurse roles did not meet this requirement).
4. Nurses who have worked in the ED for greater than 3 months (first year nursing graduates were not included in this study).
5. Nurses who have not had any previous formal forensic education.

There were five recruitment sessions that took place over a four week period at HospB. Two of the recruitment presentations were conducted during the day/evening shift overlap timeslot (1400 hours) and three were conducted at 0500 hours to allow any permanent night duty nurses to attend. Therefore, the recruitment sessions provided an equal opportunity for all ED nurses to attend during their normal rostered shifts. Out of the 31 nurses who originally volunteered to participate and signed a consent form, 27 nurses (87.1%) met the inclusion criteria.

There were nine recruitment sessions that took place over a four week period at HospC. Six of the recruitment presentations were conducted during the day/evening shift overlap timeslot (1400 hours) and three were conducted at 0400 hours to allow any permanent night duty nurses to attend. Therefore, the recruitment sessions provided an equal opportunity for all ED nurses to attend during their normal rostered shifts.

Initially, there were 35 nurses from HospC who met the research inclusion criteria and agreed to participate. This accounted for 66% of the total ED nursing staff who were working in the ED at the time the research project commenced. During the course of Phase III, 13 nurses did not complete all of the required participant activities for the following reasons: four nurses resigned; three nurses declined to participate after receiving their pre-test questionnaire; one nurse declined further involvement after completing their pre- test questionnaire; four nurses did not attend at least two workshops; and one nurse went on unpaid leave after completing the pre-implementation questionnaire and did not return to work during the research data collection period. Therefore, of the 35 nurses who originally entered into the study, 22 nurses (62.8%) completed both questionnaires and attended all three workshops (see Figure 6).

Figure 6: Flow Chart of Treatment Group Participants

35 Participants @ HospC
►   Agreed to participate
►   Met research inclusion criteria
►   Signed consent form
►   Given pre-questionnaire

i.   21 returned same day
ii.   8 returned in 2 weeks
iii.   6 required reminding once
    * 3 returned pre-questionnaire in 2 weeks

32 Participants eligible at commencement of workshops
►   4 Did not attend at least 2 workshops
►   4 Resigned before any attending workshops
►   1 On annual leave, not present during any of the workshops
►   1 declined further involvement

22 Participants completed all aspects of research project
►   Completed and returned pre-questionnaire
►   Attended at least 2 of 3 workshops
►   Completed and returned post-questionnaire

Data collection tools

In this study, data was collected from a variety of sources. However, there were four activities that provided the majority of data analysed in this study. The four primary data sources included the pre and post-test questionnaires, the chart checks audits, policy and procedure manual reviews, and interviews. Each of these activities occurred at different times across the four phases depicted in Figure 3. The tool development and the general methodological process for each activity will be discussed under the specific headings below while the more specific methodological processes of each activity will be explored under the phase in which the activity was conducted.

Questionnaire development

No previously tested questionnaire was available for this research study; therefore, the researcher was required to develop and validate the pre and post-test questionnaires before their use. The questionnaires were to be used to evaluate the effectiveness of the implementation activities (workshops A, B, and C). The research instruments were constructed after a thorough review of the available published literature, consultation with local and international forensic professionals and reflection upon the researcher's knowledge and professional experience.

The researcher was confronted with two major issues when developing the pre and post-test questionnaires. Firstly, the researcher needed to develop a tool that would accurately assess whether there was any difference in forensic knowledge amongst the treatment group participants after attending the three intervention workshops. Secondly, the researcher needed the tool to be consistent when used on multiple occasions with different groups of participants. These two important and fundamental characteristics of a measurement tool (validity and reliability) need to be proven before its use (DeVaus, 2002; Schneider, et al., 2003). How the researcher addressed the issues of validity and reliability during the questionnaire development will be explored below.

<u>Validity</u>

Validity is the most fundamental consideration in instrument development and refers to the degree that the instrument measures what it claims to measure (DeVaus, 2002).

There are three basic ways in which to assess the validity of an instrument; criterion, content and construct validity. The criterion validity approach compares the new tool to an existing well-accepted instrument that measures the same concept (DeVaus; Schneider, et al., 2003). Since no other instrument could be found in the published literature, this approach could not be used to test the rigor of this instrument. Therefore, the following discussion will focus on the issue of content and construct validity.

Content validity refers to the ability of the instrument's items to represent the content of the given construct (DeVaus, 2002; Schneider, et al., 2003). When the researcher was developing the instrument, the concern was whether the measurement tool and the items it contained were representative of general forensic knowledge which was what the researcher intended to measure. To tackle the issues of content validity, the researcher approached forensic and forensic nursing experts to examine the questionnaire's content. The researcher wanted to ensure that the tool focused on fundamental and essential forensic nursing concepts (DeVaus; Schneider, et al.).

Forensic nurse specialists living in the US and all of the legal and forensic stakeholders interviewed for this study were asked to review and examine the pre and post-implementation questionnaires for accuracy and content. The experts in the US were all e-mailed copies of the questionnaires and an information sheet explaining the purpose of the study. All of the Western Australia legal and forensic stakeholders were provided a research information sheet and the questionnaires in person. The information sheet discussed the objectives of the study and of the questionnaire. Comments on items and their relevance were clarified and modified according to the comments from the reviewers. Minor modifications to the layout and wording were made prior to its use in the study.

For example, a clinical forensic nurse specialist working in the US made suggestions about the wording of some of the questions. The US expert commented about sentence structure and the presence of language inconsistencies. For example, a suggestion to include the statement "Please tick all that apply" at the end of some questions and to have other sentences begin with "How many of the choices listed below". Therefore, the language and sentence structure of every question was

examined carefully so that the participants would not be confused by the content of the questions.

In total, two West Australian lawyers, five US forensic nurse specialists, and 10 forensic specialists agreed to review the questionnaire for content and to provide answers to questions specific to their forensic specialty. For example, the Forensic Biologist, Forensic Scientist and Forensic Pathologist reviewed and answered questions 10 and 12 which dealt with specimen collection. Such professional feedback allowed the researcher to develop a more accurate marking key and subjected the questionnaire to further scrutiny prior to its distribution and use in the research study.

The last type of validity that required discussions is construct validity. Construct validity refers to the extent in which the instrument measures a theoretical trait (DeVaus, 2002; Schneider, et al., 2003). This type of validity is difficult to achieve and was not used in this study as there was no single, well established theory associated with forensic nursing suitable for this study. Therefore, the researcher utilised three different theoretical models to deal with the complexity of the study. The establishment of construct validity can be a complex process that often involves many studies and several different approaches (DeVaus). Furthermore, DeVaus believes that there is no ideal way of determining validity and that the researcher must choose the method best suited for the situation.

Reliability

As well as the issue of validity, it was essential to consider the reliability of the pre and post-test questionnaires. Reliability addresses the ability of a measuring tool to provide the same result on repeated occasions (DeVaus, 2002; Schneider, et al., 2003). The method of test-retest reliability addresses the question of consistent answers from multiple occasions of use. Depending on the text, the suggested interval at which the retest should be administered varied from two to six weeks (DeVaus; Golan, and Weizman, 1998; Zwart, Frings-Dresen, and vanDuivenbooden, 2002; Taylor, et al., 2001). DeVaus suggested that a trial of the instrument be undertaken on a smaller but similar practice sample to that being used in the study.

To address the issue of questionnaire reliability in this study, the test re-test method of reliability testing was used. Twelve experienced Clinical Nurses were asked to complete the questionnaire twice. None of these nurses came from HospB or HospC. Eight weeks after completing the questionnaire, the 12 Clinical Nurses were asked to complete the same questionnaire again. During the eight-week time period, the nurses were asked not to research information about any of the questions or talk to anyone about the contents. After the eight week time period, 10 of the 12 nurses completed and submitted the second questionnaire. There were two nurses who declined further involvement in the reliability testing.

The scores from both questionnaires were evaluated and the tool assessed for consistency and reliability of answers. A comparison of test scores was expressed by a Pearson correlation coefficient, r. The magnitude of the coefficient ($r = 0.85$) provided support regarding the tool's stability. An r equal or greater than 0.7 is considered an acceptable value for a tool to be viewed as reliable (Burns and Grove, 2007). Therefore, this result indicated that the questionnaire was a reliable tool.

The final contents of both the pre and pot-test questionnaires included short answer and tick box response questions as well as a demographic cover sheet on the pre-test questionnaire (see Appendix 5 and 6). The researcher developed the questionnaire by modifying and selecting information that was considered fundamental forensic knowledge. All of the information was derived from published literature (Wick, 2000; Meserve, 1992; Easter and Muro, 1995; Pavlik, 2004), Western Australia legal codes (*Western Australia Coroner's Act; Privacy Act of 1988; Western Australia Criminal Code)*, and real life patient scenarios experienced by the researcher and other forensic experts. The questions were designed to target and explore forensic issues that related to patient assessment, law and ethics, and nursing practice.

In total, the pre-test questionnaire contained 25 questions including five demographic questions that were not repeated on the second questionnaire. To minimise any confusion between the two instruments during analysis, the first pre-test questionnaire was printed on white paper and the second post-test questionnaire on orange paper. Participants were given the pre-test questionnaire only after the researcher received a signed consent form.

Participants were identified only by a code number located in the top right hand corner of the questionnaire. Each code began with a capital "H" for hospital, then a capital "B" or "C" to identify which hospital data was collected from, and finally a number (1-27 for HospB participants and 1-22 for HospC participants). The number at the end of each participant's code was assigned according to when the participant agreed to participate. Participants could only be associated with their code through their consent form which had their personal code, their name and signature on the single document. Only the researcher had access to such information.

In addition to the questionnaire data, the researcher reviewed all of the policy and procedure manuals located at Hospital B, and C. Such information was used to assist the researcher during the scoring of the questionnaire. Details of the methods used during this study activity will be outlined below.

Policy and procedure manual review

There were two types of policy and procedure manuals that were reviewed at HospB and HospC; the main hospital policy and procedure manual and the ED nursing policy and procedure manual. It was necessary for the researcher to review both sets of manuals because nurses must follow, and are accountable for, practicing under all items discussed within individual area policy and procedure manuals as well as the more general hospital wide policies.

The focus of each review was to evaluate the policy and procedure manuals for any forensic related issues. Each forensic related policy was examined for the inclusion of treatment guidelines, clinical pathways, legal implications of guidelines, and suggested referral agencies. During each hospital's policy and procedure manual review the researcher noted if the above items were included in the policies (see Appendix 7). Any conflict between research protocols and hospital policy and procedure information needed to be considered before finalising workshop content, marking participant questionnaires, and analysing final data.

Listed below are some forensic topics that served as a guide during the policy and procedure review at each hospital:

- Mandatory Reporting Laws
- Abuse and Neglect of the Child and Elderly
- Coroner investigations
- Domestic Violence
- Sexual Assault
- Drug facilitated sexual assault
- Death by assault/trauma
- Forensic evidence collection
- Managing the psychological patient
- Evidence storage and the chain of custody
- The emancipated minor
- Documentation guidelines: statements, body maps, legal implications
- Photography – Photodocumentation guidelines
- Courtroom testimony – What you should know

The list of forensic policy topics mentioned above were cited in Benak (2001) as, "guidelines that should be considered for your emergency department involving forensic related healthcare and intervention" (p. 21). The rationale behind this review was to assess the areas of forensic patient care that had already been addressed by hospital policy.

In addition to the paper copies of the hospital manuals, HospB and HospC had policies and procedures available on the hospital intranet computer system. Therefore, to ensure that no policies were overlooked and that every current policy was included in this review, the researcher audited all policies ED nurses were responsible to know about and the associated guidelines that affected their practice.

In addition, the researcher wanted to ensure that there were no hospital policies that provided conflicting information to that of the study protocols and might influence any of the answers participants may provide on their questionnaire. Consider, for example, if any of the participant hospitals had a policy that stated all patient property, including clothes, were to be put in plastic bags. Under such circumstances, there could have been some participants that believed that this was proper forensic protocol. Therefore answers to question 12 (see Appendix 5), which asked participants to identify how to package general patient items during forensic collection would have reflected such policy information and affected the way the researcher scored the questionnaire responses. In addition to the questionnaires and

the policy and procedure manual reviews, the researcher collected a substantial amount of data from participant interviews. Details of such interviews will be described below.

Interview guides

Overall, there were three types of interviews completed during this study which involved 21 stakeholders and 20 treatment group participants. To maintain consistency, all of the interviews were conducted by the researcher. To interview the stakeholders, the researcher developed two sets of interview questions; one for healthcare stakeholders and one for forensic stakeholders (see Appendix 8 and 9). This approach was adopted because there were some issues that directly affected each group. For example, healthcare stakeholders were asked if they felt they had contact with forensic patients. Such a question was not relevant to forensic stakeholders. Furthermore, ED managers were not able to comment on the condition of evidence forensic specialists received from hospital staff. The open-ended questions used during the interview process were based on recommendations from existing literature, anecdotal information, and conversations with the researcher's expert forensic nursing colleagues (DeVaus, 2002; Schneider, et al., 2003). The use of the same questions for each group and the use of a single interviewer was thought to increase the reliability of the data collected (Fazzone, Barloon, McConnell, and Chitty, 2000).

There were two different types of interviews that involved the treatment group participants: focus group interviews and follow-up interviews. Additional participant feedback and evaluation regarding the research design, forensic materials and implementation activities were gathered during focus group interviews. Literature indicates that focus groups help assess needs, generate information, develop plans, test new program ideas and evaluate outcomes (Krueger and Casey, 2000; Fowler, 1995). In addition, Fazzone, et al. (2000) found that the multiple perspectives gathered during focus groups provided insight into the consistency and accuracy of data. Therefore the reason for the inclusion of the focus group interviews in Phase IV was to enable further evaluation of the educational package.

Eleven of the 22 treatment group participants chose to participate in the focus group interviews. The open ended questions utilised during the focus group discussions centred on discovering what the nurses' perceptions were regarding the effect the educational package had on their daily nursing practices (see Appendix 10). In addition, the researcher was also interested in discovering if participants' believed they gained any benefit or practical assistance from the research tools.

Focus group discussions allowed the participants an opportunity to evaluate the study's content and effectiveness. Nursing input was essential to help ascertain whether any changes in protocols, procedures, policies, forensic materials, or nursing education would benefit future care provided to ED forensic patients. In addition, valuable insight could be gained as to how ED nurses feel they can contribute to maximising healthcare provided to forensic patients.

In addition to the focus group interviews, follow-up interviews were conducted with 18 of the 22 treatment group participants. After all of the chart check data was collected and analysed, the researcher noted that there was some disparity between some of the chart audit data, information collected from auditing the forensic kit supplies and the qualitative data that was documented in the researcher's field notes. For example, no evidence was located during the chart audits that supported the participants' reports (documented in the researcher's field notes) that they had used the paper evidence bags and chain of custody forms. In order to gain a better understanding about how and why the disparity existed, the researcher decided to conduct follow-up interviews with available research participants.

There were six questions that could be asked during the follow-up interview (see Appendix 11). The interviews focused on whether or not participants recalled having used any of the forensic kit documentation sheets developed for this study, the types of sheets utilised and the placement of the sheets once the participant had completed the form. Further details about the interviews will be discussed under Phase II for the stakeholder interviews and under Phase IV for the nursing participant interviews.

<u>Thematic Analysis</u>

For this study, thematic analysis allowed the researcher to report the experiences of the study participants which were captured during the interview process. Thematic analysis is a method for "identifying, analysing and reporting patterns (themes) within data" (Braun and Clarke, 2006, p. 79). Thematic analysis is thought by many to be a useful method to analyse qualitative data and provide rich, detailed, and complex accounts of data (Cassell, Buehring, Symon, Johnson, and Bishop, 2005; Fereday and Muir-Cochrane, 2006; Braun and Clarke, 2006). Thematic analysis has been shown to be flexible and an effective analysis method for interview data as it does not ascribe to any pre-existing theoretical framework (Attride-Stirling, 2001; Tuckett, 2005; Braun and Clarke, 2006). Therefore, the researcher believed that its use in this study would be suitable and beneficial. A detailed discussion in Chapter 5 will describe how the researcher applied this analysis process to the study data.

The last data collection activity that requires discussion is that of the chart check audits. The researcher collected a large amount of data from chart check audits carried out on medical records from HospB and HospC. The details of the process involved in this activity will be discussed below.

Chart check audits

In addition to completing the questionnaire, control and treatment group participants had their documentation monitored during multiple chart check audits. The researcher examined the documentation of all nursing participants at in the same manner at both HospB and HospC. This activity had a dual purpose which was to establish a baseline standard of nursing documentation in each group and allow for comparisons between and within participant groups. For example, control group participants' documentation could be compared to establish whether (1) the control group had a much different standard of documentation than the treatment group before the study began and (2) whether completing the pre-questionnaire had any affect on the standard of nursing documentation. In addition, data collected from the treatment group participants could provide insight into whether the information provided during the forensic workshops was absorbed, retained and utilised by treatment group participants.

The Emergency Department Information System (EDIS) is a computer system that HospB and HospC both utilize to keep track of all patients who visit the ED. Some of the information that can be extracted from the EDIS computer program includes; treating doctor, primary care nurse, triage information, medical diagnosis, triage score, time of arrival, patient's date of birth, and medical record number. Before nurses at HospB and HospC begin to provide patient care, nurses log into EDIS. Each log-in records the nurse assigned to individual patients. Therefore, if used correctly and consistently, reports can be generated (using Excel spreadsheets) about the type of medical complaints patients had, the time arrived in the ED, and the nurses who provided care at any specific time on any specified day.

There were five chart check audits completed for this study: two at HospB and three at HospC. All of the pre and post- chart check audits were completed in succession as requested by the medical record supervisor at each hospital. The researcher believed the EDIS computer program would provide the most thorough and systematic way to generate reports for forensic patients seen in the two EDs during times specified by the researcher. As the researcher did not have access to the EDIS software program, a representative from the Emergency Medicine Clinical Practice Improvement Unit at HospB and the Staff Development ED Nurse from HospC were responsible for providing the researcher with the EDIS report data. The researcher provided the hospital staff with the necessary parameters so that the reports generated would provide details about specific patient populations of interest to this study.

The same patient reference parameters were utilised at both HospB and HospC to generate lists of potential forensic patients. The reference parameters included: participant nurse's name, patient's medical record number, date of patient's visit to ED, time patient arrived to ED, patient's date of birth, triage information, and the discharge medical diagnosis. The date of treatment specified in the parameters changed according to the focus of the researcher's chart check audit (pre or post intervention). In other words, all patients that visited the ED during timeframes set by the researcher and cared for by study participants (according to EDIS) were included to generate the initial patient reports.

The initial patient data reports were formatted using Excel software with the assistance of the hospital's staff development nurse. Each initial report consisted of 4000 to 6000 patient files. To have the medical records staff remove 4000 files for examination proved to be an impractical expectation. In addition, HospB's hospital policy outlined that only 20 patient files could be requested during any one week. Therefore, due to workload and time restraints, the initial data lists needed to be reduced. Furthermore, the initial data lists contained many patients that did not have forensically related medical complaints.

Therefore, to reduce the number of patient records to be reviewed, the researcher personally filtered out patient charts that did not contain forensic related material. Such a culling process was possible because the initial Excel patient reports contained the patient's triage information and final medical diagnosis. Therefore, the researcher read every triage section as well as corresponding medical diagnosis for every patient file listed on the initial patient data lists. Only the patients who had triage information or a medical diagnosis that was forensically based were placed on the list to be manually reviewed. If there was any uncertainty as to why a patient sought medical treatment, any unidentified mechanism of injury, or a possibility that a forensic related issue existed, the patient's chart was flagged for manual review.

This initial review reduced the number of patient files that the researcher would have had to manually review from approximately 6000 to 600 patient files per chart audit. For example, if a patient's triage and medical diagnosis indicated that the patient's ED visit was due to cardiac complaints such as chest pain or acute myocardial infarction, their chart was not short listed for review. However, if the patient's triage information and/or medical diagnosis indicated the reason for the patient's visit was due to an injury or assault, and therefore a possible forensic related complaint, the patient's medical record number was noted and the chart was manually reviewed by the researcher for possible inclusion into the study.

Ideally, the researcher sought to review five forensically related patient charts for each of the nursing participants at each chart check audit. The patient data reports generated for the first chart check audit had a six month timeframe. All patients treated by control group participants six months prior to the distribution of the first

pre-questionnaire were to be considered. Initially, a much smaller time frame (three months) was utilised but the researcher was unable to collect enough data. Therefore, a six month time frame was required to provide the researcher with the best opportunity to review five forensically related patient charts for the majority of study participants.

Nurses often work in teams and cover each other for meal breaks. For example, two nurses could be assigned to work in the "monitor" area of an ED. The cardiac monitor area usually consists of four to five beds. The two nurses work as a team to admit, assess, and monitor all patients assigned to that area. Both nurses are then responsible to ensure they each cover and care for the patients in that area while each nurse takes his/her meal break. Such cooperative work practices frequently result in a patient's chart containing nursing documentation belonging to multiple nursing staff. Therefore, in this study, extra diligence was required by the researcher to include only patient charts where the triage or initial patient's primary physical assessment was completed by the participant nurses. Therefore, to ensure only consenting participant nursing documentation was included during data collection, several cross checks were performed. When nurses document the type of care a patient receives, ideally, the documentation should include; a description of the care provided, the time and date the care was provided, the nurse's printed name, signature, and professional designation (Nursing Board, 2002: HospB and HospC policy and procedure manual, 2006). If such information was absent or could not be positively identified as being information documented by participant nurses, the patients chart information was not included in the study data. To further verify a participant's identity, participant signatures were compared with signatures on the research consent forms. Such cross checks were vital to obtain accurate data.

There was a standard list of 14 patient variables and nursing documentation items that were monitored during all of the chart checks (see Table 3.5). The 14 variables were chosen by the researcher because it was thought that such parameters provided the most comprehensive and accurate way to assess and evaluate the educational package and whether change was noted to nursing documentation or practice behaviours. The researcher methodically examined and recorded whether or not each variable was addressed by the study participant in the nursing notes. Variables 1-7

outlined in Table 3.5 were recorded as a specific time or number, whereas variables 8-14 were recorded as a "yes" or "no" response. All of these variables will be discussed in dept later in Chapter 5.

Table 3.5: Chart Check Variables

Chart Audit Variables
1. Category of forensic patient
2. Triage category
3. Time of presentation to ED
4. Time seen by nursing staff
5. Time left ED
6. Discharge from ED
7. Total time spent in ED
8. Injuries described/measured
9. Patient history in quotes
10. Authorities notified- documented attempted or patient declined (Police or Coroner)
11. Evidence collected
12. Chain of Custody maintained with form
13. Patient given referral numbers on discharge
14. Outcomes documented

The researcher continued to examine available patient files until there were five charts for every participant or until there were no further forensic related charts available for a particular participant. Patient files were examined in the order of which charts were listed in the reports. Charts closest to the date participants completed the pre-questionnaire were audited first and then working backwards in appearing order off the Excel report list. Once five forensically related files were examined for any participant, no further files were examined for that specific individual. This procedure was followed so that not any one type of diagnosis was chosen over another nor any favouritism could be implied regarding choosing "good" documentation over "bad". The researcher believed that this procedure was the best way of collecting non-biased data.

In the following section, information that is specific to the four phases shown in Figure 3 will be described.

Phase I

Phase I was conducted at HospA. During this phase, the researcher conducted the replication study of Pasqualone's (1998) research which will be outlined below.

Replication of Pasqualone's study

To determine whether each of the 27 forensic patient categories identified by Pasqualone were applicable and appropriate within the Western Australian healthcare setting, a smaller scale replication study was conducted. Such an investigation would identify whether any similarities or differences could be found between Pasqualone's research and forensic patient categories within the healthcare setting. Information from this investigation allowed the researcher to identify the patient population that the educational material was to focus upon.

There are many differences that exist between the US and Australian healthcare systems. In addition to such differences, healthcare workers also have different legal requirements mandated by their professional licences as well as State and Federal law. Furthermore, there has not been any research published concerning the identification of forensic patient categories since Pasqualone's work. For these reasons the researcher was not confident to assume that Pasqualone's work would suit the needs of the Western Australia population. Therefore, the researcher felt it necessary to verify Pasqualone's work in a Western Australia study.

The data gathered in the Western Australia study served to replicate and corroborate the international application of Pasqualone's 27 forensic categories. HospA was chosen as the site to replicate Pasqualone's work due to the many similarities that existed between the hospital and community demographics. Hosp A was a small community hospital and the ED saw a similar number of patients (28,000 per year) to the hospital ED utilised in Pasqualone's (1998) research (22,500 per year). The hospital in Pasqualone's study had a catchment area that served a population of approximately 116,000 people. HospA had a catchment area that served approximately 127,337 people.

The total nursing staff numbers in each hospital ED were also similar. HospA had a total nursing staff number of 38 while the hospital ED used in Pasqualone's study had a total nursing staff number of 30. The average number of patients seen in the ED in Pasqualone's study was 59 while HospA saw an average of 95 patients per day. A major difference between the two hospitals was bed capacity. HospA had only an 82-bed capacity compared to 229-bed capacity stated in Pasqualone's study.

The Western Australia replication study was conducted over a 30-day period instead of the 60-day period outlined in Pasqualone's (1998) study. The researcher felt that representative data was collected during this time frame as no new data was collected and no new forensic patient categories emerged after 30 days. Pasqualone (1998) reviewed 3436 patient charts and during the replication study the researcher reviewed 2385 patient charts.

The researcher could not find any published literature that concluded whether any single calendar month was thought to represent a typical hospital year of an ED sample and the months utilised in Pasqualone's study were not specified. After speaking with many senior clinical nurses, the researcher excluded months that were anecdotally discussed as being particularly busy (June and July) or slow (January). Therefore, the month of August 2003 was used in the replication study to represent a typical ED sample.

The replication study included individuals who presented to HospA's ED for treatment during the month of August 2003. Each individual that registered as a patient had their ED patient notes reviewed by the researcher. Patient notes, in this study, referred to all documentation found in the triage notes, nursing notes and doctors notes. To generate an ED chart at HospA, individuals had to be assessed by the triage nurse and register with the ED clerk. Therefore, only patients who registered as ED patients from the period of August 1, 2003 commencing at 00:01 o'clock to August 31, 2003 at 23:59 o'clock were included in this chart review.

The researcher, for the purpose of consistency, reviewed each patient chart personally. The researcher reviewed each patient's triage information, nursing documentation, doctor's notes, and final medical diagnosis. In some situations, the

researcher was not required to review the entire patient record before a patient was classified as a forensic patient. For example, if the triage documentation stated that a patient had sustained a work related injury, which was clearly a forensic category identified in Pasqualone's (1998) research, no further review of the chart documentation occurred.

There were 2385 patient charts reviewed. After completing the chart reviews, the frequencies of each forensic category identified were calculated. The number and type of forensic categories identified were then compared with Pasqualone's (2003) 27 categories to look for similarities and any discrepancies. A detailed description of the verification study will be discussed in Chapter four.

Phase II

After completing Phase I, the pre-workshop activities outlined under Phase II in Figure 3 commenced. Activities occurring during this phase included; stakeholder interviews and the analysis of the resulting data, review of policy and procedure manuals, the distribution and collection of the pre and post questionnaire at HospB, and the pre and post-chart check audits at HospB, and lastly, participant recruitment and the distribution and collection of the pre-implementation questionnaire at HospC.

All of the stakeholder interviews were completed and research interventions involving HospB were completed prior to the researcher recruiting any treatment group participants. The delay in recruiting treatment group participants was necessary because of the length of time that was required to organise the stakeholder interviews as well as recruiting control group participants and collecting data. To simultaneously include another multifaceted research activity, that of treatment group recruitment and questionnaire distribution, proved impractical and impossible. In addition, there was a delay in receiving Ethics approval from HospC. Multiple study populations and research sites were involved in this phase. Each of the activities will be discussed below in the order the activities occurred.

Stakeholder interviews

In total there were 10 healthcare and 11 forensic stakeholder interviews conducted. Before interviews commenced, each stakeholder was provided with an information letter (see Appendix 12) and participant consent form (see Appendix 13). Each of the participant's questions and queries regarding the research project were addressed before the consent form was signed. Before any of the formal interviewing process was initiated, each of the participants received a signed duplicate copy of the consent form for their records.

All but two of the 21 semi-structured interviews took place during a three month period. Two interviews were delayed two months after completing the first 19 because two of the stakeholder participants were on holidays. All of the interviews were conducted in a private place at a time and place specified by the participant. (usually at their place of employment). This was to ensure that participants' felt comfortable and were inconvenienced as little as possible. A tape recorder was placed in clear sight of the participant on the table between the researcher and participant to maximise sound and clarity of voices. Before each interview, the participant's permission to record the interview was verified and the tape recorder was tested for sound to ensure no problems would occur during the interview. After each had been conducted, the researcher sat in her car and recorded her impressions and observations from the interview. The recording of such information directly after each interview allowed the researcher to recall information clearly and ensure accurate recollection.

All of the 21 interviews were conducted one-to-one with one exception. Upon request from two physicians (one Medical Director and one Medical Consultant from the same hospital) one interview was conducted with the two participants. The reasons from the participants for this arrangement were scheduling conflicts and time constraints. To ensure that one participant did not dominate the interview, the researcher made every attempt to obtain an answer to each question from both participants. However, there were times that the physician who did not answer the question first stated that they conferred with the first physician. Overall, however, for the majority of questions, each of the physicians did have a response to most of the questions. All of the interviews lasted between 45 and 90 minutes and all but one of

the interviews was tape recorded with the participant's approval. One participant requested their interview not be tape recorded. Therefore, the researcher took copious shorthand notes in order to capture as much verbatim conversation as possible.

All of the taped interviews, except three, were transcribed by a single, independent professional typist who was contracted under a confidentiality agreement. The typed transcripts ranged between five and 13 single spaced pages with the mean length of the transcripts being nine single spaced pages. When the typist was not available, the researcher transcribed the final three interviews. The information from the verbatim transcripts was manually analysed as the researcher encountered problems with software incompatibility when initial use of the qualitative analysis computer program (NUD*IST version 6) was attempted. The results of this analysis will be discussed in depth in Chapter Five. The main themes of the interviews were then used to help construct and support the content of the educational package and forensic workshops presented to treatment group participants.

All of the stakeholders interviewed provided important knowledge that was crucial to the success of this research study. Without input from key stakeholders, essential specialist information could have been overlooked or unintentionally left out. Any such oversight could lead to the dissemination of inaccurate, irrelevant, or out of date information. Therefore, the interviews were analysed before developing and establishing any forensic educational material, protocols or procedures for nursing standards of care (Caldwell, 1997; Ferguson and Jinks, 1994).

Hospital B

There were four study activities that took place at HospB during Phase II. Three of the activities that will be discussed below include; the policy and procedure manual review, the pre- and post-test questionnaire, and the pre- and post-chart check audits as the recruitment procedure for control group participants have already been discussed in this chapter.

Policy and procedure manual review

The methodology used to review the policy and procedure manuals at HospB have already been discussed previously in this chapter; therefore, no further elaboration is required.

Pre and post-test questionnaire

Control group participants were given the pre-questionnaire twice as they did not receive any intervention. Like the treatment group, the first questionnaire was copied on white paper while the second questionnaire was copied on orange. The researcher used different coloured paper to reduce any chance of confusing and mixing questionnaire data.

There were three questions (6, 14, and 22) on the post-test questionnaire that did not appear on the pre-test questionnaire. The three questions related specifically to treatment group participant experiences. For example, question six on the post-questionnaire asked treatment group participants if they gained useful forensic knowledge during their involvement in the study. Overall, there were 18 identical core questions that appeared on both the pre and post-test questionnaire that were utilised during data analysis.

Control group participants were asked to complete the second questionnaire eight weeks after the researcher received their first questionnaire. To maintain consistency the timeframe of eight weeks was set for both the control and treatment groups. The nurses were requested to complete and return their questionnaires within two weeks. Of the 30 participants who originally agreed to participate in the study, 22 returned their pre-test questionnaire the same day, five returned their pre-test questionnaire in two weeks, three participants required reminding once then returned their pre-test questionnaire in two weeks and three participants declined further involvement in the study when they were reminding about completing the questionnaire.

There were six nurses who decided to complete their pre-test questionnaires during their own time. The nurses that decided not to complete their pre-test questionnaires during the recruitment lecture were those working the night shift. The reason given by the participants was that they did not have time to complete the pre-test

questionnaire due to nursing staff shortages on the floor. Therefore, the researcher arranged a time with the participants when the researcher could collect the questionnaires. All of the participant pre-test questionnaires were returned during these arranged meeting times.

The second pre-test questionnaire was distributed to the control group participants eight weeks after they returned their first questionnaire. The eight week time frame was chosen because it correlated with the time period between the two questionnaires distributed to the treatment group participants. All of the second questionnaires distributed to HospB participants were hand delivered by the researcher. The face to face contact provided the researcher with the opportunity to answer any queries participants had and request that the questionnaires be returned within two weeks.

There were four participants who had questions as to why they were being asked to complete the same questionnaire twice. The researcher explained that to evaluate the educational intervention, the study design involved comparing data between study participants. The researcher further explained that completing two questionnaires would allow for complete data analysis to take place. After this information was shared with HospB participants all four participants agreed to complete the second questionnaire.

To encourage participants to return their questionnaire, the researcher stopped by the ED twice a week to collect any completed questionnaires. Out of the 28 post-questionnaires distributed only seven (25%) were returned. The researcher reminded each participant twice, at two week intervals, about the importance of completing and returning the questionnaire. Unfortunately, there was little success. When the participants were approached, they agreed to complete the questionnaires; however, after waiting and reminding participants during a six week period, only seven questionnaires could be collected.

Pre and post-test chart check audit

Out of the 27 participants involved in the first chart audit, the researcher only found five forensically-related charts for one (3.7%) participant. Unfortunately, with the majority of participants (20 or 80%), only between one and four forensically-related

charts could be found for each participant. There were six (22%) participants in which no forensically-related charts could be found.

The second chart check audit commenced eight weeks from the date the researcher received a participant's completed pre-questionnaire. Eight weeks was the same timeframe utilized for the second chart check audit involving treatment group participants (eight weeks after completing their intervention workshops). Therefore, to maintain consistency, the same time frame was used with control group participants. The same procedure was followed for the second audit as described for the first chart check audit.

Out of the 27 participants involved in the second chart audit, the researcher found five forensically-related charts for 12 (44%) participants. In addition, there were eight participants (30%) that between one and four forensically-related charts could be found. Lastly, there were seven (26%) participants in which no forensically-related charts could be found.

Hospital C

There were three study activities conducted during Phase II at HospC. These activities included the policy and procedure manual reviews, the recruitment of treatment group participants, and the distribution and collection of the pre-implementation questionnaire. Because the nurse recruitment procedures have already been explained in this chapter, the two remaining research activities will be described below.

Policy and procedure review

The methodology used to review the policy and procedure manuals at HospC were identical to how policies were reviewed at HospB. Additionally, the exact methodology followed during this study activity has already been discussed previously in this chapter; therefore, no further elaboration is required.

Pre-test questionnaire

Participants were given the pre-test questionnaire only after the researcher received a signed consent form. The pre- test questionnaires were distributed during two

recruitment periods. The first recruitment session lasted 11 days. There were 26 participants who completed the questionnaires. The second recruitment session lasted seven days and nine participants completed questionnaires. There were eight weeks between the two recruitment sessions. This was due to it being the researcher's final week of pregnancy and impending delivery. From the initial 35 who completed the pre-implementation questionnaires, only 27 participants completed all study activities.

The nurses were asked to complete and return their questionnaires within two weeks. Of the 35 participants who originally agreed to take part in the study, 21 returned their pre-test questionnaire the same day, eight returned it in two weeks, three participants required reminding once then returned their pre-test questionnaire in two weeks and three participants declined further involvement in the study when they were reminding about completing the questionnaire. The researcher visited the ED twice a week during various shifts that the study participants were assigned to work so that participant questionnaires could be collected.

The pre- implementation questionnaire was designed to evaluate the participants' baseline forensic knowledge and collect demographic information. Therefore, none of the intervention activities could begin for any participant until all of the pre-test questionnaires were collected. The researcher felt that having any forensic information material in the ED environment could prejudice participant answers.

In total, the pre- test questionnaire contained 25 questions and the post- test questionnaire 22 questions. The pre- test questionnaire contained five demographic questions that were not repeated on the post- test questionnaire. Additionally, there was one question on the post- test questionnaire (#16) that was mistakenly left in. This question asked if nurses were permitted to call the police if a patient admits to committing a crime. Due to the vagueness of the question the researcher decided to delete this question. Therefore, the response to question 16 on the post-implementation questionnaire was disregarded during data analysis.

In addition, there were two questions (1 and 10) that were included only in the pre-implementation questionnaire and three questions (6, 14, and 22) that were only

included on the post- implementation questionnaire. This was due to questions that focused on information specific to periods of time before and after the treatment participants were provided with the intervention workshops. To minimise any confusion between the two instruments during analysis, the pre- implementation questionnaire was printed on white paper and the post- implementation questionnaire on orange paper.

Overall, there were 18 identical core questions located within the pre and post- test questionnaires. Out of the 18 questions; four focused on legal and ethical issues, three on evidence collection, four on patient assessment, five on nursing practice, and two on participant attitude. To analyse the effectiveness of the research intervention (educational workshops) all pre and post- implementation questionnaire results were compared (Minicheillo, Sullivan, Greenwood and Axford, 1999, p238). The final results and all comparison outcomes will be discussed in Chapters 5.

Phase III

The implementation phase entailed the introduction of a multidimensional forensic educational package to treatment group participants and required six weeks to complete. The introduction and distribution of all tools occurred once all participants from HospC had been recruited, signed their consent forms and all pre- implementation questionnaires had been completed and returned to the researcher. All activities discussed in this phase involved only HospC participants.

In an effort to try and maximise workshop attendance, the researcher asked participants during the initial recruiting phase about days and times that would suit the majority of study participants. The most favoured option declared by the majority of participants was that the workshops take place during their normal working shifts. This option of allowing participants to attend the workshops while rostered on in the ED was discussed with ED management. Due to the managerial support for this study, all participants were allowed to attend the workshop during normal working hours.

Originally, the intervention workshop was designed as a single, three hour educational session. After consultation with participants, the staff development nurse and ED manager, the educational intervention was divided into three, one hour workshop sessions (A, B, and C – see Appendix 14). The reduction to one hour sessions meant that all participants needed other ED staff to cover extra patient responsibilities for a maximum time of one hour. The researcher discovered that such an arrangement was the most practical and most preferred option for all concerned. The researcher also believed that this schedule option provided the greatest flexibility to ED staff and reduced the amount of stress felt by other non-participant nursing staff. All three of the educational workshops will be described in detail later under the forensic workshop heading.

One of the inclusion criteria for nursing participants was that nurses had to have worked in the ED for greater than three months and could not be first year nursing graduates. Therefore, all of the nurses who were involved in this study were at least 21 years old. In Western Australia, any individual who is over 18 years old is classified as an adult (Nygh and Butt, 1998). In order to increase participation and facilitate learning, adult learners require their educational material to be developed differently than that for children (Merriam and Caffarella, 1999; Cross, 1981; Caffarella, 2002; Brookfield, 1986).

According to Knowles (1980), adult learners learn most effectively if: the new learning material is presented in the context of real-life situations, if the adult learners know why they need to learn something , if the adult learner has had some input into the planning of their education, and if the adult learner has strong internal motivations to learn. The adoption of such principles has proven successful with adult learners previously and is well documented in published literature (Lowry, 1993; Puliyel and Puliyel, 1999; Kaufman, 2003).

Knowles (1980) learning principles suggest that adults learn most effectively when all of their senses are stimulated (seeing, listening and doing). A multi-sensory learning framework was adopted in this study during the workshops. Participants were provided with flow diagrams and charts about evidence collecting and injury documentation. Detailed lecture information accompanied the information sheets and

was then reinforced during a practical based session. During the practical session, participants practiced collecting evidence and describing injuries from photographs displayed through a PowerPoint slide presentation. Group discussions and sharing of information provided feedback and support for participants. As a result, it was hoped that participants would be better able to retain, process and apply their new skills and the information. Knowles (1980) learning principles, and a variety of other learning strategies were implemented to increase the probability of providing a successful educational intervention. For example, in this study, participants were taught about the 27 different forensic patient categories, how to collect evidence and document patient history and physical injuries. Such information was presented in the context of real-life situations to show relevance to ED nursing practice. Furthermore, the complexity and diversity of forensic cases was further demonstrated through case study scenarios discussed during the workshops.

Initially, clinical forensic issues and principles can be daunting, confusing and are foreign to most people. Therefore, to address adult learner issues, individual learning styles, and new forensic concepts, a variety of learning tools were developed for this research project. The various learning tools provided to treatment participants included: a forensic kit, a pocket prompt card, forensic kit information sheets, a forensic resource file, a reflective journal, and access to 24 hour telephone support during the data collection period. The use of various teaching methods and learning tools was discussed by other published studies as a way to maximise the success and absorption of educational material (Kelly-Thomas, 1998; Ogunbodede, Rudolph, Tstsi, Lewis and Iloya, 1999; Hughes, Parker, Payne, Ingleton, and Noble, 2006; Kerrigan et al., 2006; Chan and Ko, 2006). In addition, forensic patient flow diagrams, labelled evidence bags hung on the wall, posters identifying 27 forensic patient categories hung on the walls, pocket prompt cards were given to each participant, and files full of forensic step-by-step instructions were placed in three convient locations.

All of these tools that were associated with this study could be quickly identified by the colour orange which was chosen as the theme colour for this project. All posters, forms, and tools associated with this project were printed on bright orange paper. HospC and most other metropolitan ED's in Western Australia colour code related

items. For example, all items related to blood or blood collection supplies are kept in red plastic boxes in the resuscitation and storage rooms. Orange was chosen so that tools and resources associated with this research project could be easily identified and no other ED supplies at any of the participating hospitals utilised the colour orange for other coded ED items. Each of the implementation tools utilised during implementation activities at HospC will be further described below.

Forensic workshop

The content of the forensic educational package was divided into three workshops; an introduction into forensic patient categories (workshop A), a practical component (workshop B); and law and ethics (workshop C). Each participant was asked to attend all three workshops and were strongly encouraged to attend the workshops in order (A first, B second, C third). Each of the workshops was offered across night and day/afternoon shifts to accommodate all participants (including permanent night duty participants) and lasted one hour in duration.

The workshops scheduled for night duty participants were conducted at different times. Such flexibility was required to accommodate the fewer opportunities night shift staff had to provide coverage for staff removed from the floor. For example, some of the sessions were held at 0400 am, some began at 2300 pm and others at 0200am.

To arrange a night duty workshop, the researcher called the night duty nurse co-ordinator in the ED to confirm a time that participant nurses could be spared from the floor to attend the workshop. Attendance by night shift participants depended on how busy the ED was and if staff could be spared off the floor for one hour. Because of the unpredictability and the small number of nurses these sessions accommodated, night duty workshops were often attended by only one or two nurse participants. This did not create a problem, and in fact, the smaller group numbers meant that the majority of the workshop material was provided to participants, on average, within 40 to 45 minutes.

However, unlike the night duty sessions, the daytime sessions were always held during normal staff development education session times; 1400 – 1500 pm. This time

slot corresponded to the normal shift handover time when staff numbers were highest. This maximised the probability participants could be off the floor and covered by other ED staff. Daytime workshops were offered on different weekdays and over one weekend to allow nurses on all shifts the opportunity to attend workshops during their rostered work hours.

Sign up sheets were posted in the ED staff room so that participants could choose which educational sessions they preferred to attend. The participants were asked to keep workshop numbers to a maximum of 10 people. However, with staff shortages and nurses only electing to attend during their normal rostered shifts, the maximum number at any one workshop never exceeded five. All of the workshops were conducted using the same outline and always provided by the researcher for consistency.

The first educational workshop (A), focused on introducing and explaining the research project activities, introduced the tools participants would have access to, identified the storage location of all research materials, and discussed the concept of forensic nursing (the meaning of and explanation of the 27 categories of forensic patients). During workshop A, all participants were given an orange file. Each file contained copies of all the information sheets, a reflective journal, a pocket prompt card (see Appendix 15), and a copy of all the material located within the forensic reference file. At the end of every workshop, participants were given time to ask any questions and voice any concerns they had regarding their participation and the study.

Workshop B provided an opportunity for the participants to practice some of the practical skills associated with the research project. Clinical forensic nursing was a new concept to most of the participants. Therefore, the researcher felt it was important to provide time for participants to physically trial some of the documentation tools and evidence collection techniques discussed in the workshop. This practical session allowed participants time to practice working with the information sheets, forensic kit contents, and forensic evidence collection techniques. For example, articles of clothing were provided by the researcher and participants practiced bagging the articles as forensic samples. In addition, five to six slides

(depending on the time available) of various physical injuries were discussed and participants practiced their written documentation skills. Workshop B was designed to be interactive and provide an opportunity for participants to ask questions regarding evidence collection and practice their documentation skills.

The final workshop C, focused on legal and ethical issues. The material presented during this session centred predominately upon mandate reporting law in Western Australia, chain of custody procedures, patient consent forms, referral agencies, and associated ethical issues. At the end of each workshop, time was allocated to review issues that remained unclear or for any general queries that concerned participants. Most of the participant questions came in the form of "what if" and required legal clarification. Examples included:

1. What if I had a patient that came in to the ED with a query knife wound? Do I have to call the police?
2. What if the doctor does not want to report a suspected child abuse case, can I do it by myself and do I have to?
3. What if I do collect evidence, will I have to go to court?

The content of the workshops incorporated all of the material that was included in the pre-implementation questionnaire. Therefore, upon completion of all three workshops, participants had been provided with all of the information required to score 100% on the post- implementation questionnaire. At the end of the third workshop, participants were asked to complete a short workshop evaluation (see Appendix 16). The evaluation form invited participants to comment about their satisfaction with the workshop content, educational material, and general experience during the workshops presentations. Such data provided the researcher with further opportunities to evaluate the educational package and its components.

Forensic kit

The forensic kit was designed specifically for this research project. The kit consisted of a black plastic fishing tackle box labelled with an orange laminated "forensic kit" sign attached to both sides (see Appendix 17), various sizes of brown paper bags, and chain of custody forms. There was one forensic kit supplied to the ED and all items were kept together in the locked cabinet located in the resuscitation area.

All items contained within the tackle box could be routinely found in the ED storeroom (see Appendix 18). To encourage and simplify the evidence collection process, all supplies required to collect, seal and label forensic specimens discussed during the workshops were included in the "forensic kit". Therefore, wherever forensic patients needed to be treated, all of the required supplies were conveniently located in one mobile kit.

Chain of custody forms (see Appendix 19) were also designed specifically for this project. These forms were stored in the bottom compartment of the forensic kit and were also available in the three forensic files placed on the ward. Brown paper bags (large, medium, and small) were supplied by the researcher to HospC. This was a necessary practice because usual hospital practice saw staff using plastic bags to store all personal patient belongings. The use of plastic bags is a common practice noted by the researcher (HospB also used plastic bags) as most nurses and ED management felt that plastic bags were more appropriate and robust should any item be damp or soiled (multiple ED staff and ED manager, personal communication, April 24, 2005). Paper bags are essential to collect forensic items and are not usually found in Western Australia emergency departments (Pavlik, 2004). A sample of how a paper bag should look after it has been sealed and labelled correctly was attached to the outside of the locked cabinet where the paper bags were stored. This served to help guide the participants during evidence collection and to remind the nurses that the paper bags were there for their use.

Information sheets and posters

There were six orange laminated information sheets (see Appendix 20) attached to the forensic kit handle by a metal clip. The information sheets were designed to reinforce the forensic workshop material, support the participant's decision making process and minimise anxiety participants may experience while working with forensic patients. The format of the information sheets was a combination of lists, flow diagrams, and clinical pathways. The information sheets included; a list of the 27 types of forensic patients, examples of common types of evidence the nurses may encounter and how best to preserve and label any evidence collected, guidelines on how to transfer collected evidence, a forensic patient clinical pathway, and a list of various forensic resource agencies and corresponding phone numbers.

The forensic patient clinical pathway was designed to help guide any nurse through a decision-making process should he/she need assistance with or have any concerns about forensic patient care issues. For example, the first question on the flow diagram asked the nurse to identify whether his//her patient fell into one of the 27 forensic patient categories. If so, the step by step, yes/no flow diagram would alert the nurse as to the necessary activities that may require action; such as the need for collecting, documentation and preserving existing forensic evidence.

To assist with discharge information, one of the information sheets contained common referral agencies and phone numbers applicable to the local community surrounding HospC. The agency list was made specific for HospC and contained as many after hours numbers as possible. The contents of all the information sheets were explained to the participants throughout the three forensic workshops.

In addition to the information sheets, there were three large orange posters displayed throughout the emergency department. The three posters consisted of; a list of the 27 forensic patient categories, a chain of custody poster displayed on the outside of the locked cabinet, and a paper not plastic sign to encourage the use of paper bags. Again these items served to remind the participants to assess and address the needs of forensic patients.

Pocket prompt card

The pocket prompt card (see Appendix 15) was a small (12 x 9 cm), two-sided, orange laminated card with an attached 15cm clear plastic ruler. Both items were attached to a plastic clip-on device so that participants could easily carry the tools on a belt loop. There was a list of the 27 forensic patient categories on one side of the card and guidelines about evidence collection on the other side. In addition, the researcher's mobile phone number was placed on both the prompt card and ruler should any participant need assistance, support or clarification. Once again, in keeping with Knowles (1980) adult learning principles, these items served to remind and reinforce workshop material and assist participants to care more easily for forensic patients.

Forensic resource file

There were three forensic resource files that were strategically located within the ED; one in the resuscitation area, one at the triage desk, and one at the central nursing station. These files were black with an orange "Forensics" sign inserted into the front and back plastic covering panels. The contents of each file were identical and provided copies of all the research paperwork discussed within the workshops as well as forensic reference material (see Appendix 21).

At the request of the ED manager, there were two forensic articles placed at the back of each file (Lynch, 1993; Benak, 2001). These articles were classic introductory articles that the manager felt would help explain the field of forensics to the ED nurses. The ED manager thought this type of material would also provide interesting reading material. The presence of the files at all of the major nursing work stations provided the participants' with a constant reminder about the importance to assess and treat forensic patients, an opportunity to refresh their forensic knowledge, and to provide easy access reference material.

One of most important documents contained within the resource file was the orange patient consent form (see Appendix 22). Before any evidence could be collected from a patient, participants' were required to complete a patient consent form. There were specific guidelines (see Appendix 23) created for this project that outlined the types of patients and associated conditions from whom nurses could collect forensic evidence. Such patient inclusion protocols were developed in consultation with ED management, reviewed by the University's Human Research Ethics Committee and HospC's Ethics committee, and guided by regulations outlined in the Western Australia *Privacy Act of 1988.* Before any patient's personal property was collected and given to the police (or other authorities) a consent form had to be completed by the nurse and signed by the patient or their legal guardian. The original form nurses were required to add to a patient's ED file notes and a copy given to the receiving agency professionals.

Journal

Each participant was given a small 30-page workbook. All participants were asked to keep a reflective journal throughout the study. Ralph (2001) believed that journal

writing can help individuals heighten their awareness, reduce stress, and increase professional development. The use of reflective journals is widely documented throughout educational literature as a positive and relevant approach for assessing and encouraging learning (Wong, Kember, Chung, and Yan, 1995; McAllister, Lincoln, McLeod, and Maloney, 1997; Riley-Doucet and Wilson, 1997; Ralph).

Participants were asked to keep a record of any key events or other significant issues that occurred during the data collection period and how they dealt with such events. In addition, the ED staff development nurse was also requested to keep a similar journal as she served as the main educational support person in the ED for nurses. The researcher thought that the ED staff development may receive queries or comments from participants that the researcher could use to provide additional information about the study content and it effectiveness. Such data could prove invaluable when interpreting the effectiveness of the educational package (McAllister, et. al., 1997).

Phone log

All nursing participants were provided with the researcher's mobile phone number. Participants were encouraged to use the phone number as an avenue of support for any clinical forensic questions that may arise during data collection. The researcher explained that no names of any caller would be recorded however; topics of their conversation and consequential plans of action would be documented and discussed in the final research report. The researcher's mobile number was also posted at the bottom of all information sheets, on the pocket prompt cards, and on the plastic rulers. The details of how often and under what circumstances the participants utilised this means of support will be discussed in detail in Chapter 5.

Locked cabinet

One of the essential items required for this research was that HospC have a lockable cabinet within the ED. The researcher negotiated with the ED manager to have exclusive access to an existing lockable cabinet. The cabinet was essential in order to provide a location for the participants to secure any collected evidence in case law enforcement (or other receiving agency professionals) could not immediately take custody of such items (Pavilik, 2004).

There were two sets of keys to the locked cabinet. One set of cabinet keys was kept on the ED nurse coordinator's key ring and a spare set was left with the ED staff development nurse. It was vital to have exclusive use and limited access to the locked cabinet. By limiting access, the chance of any unauthorized person interfering with sealed evidence is minimised and the ability to account for anybody who may have access to the forensic articles at any time is maximised (Lynch, 2006, p.132).

Phase IV

All of the activities described during this phase pertain only to the treatment group participants who worked at HospC. The activities that took place during the post intervention phase included; distribution and collection of the post-implementation questionnaire, three chart check audits, forensic kit audits, journal collection, audit of the researcher's phone log, focus group interviews, and follow-up interviews. All of these activities will be discussed in detail below.

Post-test questionnaire

The post-test questionnaire (see Appendix 6) was administered to treatment group participants eight weeks after the date each participant completed all three forensic workshops. The researcher found several published studies that discussed different time frames in which the post-test questionnaire was administrated to a treatment group); however, none of the studies explained why such time frames were chosen (Hughes et al., 2006; Lovell et al., 2003; Rezaei, Seydi, and Alizadeh, 2004; Wang, H., Fennie, K., He, G., Burgess, J., & Williams, 2003; Chan and Ko, 2006). The researcher was not able to find any literature that discussed a definitive or optimal time frame. Therefore, eight weeks was chosen after consultation with a research consultant who suggested that eight weeks was an acceptable time frame to administer the post-test questionnaire. The post- implementation questionnaires were hand delivered to each participant by the researcher. Like the pre- implementation questionnaire, participants were given the option of returning the questionnaire the same day or placing the completed form in the office door mail slot of the ED staff development nurse. As the questionnaires only had the participant's research code in the top right corner of the questionnaire, each participant's identity remained

unknown. The participants were asked to complete and return the post-implementation questionnaire to the researcher within two weeks.

Of the 22 participants eligible to complete the post- implementation questionnaire, 13 were handed back within two weeks and nine were reminded once and then returned (see Figure 3.3).All of the nurses were asked to complete the post-implementation questionnaire without consulting other participants, using forensic reference material located within the ED, or re-reading any notes they may have taken during the workshops.

Eighteen of the questions within the post- implementation questionnaire were identical to that of the pre-implementation questionnaire (core questions). The core questions were used to compare the pre and post implementation questionnaire scores. Such a comparison provided the researcher one way in which to evaluate the effectiveness of the educational package (Minichiello, et al., 1999; DeVaus, 2002). Such results will be discussed in Chapter 5.

There were three additional questions in the post- implementation questionnaire that did not appear in the pre- implementation questionnaire (questions 6, 14 and 22). The three differing questions focused on opinions specific to the workshop evaluation. For example, question 14 asked participants to identify the areas of knowledge that they felt were increased due to their involvement in the study. It would have been inappropriate to include this within the pre-implementation questionnaire.

Chart check audit
There were three chart check audits completed at HospC; a pre-test, two month post, and a four month post audit (see Figure 3). By request of the medical records manager at HospC, all three chart check audits were completed at the same time to minimise any inconvenience or disruption to staff assisting with the chart check audits. Therefore, discussion of the pre, two month post and four month post intervention chart check audits occur under Phase IV. The chart audits were essential to assist the researcher evaluate the study intervention. Program evaluation is vital in order to determine its effectiveness and benefits (Burns and Grove, 2007).

For treatment group participants, comparing their nursing documentation before and after the workshop interventions would indicate whether the participants absorbed the educational material and changed their practice behaviour. The third chart audit allowed the researcher to identify whether the intervention promoted long term changes in nursing documentation amongst treatment group participants. For example, during the workshops, participants were taught the importance of thorough recording regarding injury characteristics; such as size, shape, location, and colour. Therefore, during chart audits, the researcher recorded whether the nursing notes contained detailed descriptions about the existence and extent of injuries patients possessed when they presented to the ED for treatment.

Pre-implementation

The first chart check audit involved patient charts that were associated with participants who had provided care to forensic patients prior to completing their pre-test questionnaire. The researcher then worked backwards for up to six months. The researcher found it necessary to utilize charts up to six months prior to the initiation of the study in order to gain enough data for the majority of participants. Out of the 22 participants involved in this audit, there were 17 (77%) in which five forensically-related charts could be found while with four (18%) of participants, the researcher found between one and four forensically-related charts. Lastly, there was only one incidence where the researcher could not find a single forensically-related chart for a participant.

Two months post intervention

The commencement time stipulated for the two month post-intervention chart check audit began two months after a participant completed their third educational workshop. Due to the study design, there was only two months worth of patient charts available to the researcher during this chart check audit. Therefore, there was much less data available to the researcher than was available at the pre and four month post intervention chart check audits. During the planning of the research, it was originally thought that two months would be a long enough time period in which to collect five forensic related patient charts for each participant.

Out of the 22 participants involved in this audit, the researcher only found five forensically-related charts for two (9%) participants. Unfortunately, with the majority of participants (17 or 77%), only between one and four forensically-related charts could be found for each participant. There were three participants (14%) for whom no forensically-related charts could be found.

Four months post intervention

The commencement time stipulated for HospC's four month post-intervention chart check audit began 16 weeks after a participant completed their third educational workshop. Similar to the pre-implementation chart check, a period of up to six months was utilized during this chart check audit. As with the control group, a six month time period allowed the researcher the best opportunity to gain five forensically related charts for participants. Out of the 22 participants involved in this audit, 13 (59%) participants had between one and four charts audited. In addition, the researcher only found five forensically-related charts for three (14%) participants. Lastly, there were six (27%) participants for whom no forensically-related charts could be found.

Forensic kit audit

The contents of the forensic kit were monitored at two and four month intervals during the data collection period. This process provided the researcher with information as to the type and frequency of materials most commonly used by participating nurses. The forensic kit was kept in the locked cabinet to minimise the use of kit items by non-participating ED staff.

If participants ran low or out of any forensic kit items the researcher could be contacted to replace any of the items (all of which were readily found within the ED storeroom). However, if participants restocked the forensic kit item themselves, the participants were asked to document in their reflective journals or contact the researcher. Such communication was important to monitor what materials were added to the forensic kit and used more frequently.

Journal

Each participant was given a small 30-page workbook. The only identifying information on the book was the participant's code number on the cover. All participants were asked to keep a reflective journal throughout the study that would be turned in at the end of the data collection period.

Disappointingly, no journals were completed. The three reason participants' cited for not writing in their journal were: (1) forgot all about it (2) being too busy and (3) lost the journal. As with participants, the staff development nurse did not record any information in her journal. However, many participants as well as the staff development nurse spoke with the researcher during her visits to the ED. All topics of conversations were recorded in the researcher's field notes and will be discussed in Chapter 5.

Phone log

During the data collection period the researcher kept a personal journal of all conversations (personal or telephone) with research participants. For example, one participant called to request more body diagram so that injuries could be documented on a domestic violence victim. Another phone call involved providing advice and support to a participant who was requested to collect a mouth swab from an assault patient. All documentation made by the researcher identified participant's only by their code number and not their name.

Focus group interviews

In total, there were three focus group discussions conducted. These interviews occurred four months after participants attended their workshops. The focus group discussions were not compulsory; however, all participants were encouraged to contribute. In total, 11 of the final 22 (50%) treatment group participants agreed to participate.

Two focus group sessions took place during the day and one was arranged for the permanent night duty nurses. There was one session conducted during the week (Tuesday) and one on the weekend (Sunday) where three and four nurses attended respectively. There were four nurses that attended the Monday night session.

Multiple focus group sessions were required to limit the number of participants and to accommodate the nurses across all shifts (Morse and Richards, 2002; Bloor, Frankland, Thomas, and Robson, 2001).

The semi-structured interviews were all conducted by the researcher and lasted approximately 25 minutes. Some of the nursing participants did not want the researcher to record the focus group discussion; therefore, the researcher took copious shorthand notes in order to record as many verbatim responses as possible. In order to ensure participant ideas and thoughts were correct, the researcher did verify statements with participants if the researcher was unable to write fast enough. The content of all interviews was analysed using the same analysis process utilised to evaluate the stakeholder interview data. All of the main themes and final outcomes will be detailed in Chapter 5.

Follow-up interviews

There were 18 of the original 22 (82%) treatment group participants still working in the ED and available for comment when the follow-up interviews were conducted. Each of the 18 nurses were approached by the researcher and asked if they would participate. All 18 nurse participants agreed to participate in the follow-up interviews.

The interviews were all conducted over a four day period during each of the participant's normal rostered shift. Four of the 18 participants were rostered on night duty during the interview period. Due to time constraints and availability, the researcher conducted the night duty participant's follow-up interviews over the phone. The other 14 follow-up interviews were conducted by the researcher in person during day and afternoon shifts.

The interviews were all conducted by the researcher and lasted approximately five to 10 minutes. As a result of the limited dialogue involved in the follow-up interviews and previous objections by some nursing participants to have their conversations tape recorded, the researcher took copious shorthand notes in order to record as many verbatim responses as possible. In order to ensure participant ideas and thoughts were correct, the researcher did verify statements with participants if the researcher

was unable to write fast enough. The content of all interviews was analysed. All of the final outcomes will be detailed in Chapter 5.

Ethics Approval

One of the most important aspects of research is to protect participants from harm. The type of ethical issues encountered in qualitative and quantitative research may differ slightly. Therefore, a variety of ethical and legal issues must be considered before commencing research which includes human subjects (Schneider, et al., 2003; DeVaus, 2002; NHMRC, 2006).

Across Australia, the National Health and Medical Research Council (NHMRC) is the national organisation that provides support, advice, and develops regulations about health and human research ethics in Australia (NHMRC, 2006). The NHMRC developed the Statement on Human Experimentation (NHMRC, 2001) which has since been updated into a more general statement that applies to any research involving humans. Australian Health Ethics Committee is now the principal committee of the NHMRC which was established under the *NHMRC Act* 1992. The *Act* sets out functions of the Ethics committee to advise the NHMRC on ethical issues relating to health and research conduct involving humans (NHMRC, 2006). For this study, the researcher used such guidelines as a primary source for highlighting issues in this study. The specific ethical issues relevant to protecting research participants throughout this research project included; voluntary participation, informed consent, beneficence of participants, confidentiality, and privacy. All of these topics will be discussed below.

Approval from the Ethics committee

This research study was examined by members of the Research Committee of the University of Notre Dame Australia and Ethics approval was granted on 2 December 2003 (see Appendix 1). In addition to the research proposal being accepted by the Research Committee of the University of Notre Dame Australia, an Ethics application was submitted to each of the hospitals' Ethics Committee involved in the study before any recruitment of participants occurred. Hospital A and C shared the same Ethics Committee. Therefore, one application was submitted for activities

proposed at both sites. In addition, the researcher was requested to appear at an Ethics Committee meeting to field any questions members may have had.

There was one concern raised by Ethics Committee members who represented Hospital A and C. Their concern surrounded the issue of patient confidentiality in relation to the researcher conducting chart audits. In response to patient confidentiality, the researcher was able to reiterate that only nursing documentation was to be examined and that no patient details were to be recorded. The Ethics Committee members were satisfied with all aspects of this proposal and approval was granted to include HospA and HospC in the study (see Appendix 1).

A written application was also sent to the Ethics Committee at Hospital B. The researcher was not required to appear in person. The Ethics Committee members were satisfied with all aspects of this proposal and approval was granted to include Hospital B in the study (see Appendix 1).

Voluntary participation and consent
In order for participants to make a true choice of whether to participate in any study, individuals require accurate information (DeVaus, 2002). In other words, individuals must be informed about the range of matters relating to the research study they are considering to be involved with. Only after hearing information related to all research facts can an individual volunteer to participate and give full consent (Schneider, et al., 2003; DeVaus).

To provide potential participants with accurate information about the study, two information sheets were developed; one that addressed control group participant issues and one that addressed treatment group participants (see Appendix 3 and 4 respectively). The information sheets were devised to provide participants with written documentation that would help guide their decision to participate. No coercion or persuasion was used to recruit participants. Each participant was informed that their involvement or decision not to be involved with the research study in no way would affect their nursing role, job security or treatment at work. For example, if an individual decided not to participate, issues such as shift allocation

and holiday requests were not jeopardized or compromised because such decisions were kept confidential and not reported to hospital management.

Before the commencement of any research activities, the researcher received a signed consent form from each participant. In addition, each participant was given a duplicate copy of their signed consent form. The written consent forms contained information consistent with the guidelines of the University of Notre Dame Australia, the three hospitals, and the National Health and Medical Research Council Ethical guidelines (NHMRC, 2006).

Risk

According to Minichiello, et al. (1999), risk is considered to be something that may pose as a potential harm to participants. Such harm may include injury, emotional distress, loss of self-esteem, or embarrassment. It is essential to ensure that the risk research participants take when agreeing to partake in a research study never exceeds the potential of humanitarian benefits of the knowledge to be gained (Polit, Beck, and Hungler, 2001). In this study there were three main types of data collected that included personal details about the research participants; personal interview responses, nursing documentation from medical records, and participant responses from pre and post-test questionnaires. Although some demographic data was collected from all participants, none of the participants could be identified from such information. The data reviewed and collected was directly controlled by the participant or provided during their normal nursing duties outlined under their employment contract. Therefore data collected in this manner was seen as having a minimal risk (Polit, Beck, and Hungler; Taylor, Kermode, and Roberts, 2007).

Another potential risk to treatment group participants was the possibility of participants becoming stressed and upset related to caring for forensic patients and completing new forms. The researcher did not want the participants to feel isolated or insecure about any of the research details. Therefore, the researcher provided an avenue to support all participants in case they wanted to discuss any concerns or uncertainties they had. The researcher provided her contact phone number that all participants could access 24 hour/7day a week if they required.

Additionally, the ethical issue regarding whether, when and if a researcher should intervene in the research process was also considered by the researcher. As long as an action taken by a participant did not compromise professional nursing standards outlined by the Nurses Board of Western Australia (2002), could not be deemed illegal, could be considered of a reasonable standard for a nurse with similar experience, and could not result in a serious injury, the researcher would not interfere. Any intervention by the researcher would be based on the Nursing Code of Ethics and Australian law (NHMRC, 2006; Nursing Board, 2003). If a legal requirement and an ethical guideline apply, the legal requirement takes precedence. The NHMRC (2006) recommends that if an ethical guideline prescribes a higher standard than is required by the law, then the higher standard will be followed.

The final area of risk to participants, the researcher was compelled to address was the risks associated with reporting the results. It was possible that potential harm could occur to participants if the findings could be linked to their hospital or towards any particular individual. The researcher took every precaution to only have code numbers on all research documents. In addition, none of the names of the participant hospitals will be used during the result discussions. Overall, the researcher felt confident that all of the risks posed to any research participant was addressed and posed a minimal threat throughout all stages of this project.

Benefits

The researcher explained to all interested individuals that there would be no incentives or monetary benefit if they voluntarily agreed to participate in the study. All participants were supplied with ink pens to complete their questionnaires. In addition, each control and treatment group participant that completed and returned both questionnaires received a thank you note accompanied by a chocolate. This gesture was the researcher's way of expressing her gratitude for participating. The idea of giving participants a thank you note and chocolate was not disclosed to participants before data collection in case such actions were seen as a bribe.

Aside from the ink pens and chocolates, treatment group participants had the benefit of receiving up-to-date forensic educational material. The exposure to such material was a unique opportunity for the participants as similar information was not available

locally. In addition, both the control and treatment participants had the opportunity of providing feedback about educational material that might assist them in their future professional growth.

Privacy and confidentiality

Every attempt was made to keep all research data private and confidential. Due to the size of the city and the limited number of specialists in the forensic fields, anonymity could not be guaranteed to participants. No nurse participant names were documented on the questionnaires. Nurse participants were identified only by a code number. For example, nurses who work at hospital A will be assigned "HospA" #1, 2, or 3. Only the researcher was able to match the code numbers with participant names. The code list was maintained by the researcher and kept securely stored in accordance with University of Notre Dame Australia policy.

According to the policy "Code of Conduct for Research" the University of Notre Dame Australia have specific guidelines that address issues such as; data storage and retention, authorship, publications, conflict of interest, ethics clearance, and research misconduct. In the University's policy under the heading of data storage and retention, for example, the policy specifies the minimum period of time the researcher must retain data, persons who should have access to confidential data, and where, how, and by whom confidential data must be stored.

Pseudonyms were used to identify hospitals and interviewed stakeholders. Such a strategy was used by the researcher to distance the ability to identify participants and hospitals with research the findings. Any reference to people during the taped interviews was not transcribed from the audiotapes nor used in the final data analysis.

Contained within the consent form was the name and contact number of the researcher's supervisor. Such a contact was provided in case any participant felt the need to contact a third party for clarification or report any concerns they had regarding any aspect of the researcher's conduct or progress of the research study.

Security of data

All of the written data will be kept for a period of five years and then destroyed in accordance with University of Notre Dame Australia requirements. The audio-taped interviews were erased once data analysis was completed and the associated chapter was finalised. The only persons who had access to the research data was the researcher and her research supervisor. Some of the interview data was handled by a commercial transcriber who had signed a confidentiality agreement. No copies of the audio tapes or corresponding transcripts were made.

Conclusion

This chapter began with a description of the research paradigms which guided the study methodology. A summary of the characteristics associated with the two research paradigms used in this study are described in Table 3.1. Following the discussion about the research paradigms, a detailed description of the research design and methodology was shown to support the researcher's choice of sampling, data collection and analysis. To minimise confusion, the methodology was organised and described under four phases. Lastly, ethical issues such as voluntary participation, consent, risk, privacy and confidentiality, and security of data were addressed in detail.

However, before the forensic educational package could be developed, the researcher firstly needed to establish the patient population to whom the information could be applied. There was only one published study that could be found that clearly identified forensic patient categories (Pasqualone, 2003). Additionally, the limited reference material surrounding this topic required the researcher to develop most of the policies, procedures, and educational materials for this study. Therefore, evaluation of all materials was imperative. To assist this process both qualitative and quantitative data were collected. The researcher's use of multiple evaluation procedures hoped to provide extensive feedback upon which to judge the educational package's effectiveness.

There will be an in-depth discussion in Chapter 4 regarding the replication of Pasqualone's (1998) study which identified 27 forensic patient categories. This

research provided the foundation for which the target patient population of this research study was based. A thorough investigation of such research was vital so that the researcher could develop a forensic nursing educational package specific to the existing forensic patient populations who seek medical care within Western Australia healthcare setting.

<div align="center">*****</div>

Thomas was just in the wrong place at the wrong time. In an instant, Daniel flew off the bed and was running after Thomas who fled down the hallway. No one saw this coming. The other nurses were still at Daniel's bedside looking on in disbelief. Thomas could not out run Daniel. As Thomas looked over his shoulder he felt the impact of the first punch to his face, then the vice grip around his neck. They fell to the floor and Thomas counted one, two, three as his head was thrown into the concrete floor. So quick and with no recourse. Not even time to yell out for help.

CHAPTER 4

27 FORENSIC PATIENT CATEGORIES

It only took seconds. Thomas had heard this so many times before from so many of his patients. Thomas felt completely helpless and overwhelmed. How could it happen so quickly? He was sure there was something he should have done, but what? He was so adamant about not being a victim and he made sure he never put himself in such a compromising position. He had heard so many stories and had been trained well. It was his job to help, not become a victim.

Introduction

Historically, throughout Australia, forensic nursing has been associated with prison and mental health patient populations. There are vast amounts of educational programmes, hospital guidelines, legal requirements, nursing pathways, and published literature that address these two forensic patient categories (*Mental Health Act*, 1996, Health Department of Western Australia, 2007, *Prisons Act*, 1981, Hospital B & C policy and procedure manuals). However, there very few educational programmes, hospital guidelines, or published literature that address nursing care issues for the majority of the forensic patient categories.

One explanation for the lack of comprehensive forensic educational material in Western Australia is the absence of published literature identifying and categorising existing forensic patient populations. The researcher could only find one published study that scientifically researched and identified the existence and types of forensic patient populations. In 1998, Pasqualone published the findings from her Masters in Forensic Nursing thesis entitled *An examination of forensic categories among patients seen at a community hospital emergency department* in which she identified 24 forensic patients categories who presented to a USA emergency department for medical care during a 60 day period. Later, in 2003, Pasqualone revised her work to include three additional forensic patient categories (G. Pasqualone, personal communication, June 22, 2003).

In order to develop a practical forensic educational package that would address the current void for nurses, the researcher first believed it essential to identify the different type of forensic patients Western Australia nurses treated on a regular basis.

The ability to replicate Pasqualone's (1998) results was pivotal to the researcher developing functional and comprehensive educational material for Western Australia nurses. Without establishing a clear target population, any educational material developed may not have been suitable, applicable or helpful to Western Australia nurses working in the ED. Therefore, to establish who the forensic educational package should target and the type of forensic issues that required consideration, the researcher was first compelled to identify the forensic patient categories that existed in Australia and to compare these with Pasqualone categories.

This was because; firstly, there is significant diversity between Australia and the USA in regards to each country's national policies, healthcare systems, legal requirements and statutes. Secondly, it was done to determine whether the same forensic patient populations encountered within the USA research would be identified within the Western Australia healthcare setting.

During the replication study, a majority of the parameters and conditions outlined in Pasqualone's (1998) methodology were copied. There were a small number of variations that occurred in the replication study that were unavoidable. For example, hospital bed numbers varied between the two hospitals varied (229 in the USA and 82 in Western Australia). Additionally, the Western Australia replication study was set over 30 days instead of Pasqualone's 60 day study. The time differences in which data was collected occurred because no new data was collected and no new forensic categories emerged after 30 days.

Pasqualone's original Master's thesis was conducted on the east coast of United States and published in 1998. Pasqualone reviewed 3436 medical charts of patients who had presented to the ED within an unspecified sixty-day period. A list of patient's initial complaints and/or final medical diagnosis that could be classified as forensic were kept and separated into specified categories. In addition to the chart reviews, Pasqualone identified some forensic categories that were associated with USA mandated reporting laws such as child abuse, elder abuse, firearm injuries, and animal bites.

Pasqualone's 1998 Master's research identified 24 categories of forensic patients. Later, in 2003, Pasqualone reviewed and updated her research findings which are yet to be published (G. Pasqualone, personal communication, June 22, 2003). Three new forensic patient categories were identified that needed to be included into her original research. The three new forensic categories include; Victims of mass destruction/terrorism; End of life decisions/Do Not Resuscitate; and Control of Communicable diseases. The version of Pasqualone's work that was utilized as a guide for the Western Australia replication study related to the updated list of 27 forensic patient categories (see Table 1.1). The forensic categories listed in Table 1.1 occur in the descending order of frequency with the last three places (25 – 27) designated to the three new forensic patient categories.

The working definition of a forensic patient utilised in both this study and Pasqualone's (1998, p. 18) research is defined as "any patient whose presenting symptoms and/or discharge diagnosis have legal implications as a forensic case". Furthermore, a forensic category was defined by Pasqualone (1998, p. 18) as "a classification of traumatic injuries or subtle violence, whether physical or psychological, which results in an interface of the health care and legal systems".

There has been no other published research about forensic patient categorisation other than Pasqualone's work. Because this research was conducted in the USA, it was unclear whether all of Pasqualone's 27 patient categories would be appropriate to include in an educational package designed specifically for the Western Australia healthcare setting. Without replicating Pasqualone's study, any diversity in country, culture, law and healthcare systems may be overlooked. Therefore, a replication of Pasqualone's (1998) study was conducted for two main reasons: (1) to investigate whether the USA findings could be applied to an Australian setting and (2) whether there were forensic categories that needed to be added or eliminated to address the Australian population. The discussion below will describe how the replication study took place and explain the results.

Replication of Pasqualone's Study

There has not been any published Australian research which describes and evaluates successfully implemented forensic nursing education packages, only articles that support such development (Evans and Wells, 1999; Saunders, 2000; Baston and Simms, 2002; Pavlik, 2004; Hofner, et al., 2005). Therefore, in order to develop a comprehensive forensic nursing educational package that addresses the healthcare issues and patient populations in Western Australia, an investigation was required. Below is a discussion about the replication study that took place.

Methods

The setting for the Western Australia replication study of Pasqualone's (1998) forensic patient category research was conducted in a outer metropolitan hospital (designated as Hospital A –[HospA]) whose ED and surrounding community demographics were similar to those discussed in Pasqualone's research. After gaining approval from the University and Hospital ethics committees, data for the Western Australia study was collected retrospectively over a 30-day period in August 2003.

Pasqualone's (1998) study was conducted in the state of Massachusetts which lies on the east coast of the United States. The community hospital was situated in a suburb outside the Boston city perimeter. The suburb in which the study took place was predominantly dense and urban. The total population averaged 58,000 but increased during the day to over 116,000 as a result of commuter traffic into the city.

Hosp A is a small community hospital located outside of main city perimeter in Western Australia that serves approximately 127,337 people. Hosp A sees a similar number of patients per year (28,000) to the hospital utilised in Pasqualone's (1998) research (22,500). The total nursing staff numbers in each hospital ED was also similar. HospA had a total ED nursing staff number of 38 while the hospital used in Pasqualone's study had a total ED nursing staff number of 30.

There were two major differences between the two research sites which was bed capacity and the average number of patients seen per day. HospA has only an 82-bed

capacity compared to 229-bed capacity stated in Pasqualone's study. In addition, the average number of patients seen in the ED per day in Pasqualone's study was 59 while HospA saw an average of 95 patients.

Pasqualone (1998) used a 60-day sample (n=3436) to represent a typical ED sample in her USA study. The system of categorisation occurred as a retrospective study by reviewing ED medical records during the 60 day time frame. As the medical records were reviewed, a flow sheet was kept of patients who fell into each predetermined forensic patient category.

Pasqualone did not disclose which months were sampled in her study, nor could a specific month be chosen to represent a typical hospital year in Western Australia. Therefore, August 2003 was chosen as the arbitrary month to represent a current and typical Western Australia emergency department sample for the replication study. Months that were anecdotally believed to be particularly busy (June and July) or usually slow (January) were excluded from consideration.

All individuals who presented to HospA's emergency department for treatment during the month of August 2003 had their records reviewed. However, for an ED chart to be generated, individuals must be assessed by the triage nurse and register with the ED clerk. Only patients registered as ED patients from the period of August 1, 2003 commencing at 0001 to August 31, 2003 at 2359 were considered for this retrospective chart review.

Data collection

The medical records manager at HospA was approached for assistance and advice on how best to obtain all of the required medical records required for this retrospective study. The researcher, for the purpose of consistency and reliability, reviewed all patient charts during this ED audit.

Hosp A utilises the Emergency Department Information System (EDIS) to triage patients. This system does not allow the triage nurse to describe the presenting complaint of each patient. Instead, the triage nurse must choose from a predetermined list. Due to the brief and sometimes nondescript options available

within the system, the researcher reviewed each patient's triage information, nursing progress documentation, doctor's notes, and final medical diagnosis so that all information could be assessed. From the information reviewed, the researcher decided whether the patient fell into a currently described forensic category or whether a new category would be more appropriate.

Through the EDIS system, a printout of all patients who attended the ED during the month of August 2003 was provided to the researcher. The hospital medical record staff collected all of the available charts from each August day. The charts for each day in August were reviewed over a period of four weeks. There were some charts that could not be made available to the researcher for a variety of reasons. For example: some charts were misplaced and misfiled and could not be located, some patients did not check in with the clerk after being assessed with the triage nurse and therefore did not generate an ED record, all after hour maternity admissions register with the ED clerk then go directly to the maternity ward (although an ED chart is never generated in these cases, the visit is documented on EDIS as an ED patient), and some ED records were unable to be located in the occupational and physiotherapy office suites.

The researcher developed a simple tool, similar to the tool described in Pasqualone's (1998) research. The 27 forensic categories were listed down the page and a running tally was kept of how many patients during each day fell into each of the existing forensic categories. All of the ED records were extensively reviewed to ensure that the possibility of a new forensic category, not yet identified by Pasqualone, was not overlooked. There were two specific variances that occurred during this replication study that will be discussed below.

In Western Australia, any patient who came to the ED requesting the morning after pill (MAT) had to sign a consent form before consulting with a physician and receiving the requested medication. Because of the consent requirement, this patient population would be considered forensic due to the legal implications of the consent form. There was no specific category for patients who requested the MAT in Pasqualone's (1998) research. The researcher was informed by the ED medical director that the reason patients had to sign a consent form before being prescribed

MAT was that there had been previous litigation against doctors. The litigation surrounding this issue was associated with medical malpractice and negligence. This researcher was unable to locate any literature that reflected case law regarding legal action taken against Western Australia doctors related to this issue. Therefore, a new category was not developed for this patient population. Instead, these patients were placed under the forensic category of medical malpractice and negligence which was already included in Pasqualone's study.

Another variance that arose during the data collection phase related to those patients brought to the ED by police under Western Australia's *Criminal Code 236* (CC236). In October 2002, legislation was approved by the WA parliament which allowed nurses and physicians to collected evidence from those individuals who were charged with an offence, even if the patient did not give consent. Previously, evidence collection was exclusively collected only by physicians. Because these individuals are always brought to the ED in police custody, any patient who came into the ED under CC236 was placed under the "Client in Police Custody" forensic category identified in Pasqualone's (1998) research.

Sample

The sample population for this replication audit included patients (n = 2385) that presented to the ED during the month of August 2003. Although the computer print out noted that there were 2724 patients seen during the month of August 2003, only 2385 patient charts could be located and made available for review by the researcher. Some of the reasons charts were unable to be found and the reasons for discrepancies between the number of charts generated and those reviewed included: patients leaving before checking in with the clerks; patients who visited the ED more than once during a single day; maternity assessments which are not seen by ED staff; misfiled charts unable to be located; charts locked up in the physiotherapy and occupational therapy department; and charts on wards with admitted patients unable to be accessed. Although the researcher did not expect such a discrepancy, the majority of the charts were reviewed and no new forensic categories were identified from the 2385 patient records.

The average number of forensic patients seen per day was 10.4 (13.5% of patients assessed each day). The ranges of forensic patients assessed in the ED per day were two to 28 (3.2 to 21.9% of each day's average). Additionally, there were 40 patient charts whose forensic status was unable to be identified. The majority of non-determinable cases had injury related complaints (see Table 4.1). The problem in all 40 cases was a lack of documentation in both the nursing and doctor's notes.

Table 4.1: Demographic Findings of the Replication Chart Review

Forensic Chart Review Findings		
	Number of cases	Frequency %
Total number of charts reviewed	2385	
Number of forensic patients seen during August 2003	322	13.5
Number of non-determinable patient charts reviewed	40	1.68
Range of forensic patients seen per day	2 – 28	3.2 – 21.9

For example, one medical chart corresponded to a small child who came into the ED with a laceration to his head. The notes in the nurse's documentation read "lac" while in the doctor's documentation read only "lac to head". There was no mention in the notes about the mechanism of injury, whether any or what type supervision was present, or if this was a witnessed injury. Due to the inability to rule out non-accidental or child abuse related mechanism, this researcher was not able to confidently dismiss this case as not being forensic or possibly forensic in nature.

Another example included a 40 year old woman who presented to the ED with a final medical diagnosis of a fractured arm. Once again the medical notes read "patient fell and hurt arm". Due to the high rates of undetected and undocumented cases of domestic violence, this researcher was not comfortable dismissing such presentations as accidental without further documentation.

Instrument

Since there was only one previous study completed on this topic there were no data collection tools available. The author of the previous study, Pasqualone, was

contacted by phone (November 10, 2002) and a similar type of tool used in the original study was constructed by the researcher. The 27 forensic categories were listed on a sheet of paper for each day of August 2003. A tally was kept of each patient's chart that correlated to one of the 27 forensic categories.

Unlike Pasqualone's (1998) study, in Western Australia there are only two types of patient categories that healthcare professional are mandated by law to report; coroners cases and communicable diseases. Because of the limited legal requirements in Western Australia, extreme care was taken to review each chart. All of the available documentation for each patient visit was carefully reviewed to ascertain whether the presenting complaint and/or final medical diagnosis was or had the potential to be classified into one of the existing 27 forensic categories or required a new forensic category.

Confidentiality

Permission to conduct the chart audit was achieved from University of Notre Dame, Australia Ethics Board as well as from HospA's Ethics Board. Names of the patients involved in this audit were not recorded and therefore remained anonymous. The information correlating to their visit(s) to the ED during August 2003 were the only documents reviewed. Tally marks were utilised to indicate what forensic category correlated to the patient's complaint and/or final medical diagnosis. No patient names, medical record numbers, or other identifying patient data was documented or collected. No documentation was made as to which staffs was responsible for any of the medical notes reviewed.

Data analysis

The purpose of this replication study was to review the available medical charts and investigate the types of forensic patient categories present within the Western Australia (WA) healthcare system. The type of statistics carried out on this data was confined to descriptive statistics (see Table 4.2) as this type of analysis follows the protocol described in Pasqualone's (1998) research.

The number of patient charts reviewed for each day was recorded along with the number and specific forensic categories that were represented each day. In total,

there were 40 charts that were unable to be deciphered if a forensic category was applicable. The inability to determine whether a forensic category could be correlated to the patient's medical complaint or final diagnosis was due to inadequate chart documentation by all healthcare professionals involved in the patient care (nurses and physicians and specialists).

Table 4.2: Frequency Comparison between Western Australia (WA) and USA 27 Forensic Patient Categories

	27 Forensic Patient Categories						
	Forensic Category	Frequency %			Forensic Category	Frequency %	
		WA	USA			WA	USA
1	Substance abuse	2.6	4.66	**15**	Elder abuse and neglect	0.08	0.25
2	Occupational-related injury	2.35	8.41	**16**	Firearm injury	0.08	0.01
3	Assault and battery	2.31	0.58	**17**	Organ and tissue donation	0.08	0.02
4	Transportation injury	1.84	5.61	**18**	Questioned death cases	0.08	0.29
5	Forensic psych	1.3	1.43	**19**	Abuse of the disabled	0.04	0.58
6	Child abuse	0.59	2.06	**20**	Sexual assault	0.04	0.05
7	Personal injury	.5	3.64	**21**	Clients in police custody	0.04	0.05
8	Control of Communicable diseases	0.38	N/A*	**22**	Burns over 5% BSA	0.04	0.01
9	Human and Animal bites	0.25	.40	**23**	Transcultural medical practices	0	0.02
10	Medical malpractice and/or negligence	0.25	0	**24**	Victims of mass destruction and terrorism	0	N/A*
11	Not For Resuscitation (NFR)	0.21	N/A*	**25**	Food and drug tampering	0	0
12	Domestic Violence	0.21	0.17	**26**	Product liability	0	0.02
13	Toxic Exposure	0.13	0.75	**27**	Gang violence	0	0
14	Sharp force injury	0.08	0.03				

*Due to the addition of these specific forensic categories in 2003, figures from Pasqualone's study were not available.

From all of the data collected a variety of quantitative statistics were calculated. The number of forensic patients seen per day was documented as a whole number as well as a percentage of the total number of patients seen per day. In addition, the range and associated percentage of forensic patients per day was calculated. All of the data collected was analysed with the total number of charts review equalling 2385 and the total number of forensic patients equalling 322 (see Table 4.1).

The top 10 forensic categories were compared to the top 10 categories identified by Pasqualone (1998). The top 10 categories were taken as those forensic categories that received the top total number of patients assigned to each of the categories (see Table 4.3). The number and type of forensic categories was compared with Pasqualone's (1998) 27 categories. Overall, the data gathered in this replicated Western Australia study served to verify and corroborate the international application of Pasqualone's 27 forensic patient categories (see Table 4.4).

Table 4.3: Top 10 Forensic Patient Categories – Totals and Frequencies

	Top 10 Forensic Patient Categories			
	Forensic Category	Total number of patients per forensic category	Frequency %	
			Western Australia 2003	Pasqualone 1998
1	Substance abuse	62	2.6	4.66
2	Occupational-related injury	56	2.35	8.41
3	Assault and battery	55	2.31	0.58
4	Transportation injury	44	1.84	5.61
5	Forensic Psych	31	1.3	1.43
6	Child abuse	14	0.59	2.06
7	Personal injury	12	0.5	3.64
8	Control of Communicable diseases	9	0.38	N/A*
9	Human and Animal bites	6	0.25	0.40
10	Medical malpractice and/or negligence	6	0.25	0

*Due to the addition of these specific forensic categories in 2003, figures from Pasqualone's study were not available.

The overall results from the replication study indicated that all the 27 forensic patient categories identified by Pasqualone were representative of the types of forensic patients regularly seen in Western Australia emergency departments. By establishing who the forensic patient populations are that Western Australia nurses treat within the ED regularly, a more effective and comprehensive educational package can be developed. The discussion below will include a detailed description of each of the 27 forensic patient categories.

Table 4.4: Comparing Top 10 Forensic Patient Categories between Western Australia and the USA

Top 10 Forensic Patient Categories		
Rank	Western Australia 2003	Pasqualone 1989
1	Substance abuse	Occupational-related injury
2	Occupational-related injury	Transportation injury
3	Assault and battery	Substance abuse
4	Transportation injury	Personal injury
5	Forensic Psych	Child abuse & neglect
6	Child abuse & neglect	Forensic Psych
7	Personal injury	Toxic exposure
8	Control of Communicable diseases	Abuse of the disabled
9	Human and Animal bites	Assault and battery
10	Medical malpractice and/or negligence	Human and Animal bites

27 Forensic Patient Categories

Before considering if all 27 forensic patient categories were to be included within the forensic educational package, investigations needed to be conducted as to the appropriateness and applicability of each category to Western Australia law, culture, and healthcare requirements. The following is a discussion about each of the 27 forensic patient categories considered for this research; how they apply to the Australian setting, any specific Western Australia laws and/or policies pertaining to and affecting each forensic patient category, and how the category affects or impacts nursing or care provided by nurses.

Since the commencement of this research project in 2003, there have been some changes to Western Australia laws that would have affected the content of the forensic educational package. The legislative changes have been influenced by local, national and international events. The legislature changes affected 10 of the 27 forensic patient categories (Substance Abuse, Child Abuse, Medical Malpractice and/or Neglect, Not For Resuscitation, Domestic Violence, Toxic Exposure and Environmental Hazards, Elder Abuse and Neglect, Organ and Tissue Donation, Sexual Assault, and Clients in Police Custody). Therefore, a discussion of the relevant changes associated to each of the 10 forensic patient categories will be included at the end of each of the 10 forensic patient category discussions.

Often the forensic aspects of patient care are not always apparent when a patient first arrives at the ED. Initial information provided to nurses and other healthcare professionals may not contain all of the facts. Sometimes that missing information (knowingly or unknowingly) can have significant impact on whether an individual will be capable of successfully pursuing compensation through legal channels (Pasqualone, 2003). For example, if a nurse cannot accurately identify and assess that a patient has specific forensic needs, essential interventions such as the collection and preservation of forensic evidence may be missed.

Within each of the forensic patient categories, the researcher will address any current state or federal legal mandate reporting requirements and any other legal information that may affect an individual's chance of pursuing a civil litigation suit. Lastly, any medical associated issues that a patient may face due to their association with a particular forensic patient category will also be included. This is done with a view to clarify pertinent medico-legal issues associated with each of the forensic categories.

Substance abuse

Generally drugs are defined as any substance that alters normal brain function. Therefore, a drug not only includes substances like heroin and cocaine, but also includes tobacco and alcohol, over-the-counter as well as prescribed medications. According to the Diagnostic and Statistical Manual of Mental Disorders [DSM-IV-TR] (American Psychiatric Association 2000, p. 191), substance abuse is referred to

as a substance-related disorder that is "related to the taking of a drug of abuse (including alcohol), to the side effects of a medication, and to toxin exposure".

Within the DSM-IV-TR (American Psychiatric Association, 2000, p. 191), substances are grouped into 11 classes including: alcohol; amphetamine or similarly acting sympathomimetics; caffeine; cannabis; cocaine; hallucinogens; inhalants; nicotine; opioids; phencyclidine (PCP) or similarly acting arylcyclohexylamines; and sedatives, hypnotics, or anxiolytics. Additionally, there are many prescribed and over-the-counter drugs, that in high doses, can also cause substance-related disorders such as anticholinergic agents and cardiovascular medication. However, symptoms of such medications disappear when the medication dosage is lowered or stopped altogether. Furthermore, the DSM-IV-TR has also noted that exposure to other chemicals such as nerve gas, ethylene glycol (antifreeze), heavy metals (lead or aluminium), and carbon monoxide can also lead to substance-related disorders. Overall, the criterion sited within the DSM-IV-TR for substance abuse includes; a maladaptive pattern of substance use leading to clinically significant impairment or distress, over a 12 month period.

The manifestations of alcohol, tobacco and drug use and abuse are seen daily in ED's throughout Australia. The effects of such substances are seen across all sections of society regardless of race, age, culture, gender, and educational background (Drug and Alcohol Office of Western Australia, 2003). Alcohol-related problems are one of the four major public health problems in Australia (Health Department of Western Australia, 2007). Increasingly, healthcare professionals are treating patients who have taken multiple substances and are affected by drug interactions. It is important that all nurses are able to identify and minimize the harm patients may suffer through drug intoxication, withdrawal and dependence (Crespigny, Talmet, Modystack, Cusack and Watkinson, 2003).

The Australian National Council on Drugs (ANCD) is the principal advisory body for the Australian Federal Government on drug policy. The ANCDs role is to ensure that the voice of the community is heard in relation to drug related policies and strategies. Changes to the Western Australia legislation and regulations for minor cannabis offences stemmed from recommendations of the Western Australia

Community Drug Summit held by the Western Australia Government in August 2001. The Cannabis Control Bill 2003 passed both houses of Parliament in 2003 and the *Cannabis Control Act 2003* came into effect on 22 March 2004. The Act introduced the Cannabis Infringement Notice (CIN) Scheme, a prohibition with civil penalties scheme for minor cannabis possession and cultivation offences by adults (Lenton et al., 2005).

Today, while the possession of cannabis for personal use remains illegal, the punishment varies depending on the amount an individual has in their position when caught. For example, an adult who is caught in position of up to 15 grams of cannabis is eligible for an infringement notice with a penalty of $100 and an adult who is caught in position of a used smoking implement may only attract a penalty of $100 (Lenton et al., 2005). Furthermore, Lenton et al., found that some people thought that the new legislation meant that cannabis use would be 'legal'. Therefore, the legislation changes would need to be clarified to all study participants. All participants would need to realize that possession of cannabis remains illegal even though the likelihood of a criminal penalty had been reduced in many instances.

Occupation-related injuries

In Western Australia, the Workers' Compensation and Rehabilitation Commission was established in May 1982 and the *Occupational Safety and Health Act* initiated in 1984. Then, in January 2005, WorkCover Western Australia Authority replaced the Workers' Compensation and Rehabilitation Commission under section 94(1) of the *Workers' Compensation and Injury Management Act 1981* (WorkCover, 2004). WorkCover Western Australia is the statutory authority responsible for the administration of the workers' compensation system within Western Australia.

Throughout Western Australia in 2002/03, there were 41,838 workers' compensation claims lodged to insurers (Australian Bureau of Statistics, 2004). In Australia, data on occupational injuries and diseases are principally compiled from administrative records of Commonwealth, State and Territory compensation authorities by the National Occupational Health and Safety Commission (NOHSC). According to NOHSC (Resource Assessment Commission, 2004), an occupational injury can be defined as:

> All employment-related injuries which are the result of a single traumatic event occurring while a person is on duty or during a recess period and where there was a short or non-existent latency period. This includes injuries which are the result of a single exposure to an agent(s) causing an acute toxic effect**.**

In addition, NOHSC (Resource Assessment Commission, 2004) defines an occupational disease as:

> All employment-related diseases which result from repeated or long-term exposure to an agent(s) or event(s) or which are the result of a single traumatic event where there was a long latency period (for example, the development of hepatitis following a single exposure to the infection).

Nurses care for many individuals who hurt themselves while working. It is important that thorough documentation be completed as to how any work related injury occurred and what treatment was necessary. While many injuries heal without further incident, there are some injuries that leave individuals permanently scared or unable to work for the rest of their life. Without accurate medical documentation, any attempt for compensation can be hindered or unattainable.

Assault and battery

The words assault and battery are often used interchangeably; however, in civil court proceedings there is a distinction between the two words (Wallace, 2001; Staunton and Chiarella, 2003). For example, assault charges can be laid upon another person who just shakes their fist and threatens another. However, for battery charges to be laid there must be an application of the fist placed upon another individual. Nurses need to be educated about both the civil and criminal aspects of assault and battery. Both issues are of extreme importance and confront healthcare personnel regularly.

Nurses who provide treatment to patients must be aware of protecting an individual's personal space. The issue of consent and trespassing against a person fall under the area of law that relates to assault and battery. Providing treatment without the patient's consent (or the consent from a person entitled to act on behalf of the patient) constitutes battery (Wallace, 2001). Therefore, if a nurse provides treatment without consent the patient has a right to be compensated (Staunton and Chiarella, 2003).

Most often, the issue of assault is dealt with as a criminal offence. The criminal action of assault does not usually apply to nurses or healthcare professional. For criminal assault charges to be pursued, the application of force upon another person as well as an actual intent to cause harm to the person has to be established. Although there are such cases of criminal offences throughout medical history, the issue of civil wrongs is more relevant to healthcare professionals (Wallace, 2001; Freckelton and Petersen, 2006).

According to the *Western Australia Criminal Code1996 s.222* (2005), assault is defined as:

> A person strikes, touches, or moves, or otherwise applies force of any kind to the person of another, either directly or indirectly, without his consent, or with his consent if the consent is obtained by fraud, or who by any bodily act or gesture attempts or threatens to apply force of any kind to the person of another without his consent… (p. 109-110)

Nurses working in EDs provide treatment for victims of assault regularly. Across Australia, between July 2003 and 2004 there were approximately 2,534,500 incidents of assault with 17,888 of these assaults (aggravated and non-aggravated) reported to the Western Australia police (Australian Institute of Criminology, 2005). As wounds from assaults heal, the most often called upon document during legal proceedings are medical records. Therefore, it is imperative that nurses recognize that accurate documentation can impact their patient's pursuit of justice.

In addition to medical treatment provided for physical injuries, healthcare professionals need to be mindful about any psychological problems that may surface following an incident of assault. Some patients may need referrals upon discharge for psychiatric follow up care or information about which authority they need to report the incident to (ie. Police). Often, after a traumatic event, the follow up reporting to authorities can be confusing. Therefore, nurses can help their patients by providing the phone numbers and locations of which police station they can lodge their complaint. Providing such information takes the guesswork and confusion away for victims.

Motor vehicle trauma – Transportation injury

Trauma is a leading cause of death and disability in Western Australia. In 2002, there were 36, 378 road crashes reported to the police with 10,705 casualties and 179 fatalities. More men (126) than women (53) were killed and the majority of fatalities were aged 25 to 39 years (Road Safety Council, 2005). Examples of vehicles under this category include; cars, motorcycles, dirt or trail bikes, trucks, caravans, motorised scooters, and quad bikes. Overall, any vehicle that has threads or is on wheels is included under this category (Pasqualone, 1998).

Injuries sustained during motor vehicle collisions result from a variety of blunt or sharp force mechanisms. Usually, victims who sustain motor vehicle trauma receive their injuries from impact with the interior of the car, impact with external objects (other vehicles, trees, poles), ejection from vehicles, and fire and/or explosion (Lynch, 2006; Hammer, Moynihan, and Pagliaro, 2006). Such impact often results in an injury that leaves an imprint. Pattern injuries such as; imprints from number plates, the presence of glass fragments, and other wounds caused by impact from internal and external vehicle instrumentation and bumpers can provide the evidence investigators require to recreate the crash scene. In addition, such information can provide nurses and ED physicians with clues about the types of injuries that may be present thus assisting with treatment plans for trauma patients (Lynch, 2006).

For example, a car driver can sustain dicing injuries to the right side of their face due to tempered glass pieces from the side windows and chest trauma from impact with the steering wheel. In addition, the driver and any front passenger may sustain longitudinal sharp injuries to the face due impact from laminate glass in the windshield. Furthermore, the front passenger may sustain skin impressions resulting from the impact with dashboard logos (Lynch, 2006). All of this information can prove vital for hospital staff trying to care for and treat victims of motor vehicle trauma.

In addition to identifying trauma sustained by the patient, collecting clothes and any trace evidence is important. Some examples of important evidence includes; small fragments of glass, paint, plastic, metal pieces, and plant material. All evidence collected could prove invaluable in trying to recreate what happened prior to and

after any accident and who was seated where in the vehicle before the accident occurred. All of this information could prove vital to patients during legal proceedings.

Forensic psychiatric clients

Research suggests that many nurses working in the general hospital setting feel unprepared to skilfully care for patients with mental health problems (Sharrock and Happell, 2002; Armstrong, 2000; Bailey, 1998). Psychiatric Forensic Nurses can assist ED nurses to assess the needs of a specific population whose mental illness and behaviour often intertwine with the legal system. Patients within this category usually refer to individuals who suffer from mental illnesses and who are offenders of a criminal act or engaged in self-abusive behaviour (Mason, 2002). Predominant examples of problems that patients in this category might present to an ED with include; sexual deviant behaviour, Munchausen's by proxy syndrome, suicide, and substance abuse (Pasqualone, 1998; Fulton, 2000; Lynch, 2006).

A common mental health problem confronting ED nursing staff is that of suicide. Suicide is defined as "death caused by purposeful actions or omissions by the victim" (Bell, 2004). In 2002, 246 people died by suicide in Western Australia. In 2002, Western Australia had a suicide rate that was higher than the national average. In total, psychiatric disorders were diagnosed in 34% of men and 57% of women who committed suicide (Australian Bureau of Statistics, Census data, 2004).

This forensic category often proves to be the greatest challenge for many ED nurses who do not have extended education and experience working within the mental health field (Sharrock and Happell, 2002; Heslop, Elsom, and Parker, 2000; Bailey, 1998). Nurses who work in the field of mental health have extensive and specialised training. One of the ways many hospitals are choosing to deal with this specialised patient population is by working closely with mental health professionals in a team approach (Fry and Brunero, 2005).

Child abuse and neglect

Child abuse and neglect is a complex issue with no single defining characteristic. Child abuse which is commonly referred to as "child maltreatment", can be grouped

into four categories including; physical abuse, sexual abuse, neglect, and emotional or psychological abuse (Hobbs, Hanks, and Wynne, 1999). Rarely is child abuse an isolated incident, in actual fact, child abuse usually occurs over a period of time and involves more than one of the above categories (Southall, Samuels, and Golden, 2002).

Adults harm or neglect children due to a number of reasons. Some reasons include; problems with alcohol and drugs, not coping with the demands of being a parent, having no support system to help with parenting responsibilities, an inability to control anger, and difficulty managing because of their own past trauma (Hobbs, Hanks, and Wynne, 1999). The Department of Community Development (which has been replaced with two new departments: the Department for Child Protection, and the Department for Communities) is the Western Australia state based agency that is responsible for receiving and responding to reports on child abuse and neglect. Through the current *Child Welfare Act 1947* and the more recently passed *Children and Community Services Act 2004,* powers of the Department of Community Development was to receive, assess allegations of child abuse and neglect, and take action to protect children and young people have strengthened.

With the exception of Western Australia, all healthcare professionals in Australia are mandated by statutory law to report any suspected child abuse to the authorities. In 1992, the Department of Health and the former DCD initiated the Reciprocal Child Protection Agreement Procedures (Department of Community Development, 2002). The agreement was a collaborative effort between Western Australia Police Service, Princess Margaret Hospital for Children, King Edward Memorial Hospital for Women, Disability Services Commission, Department of Education, Department of Justice, Department of Health, and the State Coroner of Western Australia. The agreement impressed the need for agencies to collaborate and co-ordinate responses to secure the safety and welfare of children.

In 1996, the Reciprocal Child Protection Agreement was updated to include the Department of Health Guidelines for the Clinical Management of Child Abuse and Neglect. The updated document stipulates that public hospitals can hold a child under the age of six years for up to 48 hours if medical professionals believe that the

child is at risk of being maltreated *Child Welfare Act s29(3a)*. Such information is very important for ED nurses to ensure the safety of their paediatric patients.

In 2006, an investigation was commissioned by the Western Australia Government into the workings of the Department for Child Protection. This investigation was in direct response to revelations surrounding the death of baby Wade Scale (Taylor, 2007). Former top Western Australia health bureaucrat, Ms. Prudence Ford, recommended that the DCD be split into a new agency to be known as the Department of Child Protection and another called the Department of Communities. Ms. Ford stated in her Ford Report that the child protection system in Western Australia was "close to collapse", and proved inefficient causing public confidence to be shaken following a series of preventable child deaths and inquiries into allegations of abuse in care (Taylor, 2007).

Since the Labor government came to power in 2001, Western Australia politicians have strongly resisted calls to force people dealing with children in their professional capacity to report any suspicions of abuse (Ford Report, 2006). However, on 7 March, 2007, Western Australia Premier Alan Carpenter, against recommendations by the Ford report, announced that Western Australia would require doctors, nurses, teachers and police to report evidence of child sexual abuse as part of the Government's response to the Ford Review of Western Australia's child protection system. Prior to this, the groups of people mandated to notify their concerns or suspicions to the child protection authority was limited to court personnel, counsellors and mediators; licensed providers of child care, and outside school hours care services. Therefore, participants would need to be informed that in addition to the reporting of some communicable diseases and unexplained deaths (outlined in the *Coroners Act),* the reporting of any suspicions of child abuse was now compulsory under Western Australia law.

Personal injury

According to Australian law, personal injury is considered to be "any disease or injury sustained by an individual to his or her person, including broken limbs, for which another is legally liable. It may destroy or impair, whether permanently or

temporarily, a person's existing physical or mental condition, or produce pain and suffering: *Teubner v Humble* (1963) 108 CLR 491" (Nygh and Butt, 1998, p.335).

There are many types of personal injuries that are seen in the ED everyday. Pasqualone (1998) cited a variety of accidental injuries under this category. However, for this study, accidental injuries will include those involving automobiles, boats, fire and explosions, and slips and falls (Bogart, 1998, p.164). In order for ED nurses to recognise patients who fall into this forensic category, nurses need to explore the mechanism of injury during their history assessment. In addition to verbal questioning, nurses must ensure that meticulous documentation is recorded to ensure that all events are accurately recorded.

Control of communicable diseases

Under public health legislation, healthcare providers are required to report certain notifiable diseases to health authorities (*Health Act* 1911). The first of the two mandated reportable forensic category in Western Australia for healthcare professionals is the reporting of communicable diseases. A list of the notifiable disease for Western Australia is listed in Appendix 24.

Western Australia State law requires notifications to the Department of Health of certain communicable diseases therefore, the notification of such diseases does not breach the *Privacy Act 1988* (National Privacy Principle 2.1 (g)). The information provided to the Department of Health regarding any notification is kept strictly confidential. It is important for nurses to know such facts about the reporting of communicable diseases as some patients may need reassurance and support should any of their health issues involve such actions.

Human and animal bites

Every human bite mark, like fingerprints, is individual and unique. A human bite mark found upon a victim can always be considered a non-accidental pattern injury frequently associated with sexual and physical violence (Lynch, 2006; Hobbs, Hanks, and Wynne, 1999; Spitz, 1993). Some of the most common areas where bite marks are found on victims include; breasts, buttocks, inner thighs, and back. Having knowledge regarding the prevalence of such injuries allows nurses to assess and

intervene appropriately. A human bite mark can be traced back to a specific individual with the assistance of a Forensic Odontologist. A Forensic Odontologist utilises their specialist knowledge and skills to examine and assess each pattern injury. Characteristics of interest include; tooth size, dental arch, dental work such as caps and fillings, and wearing patterns to definitively identify an individual (Spitz, 1993).

The reporting of animal bites to government agencies is not compulsory in Western Australia however it is in the USA and therefore was included under this forensic patient category. The reasoning behind the USA mandate reporting laws for animal bites centers around the need of authorities being able to track the epidemiology of rabies. Although rabies is not a disease seen in Western Australia, the incidence of animal bites was included in this study because of the legal implications associated with possible compensation claims (being mauled by a dog). In addition, there is some research that describes theoretical support for an association between dog bites and the possible incidence of child abuse. Being pack animals, studies on dog behaviour have shown that dogs act aggressively toward lesser-ranked members. Similar behaviour was seen when dogs were observed in human-animal interactions (Conniff, 1999; and Budiansky cited in Vaisman-Tzachor, 2001, p. 19).

A case study by Vaisman-Tzachor (2001) proposed that when a family dog attacks a minor family member, the aggressive pattern of behaviour may suggest existing abuse against a child. If nurses and other healthcare professionals have an appreciation and awareness about such possibilities, there is more of a likelihood that a complete inquiry about the dog biting incident will occur. Only then can an accurate assessment of the situation be made which could prevent abuse to a child or intervene to prevent further abuse.

Malpractice and negligence
Negligence, which is also referred to as malpractice, is an important topic that all healthcare professionals need to have extensive, up-to-date knowledge about. Once an individual gives their consent for treatment, a professional relationship between the individual and healthcare professional is established. From that point forward, the professional relationship has legal implications. Such legal implications can

include a law suit filed against a healthcare professional if an individual feels that proper care was not provided to them. In such a situation, the individual has the right, under Western Australia law, to seek damages by suing for negligence (Wallace, 2001). A negligence claim, under Western Australia law, uses what is referred to as "tort" law. Tort law defines what constitutes a legal injury, and establishes the circumstances under which one person may be held liable for another's injury. Usually, such harm must be proven to have occurred to an individual because of a breach in duty. In other words, the law of torts seeks to put the injured individual in the position they would have been in had they not been injured by another person acting negligently (Forrester and Griffiths, 2005; Wikipedia, 2008).

Medical negligence is defined as "breach of the standard of care owed by a medical professional to a patient in medical treatment" (Nygh and Butt, 1998, p. 287). Under Western Australia law, there are three main elements that a person must prove before medical negligence can proven in a court of law. The three elements include (1) proving the individual was owed a duty of care, (2) there was a breach in that duty of care through some act or omission by the healthcare professional, and (3) due to the act or omission by the healthcare professional, the patient experienced physical, mental, or financial harm (Wallace, 2001; Forrester and Griffiths, 2005).

Nurses have a regulatory organisation that has established *standards of care* that discuss nurses' duty under which they must act (Nurses Board of Western Australia). If a patient feels that he/she has been put at risk or harmed due to an act or omission by any healthcare professional, the patient may initiate a lawsuit against the nurse or physician. According to Wallace (2001, p. 196), a duty of care is owed not only to patients but to "anyone whose personal wellbeing and property may be harmed by failure to take reasonable care of a patient".

In Western Australia, the role and duties of healthcare professionals or hospitals in relation to emergency treatment are addressed under common law principles. This area of Western Australia law is based on the general principles of negligence in a court of law. A duty of care arises once the healthcare professional realises that there

is a need for services (Wallace, 2001). Therefore, if a hospital operates an emergency ward, all individuals who pass through the doors are owed a duty of care.

Triage nurses in the ED are considered specialist nurses and require special skills and judgement (Wallace, 2001). They share, with the hospital, an obligation to properly assess each individual for their need of treatment and refer the individual onto a physician if any doubt arises as to their medical stability and/or condition. It is essential for every nurse to fully understand what the Western Australia law, the Australian Nursing and Midwifery Council and the Nurses Board of Western Australia has identified as state and national standards of practice and Code of Professional Conduct for every nurse. Having such knowledge provides nurses with the confidence to work within their scope of practice and establish parameters of expectation. Nurses must take responsibility for their professional practice and act accordingly to safe guard themselves against the possibility of malpractice litigation.

In January 2004, the morning after pill was made available from pharmacies without a prescription. Therefore, any patient who presents to a Western Australia emergency department would now receive a script for the medication or encouraged to buy the medication over the counter as many EDs do not stock this drug. Due to the Medicare system in Australia, individuals who qualify for pensions cards would be able to buy the morning after therapy cheaper if a prescription was provided by a physician. Participants would need to know about this alteration in legislation in order to act as an advocate for their patient and ensure all individuals were able to access the requested medication.

End of life decisions - Not for resuscitation (NFR)

Everyday, healthcare professionals face the difficult decisions of whether to discontinue life support systems from patients. In the USA, documents known as a medical power of attorney or living wills often assist healthcare professionals to make these decisions (Lynch, 2006). In Western Australia, however, no such documents or guidelines exist within the legislation. In fact, Western Australia law stipulates that no matter how unbearable a person's medical situation and no matter how much or how often a patient expresses their wish to die, healthcare professionals cannot actively hasten death [*R v Cox* (1992)]. However, judges for common law

cases have ruled that someone may administer increasingly potent doses of pain relief drugs even if it is likely to hasten a patient's death [R v Adams (1957); Wallace, 2001].

Within the medical profession, the Greek term 'euthanasia' is considered to mean the deliberate bringing about the death of a person or the withholding of treatment which causes death (Wallace, 2001). Under Western Australia law, such acts are considered a crime. Any individual associated with or found assisting with a death can be charged with murder or manslaughter under current Western Australia law. In addition to a charge of murder or manslaughter, the act of withholding treatment could also be considered criminal and/or civil negligence. For these reasons, nurses need to be aware of such consequences and work within legal parameters.

Currently, Western Australia has no legislation that provides for advance health care planning. Therefore, in the event that a person loses the capacity to make his or her own decisions regarding the type of medical treatment they would consent to, medical personnel have no legal documents to consult. Furthermore, the law relating to the withdrawal or withholding life-sustaining measures in circumstances of terminal illness or permanent unconsciousness, and the provision of palliative care, is perceived by many healthcare professionals as uncertain. For the patient, this can lead to uncertainty about whether, in the absence of a formal legislative framework, his or her wishes will be carried out.

The *Western Australian Acts Amendment (Advance Health Care Planning) Bill 2006* established a scheme whereby individuals, who are 18 years or over and have full legal capacity, can ensure that, in the event that they become mentally incompetent and require medical treatment their wishes can be made clear in an advance health directive. The bill also clarifies the circumstances in which an enduring guardian chosen by an individual can be utilised. Lastly, the bill clarifies and expands the protection from criminal and civil liability given to healthcare professionals.

The *Guardianship and Administration Act 1990* and the *Western Australia Criminal Code* are to be amended to provide protection for health professionals under section 259. Alterations clearly state that, "healthcare professionals are exempt from

criminal responsibility for the administration in good faith of reasonable medical treatment, even when death ensues" (p. 33). Such an amendment encompasses care provided to individuals in the palliative care environment. In addition, protection from criminal responsibility is extended, by the inclusion of section 259(2) in the *Western Australia Criminal Code*, to the withholding or withdrawal of medical treatment in good faith, even when death ensues.

Lastly, a minor amendment to section 5PA of the *Civil Liability Act 2002* supplements the definition of "health professional" to include nurses. The Bill, however, does not change the position at common law level whereby a healthcare professional is under no obligation to provide treatment that is not clinically indicated. In other words, patients are not legally entitled to demand certain treatment. Similarly, the legal position regarding euthanasia will not be changed. Euthanasia will remain an illegal act.

All of the above legislative changes are vital for nurses to know about. The changes affect many practice issues such as who can provide consent and are nurses protected by law if they refuse to proved care that is not clinically indicated. Finally, to fully act as a patient advocate, nurses need to explore the issue of what type and extent of medical treatment patients' desire. Changes to the above cited legislation enables nurses to now consider such patient requests.

Domestic violence

Many use the term "domestic violence" interchangeably with "family violence". Irrespective of the term used, both refer to acts of violence that occur between family members. Domestic violence is a serious crime that can affect all aspects of life including; physical and mental health, the ability to work, quality of relationships with friends and family, and social problems within the wider community. Violence may take the form of physical, emotional, verbal and sexual abuse as well as social isolation and economic domination (Berkowitz, 2004).

Every year in Western Australia, between one and two percent of adult women will be assaulted by their partner. Although domestic violence victims can be both men and women; nine out of 10 victims are women. The women most at risk are those

below the age of 40 years (Hegarty, Hindmarsh and Gilles, 2000; Bonner, 2002). Furthermore, police data indicate that Aboriginal women as well as rural and poorer women are at a greater risk and experience more intimate partner violence than other reported groups (Crime Research Centre, 2005). Lastly, a study by Baun and Moore (2003), suggest that the prevalence of domestic violence among the gay and lesbian communities occurs at the same or greater frequency as within the heterosexual community.

In many domestic violence cases, the final consequences for the victim are fatal. In Australia, almost two in five homicides occur between family members (Department of Justice, 2002). In Western Australia, approximately 45% of all murders are committed by family members and about 70% of all female homicides are committed by relatives. In contrast, only 5.7% of male homicides resulted from episodes of domestic violence (University of Western Australia Crime Research Centre, 2000; Berkowitz, 2004).

Other targets for domestic violence are children living in the home. Often children become intentional victims of physical violence (30 - 70%) or are inadvertently harmed as they watch the abuse or try to intervene to protect one of the parents. Children (boys more often than girls) who are exposed to such violence during childhood are at a greater risk of becoming offenders themselves (Sirotnak, Grigsby, and Krugman, 2004). In Western Australia, domestic violence is not a mandated reportable offence. In fact, until the early 1990s, Western Australia law showed little recognition or had no common law implementation linked with domestic violence associated stalking and restraining-orders.

The injuries associated with domestic violence can leave long lasting physical and emotional scars. Women, who are the predominant victims of domestic violence, often present to ED's as a consequence of their abuse. Boyle, Robinson and Atkinson (2004) reported that about one percent of patients attending an ED had direct complaints of domestic violence. Because the incidence of disclosure is low, it is imperative that nurses and other healthcare professionals increase their awareness about the prevalence of such violence. Such educational information may provide

ED nurses with the skills they need to more easily recognize signs of domestic violence.

Many victims of domestic violence who come to the ED for treatment do not disclose or seek help for injuries associated with their domestic violence experiences (Berkowitz, 2004; Freedberg, 2005). Additionally, many hospital EDs do not routinely screen for such problems. Nurses working in EDs need to know about the Western Australia legal provisions to better advocate for their patients and provide them with options that may protect them from further violence. Early recognition can provide the opportunity for intervention thus decreasing the number of violent experiences victims encounter (Freedberg).

New domestic violence legislation came into effect December 1, 2004 in Western Australia. Changes were made to the *Acts Amendment (Family and Domestic Violence) Act 2004.* There were five main changes to the Act including:

1. Police powers to issue an on-the-spot restraining order that lasts 24 hours without the consent of the victim or up to 72 hours with the consent of the victim.
2. Allowing police and welfare officers to apply for restraining orders to protect children from exposure to domestic violence.
3. Increased penalties of up to two years jail and a $6,000 fine for breaching a violence restraining order.
4. The ability (in specific situations) to grant life-long restraining orders in extreme cases.
5. When a violence restraining order is made, the court or magistrate will also make an order prohibiting the respondent from having a firearm license or any guns.

Such information would be vital for all participants to know about in order for them to receive consent from patients in regards to contacting police. For example, if a participant gained the patient's consent to contact the police and did not inform the patient that changes to Western Australia law allowed police to issue an on-the-spot restraining order that lasts 24 hours without the consent of the victim, the patient would be able to claim that they were not fully informed before giving consent. Therefore, all participants would need to be aware of the new legislative changes.

Toxic exposure and environmental hazards

Nurses can be exposed to toxic substances both directly and indirectly. Within the hospital setting there are a number of chemicals that are hazardous to nurses and other healthcare professionals. The O*ccupational Health and Safety Act 1984* in Western Australia sets out specific requirements for ensuring that workplaces are safe and healthy for all people. Hospital staff have access to information about all chemicals located in their work area. There are specific safety information files in case of accidental or toxic exposure located in each hospital ward (Occupational Health and Safety manuals in HospB and HospC). In addition, there is often occupational health and safety (OHS) staff who are specially trained to provide employees with safety information and monitor the work environment for unsafe work practices.

Patients who come to the ED for treatment can expose nurses and other healthcare workers in the hospital to toxic chemicals and environmental hazards. Exposure to toxic and hazardous materials can occur at work, in the home or through the environment (James and Nordby, 2003). Therefore, individuals may present to an ED feeling unwell with no known history of toxic exposure. As a result, ED nurses may be put at risk of toxic exposure. There are over 40,000 industrial chemicals on the market throughout Australia. The Australian Government regulates industrial chemicals under the *Industrial Chemicals (Notification and Assessment) Act 1989* and *Industrial Chemicals (Notification and Assessment) Regulations 1990.*

A new OHS Bill, *Australian Workplace Safety Standards Bill 2005* discusses the "Duty of Care" issue that individuals have in order to protect the health and safety of others in the workplace. Such "duty" is placed on all employers; employees; and any other persons or tradesman who have had an influence on the hazards in a workplace (Workcover, 200). It is hoped that with such provisions in place that toxic exposure can be reduced and that any ill effects from harmful materials will be minimized. ED nurses with the knowledge about OHS regulations could help provide a safe working environment for themselves and their patients.

Sharp force injuries

Sharp force injuries result whenever a sharp-edged object is pierced through or drawn over the skin. Examples of objects that can cause such injuries include; a sharp knife, razor blade, glass, screwdriver, scissors, fork or axe. Distinguishing features of a sharp force injury are the sharp and non-abraded skin edges (Spitz, 1993). Sharp force injuries can be further categorised into punctures, incisions, cuts, slices, chop wounds, as well as therapeutic and diagnostic wounds (DiMaio and DiMaio, 1993; Spitz; Lynch, 2006). Sometimes during an assault, a victim will sustain injuries while trying to ward off blows from an assailants weapon. The resulting injuries are called "defence wounds". Usually, defence wounds are found on the hands, forearms, feet, and lower legs.

When a patient presents to an ED with sharp force injuries it is imperative that the size, location and appearance of all wounds be documented carefully before they are altered by medical treatment. Such documentation may assist investigators to later recreate the incident and help identify the weapon. Nurses can help preserve such information by keeping detailed notes on all wounds. By incorporating high-quality wound documentation as an essential component of everyday practice, nurses can improve the standard of their nursing records. Accurate documentation could prove very valuable should a nurse be required to testify in court as to the types and characteristics of injuries which were treated.

Elder abuse and neglect

Although elder abuse has been documented and reported upon since the mid-1970s, it still remains the least acknowledged and reported type of human violence (Bennett, Kingston, and Penhale, 1997). However, over the past 15 years, there has been a greater awareness emerging as to the serious nature and prevalence of elder abuse (Schofield and Mishra, 2004). In Western Australia, about one in 25 people over the age of 65 years experience abuse or are mistreated by someone they trust (Advocare, 2005).

Elder abuse can be classified as any behaviour that causes physical, psychological, financial or social harm to an older person (Council on the Aging, 1997; Schofield and Mishra, 2004). The results of elder abuse cause significant social, legal,

psychological, and medical problems. Elder abuse occurs across all social and economic groups, in urban and rural settings, and in all religious and racial groups. Elder abuse is often representative of a pattern of abusive behaviour that has occurred throughout a domestic relationship (Schofield and Mishra; Lynch, 2006).

The majority of abusers (80-90%) are close family members, usually the victim's spouse, adult child or some other close relation (Schofield and Mishra, 2004). Many of the abusers are often dependent on the victim for a place to live or for money. For some couples, the stressors of later life, particularly declining health, can exacerbate an already tension-filled and unhappy marriage and result in abusive behaviour.

The most common reasons for the elderly not reporting abuse include; being afraid of retaliation; family rejection; afraid of being put into an institution; and feeling ashamed and embarrassed to tell someone that a family member mistreats them (Advocare, 2005). The Aged Rights Advocacy Service (ARAS) in 98/99 reported that the elderly often experience more than one form of abuse at a time from someone close to them. The two most frequent types of abuse reported were psychological abuse (35%) and financial abuse (34%).

In Western Australia, Advocare (2005) was established under a national advocacy program by the Commonwealth Department of Health and Family Services and the Health Department of Western Australia. Advocare provides services such as; advocacy, education, support, information and referrals for the elderly. Because the majority elder abuse cases remain undetected, nurses are in a privileged position to make a difference in the rate of detection. Nurses can form close relationships with their patients which can result in gaining valuable insight into and assist in early detection. With the aging population within Australia increasing, the actual number of victims is also likely to increase in the next few years (National Center on Aging Abuse, 2005; Schofield and Mishra, 2004). Nurses can increase their knowledge and understanding about the pattern and risk factors of elder abuse so intervention plans can be instigated.

According to Bennett, Kingston, and Penhale (1997), the interest towards elder abuse by nurses and other medical personnel is limited compared with child abuse and domestic violence. It is important that nurses learn about presenting symptoms that may indicate abuse and/or neglect. Allowing ignorance to reign hinders prevention, diagnosis and interventions.

In April 2007, the "*Aged Care Amendment Bill 2007*" was passed through the Western Australia Parliament. This bill altered sections of Schedule 2 – Reporting assaults of the *Aged Care Act 1997*. The Amendment Bill stipulates that owners and staff of residential aged care facilities are now required to report incidents involving alleged sexual or serious physical assault to the police and to the Office of Aged Care Quality and Compliance.

A central element of this reform was the introduction of compulsory reporting of sexual and serious physical assault in aged care homes. This move by the federal government was seen as a significant increase in the number of legislative measures initiated to protect aged adults. Again, such a law that mandates healthcare professionals to report suspected abuse would need to be included in the educational package. Without such information included in the package, nurse would be ill-informed and may unknowingly be in breach of the law.

Firearm injuries

In 2001, there were 333 firearm related deaths across Australia. Australia in comparison to other countries, such as USA or South Africa, has a relatively low incidence of firearm injuries. In 2001, firearm deaths only accounted for 4.2% of all reported deaths across Australia (Mouzos and Rushforth, 2003). In Australia, firearm related fatalities are studied under five main categories: suicide, homicide, accidents, legal intervention (ie deaths as a result of law enforcement officers performing their duties), and those deaths classified as undetermined by the coroner (Mouzos and Rushforth).

Clinically, there are many facets of wound management associated with firearm injuries. Bullets interact differently with the tissues it encounters. Therefore, accurate documentation and proper evidence preservation is the key for nurses to provide

optimum patient care (Silva, 1999). Furthermore, according to Western Australia law, health professionals must notify police if they become aware that a person who possesses a firearms license becomes mentally unstable (Mouzos and Rushforth, 2003). Realization of such a circumstance may arise during the normal course of care for an ED nurse. It would be important for nurses to know that such a law exists so that the safety of her patient could be maintained.

Organ and tissue donation

The sudden death of a loved one can be an extremely difficult and emotional time for family members. Unfortunately, this situation can occur in the ED setting. Such an emotional upheaval can be compounded and complicated when discussions about organ donation are brought up shortly before or after a patient dies (Neades, 2001). Nurses can have a significant impact on the issues of organ donation as they are the hospital personnel who often develop an early rapport with a patient's family. Therefore, ED nurses need to be aware of the laws and hospital policies which govern organ donation so that they are able to provide correct information to families should questions arise (Ingram, Buckner, and Rayburn, 2002).

In all Australian jurisdictions except Western Australia, death is defined by statutory law as "the irreversible cessation of blood in the body or the irreversible loss of all function of the brain". Within Western Australia, however, death is defined under terms set out within the *Human Tissue and Transplant Act 1982*. The *Act* stipulates that a diagnosis of 'brain death' can only be established when a clinical examination is conducted by two physicians. The two physicians must establish that an individual's brain has been very severely damaged and that the loss of function is not due to reversible factors such as drugs. The *Act* further stipulates that to confirm a diagnosis of brain death, the following clinical examination tests must all be absent; facial reaction, swallowing, coughing, blinking, eye movements and pupil reflexes, and the ability of the patient to breathe without mechanical assistance.

In Western Australia, if organ donation is to occur, two doctors, one of whom must be a registered specialist, must each establish the diagnosis of 'brain death' and neither of the two doctors can be involved with the organ transplantation process.

After the two physicians confirm the irreversible loss of all functions of the brain, time of death is then certified official. According to the *Human Tissue and Transplant Act:*

> tissue cannot be removed from the body of the person unless 2 medical practitioners (each of whom has carried out a clinical examination of the person, each of whom has been for a period of not less than 5 years a medical practitioner and one of whom holds specialist qualifications in general medicine, neurology or neurosurgery or has such other qualifications as are accepted by the Executive Director) have declared that irreversible cessation of all function of the brain of the person has occurred (Section 24[2]).

Most organ and tissue donation occurs after death; however, some donations (kidneys, bone, and bone marrow) can occur from living donors. Organs such as the heart, lungs, liver, kidneys and pancreas are usually donated by patients who have died from severe brain injury and who are in intensive care units receiving artificial ventilations Western Australian Agency for Organ and Tissue Donation (n.d.). DonateWest is the Western Australia state-wide agency that promotes and organises organ and tissue donation and associated transplantation. DonateWest came into operation in July 2000 and is funded by the Western Australia Department of Health.

In 2004, there were 218 organs successfully transplanted across Australia, 23 of which came from Western Australia (Australian and New Zealand Organ Donor Registry, 2005). Western Australia law requires that permission be obtained from the deceased's next of kin prior to taking of any organs even if the deceased have expressed their wishes to donate their organs in the past. Any objections made by relatives relating to organ and tissue donation take priority once an individual has died. In Western Australia, the next of kin in the order of who must be sought for consent to conduct any organ and tissue donation include the following: current spouse, son or daughter 18 or over, parent, and then brother or sister 18 or over (Wallace, 2001).

The *Human Tissue and Transplant Amendment Bill 2005* resulted out of the need to increase the availability of live organ donors. Live kidney donation have become more common and are widely accepted as a treatment for end stage renal disease; however, the amendment is not restricted to only kidney transplantation. This Bill eliminated the past restriction on live organ donation. There is a requirement,

however, for Ministerial approval before such treatment is carried out. This stipulation was included to ensure that any trading in tissue and organs were within the intent of the legislation. Once more, these changes to legislation could have a significant impact on someone's life. Therefore, nurses must be kept informed about such information that concern patient options.

Questioned death cases

In the event that a patient's death cannot be explained or dies unexpectedly, Western Australia healthcare professionals are required to report such cases to the authorities. There are six situations that are stipulated by the *Coroners Act 1996* as types of incidents, healthcare personnel are obligated to report to the Coroner. Such cases include:

1. An unknown cause of death
2. The deceased person had not been seen by a doctor within three months before their death
3. A person died within one year of an accident to which the cause of death may be attributed
4. A person died while in police custody
5. The person died within 24 hours of the administration of an anaesthetic
6. A person died a violent or unnatural death

When healthcare professionals notify the Coroner of an individual's death, the investigation of all associated circumstances surrounding the death as well as determining cause and manner of death rest with the Coroner. According to the *Western Australia Coroners Act*, once the Coroner becomes involved, all medical records, personal property and the individual body becomes the responsibility of the Coroner. To enable the Coroner to perform their legal duties, healthcare professionals must be aware of their legal obligations and comply with all regulations.

The types of patient cases that must be reported to the Coroner should be known by all nurses working in the ED. Nurses should be aware that the removal of all personal property (clothes, jewellery, mobile phones, wallets etc) must be authorised by the Coroner before taking off or giving such articles back to patient's relatives. In addition, ED nurses needs to be aware that if an autopsy is ordered by the Coroner, that the removal of all medical interventions such as breathing tubes, intravenous

lines and catheters must first be authorised by the Coroner. Any variation from the above practices could compromise the Coroner's investigation. Therefore, nurses need to be aware of their legal roles and responsibilities which, at times, could prove challenging for ED nursing staff.

Abuse of the disabled

More than half a million Western Australians have some type of disability. In 2003, approximately 20 percent of the Australian population suffered from some form of disability (Australian Bureau of Statistics, 2004). The *Disability Services Act 1993* defines disability as a condition that: is attributable to an intellectual, cognitive, neurological, sensory or physical impairment or a combination of those impairments; is permanent; and may or may not be episodic in nature. Disabilities can result in a person having a substantial reduction in their capacity to communicate, interact socially, participate in learning activities, or move independent. Therefore, disabled individuals are one of the most vulnerable populations because they may not be able to call for help, voice their protest, struggle or run away. The main types of disabilities are categorized into physical, sensory, psychiatric and intellectual. In Western Australia, physical disabilities are the most common (73 per cent), followed by mental/behavioral (17 per cent) and sensory (10 per cent). Many people with disabilities have multiple disabilities (Australian Bureau of Statistics, Census Data, 2004).

The Australian Bureau of Statistics Census Data indicates that 381,500 people in Western Australia (20% of the population) have some level of disability. Furthermore, 5.6% of the total population (101,400) have profound or severe core activity restrictions and need some type of help or supervision with one or more of the tasks associated with daily living. Lastly, 93% of people with disabilities live in the community, either independently or with family or friends. According to ABS, by the year 2021, it is estimated that the number of people with disabilities in Western Australia is will increase by more than 200,000, due mainly to our ageing population. Due to the vulnerability of such a patient population, ED nurses need to vigilant when caring for such individuals so that any signs of abuse or neglect can be detected and reported to authorities.

Sexual assault

According to the Australian Bureau of Statistics (2003) the incidence of sexual assault for women in Australia is similar to that of the USA, approximately 13 percent. Furthermore, it is estimated that about one in 20 men will be sexually assaulted during their life (Dunn, 2005). Sexual assault is less likely to be reported to law enforcement agencies than any other violent crime. Research indicates that there is a significant attrition between sexual assault cases that are reported to police and successful prosecutions (Sexual Assault Resource Centre, 2005).

Due to the shame and isolation that many male victims of sexual assault experience, the reported incidence by male sexual assault victims is lower than for female victims (Elliot, Mok, and Briere, 2004). In addition, there is a common myth that gay men are the only perpetrators of such crimes. This is not necessarily the case as both gay and straight men commit this type of crime. However, such violation to a man's sexual identity can lead to depression, sexual dysfunction, and other mental health problems (Elliot, Mok, and Briere).

According to the *Western Australia Criminal Code* (s.319, p 144), an adult person can be charged with sexually penetration if:

    (a)   there has been penetration to the vagina (includes the labia majora), the anus, or the urethra of any person with any part of the body of another person or by an object manipulated by another person except when penetration is carried out for proper medical purposes;

    (b)   if any part of the penis of a person is introduced into the mouth of another person; or

    (c)   if there has been engagement in cunnilingus or fellatio.

Sexual violence against a person is a serious crime and one which can have long lasting and detrimental affects on the victim's physical and mental well-being and those close to the person (Lynch, 2006). Due to the seriousness and complexity of issues surrounding the disclosure of a sexual assault, many ED staff feel insecure about discussing the topic with patients. Healthcare workers usually fear having inadequate training to deal with patient needs, adding to a patient's emotional distress and being to busy to spend time with a patient (Hurst, 2003).

Victims of sexual assault regularly present to the ED for treatment. Sometimes victims of sexual assault may not always disclose an incident of sexual assault. Instead, individuals may present to the ED for medical care associated with sexual health issues. For example, a female patient may present with concerns regarding pregnancy or the possibility of contracting a sexually transmitted disease (Mein and McNulty, 2004).

As with other types of violent crime, the speed of recovery is often dependent upon how well the victims is supported. Support needs to come from healthcare professionals, family, friends, and speciality agencies that have training within this field of victim support (Dunn, 2005). ED nurses can provide the initial support and help all victims of sexual assault require. Referrals to appropriate support organisations and responding with empathy and sensitivity can significantly aid the recovery process (Hurst, 2003).

In 2005, the Ministerial Council of Drug Strategy, from the state of Victoria, requested that there be a review of the criminal law relating to drink spiking (Department of Justice, 2006). Prior to this, "slipping" a drug into someone's drink wasn't an offence in Western Australia unless the victim was also assaulted, robbed or police could prove the offender's motives. Therefore, to address this problem, all Australian states and territories agreed to adopt uniform laws to close all loopholes regarding this issue (ABC NEWSONLINE, 2006).

The Western Australia Parliament adopted a single broad offence under section 304 of the *Western Australia Criminal Code*. In addition, section 293 of the *Western Australia Criminal Code* makes it now unlawful to administer a stupefying drug with the intention of committing an indictable offence. Lastly, section 192 of the *Western Australia Criminal Code* now makes it unlawful to administer a stupefying drug in order to have unlawful carnal knowledge of a person (Model Criminal Code, 2006, p22).

Due to previous stipulations in the law, proving the offender's motives, some people may have been apprehensive about reporting such a crime to the police. With the changes to the law that removes the victim's responsibility of proving an offender's

motive more people may be willing to report their suspicions. Therefore, nurses need to understand how important such legal changes could have upon a victim. The inclusion of such an issue would need to be included into the legal and ethical workshop to encourage optimum forensic patient care.

Clients in police custody

From time to time, the police escort individuals into the ED for medical treatment. It is not uncommon for the required medical treatment not to be associated with the reasons for their incarceration. However, the facts remain that some individuals may pose a danger to the ED staff and other patients. Therefore, caution should taken by all hospital staff when caring for patients in police custody. Law enforcement officers who accompany the individual to the ED can assist staff and ensure that a safe environment is provided for all concerned.

In October 2003, the *Western Australia Criminal Code section 236* (CC236) was changed. Such changes have had a big impact on ED nurses in Western Australia. The code now stipulates that nurses are allowed to collect forensic samples from individuals in police custody who have been charged with an offence. Prior to this change in legislation, such duties rested exclusively with physicians.

One of the greatest challenges related to the legislative changes within the *Western Australia Criminal Code* is that there has been no training supplied to healthcare professionals regarding how to properly collect forensic samples. Therefore, many nurses and doctors do not feel comfortable collecting forensic evidence when police bring individuals to the ED so that the doctors and nurse can collect forensic sample. Anecdotally, the most common issues faced by police are confusion and resistance from both nurses and physicians. ED staff's lack of compliance anecdotally centers around four major issues including: (1) their lack of knowledge surrounding what Western Australia law stipulates; (2) their limited or no experience with forensic sample collection; (3) a lack of time; and (4) their not wanting to have to attend and testify in court.

There has been little circulated documentation released to hospitals and clinical staff that outlines roles, responsibilities, and legal ramifications once healthcare

professionals become involved with forensic evidence collection under CC236. In addition, there are many unknowns that surround CC236 for healthcare professionals. Firstly, for example, under CC236, forensic samples can be collected without an individual's consent. Such an act is in direct conflict with one of the most fundamental principles in healthcare and has caused great internal conflict for many nurses and physicians. Anecdotally, many healthcare professionals do not believe that the consequences of defying such a fundamental medical principle are shielded by the CC236 legislation. In the end, due to the lack of hospital policy, the choice to comply with police requests is left up to individual healthcare professionals (T. Smith, personal communication, September 15, 2004). Therefore, nurses need education about this issue. Only then can individuals assess, understand and decide where they stand professionally and legally.

The *Criminal Investigation Bill 2005* is an amalgamation of statutory police powers currently available to police by virtue of the *Police* Act and the *Western Australia Criminal Code.* The bill draws on legislation from the United Kingdom, Queensland and New South Wales. Sections of the *Criminal Investigation Bill* explain which healthcare professionals (doctor or nurse) can legally collect the different types of forensic evidence from an individual in police custody. The applications of the Bill's content will supersede rules concerning forensic evidence collection that is set out by the current edition of Western Australia's *Criminal Code s236*. This bill was enacted in July 2007.

The implications of this Bill are extensive. Under this Bill, nurses can be called upon to collect forensic samples. However, without knowledge about the contents of this Bill, nurses may unknowingly collect samples, by law, they are not allowed to collect. Therefore, discussions about the Bill's content would be essential to include in the workshop content. If such information was not included in the educational package, its contents would not be complete or just.

Burns over 5% body surface area (BSA)

Burns can be described as superficial, partial and full thickness. Such tissue injuries can be caused by chemicals, electrical, radiation, hot objects, flame, and hot vapour and liquids (DiMaio and DiMaio, 1993; Spitz, 1993). Although many burns are a

result of an accident, the possibility of deliberate intent should not be forgotten. In Pasqualone's (1998) original study, the state of Massachusetts mandated the reporting of any burn injury extending to 5% or more of body surface area. The same mandates do not apply in Western Australia, however, due to correlations of large area burns and their links with abuse or intentional mechanisms (seen in Bali bombing victims and child abuse), this category was included in the Western Australia study.

It is important that the affected BSA be examined in conjunction with the burn pattern before a conclusion be made about the mechanism of injury (Hobbs, Hank, Wynne, 1999). Nurses need to understand the ramifications that can be associated with these types of injuries and be able to recognise burn injury patterns such as tissue sparing, splattering, circumferential and horizontal demarcation. Such assessment is important as a proportion of burns in young children (often equal or greater than 5% BSA) is due to abuse (Klein and Herndon, 2004).

Transcultural medical practices

There is an ever increasing diversity of culture across Australia. In 2002-03, approximately 125,300 persons or 52% of Australia's population growth resulted from net overseas migration (Australian Bureau of Statistics, 2005). The countries from which Australia has received the greatest influx of migrants include; China, India, Africa, and the Middle East. Such diversity will only increase in the coming years due to the influx of immigrants from all over the world that choose Australia to be home. Such demographics call on all healthcare professionals to improve their understanding and awareness of cultural differences among patients and how this impacts the provision of healthcare services.

There are some culturally specific medical practices that occur regularly and are seen as unacceptable within Australia. For this research, transcultural medical practices refers to activities and procedures that are not commonly accepted medical practices throughout Australia or are against the law. Examples of such practices included in Pasqualone's (1998) research and those that will be considered for this research include; female genital circumcision, coining, cupping, pica, tribal scarring, and any religious organisation where medical treatment is withheld due to religious beliefs

(Miller, 1995). The listed examples are not meant as a criticism to any particular culture, instead they are a focus of the practices Pasqualone considered strictly from a legal and patient health and safety stand point.

According to the *Western Australia Criminal Code s306*, any person who performs female genital mutilation on another person is guilty of a crime. There is no allowance for a defence of consent by a parent or guardian in Western Australia legislation. Furthermore, any person who takes a child out of Western Australia or arranges for a child to be taken from Western Australia for the purpose of subjecting the child to female genital mutilation is committing a crime. It is vital that nurses understand the law about this topic and are able to discuss such issues with their patients.

Current literature discussing aspects of providing transcultural nursing care use the phrase of nurses and healthcare professional becoming "culturally competent" (Gustafson, 2005; Lynch, 2006). Increasing ones awareness through education can be a start. There is a delicate balance between respecting individual beliefs and over looking a criminal offence. For all nurses, addressing cultural diversity is an important challenge. Therefore education is imperative in order to address deficits between cultural practices and to ensure patients have their health needs met.

Victims of catastrophic and mass destruction or acts of terrorism
The affects of this category has been felt by people all over the world. Whether the cause is natural, accidental or intentional, the experiences and results of such disasters can leave long lasting physical and psychological side effects upon people. Many of these effects are dealt with on a daily basis by nurses and physicians in the ED.

This category was added in 2003 by Pasqualone. There have been many unfortunate examples of this category in recent years, some directly affecting Western Australia hospitals and their staff. The direct effects of the Bali and London bombings highlight the importance of the continued inclusion of this forensic patient category. Other examples include; September 11 attacks on New York's World Trade Center, numerous suicide bombers in the Middle East, the South-East Asian tsunami, the

underground railway bombing in Spain, and most recently, hurricane Katrina in the USA (Clarke 2003; CNN.com, 2005; Wikipedia, 2005).

Food and drug tampering

There are two different authorities within the Australian Government Department of Health and Ageing that focus on issues reviewing and regulating food and drug standards within Australia. The Therapeutic Goods Administration (TGA) regulates Australia's medicines, medical devices, blood, tissues and chemicals. The TGA monitors a range of activities to ensure that therapeutic goods available in Australia are of an acceptable standard. A 'therapeutic good' is broadly defined as a good which is represented in any way to be, or is likely to be taken to be, for therapeutic use (*Therapeutic Goods Act 1989* s7). In addition, the *Therapeutic Goods Act* specify the requirements for inclusion of therapeutic goods, including advertising, labelling, product appearance and appeal guidelines. However, some provisions, such as the scheduling of substances and the safe storage of therapeutic goods, are covered by State or Territory legislation.

Product tampering and substandard manufacturing of products are two ways food and drugs can become contaminated and/or poisoned. Signs and symptoms of any contamination may not always appear immediate (Pertel-Ashouwak, 2005). Instead, individuals may experience a delayed onset of a reaction. Such a delay of signs and symptoms can depend upon the route of exposure, chemical form, and dose. An example highlighting this category occurred across Australia in 2003. Hundreds of natural health products (such as Nature Own Vitamins) were removed from supermarket shelves due to contamination during production ("Recall of", 2003).

At the center of this scandal was the Pan Pharmaceuticals manufacturer. Numerous Australian citizens became ill after ingesting various drugs produced at the Sydney plant. Some individuals sought medical treatment with no understanding of what the true cause was or origin of their health complaints. According to The Age Newspaper ("Recall of", 2003), "Forty batches of the tablets were responsible for 19 people being hospitalised and 68 others experienced potentially life-threatening adverse reactions".

When illnesses result from intentional or unintentional chemical contamination, detecting, medical documentation is vital. Without comprehensive assessments and documentation, the epidemiology of symptoms may be hindered. In addition, any legal proceedings or tracking of poisoned persons may prove difficult without accurate medical support. Nurses can provide an important link for managing such a complex incidence.

Product liability

Product liability can be defined as "a responsibility or onus imposed by the law of contract and tort, or by consumer legislation on a manufacturer, distributor, or supplier to warn consumers appropriately about possible detrimental or harmful effects of a product and to foresee how it may be misused" (Nygh and Butt, 1998, p. 351). The majority of patients that seek medical care in the ED for injuries incurred from faulty products primarily originate from products with sharp edges, faulty electric wiring, or loose and broken pieces (Pasqualone, 1998). Other products that Pasqualone includes in this category are those products that burn, explode and emit toxic substances. Since most injuries heal and leave little trace or true representation of the original damage, recognition and thorough documentation is paramount in such cases.

Memories fade with time and healthcare professionals care for numerous patients each day. Over time it is unrealistic to expect that precise details of any single injury, sustained by any particular individual will be accurately recalled by the attending nurse without reviewing documentation made during the patient's visit. Therefore, carefully documented medical histories recorded at the time of the patients' presentation to the ED may be the only evidence the patient and nurse can rely upon to describe any sustained injuries.

Gang violence

There are many definitions used to describe what a "gang" is or is not. However, for the purpose of this study, a gang will refer to a group of people who associate together or act as an organized body for anti-social reasons (White, 2002; Lozusic, 2003). The word "gang" is not defined in any criminal code within any Australian jurisdiction. Gang related violence can be seen in prisons, schools (fights or

bullying), and throughout the Australian community (ethic and bike gangs). There is very little empirical material in Australia that would tell us how many "gangs" exist, who is in them and what they do (Lozusic).

Prison gangs meet the group criterion which has been included in the definition of gang for this study. In prison, gangs often form as a means of self-defence and a need to belong (Lozusic, 2003). As prison groups grow in size, formal rules are established, and members are expected to follow behaviours that may include; drug trafficking, prostitution, murder and extortion (Compton, 2005). The often violent gang activity within prisons not only put other prisoners at risk but also the nurses working within the system who care for these populations.

Within Australian schools, gangs can be associated with group fights, group bullying of individual students, vandalism against school property, and intimidation and/or violence towards teachers. White (2002) believes that gangs form for a variety of reasons including; alienation from schooling, peer pressure, family issues, and the need for protection. There are ethnic groups that have also been tied to and classified as criminal gangs within Australia. In 2005, evidence of ethnic tensions within Australia was clearly evident when the Cronulla riots took place in New South Wales ("Mob violence", 2005).

ED nurses are exposed to the violence resulting from gang activity, nurses need also to be aware of issues associated with gang activity. For example, nurses may treat patients who bring weapons and/or drugs on their person into the ED. Since nurses are responsible for providing the care of both the victim and perpetrators of violence, there maybe occasions when an ED provides care to both types of patients within the same department. Such circumstances not only leave nurse vulnerable but also other patients. Therefore, clear guidelines and policies need to be known to all nurses on how such situations will be dealt with. Having such knowledge reduces the risk of potential dangerous situation.

Conclusion

The overall results from the replication of Pasqualone's (1998) study concluded that the 27 forensic patient categories can be applied at an international level. Therefore, the forensic educational package developed for this study centred the educational material specifically around the patient populations included in the 27 forensic patient categories.

The effectiveness of the educational package and all of the study data will be thoroughly discussed in Chapter 5. To assist with the processing of all of the information provided in the reporting of data analysis contained in Chapter 5, the data will occur under headings which correlate to the study objectives.

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Thomas had seen that look before. It was in the eyes of his colleagues, Daniel's family and the others who stood silently in the immediate area. They all stood motionless with fear and disbelief. Thomas was still on the floor, eye level with Daniel as the rage continued to pour out. A small sobbing child clung to his father's neck as they stood at the entrance of a nearby cubical.

CHAPTER 5

ANALYSIS OF DATA AND FINDINGS

Two female nurses were the first to arrive. They jumped on top of Daniel trying desperately to stop his attack. Soon there was a swarm of people who had come to his rescue. Thomas knows he must have walked away but he does not recall, he was confused and dazed. Thomas wanted to be strong as others around him who were shaken and did not know what needed to be done. He knew the routine so well yet could say nothing, do nothing. There was so much he needed and yet nobody knew, nobody was there to help him.

Introduction

This chapter will provide a detailed description of participant demographics and the analysis of qualitative and quantitative data collected during this study. There were three types of participants utilised in this study; nurses, healthcare stakeholders and forensic stakeholders. From the combination of methods utilised in this research, there were nine data sources which were utilised to address the study objectives. The nine data sources included; (1) interviews (forensic and healthcare stakeholders and treatment group participants), (2) chart audits, (3) pre and post intervention questionnaires, (4) forensic kit audit, (5) workshop evaluations, (6) telephone log, (7) participant's journals, (8) policy manual reviews, and (9) the researcher's field notes.

For ease of explanation and understanding, the chapter will be organised under two main headings; demographics and reporting of data analysis. The demographics section will describe the main details about all research participants while the reporting of data analysis will be organised according to the study objectives one through six. Objective seven, related to a need for change in forensic patient identification and assessment, availability of forensic evidence collection supplies, standards of practice, hospital policies and the implementation of ongoing ED forensic education, will be discussed in Chapter 6.

The researcher intended to conduct statistical analysis on all of the pre and post-test questionnaire data from HospB and HospC. Such comparisons would be valuable and assist the researcher to support conclusions about the research findings. However, many of the statistical analysis could not be completed due to a low return rate from HospB post-test questionnaires. In the end, only seven of the original 27

who completed the pre-test questionnaire completed and returned the post-test questionnaire. Therefore, after consulting with a statistician, the researcher was advised that any statistical analysis that included the comparison of pre and post-test questionnaire scores between the two hospital participant groups would be inappropriate.

Demographics

There were three types of participants recruited for this study; healthcare stakeholders, forensic stakeholders, and nurses. Each of these groups will be described separately below.

Stakeholders

The stakeholders interviewed in this study were divided into two groups; healthcare and forensic. In order to maintain anonymity of the interviewed participants, the typed transcripts from the healthcare stakeholders were given codes HCS1-HCS10 and forensic stakeholders were given codes FS1-FS11. Every attempt was made to include a broad selection of experienced stakeholders from within the forensic and healthcare disciplines. Top level experts were desired so that the wide range of forensic issues associated with forensic patient care could be thoroughly explored.

In total, there were 10 healthcare and 11 forensic stakeholder participants interviewed (see Table 5.1). The forensic stakeholders came from five different domains including; police, scientists, pathology, coroner's office, and law. Overall, the forensic experts had a range of 6 - 35 years of experience with a mean of 17.9 years.

The largest number of forensic experts came from the police domain which was due to the numerous specialties contained within this profession. For example, violence within the family can incorporate seven of the 27 forensic patient categories (substance abuse, assault and battery, child abuse, domestic violence, elder abuse and neglect, abuse of the disabled, and sexual assault). Therefore, the researcher felt a need to include several police experts who work across such areas as child abuse,

domestic violence, and forensic detectives in order to provide this study with a broad range and depth of expertise.

The other forensic experts chosen included; professionals that come in contact with forensic evidence (scientists – chemistry and biological), forensic professionals that investigate the cause and manner of death (coroner and forensic pathologist), and legal professionals that use all of the evidence gathered by such professionals in accordance to state and federal law. The 10 healthcare stakeholders also came from five different domains including; ED managers, ED Clinical Nurses, after hours nurse duty managers, Department of Health nurse representative, ED medical consultants, and ED medical directors. Overall, the healthcare professionals had 11 – 30 years experience with the mean of 19.7 years. As with the forensic experts, every attempt was made by the researcher to include healthcare professionals that provided direct forensic patient care, were confronted with forensic issues and were responsible for directing and supporting others who required guidance about forensic problems.

Table 5.1 Interviewed Forensic and Healthcare Stakeholders

Interviewed Stakeholders			
Forensic N= 11	Total number of participants	Healthcare N= 10	Total number of participants
Forensic Police • Child abuse unit • Forensic detectives • Domestic violence unit	1 3 1	ED Nurse Manager	2
Forensic Scientist	2	ED Clinical Nurse Specialist	2
Coroner	1	ED After Hours Hospital Duty Manager	2
Forensic Pathologist	1	ED Medical Directors/Consultants	3
Attorney	1 QC 1 defence attorney	Nurse representative within Western Australia Department of Health	1

Like the forensic stakeholders, the healthcare stakeholders interviewed work with forensic patients at different levels. For example, a clinical nurse specialist who works in the ED has the responsibility to act as resource persons for other staff nurses. In addition, the clinical nurse specialist liaises not only with the ED manager but also with the after hours hospital manager on duty, ED medical directors, and other hospital consultants. In other words, the various healthcare stakeholders interviewed for this study work closely within a team environment and are often confronted with concerns regarding forensic patient care. Due to the different roles and responsibilities each healthcare professional held they were thought to have valuable knowledge and experience that could greatly contribute to the development of the forensic educational package.

Another participant the researcher deemed very important in this study was the nurse representative from the West Australian Department of Health. The nurse representative had several duties within their job description that the researcher thought might provide vital information for this study. Duties of interest listed in the job description of this person included:

> (1) Collaborates with area health services, professional organisations, and the University sector to facilitate the development of the nursing profession in Western Australia.
> (2) Prepares reports, submissions, policies and other relevant publications based on analysis and evaluation of nursing policy and programs.
> (3) Participates in reviews of existing and new policies, programs and practices (Department of Health, 2004).

Overall the researcher was conscious to include a consortium of forensic and healthcare experts who could provide valuable contributions to this study based on their experience and expertise. The stakeholders involved in this study therefore represent a diverse group of professionals who care for all types of forensic patients. The other participants recruited for this study were Registered Nurses who will be described below.

Registered Nurses

There were five demographic questions on the first page of the pre-test questionnaire that all control and treatment group participants were asked to complete. The five demographic items included; age, gender, number of years worked as an RN, number of years worked in ED, and the types of advanced nursing courses/certificates completed. Data collected from these questions are displayed in Tables 5.2, 5.3, and 5.4 below.

In both instances, more females participated than males. This finding was not surprising as 90% of Australian nurses are female (Australian Bureau of Statistics, 2001). The ages of participants were somewhat different at each site. Eighteen of 27 nurses (67%) from HospB were under 41 years, whereas only 8 of 22 nurses (36%) from HospC were under 41 years. There was no significant difference between the total number of male and female participants from HospB and HospC.

Table 5.2: HospB and HospC Participants: Age and Gender Demographics

	Gender		Age in years		
	Male	Female	20-30	31 - 40	41 and over
HospB N = 27	4	23	8	10	9
HospC N = 22	3	19	3	5	14

Three questions from the questionnaire addressed participant work history. The data indicated that participants from both HospB and HospC had comparable work experience backgrounds. In other words, the nurses from both hospitals worked as nurses in the ED for similar amounts of time (see Table 5.3).

Table 5.3: HospB and HospC Participant Work History

	Years working as a nurse		Years working in ED as a nurse	
	Hosp B Control N = 27	Hosp C Treatment N = 22	Hosp B Control N = 27	Hosp C Treatment N = 22
Range	2 – 25	3 – 30	3 months – 20 years	3 months – 20 years
Average # of years	11	17	4.36	5.75

Question five in the questionnaire, asked participants to disclose any advanced education course or certificates they had completed. The researcher wanted to know about this information because it was important to have the control and treatment groups as similar as possible. In other words, the researcher wanted to compare results between the two groups without large variations in samples characteristics. The data from the questionnaire revealed that the majority of participants from both hospitals (70% from HospB and 77% from HospC) had completed at least one type of advance nursing certificate/course (see Table 5.4).

Table 5.4: HospB and HospC Participant Advanced Education Courses Completed

Advanced Nursing Courses	Hosp B Control N = 27	Hosp C Treatment N = 22
Courses	- Diploma Tropical Nursing - In-flight Nursing Certificate - Trauma Nurse Core Course - Post Graduate A&E Certificate - Hyperbaric nursing course - Major Incident Medical Management and Support (MIMMS) - Graduate Diploma in Critical Care Nursing - Midwifery - Renal Transplantation	- Intensive care diploma - Trauma course - Emergency skills course - High Dependency course - Adult Advanced Life Support course (ACLS) - Paediatric Advanced Life Support course (PALS) - Midwifery course - Community health course - Orthopaedics course - Paramedic course - Paediatric emergency course
None completed	1	2
No response	7	3

There was a variety of specialty courses participants reported to have completed. Some of the findings were specific to specialty services provided at each hospital. For example, HospB provides an on site hyperbaric facility. Therefore it would not seem unusual that emergency nurses from that facility had completed training in another area that often deals with providing emergent patient care. However, the researcher was somewhat surprised that none of the HospB participants documented completion of any advanced paediatric courses. As this hospital did cater for

paediatric patients and has a paediatric ward, the researcher expected some participants to have completed some type of paediatric speciality course or certificate.

Additionally, data from the researcher's field notes revealed that study participants had diverse backgrounds in relation to their country of origin, where they completed their nursing training, and previous work experience. Therefore, the researcher was not surprised about the variety of course names identified in Table 5.4. Different countries and hospitals offer courses to nurses that have different names but include similar course content (L. Gatzonis, staff development manager, personal communication, March 19, 2007). The most common type of advanced nursing certificate course completed by HospB (41%) and HospC (36%) participants was a Post Graduate Certificate in Emergency Nursing.

Overall, the demographic data revealed that the participants from the control and treatment groups had similar characteristics. The presence of similar demographic characteristics at the commencement of this study was important to establish so that other data in this study could be compared and consequently allow the study intervention to be evaluated objectively. The discussion below will continue to discuss the results obtained from the other questionnaire responses.

Reporting of Data Analysis

For ease of explanation and understanding, the research findings will be organised and reported below under headings that correspond to the study objectives outlined in Chapter 1. In addition, when applicable, data will be explained under the subtitles of Hospital B and C to maintain consistency with previous chapters. All references to and discussions about specific questions contained within the research questionnaire will refer to the question order in the pre-test questionnaire (Appendix 5).

Forensic requirements and key issues

To develop, implement and evaluate the forensic educational package, the researcher needed to identify the key issues confronting and affecting forensic and healthcare professionals in Western Australia. The topics of interest the researcher sought to

explore included; current forensic care practices within the forensic and healthcare setting, the effectiveness of the current system and any deficits that could be targeted for improvement. To accomplish this objective, the researcher interviewed 21 professionals who working within the Western Australian forensic and healthcare settings (see Table 5.1). A schematic flow diagram that illustrates the analysis process the researcher utilised once all of the interview data was collected can be seen in Figure 7.

During the semi-structured interviews there were eight open ended questions posed to each forensic stakeholder (see Appendix 9). The questions the researcher explored sought to gain information about which ED healthcare professionals forensic experts had contact with and the quality of such relationships, subject matter pertaining to evidence collection, and priority topics they thought should be included in a forensic educational package. On average, the majority of forensic stakeholder interviews were nine single spaced pages. All of the stakeholders appeared relaxed during the interviews and were happy to answer all of the questions. Throughout the interviews clarification was continually sought to ensure the stakeholder's perspective was understood. Some of the responses lead to in-depth discussions about certain questions whilst others responses were quite short. For example, the forensic scientist who worked with non-biological specimens had no contact with any ED healthcare professional and therefore did not comment about this question; whereas, the forensic pathologist had extensive responses to those questions that dealt with evidence collection.

Thematic analysis allowed the researcher to report the experiences of the stakeholder participants captured during the interview process. The discussion that follows contains a detailed description of how the researcher applied thematic analysis to the study data. Initially, the analysis process began when the researcher read each of the typed transcripts to obtain a feel for the contents. During this initial reading no codes or themes were identified because the goal of this process was for the researcher to familiarize herself with the text. According to Braun and Clarke (2006) it is vital for the researcher to immerse themselves in the data so that they can become familiar with the depth and breadth of the content. Therefore, after the initial reading of each transcript, the researcher read all of the transcripts multiple times.

Figure 7. Analysis Process of Stakeholder Interviews

```
                    ╭─────────────────────────╮
                    │  Stakeholder Interviews  │
                    ╰─────────────────────────╯
                       ↓                    ↓
          ╭──────────────────╮    ╭──────────────────╮
          │ Healthcare       │    │ Forensic         │
          │ Professionals    │    │ Professionals    │
          │ N=10             │    │ N=11             │
          ╰──────────────────╯    ╰──────────────────╯
                    ↓                    ↓
    ┌───────────────────────────────────────────────────┐
    │ 236 Significant statements and phrases identified   │
    │ during interviews                                   │
    └───────────────────────────────────────────────────┘
                              ↓
                  ┌───────────────────────┐
                  │   8 Sub-categories     │
                  └───────────────────────┘
                              ↓
                  ┌───────────────────────┐
                  │ 5 Main Interview Themes │
                  └───────────────────────┘
                              ↓
          ╭─────────────────────────────────────────────╮
          │ Assisted in the development of the forensic  │
          │           educational package                │
          ╰─────────────────────────────────────────────╯
```
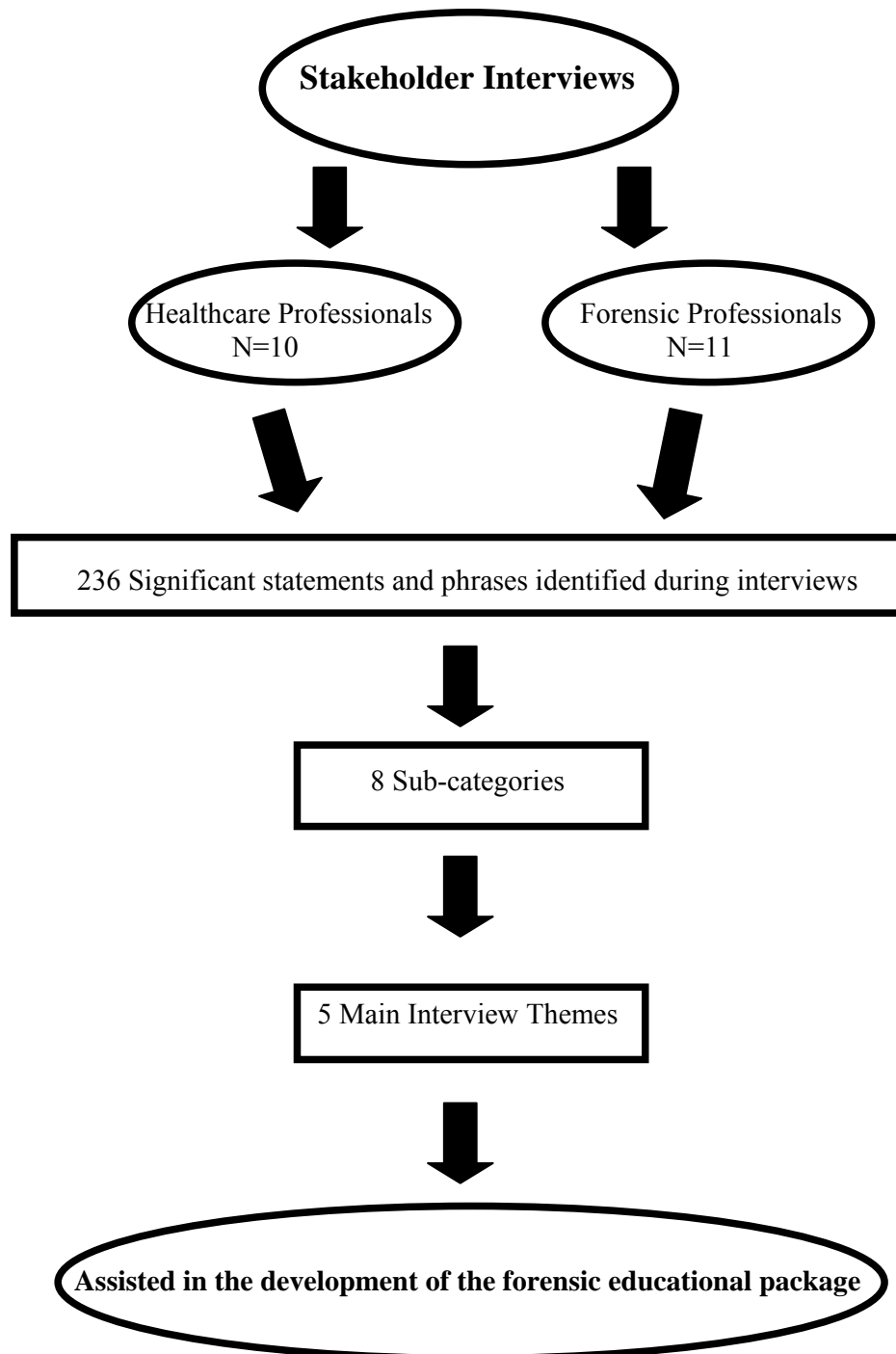
During the multiple readings of the interview transcripts, the researcher began to write notes in the transcript margins about ideas, meanings or patterns the researcher felt were relevant to the study. An example of the researcher's initial transcript notes

can be seen in Appendix 25. At the end of this process, the researcher had compiled 236 significant statements and phrases that were deemed important and of particular interest to this study. Before continuing with any further analysis, the researcher set the transcripts aside for a period of two to three weeks. The researcher then read each transcript through again. The reasoning for revisiting the transcripts after the set time frame was so that the researcher could feel confident that all significant statements were identified and to ensure accurate and adequate representation of the data.

The researcher next categorized all related statements. By bringing together fragments of ideas or experiences conveyed by the stakeholders, the researcher was able to identify a comprehensive picture of collective experiences. Due to limited resources, time constraints, and level of complexity, there were some ideas identified during the interviews that the researcher was unable to incorporate into the forensic educational package. However, a complete list of topics identified during the stakeholder interview can be seen in Table 5.5. At this stage an experienced qualitative researcher was given a transcript to analyse. The categories identified were similar to the one the researcher had identified.

Stakeholder experiences were then organised into eight sub-categories themes. According to Braun and Clarke (2006, p. 82), a theme "captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set". As interview ideas and sentences were listed together in the sub-categories, the researcher was able to notice themes and patterns emerging from the transcripts. During this process, the researcher noted that some interview statements were listed under more than one sub-category and that there was an overlapping between some significant statements and sub-category themes. For example, **HCS2** (shown in Appendix 25) stated:

> There is no education and no awareness, then they (hospital policies) become obsolete, they are just not in line. Most of the domestic violence polices would just say call 'D'' with which ever government department it is, but it doesn't actually help you deal with a patient in front of you.

This statement had the possibility of becoming an example under three of the eight sub-categories including practice issues of interest and concern, knowledge and educational deficits, and gaps and problems.

Table 5.5. Stakeholder Ideas to Consider Including into Forensic Educational Package

Stakeholder Interview Data
Main ideas and needs identified by **<u>Forensic</u>** Stakeholders
- Healthcare professionals do not have a sound knowledge base about forensics topics.   - A forensic liaison person could help to coordinate information and maximise efficiency between health and forensic workload.   - Evidence collection has not been routinely collected well by healthcare professionals.   - Regular forensic education may be beneficial and improve teamwork among healthcare and forensic professionals.   - Healthcare professionals are not up to date on the latest legal statutes regarding forensic topics, especially evidence collection.   - Healthcare professionals do not always look at the bigger picture when confronted with forensic cases.
Main ideas and needs identified by **<u>Healthcare</u>** Stakeholders
- Nurses are not aware of correct forensic chain of custody procedures.   - Forensic evidence is being poorly or incorrectly packaged ie. All clothing put into the same plastic bag.   - Current body diagrams to document injuries are not being utilised   - The nurses do not have access to photography equipment to record all injuries.   - Healthcare professionals do not consistently and correctly identify who are possible forensic patients.   - Nurses do not document patient conversations and histories thoroughly.   - Legal roles and responsibilities regarding forensic patient care is ambiguous   - Healthcare and forensic communication is inadequate and inconsistent.   - Comprehensive and standardised forensic policies and procedures do not exist.

The researcher could not find consistent guidelines within the published literature that discussed or described the proportion of a data set that needed to display evidence of the theme before a author could stipulate that a theme existed. A theme, as thought by some should not necessarily be dependent on quantifiable measures but rather on whether it captured something important in relation to the research objectives (Tuckett, 2005' Braun and Clarke, 2006). Therefore, the goal for the researcher during this analysis process was to provide a rich thematic description of the entire data set.

Upon continued reflection and further analysis, the eight sub-categories were reduced into five main themes. During this final analysis phase the researcher found that

some of the sub-categories did not really have enough data to support them as themes and some contained data that could be combined more appropriately with another sub-category. Therefore, after careful consideration, reorganisation, and combination of data, the researcher developed five main themes to represent the data set. Once this thematic analysis process was completed, the researcher was able to formulate a list of elements that needed to be included in the educational package. The discussion that follows provides an elaboration about how the researcher finalised the main data themes.

Interview sub-category groupings

After all of the interviews were read and significant phrases were identified, the data were grouped into eight sub-categories. This process heightened the awareness of the researcher which resulted in the identification of salient themes, recurring ideas, and patterns that link people and settings together. This strategy of data immersion allowed the researcher to identify the areas of interest which assisted with the development of the forensic educational package (Polit, Beck and Hungler, 2001; Braun and Clarke, 2006). Below are examples of typical significant statements that the researcher identified during the review of the stakeholder interviews.

A healthcare stakeholder **HCS6** stated:

> If we had police present with a perpetrator, asking us to collect forensic samples, which we are not prepared to, or qualified to, or trained to collect. There is no-one that we can contact to discuss this with, or to find out what alternative agencies might be available to help in this situation, or what protocols or procedures the police should be following and how the Emergency Department fits into that.

Furthermore, **HCS1** stated, "The collection of forensic evidence, we are not sure whether, from a legal perspective, we are able to collect that evidence, so there is the legal aspects we are unsure of". In addition **HCS9** communicated about their professional experience by saying:

> They never really come back to you and say "you know you really loused that up for us". I think it's because they know that we don't really have adequate training in that, so they just tend to disregard the mistakes that we make.

Another example is where healthcare stakeholder **HCS2** stated, "I think generally nurses don't understand the legal implications of their practices. There is no structure to the

nursing policies for forensics. There is nothing there. So I don't think most organisations do that very well".

The researcher separated the significant statements and phrases into groups and identified eight sub- categories based on similar meanings. The eight sub-categories included; confusion and uncertainty about the Western Australia forensic scene, practice issues of interest and concern, knowledge and educational deficits, documentation, interagency communication, roles, responsibilities and relationships, gaps and problems, and lastly stakeholder's wish lists. All of the significant statements and phrases were grouped under one of these headings while some were found to fit under more than one sub-category. The eight sub-categories and corresponding significant statements and phrases will be described below.

Confusion regarding the Western Australia forensic scene

Feedback about this sub-category came from both healthcare and forensic stakeholders. Comments from healthcare and forensic stakeholders indicated that there was a lack of clear directions pertaining to legal procedures and processes, professional expectations across all disciplines and which persons needed and should be contacted with certain forensic situations. Examples under this sub-category demonstrated the confusion stakeholders experienced during their normal work day when confronted with forensic patient issues. For example, one healthcare stakeholder, **HCS1**, stated:

> We are not sure whether, from a legal perspective, we are able to
> collect that evidence…I understand that the legislation is changing
> now…but that still needs to be confirmed. That's a bit of a best kept
> secret at the moment.

Furthermore, another healthcare stakeholder, **HCS6**, stated "There is no sort of person, in terms of being identified as to be able to contact, or agency you can contact when you have a dispute – you know, an area contact". Lastly, **HCS8** stated:

> You know… there really needs to be, like across knowledge of what
> the police expect, what the doctors, what the nursing expect from
> these kind of situations, so that everybody is working together.
> Instead of everyone narrowly working along their own pathway.

In addition to the uncertainties related to general forensic processes, the stakeholders also voiced their concern about clinical practice issues that will be discussed below.

There were many comments and differing opinions from forensic and healthcare stakeholders relating to clinical forensic skills and tasks. The comments provided under this sub-category relate predominately to evidence collection procedures and practices. Some typical examples include a statement by **FS5** who stated, "Each hospital has different protocols". Furthermore, **FS8** commented by saying, "All medical interventions must be left insitu…Leave everything on the body…I don't like the wound site to be used as evidence…My ideal thing is least touching". There was concern expressed by **HCS4** about nurses being involved in the practice of evidence collection and stated:

> Lack of confidence and lack of training and experience…because everyone's happy to take a blood alcohol sample because its easy, but anything beyond, people get hesitant, because they are not familiar with it and they have usually got no formalised training, or real experience.

Forensic expert, **FS3**, commented, "It is very very important that the people collecting exhibits understand the risks involved in doing it and the need for packaging things so they cannot be lost or contaminated". Lastly, **FS6**, commented on some disturbing practices that have occurred by stating:

> You don't actually get any evidence from them (nurses)… there is a problem of who takes it off the person….but we ideally record it as we take it… they would give me a bag of clothes, but it wouldn't be timed and dated with anybody that took it off them, it would be just a fact of, I collected it and I would time and date it at that time.

The belief the stakeholders who commented on this topic agreed that having standard procedures and practices would be the ultimate goal. The comments highlighted that the clinical practices of forensic evidence collection was an important and problematic area that warranted attention. Associated with this topic was the suggestion that there was a need to address the issue of lack of knowledge. This topic will be explored below in the following sub-category.

Knowledge and educational deficits

Many of the comments by healthcare and forensic stakeholders were associated with the lack of knowledge or educational preparation. These two ideas were difficult to separate into different sub-categories as the comments often used these terms

interchangeably. The ideas and comments that are highlighted under this sub-category are statements that link a lack of knowledge and education to problems occurring within the forensic field or associated with specific forensic tasks and procedures. For example, **HCS8** confessed, "I am not even really that familiar with forensics, so forensic could be a whole lot of other things that I don't know about". Furthermore, **HCS1** stated, "We (nurses) have a very rudimentary understanding and that's as far as it extends, but we have no skills in the collection of evidence". Lastly, **FS8** had the general opinion that "They (healthcare professionals) are not taught correctly right from the beginning about forensic evidence collection. So they (healthcare professionals) have to know that we are going to want all samples. They need to know that the samples must be correctly labelled; the time must be put on there". **FS8** stated, "I think it is ignorance...they don't realise we need the notes, they don't realise we need the samples. Both sides, both police and medical staff, it's not one or the other, its often a combination of the two of them". The occurrence of both general and specific comments observed in the above sub-category was also seen in the sub-category labelled documentation below.

Documentation

The topic of documentation was brought up both forensic and healthcare stakeholders. Opinions and comments in relation to this subcategory ranged from the clarity of handwriting to the issue of medical notes being comprehensive. For example, **FS8** stated, "Handwriting is a real problem. I do not like the use of abbreviations unless they are in some form of accepted or well noted hospital abbreviation". Furthermore, **HCS1** believed that:

> Nurses I think are generally poor with their documentation. It's just right across the board, whether it's a forensic patient or not, there could be a vast improvement. They will tell you they do not have time to write anything down.

Additionally, **HCS5** made specific comments regarding documentation and forensic cases by saying:

> I don't think it's getting addressed well. I certainly think that there is scope for improvement and a lot of improvement… We don't specifically talk about how to document an examination of say someone who is allegedly assaulted… I think there is certainly a lot of scope for improvement.

Probably the most confronting and disturbing comments came from **FS11** who stated, "I think it is reasonably well noted that nursing notes are inaccurate… basically nursing notes are viewed sceptically by the courts, because they're renowned for their inaccuracies".

The overall comments regarding documentation reflected a general consensus that documentation improvements could be made by all nurses. The ramification of incomplete documentation and/or illegible writing was shown to affect the jobs and outcomes of other forensic and healthcare professionals. Another area that had a multitude of impact was seen in the sub-category of interagency communication discussed below.

Interagency communication

The comments received about communication were predominately from healthcare stakeholders and frequently centred on the type, amount and absence of feedback between agencies. For example, **HCS4** stated:

> There is a problem with feedback and I guess the worse group is probably the coronial inquiries, who keep everything top secret and pretty much tell you nothing… seeking feedback is quite hard and often takes many months… And if you don't have that feedback you don't know if what you are doing, at the end of the day, is right or wrong.

These feelings were corroborated by **HCS9** who stated:

> Feedback no, I don't think we ever get really satisfactory feedback. But certainly, you know, they are grateful for any help that you can give them… I mean there are often times when you think feedback would be helpful, to deal with the next time, because you sort of…you are not entirely sure of your rights and responsibilities.

Furthermore, some forensic stakeholders did make reference to the sub-category of communication in respect to the difficulty forensic stakeholders experience in gaining access to forensic patients, forensic evidence or being notified about forensic patients who had treated in the ED. For example, FS6 stated:

> It is a problem, because there is a continuity gap there. This continuity gap, it can be day or two days apart, whereby, if you get injured today… sometimes they (medical staff) say ok, this person is too ill, we can't have you coming and taking photographs until 2 days time. So we don't get that clothing for 2 days time. When we get it, its not

bagged tagged labelled anything, its just one big green plastic bag full of whatever – which is a problem, but we have never been pulled on about it in court, so I don't know if it will ever be a problem.

On the other hand, healthcare stakeholders wanted more clarification about communication in general. For example, HCS6 stated:

Gaps are certainly there in terms of the wider forensic community in that there is not much communication… There is no sort of person, in terms of being identified as to be able to contact… Unless something happens and we review the issue, we don't hear from anyone. We haven't the foggiest idea who is our forensic pathologist is who is on call, or how to get hold of him, or who is supposed to do anything, unless you phone around – you know… it's sort of hear-say at the moment, as to who you should be able to talk to.

Another sub-category that was identified related to issues pertaining to roles, responsibilities and relationships between forensic and healthcare professionals. Significant statements are discussed below.

Roles, responsibilities and relationships

There were many misconceptions identified about roles, responsibilities and relationships among all forensic and healthcare stakeholders. During the interviews, the researcher discovered that many of the interviewed professionals had limited insight into the roles and responsibilities of their colleagues. As a result, many comments indicated that the lack of insight had affected relationships. For example, one forensic expert, **FS5,** stated, "You would probably have to talk to the administrators of the hospitals and see what they actually have in place and then try and explain what our procedures are and see how we can work towards meeting each other half way". Additionally, **HCS5** stated:

They (police) are expecting that we will provide a service for them, without question and they also expect that we have expertise that we might not have. Also our ability to attend to their patient and their issues in a timely fashion, within the constraints of the Emergency Department, they do sometimes have an unreasonable expectation.

However, there were some stakeholders who voiced only praise regarding the types of roles, responsibilities and relationships they experienced. For example, **HCS1** stated, "Our relationship with the police has been the same for all of the years that I have been here. It has worked well, as long as we look after them, they will look after us".

To explore whether there were any shortcomings in the current medico-legal system, as perceived by the stakeholders, the researcher asked all stakeholder participants whether they had noted or experienced any gaps or problems within their work environment. The findings from such a question will be discussed below.

Gaps and problems

The final sub-category included comments that focused on gaps and problems identified by experts which are occurring in the current system. Firstly, **HCS4** stated, "Oh yes there is a big gap and the gaps in expectation. They (police) expect to use Emergency Departments as a forensic collection place, whereas the one thing we are not trained for is collection of forensic evidence". Secondly, **HCS9** stated:

> If we get patients in the hospital before they have had any contact
> with the wider forensic community, police, lawyers and all the rest of
> it, we quite often don't think about the forensic side of things,
> probably we don't do them any favours at all, because you are
> destroying or tampering with what could be evidence.

Lastly, **HCS5** stated:

> You know they (police) don't really know what to do. They come to
> us (staff in the ED) and say that we have to know what to do, so we
> need a clearer guideline or procedure, or some clear way of dealing
> with these problems – these sort of forensic issues. I think our
> positions need to be clarified in these situations.

Lastly, the researcher wanted to give all of the stakeholders the opportunity to have input as to the forensic educational package content. Therefore, all of the stakeholders were asked about what they perceived as essential topics that would improve their current work situation and the outcomes for forensic patients tey have contact with. The results from this question are discussed below.

Stakeholder's wish lists

All of the stakeholders were asked to reveal some of their thoughts about the main items they would like to see (a wish list) incorporated into a forensic educational workshop for nurses. The wish list outlined topics the experts deemed most important Comments by **HCS9** included:

> Really I think things like standardised protocols, like when the police
> bring somebody in for blood tests, they bring their own kit and their
> own sort of guidelines and instructions, so you know that this is how

the evidence is meant to be collected and you do it this way and you
do it in this order.

Ideas from **HCS3** were outlined in the statement:

You don't want turf protection, we want a collaborative framework,
that is best for the patient, and. a protocol should be developed in
collaboration and define the scope of practice and whose responsible.
That gives the role clarity and I think that's important.

Furthermore, **FS1** stated:

Clothing needs to be separated into separate brown bags with gloved
hands. Cross contamination issues need to be really addressed. Um,
yea, documentation of any conversation in relation to the criminal
aspect because that nurse or doctor may end up as a witness later on…
Contacting the police. Those would be the high priories.

In addition, **HCS8** stated, "It would be great if there were people, like in the

community, a team in the metro area that you could call on, or a team that was based,

or a person that was based somewhere". Other suggestions from **FS6** were:

Whatever you can implement to improve the collection, quality and
chain of evidence in collecting objects for an examination of a crime
scene, or a person who has been involved in a crime would be good...

Lastly, **HCS7** stated:

I think first of all education, top of the list. Getting the police or the
forensic community to liaise and provide education sessions to us, to
let us know what sort of issues they consider are forensic issues, or
what sort of patients they consider as forensic patients. What are their
needs and how can we help them.

Overall, the above examples were typical comments that described the eight sub-

categories. However, in many instances, the comments could fit into more than one

sub-category at one time. This was due to the fact that many of the comments had

multiple issues contained within a single comment. Therefore, because this study

could not address all issues that surfaced during the interviews, the researcher found

it necessary to reorganise and further refine the categories into five main themes. The

discussion below will elaborate on the five main themes.

Main interview themes

The eight sub-categories and the significant statements and phrases were organised into five overall themes that were to serve as the contextual framework for the forensic educational package in this study. In 19 of the 21 interviews, stakeholders made reference to at least four of the five main interview themes. There were some issues that were unable to be included in this study as they were outside the focus of this project. For example, **FS6** discussed the ideas of having a single liaison person at each ED that could assist the forensic community with forensic cases and improve the working relationship between forensic and healthcare professionals. It was impractical to include all of the ideas and suggestions made by all of the stakeholders. However, the content of the forensic educational package did incorporate the following five themes; identifying forensic patients, roles and responsibilities, evidence collection, legal issues, and communication. Each of these main themes and supportive testimonial data will be discussed in detail below.

Theme 1: identifying forensic patients

The most recurrent theme identified throughout the stakeholder interviews was the view that nurses were not able to consistently recognise who forensic patients. Forensic and healthcare stakeholders agreed that there were varied ideas about who exactly could be defined as a forensic patient and what needed to be done for such patients. Such uncertainty surrounding this theme was also exposed in the pre-questionnaire responses from HospB and HospC participants.

The stakeholders believed that in order to develop an effective educational package, the identity of who forensic patients were had to be clearly outlined. Some of the forensic stakeholders thought that healthcare professionals did not regularly identify forensic patients who came into the ED. In addition, some of the healthcare stakeholders did not feel that enough education or feedback had been provided to them by forensic experts about who exactly forensic patients were and what exactly needed to be done by healthcare professionals who cared for such patients.

HCS1 responded to an inquiry regarding the types of forensic patients their ED nurses see by saying, "We probably would have thought more towards Psych,

because I know that the Psych guys like using the term forensic… And of course we already know domestic violence and sexual assault victim".

When asked whether ED staff have much contact with forensic patients, **HCS9** stated, "Not really, not a great deal…not really that many…Mainly children and accidents".

HCS9 commented:

> If we get patients in the hospital before they have had any contact
> with the wider forensic community, police, lawyers and all the rest of
> it, we quite often don't think about the forensic side of things,
> probably we don't do them any favours at all.

One ED manager, **HCS8**, stated, "I am not even really that familiar with forensic, so forensic could be a whole lot of other things that I don't know about...it's kind of an adhoc approach. I think there is a lack of knowledge all around".

One clinical nurse, **HCS2**, commented about the types of forensic patients seen in her ED by stating:

> I would say we have the contact, I would say that we didn't deal well
> with our contact. Either because we are not skilled in identifying or that
> we don't feel empowered to ask the questions and to deal with people. So
> I think it is the only area we do poorly.

The theme second in frequency to identifying who forensic patients was the issue of roles and responsibilities as applied to forensic care and procedures. There were some interesting beliefs revealed by both the forensic and healthcare stakeholders about who they thought was actually responsible for certain aspects of forensic care.

Theme 2: roles and responsibilities

There was a general consensus among the interviewees that care of the forensic patient should be a collaborative effort and that all medical and forensic professionals make valuable contributions. However, disagreements occurred among the stakeholders when discussions focused on the types of roles and responsibilities each profession should undertake. One area of debate and disagreement centred upon

how important forensic duties were and the priority that should be placed on ensuring that responsibilities like evidence collection were addressed.

Many of the healthcare stakeholders did not agree that forensic responsibilities such as evidence collection were the role of ED nurses and medical staff. Furthermore, healthcare care stakeholders, on the whole, believed that it was not their responsibility to contact police regarding patients (other than children) presenting with suspicious injuries (knife wounds). Further support for such perceptions will be discussed later under the heading that explored the nurse participant questionnaire responses to this topic.

HCS4 commented, by saying:

> Police in our community don't really have their own internal medical support… and they (police) really expect the Emergency Department will provide that role and ….it's not our problem", that's how its most commonly addressed. You know if the police want something, it is up to them to organise getting it collected. So I guess they (forensic requirements of patients) are addressed by shifting the responsibility onto someone else and not seeming or expecting it to be our particularly responsibility – the forensic side.

HCS1 commented:

> There is not a lot of resources out there for nurses to learn more about these forensic-type patients, what we can do from a nursing perspective …we recognise it as a department, that we need to improve the care, but for us, on top of everything else that is expected of us in our working day…it's the developing of new education and we haven't got the time.

When exploring such a complex issue confronting nursing staff in Western Australia emergency departments, the researcher was somewhat surprised to hear a comment by the Department of Health nurse representative, **HCS3**, who stated:

> Forensic has not come up as a major issue…I suppose when we are looking at why forensics hasn't come up, that's mainly because, I suppose there isn't a large number of nurses working in that area at this particularly point in time.

Such a statement was surprising after hearing conflicting opinions from the other forensic and healthcare stakeholders.

During the exploration of role identification during an interview, one ED medical consultant, **HCS5,** commented:

> I don't think it is the role of the Emergency Department to be able to take the evidence. Some of the police and some of the detectives need to have an understanding that we don't have the expertise…They are probably expecting more than we can offer.

Further discussions regarding roles and responsibilities, one ED nurse manager, **HCS8**, commented, "... there really needs to be, like across knowledge of what the police expect, what the doctors, what the nursing expect from these kind of situations, so that everybody is working together".

One clinical nurse, **HCS1**, commented, "We don't feel comfortable in dealing with it… probably because it is not physical and it is not something that we can quick-fix now and get them out. It is too difficult, so we don't embrace it".

The forensic detectives, in contrast, saw that the preservation of any forensic evidence was an important responsibility for ED staff to consider. **FS5** stated:

> When we take people to the hospital for blood tests and sometimes the doctors will baulk at it. That's probably one of the big issues. They won't take blood because of the possibility they might get sued civilly. There is a clause in statute law that covers doctors and nurses. But some doctors just don't want to take that risk".

In addition, the police saw nurses and ED medical staff as playing a key role in assisting them with their investigation. This idea centred on their belief that many crime victims and associated perpetrators were seen by hospital ED staff before police knew anything about a crime being committed. For example, **FS6** stated:

> Where when we get it (physical evidence), its not bagged, tagged, labelled or anything, its just one big green plastic bag full of whatever, so we bag, tag and label it at that particular time. So there can be a continuity gap of 24, 48, 72 hours – which is a problem.

Although there were differences in opinions, all forensic and medical stakeholders did agree, and stated clearly, that emergent lifesaving measures always take top priority. For example, **FS5** made this comment:

> Medical procedures have got to come first. Ours is second. Obviously the welfare of either the offender or a victim is paramount so if there are life threatening injuries we can't step in until the doctors or the medical people say yea ok.

Overall, there was a difference in opinion expressed amongst both the forensic and healthcare stakeholders regarding whose roles and responsibility it was particularly when the issue of evidence collection was discussed. In other words, some forensic stakeholders (especially the police) wanted and expected healthcare stakeholders to assist with this process while healthcare stakeholders were less confident about their involvement in the process. Due to the lack of role clarity and the fact that healthcare stakeholders were being requested to collect evidence the researcher believed that evidence collection was an important item to include as a topic in the educational package. Further discussion of this topic will occur below.

Theme 3: evidence collection

The forensic stakeholders all agreed that without correctly collected forensic samples, their jobs were made more difficult and often the lack of properly collected evidence samples hindered and jeopardized the outcome of cases. Many forensic stakeholders focused their comments solely on completing the task of evidence collection.

A typical comment received from a forensic detective, **FS5,** stated, "Evidentiary, I don't think the nurses would understand what we as investigators require as evidence".

When discussing ways to improve evidence collection, one detective, **FS6,** commented. "Any improvements' gotta be better than what we have got now, because it is not great now. I don't think anyway". Further support was provided by another detective, **FS4**, who stated:

> In my experience it has been left entirely in the domain of the police officers to arrange to have it collected or for us to collect it ourselves. I couldn't say that I have counted one occasion where it has been done prior to us attending the hospital.

The healthcare stakeholders also felt that evidence collection was an important issue to address. However, the healthcare stakeholders were more focused about the time required to collect samples, whether it should be part of their job description, and the lack of training to perform such tasks. Another concern was the legal aspects of such an issue.

One ED physician, **HCS4,** commented by saying, "I think its no training, certainly in my case and I am not aware of much training other than novelty lectures at medical school here at the moment".

When discussing educational issues, a clinical nurse, **HCS1,** responded, "The collection of forensic evidence, we (nurses) have a very rudimentary understanding and that's as far as it extends, but we have no skills in the collection". **HCS9** supported that view by commenting:

> I think probably most of us would have a reasonable idea of sexual assault evidence, what we should and shouldn't do, but certainly other things that come up in the forensic spotlight; we wouldn't be as clear on what we should do.

In responding to the question of whether nurses should collect evidence, one of the forensic attorneys, **FS7**, commented:

> I think they have an obligation, because they are in a sense the only people who can collect that. It is often gone, the evidence is gone, when they are out of the care of these people and I think from a community and justice perspective, I think they have an obligation to do that. It would be quite wrong to ignore it.

Due to the nature of forensics and forensic nursing, the topic of legal matters is usually a prominent theme. During the interviews for this study, legal issues were the fourth theme identified.

Theme 4: legal issues

Interviews with the healthcare stakeholders and two interviews with attorneys brought forth many of the legal concerns. The two main areas of concern from the legal aspect of forensic patient care was the ability to maintain chain of custody and the provision of thorough medical documentation. The healthcare stakeholders had more concern regarding how to maintain and what exactly was chain of custody. In

addition, healthcare stakeholders were apprehensive about going to court and providing evidence.

One forensic detective, **FS5**, commented by saying, "With inquires the end result is you go to court, continuity is a big thing in relation to can people tamper with evidence".

One clinical nurse, **HCS1**, commented about the level of understanding nurses have regarding legal issues by saying, "We are not sure whether, from a legal perspective, we are able to collect that evidence, so there is the legal aspects we are unsure of". Furthermore, **HCS9**, voiced similar concerns by stating, "you are not entirely sure of your rights and responsibilities, with how you should go about notifying them (DCD) or dealing with it".

Upon discussing legal issues related to providing nursing care to forensic patients, another clinical nurse, **HCS2**, stated:

> I don't think they (nurses) have much of an idea… I think generally nurses don't understand the legal implications of their practices… I know as students they are taught it. I find as practitioners they just forget about it… There is no structure to the nursing policies for forensics.

One of the legal professionals, **FS7**, commented:

> Trends I have noticed in some, which seems to be a personal thing, is people completely shy away from tracking any notes at all, about reporting for fear of getting involved in the legal process…Not fear of the system itself, but more fear of am I doing the right thing by my patient.

Logic suggests that the complex nature and intricacies of forensic cases would promote and generate strong interconnected relationships between forensic and healthcare professionals. Unfortunately, such a trend was not always demonstrated strongly during the interviews nor confirmed within the last theme. Finally, the last of the five themes identified from the interview data to be discussed is that of communication. This theme will be explored below.

Theme 5: communication

The issue of good communication between and among all forensic and healthcare professionals was seen as paramount. The issues of verbal and written documentation were considered under the category of communication. Ongoing interagency communication regarding feedback and requests was a recurrent issue that was brought up and deemed important by both healthcare and forensic professionals.

One ED physician, **HCS4**, commented about receiving feedback by saying:

> It's more to do with administration rather than anything
> clinically...There is a problem with feedback…Getting feedback to
> what was finally found to be cause of death, or reason of death. There
> is just a lack of feedback, even when you seek it…And if you don't
> have that feedback you don't know if what you are doing, at the end
> of the day, is right or wrong.

Regarding the lack of feedback from forensic community, one ED manager, **HCS7**, commented, "There doesn't seem to be that communication with police, with regard to forensic stuff in this Department...There doesn't seem to be a big push on that in regards to education...I mean I think we just do what we think we need to do".

Referring to the importance to written documentation, **FS8**, commented by saying, "I look through all of the documentation…they are not complete enough...I do not like the use of abbreviations without some form of accepted abbreviation…Handwriting is a real problem...just write what happened". Sentiments of questionable documentation were supported by one of the clinical nurses, **HCS1**, who stated:

> Nurses I think are generally poor with their documentation. It's just
> right across the board, whether it's a forensic patient or not, there
> could be a vast improvement. They will tell you they do not have time
> to write anything down, but you don't have time not to.

When exploring the topic of communication between police and hospital staff, one of the clinical nurses**, HCS1** responded:

> The assumption is made is that we would sort them out when they
> come here… as long as the patient tells us that we need to record their
> injuries for a police record, the doctor can take a much more detailed
> note and draw body maps and that sort of stuff.

One forensic detective, **FS4**, supported this statement by stating, "A lot of people present at hospitals and that information is never filtered through to us". While one nurse manager**, HCS9** commented, "They (forensic professionals) are open in communicating in a sort of a down to earth manner, rather than a very official manner. Feedback no, I don't think we ever get really satisfactory feedback".

HCS6, a medical physician**,** commented about communication problems he had experienced by stating:

> We haven't the foggiest idea who our forensic pathologist is who is
> on call, or how to get hold of him, or who is supposed to do anything,
> unless you phone around – you know…it's sort of hear-say at the
> moment, as to who you should be able to talk to.

The content of the forensic educational package was greatly influenced by the data collected from the healthcare and forensic stakeholders. Initially, the researcher read all of the interview transcripts thoroughly and identifying significant statements and phrases that were pertinent to this study. Five overall themes were created (identifying forensic patients, roles and responsibilities, evidence collection, legal issues, and communication) to guide the development of the forensic educational package and three intervention workshops.

Development of a forensic educational package

The development of the forensic educational package was influenced by data collected from; stakeholder interviews, review of HospB and HospC policy and procedure manuals, results from the replication of Pasqualone's study, and data collected from questionnaires completed by stakeholders. All of the data that influenced and contributed to the development of the forensic educational package contents and associated workshops will be examined below.

Stakeholder interviews

During the stakeholder interviews, each participant was asked to identify their perceptions of the three top forensic issues that were vital to include into an educational package developed for ED nurses. There were five topics that were identified repeatedly throughout all 22 interviews. These topics included; better identification of forensic patients by nursing staff, improved written documentation,

need for more training in relation to forensic evidence collection procedures, increased awareness of legal processes associated with forensic cases, and the need for better communication between forensic and healthcare agencies.

Review of policy and procedure manuals

The electronic and paper based policy and procedure manuals at both hospital B and C were reviewed in order to identify policies that might impact this study. This was done because the researcher was interested in identifying whether any information in current policy and procedure manuals would affect answers participants provided in the questionnaires and whether any information provided in the educational packages would contradict current hospital policies. For example, both HospB and HospC forensic evidence collection policies called for the treating medical officer to sign and seal the evidence bags. Such policy guidelines could affect the study in two ways. Firstly, participants were asked (question 12) to identify what information should be placed on each bag of evidence. If participants identified the treating medical officer as information that must be placed on each evidence bag, such answers could not be identified as incorrect. Secondly, such methods are not usual standards for forensic evidence collection and therefore were not going to be taught during the intervention workshops (Lynch, 2006; James and Nordby, 2003; Saferstein, 2004). Further details of this activity will be discussed under the two participant hospital headings below.

Hospital B

During the policy and procedure manual review the researcher identified eight polices that could have had an impact upon the educational package content solely because of the forensic associated content. For example, content within policies on child abuse and domestic violence could have suggestions about how such forensic patients needed to be treated according to law. Such information could have influenced the scoring of the questionnaire if the policy information was not in agreement or different from the best forensic practice standards that were being introduced to participants in the study workshops. Therefore, each policy was reviewed for content to establish if information could alter, influence or bias participant's questionnaire responses. The policy documents reviewed from this hospital included; management of alcohol withdrawal guidelines, nursing

documentation guidelines, not for resuscitation orders, disposal of human tissue guidelines, substance abuse patient management guidelines, occupational health and safety, infection control, and forensic evidence guidelines.

The only policy that the researcher felt may influence the questionnaire responses provided by participants was the hospital's forensic evidence guidelines policy. There were three areas of concern identified in this policy which included; a step-by-step guideline outlining how to preserve evidence, the absence of any discussion regarding the need to maintain a chain of custody, and the type of information staff should place on bags containing evidence. For example, the hospital's forensic evidence policy advised staff to seal evidence bags with a stapler instead of tape. Using a stapler is not a usual practice in standard forensic collection procedures and therefore not a practice that was included in this study (James and Nordby, 2003). Furthermore, in the step-by-step guidelines, staff were directed to hand evidence bags to security officers to allow for storage of such items. Again no mention of completing a chain of custody form was included in the policy nor did the policy insist that all evidence be placed in a locked cabinet so that the issue of evidence tampering was addressed.

After collating the questionnaire responses, the researcher was not surprised that questionnaire results were not altered by the existing forensic policy at HospB because responses from question 10 indicated that 52% of participants were not sure if the hospital had a forensic evidence guidelines policy. Additionally, 12 of 27 (45%) cited that the ED did not have a forensic evidence collection policy. There was only one (3%) participant, **HB29**, which correctly acknowledged the existence of the forensic evidence collection policy. It was interesting to note, that the responses to question 12 and 14 were not affected by **HB29's** knowledge of the existing forensic evidence guidelines policy.

These findings could be due to several facts. Firstly, after the researcher spoke with participants about this issue, it was discovered that many participants admitted that they did not read hospital policies unless they needed guidance or clarification regarding a specific clinical practice issue. Furthermore, the staff development nurse commented to the researcher that some policies are created in response to a specific

patient incidence to provide quality improvement. For example, if evidence had been discarded in an important case, a forensic evidence policy could have been updated and circulated to nursing staff. However, if this policy had not been regularly distributed some participants could have missed being exposed to such information or not employed with the hospital at the time of distribution. Theses types of reasons could account for participants being unaware of policies and their content.

Hospital C

While reviewing the policy and procedure manuals, the researcher identified 10 policy titles that had the potential to impact data collected in this study. There was a difference in the number of policies that were reviewed at HospB and HospC even though the same process was used at all hospital sites. Possible explanations might include that HospB provided healthcare services that combined private and public facilities whereas HospA and HospC was solely a tertiary public facility. Differences in administration, budgets, and legal obligations could account for the number and types of policies contained in each of the ED policy and procedure manuals.

Similar to HospB, each policy within HospC's policy and procedure manuals was reviewed for content to ensure that no conflicts were present that could alter, influence or bias information participants provided in their questionnaire or with guidelines developed for the educational package. The policy documents reviewed from this hospital included; mental health, forensic psychiatric (over dose), aggressive and disturbed patients, child maltreatment and/or neglect, domestic violence, standards for clinical documentation, coronial cases, occupational health and safety, infection control and forensic evidence.

All of the policies reviewed contained subheadings that included; the designation of the hospital personnel who were able to care for specific patient populations, patient outcomes, equipment required, and steps required to accomplish care for patients. An example of a policy reviewed from HospC can be seen in Appendix 26. Two of the policies (forensic psychiatric -over dose and forensic evidence) contained flow diagrams to assist nurses when providing care. Three policy documents (child maltreatment and/or neglect, domestic violence, standards for clinical documentation) cited additional manuals and resources that could be consulted for

further assistance. Three documents (child maltreatment and/or neglect, domestic violence, and coronial cases) contained phone numbers staff could use for further assistance and three documents (child maltreatment and/or neglect, mental health, and coronial cases) contained legal references.

Overall, the researcher believed only the hospital's forensic evidence guidelines policy could influence the study. Similar to HospB, the primary areas of concern included; a step-by-step guideline regarding preserving evidence, the absence of any discussion regarding the need to maintain a chain of custody, and the information staff should place on bags containing evidence. For example, the policy advised the healthcare worker to stick a patient's medical label to any paper bag containing evidence, that a stapler should be used to seal evidence bags, and that the treating doctor needed to sign the sealed evidence bags. Such practices were not usual forensic collection procedures and therefore not practices that were going to be included in this study (James and Nordby, 2003).

The above items were discussed with the ED manager who agreed that the study guidelines included in the educational package were best practice. Therefore, during the workshops, all participants were taught evidence collection techniques that differed from the hospital policy but were best practice. When scoring the pre-test questionnaires, the researcher gave full marks to any answers that corresponded to hospital policy information. As with HospB, there were no participants who provided responses to question 12 or 14 that were consistent with the hospital's forensic evidence collection policy information. In fact, data from question 10 indicated that 17 of 22 (77%) respondents did not know if the ED had a forensic evidence collection policy and five of 22 (23%) cited that the ED did not have any forensic evidence collection policy.

Replication of Pasqualone's study

All of the educational material contained within the package was guided by the results obtained from replicating Pasqualone's research. The 27 categories of forensic patients identified in that replication study provided the researcher with information about the specific material that needed to be included in the educational sessions. The workshop content, evidence collection protocols and information

sheets focused on procedures and patient care standards relating to the 27 forensic patient categories identified in the replication study. Complete data results from the replication study have already been discussed in Chapter 4.

Stakeholder questionnaires

All of the forensic stakeholders were requested to complete sections of the pre-test questionnaire associated with their area of expertise. The information collected from this activity was utilised to verify and confirm workshop content and formalise the questionnaire marking key. For example, the forensic scientist and forensic pathologist experts provided advice about evidence collection addressed in question 12. Such professional feedback assisted the researcher in ensuring the accuracy of the workshop content and how to rate specific questions.

There were no major alterations that took place once all of the expert feedback had been analysed. The majority of feedback provided support to the methods that were contained within the educational package. There were, however, minor suggestions that the researcher acted upon. Many of the minor changes involved how different types of evidence were to be preserved. Some of the answers to specimen collection in question 12 went from being a one right response to having two or three correct options. For example, the packaging of debris (glass, paint chips, soil, and fingernail clippings) was originally to be collected in an envelope. However, both the forensic scientist and forensic pathologist experts agreed that such samples could also be effectively preserved in a yellow capped plastic specimen jar.

Overall, the framework and contents of the forensic education package was greatly influenced by three primary data sources. This data included stakeholder interviews, information gathered from the replication of Pasqualone's study, and the responses collated from the questionnaires completed by the stakeholders. The completion of such activities with the subsequent development of the educational package allowed the researcher to fulfil study objectives one and two. In order to fulfil study objectives three, four, five, and six, the researcher utilised data from the pre and post-questionnaires and other activities outlined in Figure 3.1. The data that address the study objectives three, four, five, and six will be discussed below.

Nurse perceptions on roles and responsibilities

From the 18 core questions, 12 (questions 4, 6, 7, 8, 9, 13, 15, 16, 17, 18, 19, and 20) focused upon the perceptions Western Australia emergency department RNs had regarding their roles and responsibilities related to forensic patient care. The 12 questions related to different aspects of nursing roles and responsibilities concerned with forensic patient care. The data collected was ratio level data as the scale of the scores had a possible range of between absolute zero and a maximum score of 41. After consulting with a statistician, a t-Test was suggested to examine the scores of the pre and post-questionnaire data.

Hospital B

The pre-test questionnaire data revealed that HospB participants had a mean score of 22.04 out of 41 (53.8%), while HospC participants mean score was 23.82 (58.1%). Using an independent t-Test, these scores did not prove to be statistically significant (see Tables 5.6 and 5.7). The second table, titled Independent Samples t-Test for HospB and HospC Pre-Questionnaire Roles and Responsibility Scores (Table 5.7), contains Levene's Test for Equality of Variances. This test indicates whether the variances for the two groups being compared are equivalent (Munro, 2001). If the Levene's test is not significant (Sig. is greater than .05), the two variances are considered not significantly different. From Table 5.7, the significance is .121, which is greater that .05. Therefore, by reading the top line in Table 5.7 (equal variances assumed), the pre- questionnaire data findings indicated (t value is 1.1) that the participants from both hospitals had similar perceptions about what was and was not part of their roles and responsibilities surrounding forensic patient care.

Hospital C

When the pre and post-questionnaire scores from HospC were compared (see Table 5.8), the descriptive statistics revealed that there was an increase in the mean score from 23.82 (58.1%) to 31.09 (75.8%). This was an overall increase of 17.7%. Using a dependent paired t-Test, these scores proved to be statistically significant (see Tables 5.8, 5.9 and 5.10). The second table, titled Paired Samples Correlations of HospC Pre and Post-Test Questionnaire Role and Responsibility Scores (Table 5.9), provided the correlation statistic between the two variables (pre and post role and

Table 5.6: Group Statistics for HospB and HospC Pre-Test Questionnaire Role and Responsibility Scores

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pre-Questionnaire Role Score	HospB	27	22.0370	6.36989	1.22589
	HospC	22	23.8182	4.57359	.97509

Table 5.7: Independent Samples t-Test for HospB and HospC Pre-Test Questionnaire Roles and Responsibility Scores

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Upper	Lower
Pre-Role Score	Equal variances assumed	2.499	.121	1.100	47	.277	1.78114	1.61944	-1.47675	5.03904
	Equal variances not assumed			1.137	46.341	.261	1.78114	1.56640	-1.37123	4.93351

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Table 5.8: Paired Samples Demographic Statistics of HospC Pre and Post-Test Questionnaire Role and Responsibility Scores

		Mean	N	Std. Deviation	Std. Error Mean
Hosp C	Pre Role Score	23.8182	22	4.57359	.97509
	Post Role Score	31.0909	22	3.36522	.71747

Table 5.9: Paired Samples Correlations of HospC Pre and Post-Test Questionnaire Role and Responsibility Scores

		N	Correlation	Sig.
Hosp C	Pre Role Score & Post Role Score	22	.663	.001

Table 5.10: Paired Samples t-Test of HospC Pre and Post-Test Questionnaire Role and Responsibility Scores

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Upper	Lower	t	df	Sig. (2-tailed)
Hosp C	Pre Role Score – Post Role Score	-7.27273	3.43902	.73320	-8.79750	-5.74795	-9.919	21	.000

responsibility scores). A result of .663 indicates that there is a strong positive correlation between the two variables (pre and post role and responsibility scores).

The table titled Paired Samples t-Test of Pre and Post-Test Questionnaire of HospC Role and Responsibility Scores (Table 5.10) contains the statistical results of the pre and post- questionnaire paired samples test. The observed t-value, calculated as the mean difference (-7.27273) divided by its standard error (.733) is -9.919. The computed p-value had been shown to be .000. SPSS rounds off p-values to three decimal places (Kirkpatrick and Feeney, 2003). Therefore, any p-value less than .0005 is printed as .000. To verify this result, the researcher consulted experts to determine the critical t-value associated with 21 degrees of freedom and an alpha level of .001 (Munro, 2001, p.421). The tables indicated that a critical $t_{.001}(21) = 3.819$. The observed t-value of -7.27273 is greater than the critical t-value of 3.819. In other words, the statistical analysis support the argument that the educational package significantly altered the perceptions the treatment group nurses had regarding their roles and responsibilities associated with forensic patient care.

Question number four in the pre-test questionnaire asked the participant directly who they perceived as being responsible for addressing forensic patient needs. It was interesting to note that the majority of participants felt nurses, doctors and police were responsible for forensic patient care (see Table 5.11 below). The results from the pre and post test scores for HospC participants indicated that the educational package affected participant perceptions. The post scores showed a shift in perception with 100% of responses agreeing that nurses, doctors and police were all responsible for forensic patient care. The shift in perception came from five participants, who on the pre-test, indicated that the police or the individual (forensic patient) themselves were responsible for addressing forensic patient needs.

Although the data from the pre and post-test questionnaires indicated that participants were more accepting of their roles and responsibilities regarding the provision of forensic patient care, some participants still felt apprehensive and confused. For example, during the focus group interviews, participant **HC33** stated:

Once again back to the lady and daughter of the attempted murder/suicide. I did not know how much information I could give her without jeopardizing the case. I wanted to know what I can say to people. What do police expect from us? Who tells the lady what she wanted to know? It was very difficult and confusing.

Table 5.11: Professional Responsibility to Provide Forensic Patient Care

Participant	Person Who is Responsible for Taking Care of Forensic Care Issues			
	Nurses	Doctors	Police	Up to each individual (forensic patient)
Control	74.1%	81.5%	85.2%	7.4%
Treatment Pre Post	 81.8% 100%	 81.8% 100%	 90.9% 100%	 9.1% 0

To address the study objectives four, five and six, a detailed evaluation of the questionnaire results, chart check audit data, and the forensic kit contents is required. The discussion that follows will address each of these study aspects independently.

Educational package effectiveness

To assess whether the forensic educational package was effective, data from six sources was considered and analysed. Data sources included; questionnaire results, chart check audits, forensic kit supplies, workshop evaluations, follow-up interviews, and the researcher's phone log. The researcher was interested in identifying any increase in forensic related knowledge, whether the educational package promoted change in nursing practice, whether forensic kit items were utilised, and if the participants found the educational tools useful and effective. To evaluate the overall effectiveness of the educational package and identify whether any changes in nursing practice occurred, an in-depth evaluation of the six sources of data will be discussed below.

Questionnaire results

There were 18 identical core questions contained in both the pre and post-questionnaire that were used during the data analysis phase. Data collected from the pre and post-test questionnaire was recorded in a ratio scale. In other words, all of the questions in the pre and post-test questionnaire had the possibility of obtaining a score of absolute zero that was not arbitrary. In addition, all scores obtained by each

participant had equal intervals between them (Munro, 2001). In other words, the intervals between scores were noted in whole numbers such as a score of 42 versus a score of 45. In this chapter, all references made about particular question numbers in all discussions, tables, and charts will reflect the order in which they occur on the pre-test questionnaire. The 18 core questions did not appear in exactly the same order on the pre and post-test questionnaire due to a slight variation in questionnaire content (see Appendix 5 and 6 respectively).

Overall, there were five questions that differed between the pre and post-test questionnaire. Questions one and 10 only appeared on the pre-test questionnaire and questions six, 14, and 22 only appeared on the post test questionnaire. The reason for the variation in question content was that some questions related specifically to treatment group participant experiences. For example, question six on the post-test questionnaire asked treatment group participants if they gained useful forensic knowledge during their involvement in the study whereas post-test question 14 asked participants whether they felt their forensic knowledge had increased due to their involvement in this study.

All of the quantifiable data from the questionnaires was subjected to analysis using the Statistical Package for Social Sciences (SPSS), Version 15. A comparison of HospB and HospC pre-test data will be discussed initially under the heading of pre-test data. Following on from this discussion will be a comparison of pre versus post-test under individual hospital headings. Finally, a qualitative evaluation on post-test data from HospB and HospC will conclude this section on questionnaire results.

Pre-test data

The overall mean from the 18 core questions was tabulated for all HospB and HospC participants who completed and returned the pre-test questionnaire (see Table 5.12). In addition, a mean score for individual core questions was also calculated by adding together all of the participant responses from each question and dividing it by the total number of hospital participants from the two study sites. The results of this analysis can be found in Table 5.13 and 5.14. A pictorial depiction of the mean pre-test questionnaire scores of HospB and HospC participants is shown below in Figure 8.

Table 5.12: HospB and HospC - Comparison of 18 Core Question Pre-Test Score Results

Question	Pre-score HospB Average N = 27	Pre-score HospC Average N = 22	Score Difference HospB - HospC	Total Score Possible
2	1.33	0.48	+0.85	2
3	11.55	14.09	-2.54	25
4	3.04	3.68	-0.64	5
5*	Personal opinion answer requested. No right or wrong answer.			
6	5.70	7.14	-1.44	11
7	4.37	4.32	+0.05	5
8	0.59	0.41	+0.18	1
9	0.37	0.54	-0.17	2
11*	Personal opinion answer requested. No right or wrong answer.			
12	6.30	6.68	-0.38	15
13	2.63	3.23	-0.60	6
14	3.22	3.36	-0.14	6
15	0.22	0.09	+0.13	1
16	1.26	1.45	-0.19	4
17	0.89	0.54	+0.35	1
18	1.63	1.45	+0.18	2
19	0.52	0.45	+0.07	2
20	0.67	0.41	+0.26	1
Total	43.61	48.18	-3.03	88
Percentage	49.56%	54.75%	-3.45%	

*Scores from these questions were not factored into the final score.

The overall pre-test questionnaire scores from the 18 core questions were analysed with SPSS using an independent *t*-Test. The descriptive data from the pre-test questionnaire revealed that HospB participants had an overall pre-test questionnaire mean score of 43.61 out of 88 (49.6%) while HospC participants had an overall pre-test questionnaire mean score of 48.18 (54.7%). Using an independent t-Test, these scores did not prove to be statistically significantly (see Tables 5.13).

Figure 8: HospB and HospC Pre-Test Questionnaire Scores
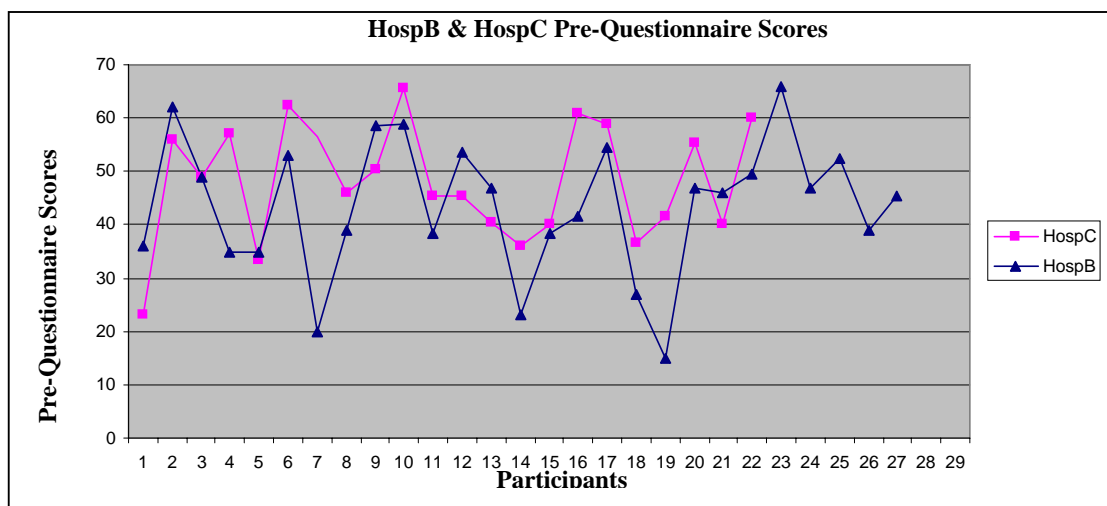
The second table titled Independent Samples Test for HospB & HospC 18 Core Pre-Questionnaire Scores (Table 5.14), contains Levene's Test for Equality of Variances. From Table 5.14, the significance value is .684, which is greater that .05. Therefore, by reading the top line in Table 5.14 (equal variances assumed), the pre-test data findings indicated (T value is 1.328) that the participants from both hospitals had similar overall forensic knowledge before any of the study interventions were commenced. In other words, this test revealed that the pre-test scores from both HospB and HospC participants were not significantly different.

In addition to the calculation of the overall mean pre-test questionnaire score, the mean of each core pre-test question was calculated and compared between HospB and HospC to discover if any large discrepancies existed between specific questions. For the majority of questions (13 of the 18 or 72%), the mean difference was small (ranging between .05 and .38). There were five questions (two, three, four, six, and 13) where the mean scores between the two hospitals differed by more than .5. For example, HospB participants obtained a mean of 11.55 out of a possible 25 for question 3, while HospC participants had a mean of 14.09 (a difference of 2.54). This was the largest difference noted of any of the questions when hospital scores were compared.

Table 5.13: Group Statistics for HospB & HospC 18 Core Pre-Test Questionnaire Scores

Group	N	Mean	Std. Deviation	Std. Error Mean
HospB	27	43.6111	12.66608	2.43759
HospC	22	48.1818	11.06963	2.36005

Table 5.14: Independent Samples Test for HospB & HospC 18 Core Pre-Test Questionnaire Scores

	Levene's Test for Equality of Variances		t-test for Equality of Means							
									95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.167	.684	1.328	47	.190	4.57071	3.44056	-2.35080	11.49222
Equal variances not assumed			1.347	46.741	.184	4.57071	3.39289	-2.25590	11.39732

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Although question two only had a total possible score of two, this question displayed the third largest mean difference between the hospital sites. Question two asked participants to define forensic nursing. A response received the maximum of two points if the participant stated that forensic nursing incorporated nursing practice and the law. Partial marks were also allocated to responses where participants included the existence of legal topics and issues.

For example, **HC29** defined forensic nursing as "involves being aware/preserving any evidence, that may be needed for further investigations of criminal activity, abuse". Such a response received credit for being partially correct. In the post-questionnaire answer, **HC29** defined forensic nursing as "collection of data in such a way that preserves a chain of evidence should it be required at a later date by courts of law". Due to the mention of a connection with the law, such a definition received full credit for being correct or two marks.

The numbers of partial and completely correct responses obtained from HospB and HospC participants in their pre -test questionnaires were similar. On the pre-test questionnaire, four HospB participants (14.8%) received full marks for their forensic nursing definition as compared to three HospC participants (13.6%). The similarities in correct responses suggest that both groups had similar knowledge regarding their ability to define forensic nursing.

However, the researcher did note that HospC participants did show a slightly higher percentage (45.4%) of partially correct answers than HospB participants (33.3%). This result could be due to the fact that HospC had twice the number of participants who were over 40 years old and participants also had a higher mean number of years working in the ED than participants from HospB (17 and 11 years respectively). It is possible that the greater amount of life experiences and exposure to the ED environment could account for the differences between HospB and HospC responses. The results of this question analysis can be found in Table 5.15 below.

Table 5.15: HospB and HospC Pre-Test Results for Definitions of Forensic Nursing

Definition Score	HospB Pre-test score N=27	HospC Pre-test score N=22
Blank or "No idea"	9 33.3%	7 31.8%
Wrong	5 18.5%	2 9.1%
Partially correct	9 33.3%	10 45.4%
Correct	4 14.8%	3 13.6%

A question that produced a surprisingly low mean score difference (0.38) was question 12. Question 12 asked participants to identify how certain forensic evidence samples should be collected and stored. Many of the forensic evidence items listed in question 12 contained items that would have been routinely encountered by nursing staff who work in the ED setting. Regular exposure to such items may account for the similarity in scores between hospital sties. Participants could have been familiar with how to collect and store common types of evidence (such as clothes) and therefore had some common knowledge and experience about the collection process of such items.

There were two questions (five and 11), that due to the nature of the question, the responses were not factored into the final mean score. These two questions required participants to provide their personal opinion; therefore, a judgement regarding any absolute correctness could not be established and therefore the questions were excluded from the overall mean average calculations. In addition, question five asked participants if they believed they had enough forensic knowledge to address their patient's needs. It was interesting to note that only one participant from HospC answered yes to this question. All other participants felt they did not have enough forensic knowledge to address their patient's needs. Of further interest was that the participant who thought they had enough forensic knowledge only obtained a total pre-test questionnaire score of 48 out of a total of 88 (54%).

Question 11 asked participants to identify the areas that they would like more forensic education about. Once again, the results of this question were similar

between HospB and HospC. At both hospital sites, legal issues was the forensic topic the majority of participants ranked least important to include in future forensic educational material in relation to the remaining topics of forensic patient identification, documentation, and evidence collection. The detailed results of this question can be seen in Table 5.16 below.

Table 5.16: Topics of Forensic Educational Requested by HospB and HospC Participants

Topics of Requested Forensic Education	HospB N=27	HospC N=22
Legal issues	21 (78%)	17 (72%)
Forensic patient identification	23 (85%)	21 (95%)
Documentation	24 (89%)	20 (91%)
Evidence collection	24 (89%)	22 (100%)
Other	1 - "everything"	0
Satisfied with current knowledge	0	0
No response	1	0

Lastly, there were two questions that appeared only on the pre-test questionnaire, question one and 10. Question one on the pre-test questionnaire asked participants whether they felt having updated forensic knowledge was important. The majority of participants from HospB (63%) and HospC (73%) agreed that updated forensic knowledge was crucial in their work environment (see Table 5.17 below).

Table 5.17: The Importance of Updated Forensic Knowledge

Study Site	Pre-Test Question One		
	Yes	No	No response
Hosp B N = 27	17 63%	2 7%	8 30%
HospC N = 22	16 73%	1 4%	5 23%

Question 10 asked participants whether educational material describing how to handle forensic evidence was available in the ED. There was only one participant from HospB that correctly answered this question. The researcher was surprised to

find that only one person out of 49 participants knew the correct answer as both hospitals did have policies that discussed how to handle forensic evidence.

Overall, the statistical analysis of the pre-test questionnaire scores between HospB and HospC indicated that initial participant knowledge regarding forensic nursing issues was similar among all study participants before any of the study interventions were commenced. Below the discussion will focus upon data analysis of the second post-test questionnaire. To maintain consistency, the post-test questionnaire data analysis results will be discussed under the two study hospital sites (HospB and HospC).

Hospital B

Unfortunately, a large drop out rate was observed when HospB participants were requested to complete and return their post-test questionnaire. Each participant was contacted twice about returning their post-test questionnaire; however, only seven of the original 27 participants (26%) followed through and returned their completed second questionnaire. Due to the small number of control group participants who completed and returned a pre and post-test questionnaire, statistical investigations used to identify the existence of any relationships between pre and post-test questionnaire data was not possible. Therefore, the researcher was unable to comment whether the educational package made a significant difference to participant knowledge as indicated by comparing HospB and HospC pre and post-test questionnaire scores.

Hospital C

The pre and post-test questionnaire means from the 18 core questions were tabulated for HospC participants (see Table 5.18). The data analysis revealed that there was an increase of 23.11% between the pre and post-test questionnaire mean for HospC participants. The pre-test questionnaire mean increased from 48.18 to a post-test mean score of 68.52. Once again, due to the nature of the question, the responses to question 5 and 11 were not factored into the final questionnaire mean. These two questions requested a personal opinion from the participant and therefore a correct answer could not be established.

Table 5.18: HospC – Pre and Post-Test Questionnaire Results

Question	Pre-score Average N=22	Post-score Average N=22	Score Difference	Total Score Possible
2	0.48	1.07	+0.59	2
3	14.09	22.41	+8.32	25
4	3.68	4.59	+0.91	5
5*	Personal opinion answer requested. No right or wrong answer possible.			
6	7.14	8.27	+1.13	11
7	4.32	4.77	+0.45	5
8	0.41	0.95	+0.54	1
9	0.54	1.09	+0.55	2
11*	Personal opinion answer requested. No right or wrong answer possible.			
12	6.68	9.68	+3.00	15
13	3.23	5.23	+2.00	6
14	3.36	4.45	+1.09	6
15	0.09	0.23	+0.14	1
16	1.45	2.18	+0.73	4
17	0.54	0.82	+0.28	1
18	1.45	1.73	+0.28	2
19	0.45	1.00	+0.55	2
20	0.41	0.82	+0.41	1
Total	48.18	68.52	+20.97	
Percentage	54.75%	77.86%	+23.11%	88

*Scores from these questions were not factored into the final score.

The statistical analysis completed on HospC pre and post-questionnaire data is presented in Tables 5.19-5.21. A pictorial representation of the mean score differences can be seen in Figure 9 and Figure 10.

The demographic statistics (see Table 5.19) revealed that there was an increase in the mean questionnaire score from pre-test mean of 48.18 (54.75%) to a post-test mean score of 68.52 (77.86%). This was an overall increase of 23.11%. Furthermore, it was noted that there were similar pre and post standard deviation values (pre=11.06 and post=8.68) which indicated that there was low variability of the sample mean about the true population.

Figure 9: HospC Pre and Post-Test Questionnaire Scores
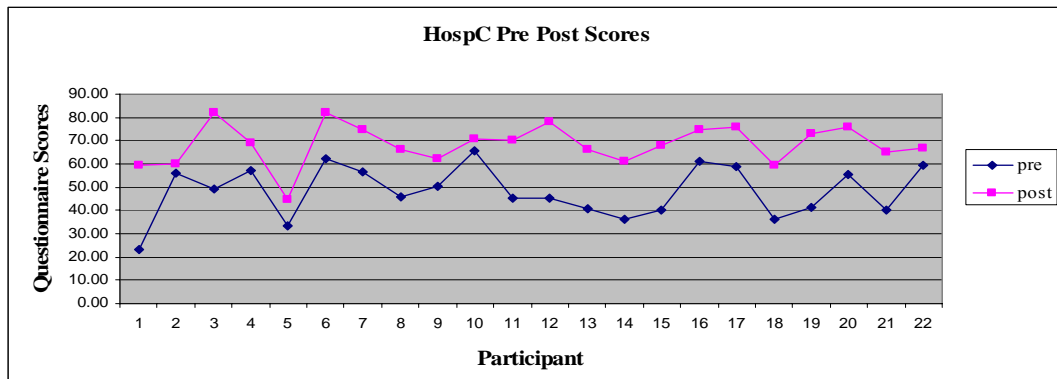
Figure 10: HospC - Mean Difference between Pre and Post-Test Questionnaire Scores
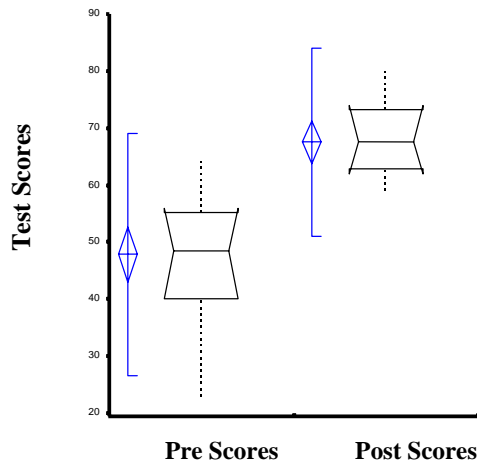
The second table, titled Paired Samples Correlations for HospC Pre and Post-Questionnaire Scores (Table 5.20), provided the correlation statistic between the two variables. The results of .589 indicate that there is a strong positive correlation between the two variables. Correlations of .35 or higher are considered significant (Munro, 2001).

Lastly, the scores were analysed with a Dependent-Paired Samples t-Test. The results of this test revealed that the pre and post score were significantly different at a level of <0.0001. The observed t-value was calculated as the mean difference (-20.34) divided by its standard error (1.96) which gave a value of -10.371. The computed *p*-value has been shown to be .000. Statistical tables indicated that a critical $t_{.001}(21) = 3.819$ (Hicks, 2004, p. 278). The observed *t*-value of -10.371 is greater than the

Table 5.19: Paired Samples Demographic Statistics for HospC Pre and Post-Test Questionnaire Scores

HospC	Mean	N	Std. Deviation	Std. Error Mean
Pre-score	48.1818	22	11.06963	2.36005
Post-score	68.5227	22	8.68013	1.85061

Table 5.20: Paired Samples Correlations for HospC Pre and Post-Test Questionnaire Scores

		N	Correlation	Sig.
Pair 1	HospC Pre-score & Post-score	22	.589	.004

Table 5.21: Paired Samples Test for HospC Pre and Post-Test Questionnaire Scores

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	CPrescore - CPostscore	-20.34091	9.19936	1.96131	-24.41968	-16.26214	-10.371	21	.000

critical *t*-value of 3.819. In other words, the statistical analysis indicates that the forensic educational package did have s significant effect on the difference in pre- and post-intervention questionnaire scores.

Participants were asked to define forensic nursing in both the pre and post-test questionnaire (question 2 and 1 respectively). There was a big difference in the number of partial and completely correct responses HospC participants provided on their pre and post-test questionnaires. On the pre-test questionnaire, only three participants (13%) received full credit marks for their forensic nursing definition. However, on the post-test questionnaire, the number of participants who received full credit marks for their forensic nursing definition increased from 3 on the pre-test questionnaire to 11 (50%) on the post-test questionnaire. In addition, the number of partial credit marks decreased from 45 percent (10 participants) to 27 percent or 6 participants. Finally, the number of incorrect answers, questions left blank or "no idea" responses decreased from 32% to 23 % (see Table 5.22). Such findings support the argument that the forensic educational package was successful in increasing forensic knowledge of HospC participants.

Table 5.22: HospC Definitions of Forensic Nursing

Definition Results	¤N = 22			
	Pre Education score	Pre Education %	Post Education score	Post Education %
Left Blank	5	32	5	23
"No idea/ Unknown"	1		0	
Wrong	1		0	
Partial credit	10	45	6	27
Correct	3	13	11	50

Question 11 on the pre-test questionnaire, asked participants to indicate the topics of forensic education they believed would benefit their practice. The responses indicated that none of the participants were satisfied with their current level of forensic knowledge. All participants indicated that the four questionnaire options (legal issues, documentation, evidence collection, and forensic patient identification) would be of similar importance to include in any future educational workshops (see Table 5.23).

Table 5.23: HospC Forensic Educational preferences

N = 22	Pre-test preferences	Post-test preferences
Legal issues	17	8
Forensic patient identification	21	2
Documentation	20	4
Evidence collection	22	2
Other	0	3
Satisfied with current knowledge	0	10
No response	0	1

It was interesting to note that the post-test preferences for post-test question 10 were vastly different from the pre-test responses. Unlike the pre-test, there were 10 participants that indicated that they were satisfied with their level of forensic knowledge. Eight participants indicated that they would like more forensic education relating to legal issues, four for documentation, two for evidence collection and forensic patient identification and one participant did not respond to this question (see Table 5.23). There were three participants that ticked "other". All three "other" responses indicated that participants would like regular updates to reinforce the educational content and be provided with any updated information.

Question one in the pre-test questionnaire explored whether participants believed updated forensic knowledge was crucial to have in their work environment. The results from this question indicated that the majority of HospC participants (72.7%) thought that forensic knowledge was crucial for their unit. There was one participant who believed that forensic knowledge was not crucial for their unit and five participants responded that they did not know.

It was interesting to note that the one participant, **HC20**, who believed that forensic knowledge was not crucial for their unit also indicated that they believed they did not have enough forensic knowledge to address their patient's needs on both the pre and post-test questionnaire (question 5 and 4 respectively). Furthermore, in the post-test questionnaire, **HC20** commented that, "I am more aware of forensic issues with my

nursing practise and will collect evidence and preserve evidence on patients better now".

The five participants (**HC8, HC12, HC14, HC16**, and **HC21**) who responded that they did not know if forensic knowledge was crucial for their unit all responded that they did not have enough forensic knowledge to address their patient's needs (pre-test question 5). These five participants provided mixed responses in their post-test questionnaires. **HC14** did not believe they had enough forensic knowledge to address their patient's needs, **HC8** believed they did, and **HC12, HC16**, and **HC21** responded they did not know. Similar to **HC20**, all five participants demonstrated an increase in their post-test questionnaire scores by an average of 15 marks. Finally, comments from all five participants indicated that they found the information from the workshops valuable. For example, **HC12** stated, "Forensic nursing is all new to me. The package info made me aware of the 'forensic side' of things and also altered my way of documenting".

There were three questions that were unique to the post-test questionnaire (questions six, 14, and 22). These questions only appeared on the post-test questionnaire completed by HospC participants. All three questions requested information that could only be provided by those participants who were exposed to the content of the educational package. Of the 22 participants, 21 (95%) believed they gained useful forensic knowledge from the workshops (question six). This data adds strength to the suggestion that the educational package was successful. Furthermore, there was only one participant who ticked the response "do not know" to question six.

Question 14 requested participants to indicate the areas of forensic knowledge that had increased due to their involvement in the study. There were four options available including; legal issues, forensic patient identification, documentation and evidence collection. An option of "other" was also included in case participants wanted to add their own topics. The results of the pre and post-test data enabled the researcher to further evaluate the educational package's level of success. The comparison of pre and post-test data allowed the researcher to identify whether the areas for educational focus identified on the pre-test questionnaire had been addressed satisfactorily in the workshops. Responses in the post-test data suggested

that participants felt that there had been overall improvements made in their knowledge base.

There were 12 of the 22 participants (55%) that believed their forensic knowledge had improved in all four areas (legal issues, forensic patient identification, documentation and evidence collection). Eight of the 22 participants (36%) believed their forensic knowledge had improved in three of the four identified areas. Two participants (9%) cited improvement in one of the four identified areas. The area most participants sited for improvement was documentation with forensic patient identification and evidence collection following in the post-test ranking (see Table 5.24).

Table 5.24: HospC Forensic Educational Improvement

N = 22	Area for educational focus Pre-test	Areas of identified Improvement Post-test
Legal issues	17	13
Forensic patient identification	21	20
Documentation	20	21
Evidence collection	22	20
No response	0	0

Pre and post-test question 15 dealt with issues surrounding Australia's National *Privacy Act*. This question, overall, was the most frequently missed question on both the pre and post-test questionnaire. Although the number of HospC participants that answered this question incorrectly decreased from 21 to 17, such results indicated that case study scenarios that dealt with legal issues were an area in need of further attention. Overall, legal questions contained within the questionnaire and legal issues discussed within the workshop attracted the highest level of incorrect responses and the greatest level of participant interest. Due to the importance and interconnectedness of the law and forensic nursing principles, it is important that future nursing education focus on legal practices.

Question 22 provided space for participants to comment about the workshop content, tools provided, any experiences they wanted to share, or suggestions relating to their involvement in this study. There were five participants who did not comment under this question. Overall, the comments could be grouped under three main topics. The three main ideas were that the information provided made participants more aware of forensic issues; the workshops were informative; and that more workshops of this nature would be appreciated. For example, **HC12** commented, "The forensic package and information made mw aware of the forensic side of things and also altered my way of documenting and the care I give to my patients". Additionally, **HC3A** stated, "Informative. Interesting. You have given us valuable information". Lastly, **HC30** stated, "The information provided has made me more aware of patients that I previously would not have thought of as forensic. I would love to have more sessions". There was one participant, **HC20**, who comments about the educational package by stating, "The information given was rushed at times. The forensic files around the department made the information easily accessible and were good".

Yet again, such findings support a conclusion that the educational package was beneficial to participants involved in this study. The above educational topics identified by the participants as topics of interest for future forensic education correlate to the main themes identified by the stakeholders during the stakeholder interviews. This cross over support provided strength and confidence to the overall study findings regarding the effectiveness of the educational package and the importance of partnering professional expertise with clinical demand.

Unfortunately, the researcher was only able to collect seven of the post-test questionnaires from HospB participants. Upon consultation with a statistician, the researcher was advised that any comparison between HospB and HospC post questionnaire data would be inappropriate due to the high drop out rate from HospB participants. However, substantial qualitative evidence from numerous other data sources was collected and will be discussed below.

Chart check audits

To assess whether participants utilised the forensic kit supplies and whether the educational package generated any change in nursing practice, the researcher audited

the medical records of forensic patients cared for by HospB and HospC participants. During the chart check audits, the researcher monitored participant nursing documentation and also screened each patient record for the presence of forms introduced during the workshops (HospC participant charts only). Forms of interest included; body diagrams, chain of custody forms and patient consent forms. The following discussion will focus on data collected during all participant chart check audits and findings that resulted from comparing HospB and HospC data.

There were 15 items that were monitored during the chart check audits. Items included: category of forensic patient (1-27), triage category (1 – 5), time of presentation to ED triage nurse, time seen by ED nursing staff, time left ED, discharge destination, total time spent in ED, nurses description of patient injuries, nurses documentation of the measurements of patient injuries, documentation of patient's history using quotes, documentation by nurses of notifying authorities regarding the patient's condition or presence in the ED, evidence collected, proof of how (if applicable) chain of custody was maintained, whether the patient was given referral numbers upon their discharge, and if the patient outcomes were documented. The reasons why each of the categories were included in this study will be included in the discussion for each separate category below.

Category of forensic patients

There were two chart check audits conducted at HospB and three at HospC (see Table 5.25). One pre-test audit took place at both hospital B and C while one post-test audit was completed at HospB and two post-test audits at HospC. Overall, 144 charts were audited at HospB and 221 charts at HospC. Of the 27 forensic patient categories outlined in Chapter 4, 15 of the 27 forensic patient categories were represented during the chart audit process. Furthermore, in total, there were 170 occasions where forensic patient categories were identified during HospB's chart check audits and 279 occasions during HospC's chart check audits. In other words, some of the forensic patients identified during this chart audit fell into more than one forensic patient category, therefore, a single patient could account for two or more occasions where forensic patient categories were identified.

Table 5.25: Forensic Patient Categories Encountered at HospB and HospC

	*Forensic Patient Category	Hosp B N= 170 charts		Hosp C N= 279 charts	
1	Substance abuse	53	31.18%	64	23.79%
2	Occupational-related injury	10	5.88%	33	12.27%
3	Assault and battery	24	14.12%	42	15.61%
4	Transportation injury	41	24.12%	64	23.79%
5	Forensic psych	25	14.71%	37	13.75%
6	Child abuse	0		3	1.12%
7	Personal injury	4	2.35%	4	1.49%
8	Control of Communicable diseases	0		0	
9	Human and Animal bites	3	1.76%	8	2.97%
10	Medical malpractice and/or negligence	1	0.59%	0	
11	Not For Resuscitation (NFR)	1	0.59%	0	
12	Domestic Violence	1	0.59%	2	0.74%
13	Toxic Exposure	0		3	1.12%
14	Sharp force injury	0		0	
15	Elder abuse and neglect	0		0	
16	Firearm injury	0		0	
17	Organ and tissue donation	0		0	
18	Questioned death cases	0		1	0.37%
19	Abuse of the disabled	1	0.59%	0	
20	Sexual assault	0		0	
21	Clients in police custody	6	3.53%	18	6.69%
22	Burns over 5% BSA	0		0	
23	Transcultural medical practices	0		0	
24	Victims of mass destruction and terrorism	0		0	
25	Food and drug tampering	0		0	
26	Product liability	0		0	
27	Gang violence	0		0	

*The numerical listing of forensic categories occurs in the same order as cited in Chapter 4.

The chart audit data revealed that the top five most frequently encountered forensic patient categories were the same at HospB and HospC. In addition, the top five forensic patient categories accounted for 90% of the forensic patient types seen at HospB and 89.2% at HospC. The order of the most frequently seen forensic patient categories at HospB was 1, 4, 5, 3, and 2; whereas at HospC the order was 1and 4 equal top, 3, 5, and 2. Overall, the findings surrounding types and frequency of forensic patients encountered during the chart check audits were similar at both HospB and HospC.

Triage category

The triage category was monitored during the chart check review because it is important that healthcare professionals have an appreciation that, over time, forensic evidence can degrade, get lost and be transferred on and between surfaces (James and Nordby, 2003; Lynch, 2006). According to Saferstein (2004, p43), changes in forensic evidence can arise through, "contamination, breakage, evaporation, accidental scratching or bending, or loss through improper or careless packaging". Therefore, consideration should be given to physical and mental injuries as well as evidentiary issues when assessing and assigning triage categories to forensic patients. Due to the complex nature of forensic cases, intact forensic evidence may be crucial in resolving legal proceedings and obtaining justice (Pasqualone, 2003). During all of the chart check audits, the triage category of one to five was noted for every chart reviewed. The frequency of occurrence for each triage category was tallied and documented. The results of such data are described below in Table 5.26.

Table 5.26: Triage Score of Forensic Patients

Triage Category	Hosp B N = 221		Hosp C N= 144	
1	3	2.1%	3	0.9%
2	24	16.7%	35	15.8%
3	63	43.7%	78	35.3%
4	44	30.6%	80	36.2%
5	10	6.9%	25	11.3%

Nearly three quarters of all forensic patients treated at HospB (74.3%) and HospC (71.5%) were assigned a triage score of 3 (urgent) or 4 (semi-urgent). The frequency of the remaining triage scores (1, 2, and 5) assigned to forensic patients were the

same at both hospitals. In other words, after triage category 3 and 4, the most frequent triage category forensic patients received at both hospitals was a 2 (emergency), then a category 5 (non-urgent), and lastly, a 1 (resuscitation). Both HospB and HospC had three patients that were triaged as a priority one resuscitation.

Time of presentation to ED

There was no prior research that discussed times of the day most forensic patients present to the ED. The researcher thought this may be important for staffing issues and therefore could impact on forensic patient care. Therefore, to investigate when most forensic patients present to the ED for treatment, the time each forensic patient presented to the ED was recorded. The data collected has been presented in four hour time periods (see Table 5.27). The data indicated that there was no specific time of the day where forensic patient presented more frequently to the ED. However, the data did indicate that the time of day when the least number of forensic patients were seen at HospB (5.6%) and HospC (10.4%) was between the hours of four and eight in the morning.

Table 5.27: Times Forensic Patients Visited ED

Time presented to Triage	Hosp B N= 144		Hosp C N= 221	
0001 – 0400	28	19.4%	37	16.7%
0401 – 0800	8	5.6%	23	10.4%
0801 – 1200	23	16.0%	38	17.2%
1201 – 1600	29	20.1%	45	20.4%
1601 – 2000	22	15.3%	42	19.0%
2001 – 2400	34	23.6%	36	16.3%

Discharge from ED

On the back page of each triage form at HospB and HospC there is an option box relating to patient discharge information. It is hospital policy (at HospB and HospC) that all nursing staff complete such documentation by placing an "X" in a box that best describes where the patient was going once they left the ED environment. The options included; home, nursing home, hostel, transferred (to another facility), admitted, did not wait (DNW), discharged against medical advice (DAMA), and other (with space to specify).

The importance of knowing where the forensic patient was heading upon discharge from the ED could be vital when dealing with issues such as chain of custody and legal interventions. For example, a patient may be transferred to another facility with forensic evidence remaining on their person. The time a patient left the ED and their documented destination may prove vital if an issue such as evidence degradation or contaminations was brought up during legal proceedings. A documented time and place of discharge could also help scientists decide how likely it would be that the evidence had a chance to become altered or damaged during the time of travel between facilities.

The data regarding the discharge of forensic patients presented the most inconsistencies among hospital sites. The documentation concerning the discharge of forensic patients was lacking in 40.1% of the charts reviewed at HospB and 22.6% of charts at HospC. The large percentage of missing information greatly reduced the amount of data available for an accurate comparison between hospital settings. Therefore, conclusions as to whether HospB trends would have followed those of HospC (the majority of forensic patients were sent home) were not possible. The trends in the number of forensic patients admitted to hospital were also difficult to analyse. HospB data indicated that 15.2% more forensic patients were admitted in comparison to HospC. Due to the absence of documentation, trends surrounding this parameter were inconclusive (see Table 5.28). There is no obvious reason that the researcher could find for such inconsistencies. However, some nurses did anecdotally comment that ED doctors, occasionally, discharge the patients without the nurse's knowledge. This could be an area for future exploration.

Total time spent in ED

It is important for nursing and medical staff to realise that the longer a patient remains in the ED without being treated and evidence collected, the more likely it is that any evidence could be lost, damaged or degraded (James and Nordby, 2003; Saferstein, 2004). Therefore, during the chart check audits the researcher monitored the total time forensic patients spent in the ED (see Table 5.29). The total time spent in the ED was calculated from the time a patient was brought into the main ED department for treatment to the time the patient left the ED department.

Table 5.28: Discharge Location of Forensic Patients

Discharge	Hosp B N= 144	Hosp C N= 221
Home	35 (24.31%)	136 (61.54%)
Admit	33 (22.92%)	17 (7.69%)
Deceased	0	1 (.45%)
Other		
* Transfer	11 (7.64%)	11 (4.98%)
* Left against medical advice (AMA)	3 (2.08%)	5 (2.26%)
* Did not wait (DNW)	0	1 (.45%)
* Police custody	4 (2.78%)	0
* Data unavailable	58 (40.28%)	50 (22.62%)

The amount of time forensic patients spent in the ED at HospB ranged from 35 minutes to 32.5 hours while the amount of time forensic patients spent in the ED at HospC ranged from five minutes to 22.5 hours. The majority of forensic patients seen at HospB and HospC spent less than eight hours in the ED (41.7% and 67% respectively). In addition, the data provided in Table 5.29 indicated that there were 19% of forensic patients who spent over eight hours in the ED at both hospitals.

Table 5.29: Forensic Patient Length of Stay in the ED

Time spent in ED in hours	Hosp B N= 144		Hosp C N= 221	
< 2	13	9.1%	68	30.8%
>2 – 4	19	13.2%	46	20.8%
>4 – 6	17	11.8%	22	9.95%
>6 – 8	11	7.6%	12	5.4%
>8 – 10	8	5.6%	7	3.2%
>10 – 12	6	4.2%	9	4.1%
>12 – 14	2	1.4%	5	2.3%
>14 – 16	3	2.1%	5	2.3%
>16 – 18	1	0.69%	5	2.3%
>18 – 20	1	0.69%	5	2.3%
>20	7	4.9%	7	3.2%

There were seven patients identified from both hospitals that spent over 20 hours in the ED. On all seven occasions the lengthy stay was associated with forensic patients who had mental health issues. In addition, there were 14.4% of patients at HospB and 13.6% of patients at HospC where a length of stay could not be determined due to a lack of nursing documentation in the patient's medical chart. The lack of nursing documentation on all occasions was an absence of the time that indicated when the forensic patient left the ED.

All of the data collected from forensic patient charts during the pre and post-test chart audits were associated with the 22 HospB and 27 HospC participants. Originally, the researcher wanted to audit five forensic patient charts per participant. However, due to the number of available forensic related charts for each participant, the researcher was unable to audit five charts for every participant. Furthermore, the inconsistencies in the number of available charts for each individual prevented the researcher from completing statistical comparisons between individual participants. Therefore, the data was pooled and comparisons were limited to pre and post-test information within and between hospital sites.

Overall, the demographic data collected during the chart checks at HospB and HospC were similar. In other words, the study data suggested that the types of forensic patients treated, the acuity assigned to forensic patient conditions, time of presentation, time spent in the ED, and the frequency of forensic patient presentations were similar at both HospB and HospC.

Hospital B

After examining all of the pre and post-test chart check data, there was little variance noted in the findings. The one exception the researcher noted was the slight variation in frequency for responses to question number 15. The number of outcomes documented slightly increased during the second audit. Overall, that data indicated that the documentation standard for control group participants was consistent and was not impacted by participants completing the pre-test questionnaire (see Table 5.30).

Table 5.30: HospB Pre and Post-Test Chart Check Audit Results

Responses #8 - 15	Pre Chart Check N= 59	Post Chart Check N= 85
#8 = injuries described		
Yes	22 (37.29%)	31 (36.47%)
No	37 (62.71%)	54 (63.53%)
#9 = injuries measured		
Yes	1 (1.69%)	1 (1.18%)
No	58 (98.31%)	84 (98.82%)
#10 = patient history in quotes		
Yes	2 (3.39%)	5 (5.88%)
No	57 (96.61%)	80 (94.12%)
#11 = authorities notified		
Yes	19 (32.20%)	26 (30.59%)
No	40 (67.80%)	59 (69.41%)
#12 = evidence collected		
Yes	1 (1.69%)	0
No	58 (98.31%)	85 (100%)
#13 = chain of custody documented		
Yes	0	0
No	59 (100%)	85 (100%)
#14 = patient given referral numbers upon discharge		
Yes	1 (1.69%)	0
No	58 (98.31%)	85 (100%)
#15 = outcomes documented		
Yes	15 (25.42%)	29 (34.12%)
No	44 (74.58%)	56 (65.88%)

During the pre-test chart audit, the researcher was only able to find five forensically associated charts for one of the 27 participants. In total, four participants had four charts audited, four participants had three charts audited, seven participants had two charts audited, and five participants had one chart audited. There were six participants who had no forensically related charts that could be audited (see Table 5.31).

During the post-test chart check audit the number of participants where five forensic patient charts could be audited improved. There are several possibilities that could account for such circumstances. Firstly, this could be due to random variability in regards to the types of patients the study participants were arranged. Secondly, some of the participants may have been sick or on holidays during the first chart check audit period. Thirdly, all participants may not have used the computer system to log

every patient they were given. Lastly, there may have been some participants who were assigned a coordinating nurse role. If any participants were acting in a coordinating role, the nurse would not have been involved with much direct patient care. Any of these situations or a combination of these circumstances could alter the number of entries that were listed on the original EDIS report sheet the researcher used to guide the chart check audits.

Table 5.31: Number of HospB Pre and Post-Test Charts Audited

Number of charts audited	Pre-test audit	Post-test audit
1	5	2
2	7	3
3	4	3
4	4	0
5	1	12
None	6	7

During the post-test chart audit, 12 participants had five charts audited, three participants had three charts audited, three participants had two charts audited, two participants had one chart audited and seven participants had no charts audited (see Table 5.31). There were four participants (**HB6, HB28, HB29** and **HB30**) that no charts could be found to audit during either the pre or post chart audit. Like above, there could have been several reasons for such occurrences. However, for three of the participants (**HB28, HB29** and **HB30**) it was noted that they held senior nursing roles in the ED. Consequently, the three participants may not have had much direct patient contact resulting in fewer patient charts available for consideration. Unfortunately, no specific reason for the absences of forensic patient charts could be identified for the **HB6** participant.

Hospital C

During the pre-test chart audit, the researcher found five forensically associated charts for 16 of the 22 participants (73%). Additionally, one participant had four charts audited, no participants had three charts audited, one participant had two charts audited, two participants had one chart audited and only one participant had no charts audited (see Table 5.32). Reasons for such findings could be two fold. Firstly,

the computer system utilised to assist the researcher find forensically related patient medical records had been introduced to staff six months prior to the commencement of this study. Therefore, staff were monitored by the Staff Development Nurse and therefore more diligent about logging their name next to patients under their care. Secondly, the staff development nurse revealed to the researcher that staff were regularly encouraged to utilise the computer systems as it was assisting them with other research being conducted in the department.

Unfortunately, the number of participants where five charts could be audited during the two post-test chart audit period diminished dramatically in comparison to the pre-test chart audit period (see Table 5.32). It was noted that during this post-intervention period, a new staff development nurse was employed in the ED. Feedback participants provided to the researcher indicated that the staff were not encouraged to utilise the computerised patient tracking system as much and that monitoring staff usage had ceased. Since this was the primary way the researcher obtained information about which charts were to be audited, such a change to the ED routine could account for the different frequencies observed in Table 5.32.

Table 5.32: Number of HospC Pre and Post-Test Charts Audited

Number of charts audited	Pre-test audit #1	Post-test audit #1	Post-test audit #2
1	2	9	2
2	1	3	5
3	0	2	4
4	1	3	2
5	16	2	3
None	1	3	6

To compensate for any change in computer usage by HospC participants, the researcher conducted additional random chart audits. To ensure that a change in ED procedure was not going to significantly affect data collection, the researcher audited ED charts at random even if the initial diagnosis was not obviously forensic related. It was hoped that the researcher would find charts that were not picked up during the initial EDIS computer searches. However, only 12 extra charts were detected during

this random chart audit. Therefore, the researcher concluded that the main reason for the decline in the number of forensic related charts was a lack of available data and not a change in participant behaviour. In other words, the researcher believed that even if study participants did not use EDIS as consistently as they did during the first chart audit, such behaviour appear to have had little effect on the number of available forensic patient charts.

There were only two participants (**HC2** and **HC30**) where no forensic related charts could be found to audit during either of the post chart check audits. One of the participants (**HC2**) changed her employment status to "casual". This greatly reduced the number of shifts this participant was working in the ED and therefore the number of patients cared for during the post-intervention period of this study. In addition, **HC30** reduced her workload due to her pregnancy. Such findings could account for the absence of charts available for these two participants during the post-intervention chart audit period. All of the pre and post-intervention chart checking data can been seen in Table 5.33.

Responses to items eight, nine, and 10 revealed that participants improved in documenting patient injuries, measuring injuries, and putting relevant patient history in quotes. Data from the second and third chart check revealed that the percentage of participants who documented such items increased during the second and third chart audit. There was also a large increase in the number of incidents where authorities were notified (item 11) between chart check one and two (16.98% to 27.45%). This large increase was then followed by a decrease (15.62%) in the third chart audit. Such findings suggest that the educational package was beneficial and did help improve nursing documentation initially. However, continual reinforcement may be needed to help maintain documentation and practice changes over time.

There was no change in the low incidence of documentation relating to item 12 (evidence collected) and 13 (chain of custody documentation) across all three audits. Again, item 14 (patient given referral numbers upon discharge) showed similar findings to that of item 11 (authorities notified); that is, an increase in the first chart audit compared with the pre-test audit results and then a slight reduction in the third audit. The findings relating to item 15 (outcome documentation) remained similar

across the three chart audits. This finding indicated that the participants' practice of outcome documentation was not affected by the educational material and would need reassessment in any future interventions.

Table 5.33: HospC Pre and Post-Test Chart Check Audit Results

Responses #8 - 15	CC #1 N=106 charts	CC #2 N=51 charts	CC #3 N=64 charts
#8 = injuries described			
Yes	49 (46.23%)	24 (47.06%)	31 (48.44%)
No	57 (53.77%)	27 (52.94%)	33 (51.56%)
#9 = injuries measured			
Yes	2 (1.89%)	3 (5.88%)	2 (3.12%)
No	104 (98.11%)	48(94.12%)	61 (93.31%)
AMA			1 (1.56%)
#10 = patient history in quotes			
Yes	4 (3.77%)	8 (15.69%)	8 (12.50%)
No	102 (96.23%)	43 (84.31%)	56 (87.50%)
#11 = authorities notified			
Yes	18 (16.98%)	14 (27.45%)	10 (15.62%)
No	88 (83.02%)	36 (70.59%)	54 (84.38%)
DNW		1 (1.96%)	
#12 = evidence collected			
Yes	0	0	0
No	106 (100%)	50 (98.34%)	64 (100%)
DNW		1 (1.96%)	
#13 = chain of custody documented			
Yes	0	0	0
No	106 (100%)	50 (98.34%)	64 (100%)
DNW		1 (1.96%)	
#14 = patient given referral numbers upon discharge			
Yes	0	2 (3.92%)	1 (1.56%)
No	78 (73.58%)	33 (64.71%)	43 (67.19%)
Triage	28 (26.42%)	15 (29.41%)	20 (31.25%)
AMA		1 (1.96%)	
#15 = outcomes documented			
Yes	11 (10.38%)	5 (9.80%)	5 (7.81%)
No	67 (63.21%)	30 (58.82%)	39 (60.94%)
Triage	28 (26.42%)	15 (29.41%)	20 (31.25%)
AMA		1 (1.96%)	

Pre and post data comparisons

In the discussion that follows, each of the items (8-15) will be examined separately and data compared between HospB and HospC (see Table 5.34). During the auditing process, some of the patients did not wait (DNW) to be seen by a physician or left against medical advice (AMA). Therefore, these incidents are noted in Table 5.33 and 5.34 as these charts could not be fairly compared to others due to the unusual circumstances that might have prevented nurses from documenting items being assessed during the chart check audits. In addition, there were some participant charts that were audited while the participant was working at triage. This fact was also noted in Tables 5.33 and 5.34 as this too could have impacted the absence of data. For example, a participant working at triage would not be addressing item 14 (patient given referral numbers upon discharge) during their brief initial ED assessment. Therefore, such information would not have been present in the audited nursing notes.

Firstly, item eight monitored whether the participant documented patient injuries. There was little difference seen between each of the hospital pre and post-test scores. However, overall, HospC had 10% more charts that contained injury description. The 10% difference could not be solely attributed to the educational package because HospC pre-test data began nine percent greater than the pre-test scores of HospB. However, it was noted that there were slight incremental improvements in HospC data across the three chart check audits.

Item nine involved monitoring whether participants documented the measurements of patients' injuries. Initial pre-test scores from both hospitals indicated that the documentation standard for measuring injuries was similar. However, the post-test scores did vary between hospitals.

The treatment group scores increased from a pre-test score of 1.89% to 5.88 and 3.12% during the post-test audits. The control group pre and post-test scores did not vary considerably; therefore, the data supports the conclusion that the educational material did have a positive affect on changing nursing practice.

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Table 5.34: Comparison of HospB and HospC Chart Check Audit

	Pre-Questionnaire Audit		Post-Questionnaire Audit		
	HospB	**HospC**	**HospB**	**HospC**	
Responses #8 - 15	CC#1 N = 59 charts	CC#1 N = 106 charts	CC#2 N = 85 charts	CC #2 N=51 charts	CC #3 N=64 charts
#8 = injuries described					
Yes	22 (37.29%)	49 (46.23%)	31 (36.47%)	24 (47.06%)	31 (48.44%)
No	37 (62.71%)	57 (53.77%)	54 (63.53%)	27 (52.94%)	33 (51.56%)
#9 = injuries measured					
Yes	1 (1.69%)	2 (1.89%)	1 (1.18%)	3 (5.88%)	2 (3.12%)
No	58 (98.31%)	104 (98.11%)	84 (98.82%)	48(94.12%)	61 (93.31%)
AMA					1 (1.56%)
#10 = patient history in quotes					
Yes	2 (3.39%)	4 (3.77%)	5 (5.88%)	8 (15.69%)	8 (12.50%)
No	57 (96.61%)	102 (96.23%)	80 (94.12%)	43 (84.31%)	56 (87.50%)
#11 = authorities notified					
Yes	19 (32.20%)	18 (16.98%)	26 (30.59%)	14 (27.45%)	10 (15.62%)
No	40 (67.80%)	88 (83.02%)	59 (69.41%)	36 (70.59%)	54 (84.38%)
DNW				1 (1.96%)	
#12 = evidence collected					
Yes	1 (1.69%)	0	0	0	0
No	58 (98.31%)	106 (100%)	85 (100%)	50 (98.34%)	64 (100%)
DNW				1 (1.96%)	
#13 = chain of custody documented					
Yes	0	0	0	0	0
No	59 (100%)	106 (100%)	85 (100%)	50 (98.34%)	64 (100%)
DNW				1 (1.96%)	
#14 = patient given referral numbers upon discharge					
Yes	1 (1.69%)	0	0	2 (3.92%)	1 (1.56%)
No	58 (98.31%)	78 (73.58%)	85 (100%)	33 (64.71%)	43 (67.19%)
Triage		28 (26.42%)		15 (29.41%)	20 (31.25%)
AMA				1 (1.96%)	
#15 = outcomes documented					
Yes	15 (25.42%)	11 (10.38%)	29 (34.12%)	5 (9.80%)	5 (7.81%)
No	44 (74.58%)	67 (63.21%)	56 (65.88%)	30 (58.82%)	39 (60.94%)
Triage		28 (26.42%)		15 (29.41%)	20 (31.25%)
AMA				1 (1.96%)	

Item 10 corresponded to whether participants put patient history in quotes. The data relating to this item demonstrated a 10% increase between the post-test score of HospB and the first post-test score of HospC, and a seven percent increase difference between the post-test score of HospB and the second post-test score of HospC. This finding was significant, because once again, the initial pre-test scores from both hospitals showed little difference.

Item 11 monitored nursing documentation for whether participants recorded if authorities were notified or if such steps were suggested to the patient. Overall, there was an increase noted between HospC's pre and first post-test scores. However, in general, both the pre and post-test scores of HospB participants were superior. This suggests that participants from HospB were more consistent recording their nursing interventions as they related to contacting authorities for forensic patients. Although the scores from HospC did not equal those from HospB, the educational package did demonstrate that there was some improvement between the pre and first post-test score for HospC participants.

Data collected on item 12 (evidence collection) and item 13 (chain of custody documentation) provided no evidence that supported that the educational package had any affect on nursing practice for any of the participants. There was no significant change in any of the pre and post-test scores across all chart check audits. This was a surprise finding as verbal feedback from participants in HospC provided evidence to the contrary. Therefore, follow-up interviews were conducted with HospC to clarify such discrepancy. The findings from the follow-up interviews will be discussed following the discussion of forensic kit supplies.

Item 14 dealt with whether participants provided forensic patients with referral numbers upon discharge. There was a slight improvement noted on the first post-test chart audit scores of HospC when compared to those of HospB. Such findings could be related to the shorter time period that had elapsed between attending the educational workshops and the chart audit. Therefore, it may have been possible to note a continual trend should reinforcement be provided to participants was throughout the study period as behavioural change requires practice and reinforcement.

Lastly, item 15 addressed whether participants had documented patient outcomes. For example, did nurses document if police had been notified and whether the patient was going to follow up with them in the next few days to sign a complaint form, file charges and if they had any questions about where to get help if they later required further assistance. There was no improvement noted across any of HospC scores, in fact, the incidences of outcome documentation was quite low (range from 7.81% to 10.38%). This was an unexpected and disappointing finding as the importance of documenting patient outcomes was addressed during the intervention workshops. The researcher had hoped to have noted improved changes in all areas of participant documentation corresponding to workshop content. The researcher did speak with participants regarding documentation during the follow-up interviews with a common response being "I forgot all about it" or "I did not have the time".

The researcher did note that both the pre and post-test scores from HospB participants were substantially higher than those of HospC participants for question 15. The results from this data were interesting as there were no obvious reasons why such differences occurred. For example, there were no staff development educational programs taking place that directly addressed the issue of outcome documentation.

Forensic kit supplies

The forensic kit contents were audited at two and four months after the completion of the three workshops. The researcher wanted to identify how many items from the kit were utilised by participants, if any (see Appendix 18). At the two month audit, the researcher noted that three yellow top plastic containers had been removed from the forensic box. These were replaced after the audit. In addition, the researcher noted a decrease in the number of brown paper bags (see Table 5.35). The two month post intervention audit suggested that the participants did utilise the forensic kit supplies. It is possible that other ED staff removed the yellow top plastic containers and brown bags from the locked cabinet. However, other ED staffs were not informed of the presence of brown bags in the department and the findings were consistent with information obtained later during the follow-up interviews (discussed below).

Table 5.35: Brown Bag Audit Results

Brown bag sizes	Numbers of Brown Bags		
	Commencement	2 Months	4 Months
Small	30	24	5
Medium	30	25	3
Large	15	11	5

In addition to assessing a change in the number of forensic kit items, an audit of the body diagrams, chain of custody forms and patient consent forms was conducted. Originally, there were 10 copies of each form in each of the three forensic files located within the department (at the nurses' station, triage desk, and in the resuscitation room). An accurate audit of how many forms were utilised proved more difficult to regulate than the brown bags that were locked in a cabinet. The number of forms missing during the first two month post audit indicated the forms were being used. For example, there were only six patient consent forms present in the forensic file located in the resuscitation room. However, during the 4-month post intervention audit, the forensic file contained eight copies. Because the files could have been easily moved, it was not possible to keep an exact count of how many of each form was used from each file. Therefore, to more accurately assess whether participants had been using the forms located in the forensic files, verbal feedback was sought from participants during follow-up interviews.

Follow-up interviews

Some of the data collected during the chart check audits was found to conflict with the data results obtained during the forensic kit audits. The researcher noted that the number of forensic kit items used and those found in the notes (body diagrams, patient consent forms, chain of custody forms and references to evidence collected in brown bags) during the chart check audits were inconsistent. Therefore, to try and clarify such findings, it was decided to conduct follow-up interviews with the participants to investigate the noted discrepancies. All of the follow-up interviews took place in the ED and the researcher spoke to each participant individually. There were a possible of six questions that each participant was asked (see Appendix 11). However, if a participant stated that they did not use any of the forensic kit items the interview only sought an answer to the first question.

There were only 16 of the 22 original participants still working in the ED at the time of the follow-up interviews. Of the 16 interviewed, five (31%) confirmed that they utilised documentation sheets from the forensic files during the data collection period. The remaining 11 participants stated that they did not use any of the kit items. The two main reasons given were that they "did not have the opportunity" and that they "forgot all about it".

Of the different types of documentation sheets and kit supplies available, the four types of tools reported to have been used by participants included; body diagrams, consent forms, chain of custody forms and brown bags (see Table 5.36). The information collected during the follow-up interviews indicated that participants did use the forensic kit supplies. Additionally, all five participants that utilised the forms stated that they put the documentation in the patient's notes. Furthermore, all five participants confirmed that the items indicated below in Table 5.36 were used on more than one occasion. For example, participant **HB23** stated, "I used them (body diagram forms) at least six times". The researcher was unable to explain why none of the documents listed in Table 5.36 were located during any of the chart check audits. The "X" indicates the kit items utilised by participants.

Table 5.36 Forensic Kit Supplies Utilised

Participant code	Kit Supplies Utilised			
	Body diagram	Consent forms	Chain of Custody forms	Brown paper bags
HB3A	X		X	
HB4A	X		X	X
HB7	X		X	
HB21				X
HB23	X			

The final question on the follow-up interview requested feedback as to whether the forms utilised from the forensic kit guided their practice in a way that the participants had not thought about prior to their involvement in the study. From the five participants who stated they did use the forms, all five participants agreed that they

were helpful and made the decision to document injuries easier. For example, **HB7** stated:

> They were useful to show accurate location of injuries. There was more room on the sheets so we could give a more detailed description of the injuries. There was lots of room to write. The ones we have are too small and not useful at all.

For the majority of participants, however, the documentation sheets were not utilised. This was a disappointing finding. The reasons for not utilising the forms were typically described as a lack of opportunity. For example, **HB33** stated, "I did not have any patients to use them on". Other typical comments indicated that the participants were more informed and cognisant of forensic issues. **HB29** stated:

> It has always been in the back of my mind. It is always possible things could turn into a forensic case. I just haven't seen the patients I think I need to use them (sheets) on. I do document more in my notes like you taught us and I know they (sheets) are there.

Furthermore, **HB26** stated, "I didn't use them but that was probably because of habit. I did not really think of it at the time. I saw people put things in brown bags when I was in resus (resuscitation room)". Likewise, **HB16** stated, "I didn't really have the patients. There wasn't really an opportune time. I was too busy in resus to use the forms really". Lastly, **HB5** stated, "I was co-ordinator most of the time right after that (the workshops). But I saw people use the sheets. They used the processes like the flow charts. I saw people get the bags out and label them". From such comments, it appeared obvious to the researcher that forensic kit items were used and that there was a positive change in the work practices of participants regarding care provided to forensic patients.

Workshop evaluations

The participants were asked to complete a short workshop evaluation at the end of their third workshop session (see Appendix 16). Of the 22 participants, 16 (73%) completed and returned the workshop evaluation. Question one asked the participants to evaluate the content and presentation of the workshops and evaluate the practical component included within Workshop B. The participants were asked to rank their thoughts using the Likert scale of very satisfied (#1) to very unsatisfied (#5). The

results indicated that 92% of respondants were satisfied to very satisfied with the content, the workshop presentation, and the practical session.

There were three questionnaires where participants provided positive feedback comments yet marked all of the questions with a very unsatisfied mark. It is possible that these three participants misunderstood the scale. As this disparity was unable to be clarified by the researcher because the evaluations were anonymous the results from these questionnaires were not considered when calculating the final results.

Overall, 10 of 13 (77%) respondants left question two blank or had no further comment. Suggestions provided by participants focused on providing more information to them in the future. For example, comments included, "more aspects of law and documentation, more time, and more pictures to practice with". One participant did suggest that role-playing might be beneficial.

Under question three, general comments, 4 of 13 (31%) respondants, left the question blank. The other 11 respondants provided positive feedback. For example, comments included: "I am looking forward to using this new knowledge and sharing the info with other staff members"; and "Would like to know more. Found workshop encouraging"; and finally, "I enjoyed all three workshops. They were interesting and inspired me to learn more". There were no negative comments provided. Therefore, from the workshop evaluation data, the researcher concluded that the educational package and forensic kit tools were successfully received by participants. Overall, participants indicated that the information stimulated them to think about how they practiced nursing and improve the type of care they provided to forensic patients.

Focus group interviews

Focus groups were organised so that the researcher could obtain additional participant feedback regarding the research design, forensic materials and implementation activities. Therefore, the data collected from these groups served to assist the researcher evaluate the study's contents and effectiveness. In total, there were 11 participants that volunteered to participate in the focus group interviews. These interviews occurred four months after participants attended their workshops and were not compulsory. In total, there were three focus group discussions

conducted. Two focus group sessions took place during the day and one was arranged for the permanent night duty nurses. The semi-structured interviews were all conducted by the researcher and lasted approximately 25 minutes. The open ended questions utilised during the focus group discussions centred on discovering what the nurses' perceptions were regarding the effect the educational package had on their daily nursing practices and whether they gained any benefit or practical assistance from the research tools (see Appendix 10).

The data from the interviews was analysed and the contents was categorised into overall themes which emerged during the discussions. Below, example statements from participants highlight the four main themes which included; nursing practice, educational material, forensic kit effectiveness, and general comments.

Impact on nursing practice

Data obtained during the focus groups revealed that participants felt that their involvement in this study had affected their nursing practice in a positive way. For example, **HB16** agreed with a statement made by **HB23** who stated, "It's made me more aware of documentation issues and assessing. I am much more aware with my measurements and wounds and where they are on the body". **HB12** and **HB3** reflected on a patient case and stated, "We have this guy that had jumped from a bridge and people just started doing it. It is easy to go into the cabinet in the trauma room and get the stuff you left us". **HB12** further described another patient case and stated, "We had a sexual assault of a girl come in. We were told to collect some stuff by SARC. The "girls" said lets get the file out. Everybody thought about your file".

Usefulness of educational material

HB4 believed the educational material had improved her practice and stated:

> Before I would have just treated the patient and let them go home.
> You have given me a lot more information than I had before. I have
> come in contact with police a few times. At least I know now what to
> do. The police said I was a brilliant witness once because I put great
> detail into my notes about a patient.

Furthermore, **HB7** agreed that her involvement in the study had made a difference to her practice and that the educational package had been effective. **HB7** stated:

> I feel more confident about it. I have collected a few times. The police commented when they came in about things being collected and bagged. They were impressed. We used the chain of custody form you gave us. The police were quite happy that there was a form and it made it easier for everyone.

When commenting on aspects of the educational package were most helpful, **HB4** further commented by saying, "The little ruler and card with your phone number was most helpful. It reminds you to write sizes which I have not done before. I am much more descriptive".

Forensic kit effectiveness

Further descriptive support regarding the forensic kit effectiveness was provided by several participant statements. For example, **HB8** stated, "I am much more aware of using quotes for history, bagging things up rather than throwing them out, using paper bags and chain of custody things". Additionally, **HB7** stated:

> I like the diagrams, they are very helpful. They are big enough. I liked having the card and ruler with me. It was great. Outsiders saw the worth in it as well. I had a nurse the other night who had no idea so I showed her and she was amazed and very interested.

Lastly, **HB8** commented, "The pictures you reviewed with us and how we practiced describing the injuries was helpful and how to bag stuff up and keep it until the police come was helpful" (practical session in workshop B). Such comments reinforce that individuals learn differently and that to gain maximum outcomes it was important and valuable to use different teaching strategies.

Other comments about the forensic educational package had affected participant nursing practice, **HB14** said, "I look at patients now and think what did Chris say about this? I am thinking so much more now". In addition, **HB33** commented, "I haven't gotten to use my ruler yet but I keep looking for a chance". Lastly, **HB19** stated, "We had a forensic patient come in the other day. When the police came in we had all the clothes bagged and taped. They were so impressed and happy".

General comments

HB21 recounted one experience by stating, "It has brought more awareness of facts and things. Some of the patients are interested in me measuring things and say, "how

about this one, did you see this?" Further testimonial support for the intervention workshops included comments from **HB33** who stated, "All good. Because I never sat through anything forensic. I now look everywhere on the body. I now write what patients says like you told us in quotes*".*

From all of the focus group data, all of the participants appeared to have gained from their involvement in the study. There were suggestions for improvement included having the prompt card made smaller to allow for nurses to carry it in their pocket (**HB12, HB3, HB21, HB23, and HB29**). Further suggestions included having regular session to update and reinforce the forensic kit information. Lastly, **HB14** suggested that the information be put into the hospital orientation kit so that all ED staff would be exposed to the information.

Personal communication

Information gained from the researcher's phone log and personal conversations with participants were able to provide further proof that items contained within the forensic kit were utilised and participant perceptions about the overall effectiveness of the workshops and associated forms. The following statements were recorded by the researcher after conversation with various participants. The statements provide further proof about how and what the participants experienced in relation to the use and effectiveness of the forensic educational package.

One participant (**HB2**) phoned the researcher requesting more body surface diagrams as the master copy was absent from the files. **HB2** was caring for a young domestic violence victim and stated, "I have been talking to her and don't want to leave it. She is willing to consent for me to call the police so I want to do it now. Can you please bring in some body surface diagrams?"

Another participant (**HB7**) spoke to the researcher personally and stated, "I have started to look at everything in a new light. It is very exciting. We had a death yesterday and I was so careful to document everything". One participant (**HB15**) who did not complete all three workshops and therefore was not included in the final 22 participants stated:

> I was on duty the other night and we had a guy that had been
> assaulted. One of the girls that did the class made sure the clothes
> were bagged and when the police came in they showed me what to do
> with the chain of custody form because I did not get to the classes.
> The police were impressed.

Conclusion

Both qualitative and quantitative data collection techniques contributed to the data reviewed in this chapter. The various data sources were analysed separately, compared between hospital groups when possible, and described on a case-by-case basis. The various reporting techniques were necessary due to the final number of treatment and control group participants and the high drop out rate of control group participants during the study. The effects of the forensic educational package over time indicated that the educational package was successful. The educational package proved to not only improve forensic knowledge but also influence nursing practice and participant perceptions regarding forensic patient care.

The evidence from the treatment group pre and post-test questionnaires demonstrated that there was a 23.83% increase in the mean forensic knowledge score. The majority of the chart check audit data suggested that there was no significant increase regarding most of the nursing documentation practices by HospC participants. However, some small changes were noted. In addition, qualitative data from the focus group interviews, forensic kit supplies, and workshop evaluations provided strong support regarding the positive effect the educational package had on forensic knowledge and nursing practices demonstrated by HospC participants.

Demographic data from the questionnaire revealed that the control and treatment group participants were comparable in age, gender, and work experience. Furthermore, pre-test questionnaire data indicated that the pre-test scores from both participant groups were similar. Lastly, some of the chart check data collected (category of forensic patient (1-27), triage category (1 – 5), time of presentation to ED triage nurse, time seen by ED nursing staff, time left ED, disposition, and total time spent in ED) indicated that both hospital ED environments were comparable. Due to the large drop out rate of control participants, extensive statistical analysis was unable to be calculated on the post-test questionnaire data comparing control and

treatment group participant data. All of the qualitative data, however, supported the belief that the educational package was successful. Participant comments outlined during the focus group interviews provided particularly strong evidence regarding the study's success. Further corroborating evidence regarding the success of the educational packages was seen in the data collected from the workshop evaluations.

The discussion within Chapter 6 will examine the major findings and implications of this study to those with a similar design. Furthermore an educational model for the enhancement of clinical forensic nursing practice will be described and compared with Lynch's forensic nursing integrated practice model. Lastly, the limitations of the study findings will be explored.

<center>*****</center>

Thomas was taken to the staff tea room away from all the others. Daniel was still on the floor and his screaming echoed throughout the department. Thomas began to shake uncontrollably. Police, doctors, and nurses all standing around with jobs to do but unsure of where to begin and how best to proceed. Thomas knew the situation was foreign to them. There were no protocols to follow and no forms to provide guidance. Confusion wins again.

CHAPTER 6

DISCUSSION OF FINDINGS

Thomas was given a day off, time off to recover. It is up to him to make sure a police report had been filed. Who should he call and where could he find the numbers? The pain and insult of the assault increased when Thomas arrived at the police station to sign the complaint and the police Sergeant said, "We have no record of the assault. Are you sure you have given me the right details?" Thomas was speechless. How could this mistake happen? How did they not have the report?

Introduction

To effectively care for forensic patients, specialty knowledge is required including educational topics such as forensic sciences, healthcare and law (Lynch, 2006). Due to the complexity of issues involved in many forensic cases best practice outcomes are achieved through a multidisciplinary and collaborative approach (Hammer, Moynthan, and Pagliaro, 2006). The purpose of this study, therefore, was to develop and evaluate the effectiveness of a forensic educational package on ED nurses' perceptions, knowledge and care of forensic patients.

Overall, the study findings suggest that the forensic educational package did alter the perceptions, knowledge and practices of ED nurse participants. Participants' acknowledged that they had a greater appreciation in regards to what their roles and responsibilities are when caring for forensic patients. Additionally, participants' knowledge about forensic patient issues increased by 23% after attending the three intervention workshops whilst changes in nursing practices were noted in regards to the way participants documented assessment findings and utilised forensic evidence tools. Therefore, after reviewing the available literature and considering the study findings, one could conclude that the future implementation of forensic education to ED nurses will have a positive impact on forensic patient care in Western Australia.

It is common for nurses to change jobs and move between departments within a single hospital setting. Literature indicates that nursing turnover rates and nurses moving between hospital departments is a common occurrence (Simmons, 2000; Contino, 2002: O'Brien-Pallas, Duffield, and Hayes, 2006). In this study, the researcher noted that one year after the completion of the forensic workshops, only

50% of the original HospC participants were still working in the ED. The reasons for the large movement in nurses at HospC included; some participants had changed departments within the hospital, some had moved interstate, some were on maternity leave, and others had sought employment at other metropolitan hospitals.

Therefore, if regular forensic workshops were offered to all hospital nurses there is a greater chance that care of forensic patients would improve regardless of the type of hospital ward in which the patient received care. Many forensic patients leave hospital EDs and are admitted to medical or surgical wards whilst others get transferred to other medical facilities or receive follow-up care in the community. If forensic nursing education infiltrated all nursing environments as a result of nurses moving within and amongst healthcare settings, it could be argued that more forensic patient issues would be recognised and treated holistically.

The content of this chapter will include a comparison of this study's findings with other relevant published literature. In addition, a discussion will be included that describes an educational model developed from this study which focuses on the enhancement of clinical forensic practice for all nurses. Furthermore, the new educational model will be compared to Lynch's (2006) Forensic Nursing Integrated Practice Model. Finally, this chapter will conclude with a discussion about the limitations of the study findings.

Comparison of Findings with other Literature

No published forensic nursing research studies could be located that described the development and evaluation of clinical-based educational material for ED nurses. An extensive search of various online databases such as Ebscohost, PsychINFO, CINAHL, Joanna Briggs Institute, The Australian Resource Centre for Healthcare Innovations, and ProQuest were explored in combination with a variety of forensic, nursing, education, theoretical, and research design terms. However, no research was located that dealt specifically with how best to address the clinical forensic educational needs of ED nurses. There were a variety of published forensic related research studies that will be discussed below.

Forensic related research

There is a variety of forensic literature that has been published in the past by forensic pathologists, laboratory scientists, as well as Masters and PhD researchers. Frequently, such literature involves topics such as how to collect and interpret different types of evidence (Freeman and Nelson, 2004; Segelnick and Goldstein, 2005; Allen and Ientile, 2006; Neville, 2006), summaries of forensic examination findings (Haneline and Croft, 2003; Kieser, 2006; Rohn and Frade, 2006), discussion of specific/notorious forensic cases (Freeman, 2002; Kemm-Highton, 2006; Ramsland, 2006), and investigations into offender profiles (Slavkin, 2004; Vaisman-Tzachor, 2006; Schwartz, 2007; Cauley, 2007). Furthermore, much of the published forensic nursing literature was found to investigate such topics as; forensic patient experiences and characteristics (Johnston, 2005**;** Hatlevig, 2006**;** Koehler, Shakir, and Omalu, 2006; Amar, 2007); mental health care (Riordan, Wix, and Humphreys, 2005; Shelton and Lyon-Jenkins, 2006); and the effectiveness of forensic nursing sexual assault service programs (Logan, Cole, and Capillo, 2006**;** Plichta, Clements, and Houseman, 2007).

For example, a Master's research study by Rooms (2004) titled *Forensic Nursing Practice in United States Trauma Centers* described the practice of forensic nurses in American College of Surgeon designated trauma centers in the USA. In this study, 173 trauma center coordinators were sent a survey that focused on how patients with legal needs were identified, the type of evidence that was collected as well as how the forensic nurses provided their services and interacted with other community resources. Rooms found that; 91% of respondants had specific criteria to identify victims of abuse, 94% confirmed that evidence collection occurred; and the primary forensic nursing role was that of the Sexual Assault Nurse Examiner (SANE). Overall, this study demonstrates the common trends associated with current forensic nursing research.

There was one study located that investigated the effectiveness of a nursing intervention on individuals who fell into the domestic violence forensic patient category (Parker, McFarlane, Soeken, Silva, and Reel, 1999). Parker et al., found that up until 1999, only one other study (Sullivan, Campbell, Angelique, Eby, and Davidson, 1994) could be identified which investigated the testing of an intervention

for this particular population. Such findings further support why the researcher experienced such difficulty in findings previous published literature similar to aspects of this study.

Therefore, it was not surprising to find that not one study could be found that incorporated all of the educational, practical and theoretical perspectives applied in this study design. There were, however, many healthcare based research studies that utilised the pre-test, post-test design and multiple teaching methods (Wang, Fennie, He, Burgess, and Willians, 2003; Wood, Duffy, Morris, and Carnes, 2002; Rezaei, Seydi, and Alizadeh, 2004; Kerrigan et al., 2006; Chan and Ko, 2006; Hughes, Parker, Payne, Ingleton, and Noble, 2006). As a result, the comparisons of findings between this study and other published work required the researcher to utilise studies that contained either similar research designs (a pre-test, post-test design and multiple teaching strategies) or studies that utilised the same theoretical models (Knowles adult learning principles and/or SCT) as utilised in this study. The discussions to follow have been organised under two headings; research design strategies and theoretical perspectives.

Research design strategies

The main goal of this study was to develop a practice based forensic educational package that would be comprehensive and effective for ED nurses. To successfully develop the forensic educational package, the researcher utilised different types of teaching strategies. According to Brewer (2002), educators have found that adults learn best when exposed to concrete learning situations that draw upon personal experience. In addition, Dowd and Davidhizar (1999) found that case studies were a useful learning strategy. Lastly, Johnson, Zerwic, and Theis (1999) found that nurse educators increased decision-making and clinical skills when clinical simulations were used in conjunction with clinical teaching. As a result of the positive outcomes described in the above studies, the researcher incorporated a variety of teaching strategies in this study. The results of this study showed that implementing the various strategies described above was very useful in modifying ED nurses perceptions, knowledge and care.

To evaluate whether the forensic educational package had been effective the researcher monitored whether participants experienced any improvement in their forensic knowledge or changed their clinical practice behaviour over time. To examine whether any improvements occurred in participant knowledge regarding forensic nursing issues, the researcher utilised the pre-test post-test design. This type of research design is commonly used in healthcare research and has been found to be relatively robust (DeVaus, 2002; Schneider, et al., 2003).

A study by Rezaei, Seydi, and Alizaseh (2004) discussed the effects of two educational methods on the knowledge, attitude, and practice of 129 high school teachers in Iran. The study found that using formal lectures and flash cards was more effective that using written pamphlet material alone. As with this study, knowledge, attitude and practice skills were evaluated. Furthermore, Rezaei, Seydi, and Alizaseh utilised the pre-test, post-test design to evaluate the educational intervention. Similar to this study, Rezaei, Seydi, and Alizaseh found that utilising multiple teaching strategies provided significant differences in pre and post-test mean scores of knowledge and attitude between the control and treatment groups.

Similar benefits were demonstrated while using multiple educational methods in studies by Wang, Fennie, He, Burgess, and Williams (2003), and Chan and Ko (2006). Both studies investigated the effects of a nurse led educational program on knowledge, attitude and practice behaviour. Both studies found that the treatment groups who were exposed to structured lectures and practice demonstrations displayed significantly higher scores on the post-test evaluations compared with their pre-test scores and the same result was seen when the treatment groups' post-test scores were compared with those of the control group participants.

The educational intervention provided in the study by Chan and Ko (2006) was 45 minutes in duration and carried out by the same RN. The study intervention provided by Wang, et al. (2003) incorporated a 60-minute structured lecture and a 20-minute demonstration video. Both research designs incorporated a pre-test post-test questionnaire in addition to the inclusion of a control group. The research designs and data analysis findings from this study and the two above cited studies all demonstrated that there were positive changes in knowledge, attitude and practice

behaviour as a result of incorporating multiple educational methods in the study design.

In all of the above cited literature, multiple teaching methods were found to be beneficial. The data in this study demonstrated similar results in that participants who attended all three workshops improved their pre and post-test questionnaire results by an average of 20 marks. In this study the teaching methods incorporated a mixture of structured lecture material, case study scenarios, practical sessions, and written material to support and improve treatment group participant's knowledge and skill levels. In addition, each HospC participant was given a ruler and forensic prompt card (see Appendix 15) to carry with them. This strategy served as a physical reminder to trigger participants' memory and reinforce the forensic nursing practices discussed during the workshops through sight and touch. The strategy of targeting multiple senses such as sight, hearing and touch was demonstrated effectively by Rezaei, Seydi, and Alizaseh (2004).

Overall, the above referenced studies incorporated multiple teaching methods during the implementation of an educational program. In addition, all of the studies chose to evaluate the effectiveness of the educational program by using a pre-test post-test design. Similar to this study, the incorporation of multiple teaching methods proved to be effective based on analysis of the data. To complete the comparison of this study's findings with that of other literature, an examination of theoretical perspectives utilised in other studies will be considered below.

Theoretical perspectives

There were two theoretical perspectives that were used in this study to provide guidance and structure during the development of the forensic educational package. The two theoretical perspectives included Knowles (1980) adult learning principles and the social cognitive theory (SCT). Each of the two theoretical perspectives and the findings from other literature will be examined separately below.

Knowles adult learning principles

Until Knowles (1980) reported that adults and children learn differently, most educators believed that the teaching principles used for children were also suitable

for adults. In the early 1970s, Knowles coined the term "andragogy" to describe the learning style of the adult learner. However, andragogy has been described by others as a set of guidelines, a philosophy, and even a set of assumptions (Knowles, Holton, and Swanson, 1998). Today, many adult educators believe that the inclusion of Knowles adult learning principles into the planning and implementation of any contemporary educational program is beneficial and essential to increase the chances of teaching success (Shysh, 2000; Baltimore, 2004; Duncan, Alperstein, Mayers, Olckers, and Gibbs, 2006; Hopper and Holland, 2005; Russell, 2006; LeCroy, 2006).

According to Knowles, Holton and Swanson (1998), andragogy describes a theory that is comprised of five main assumptions. The five main assumptions that characterize adult learners include: (1) adults need to know why they need to learn something (self-directed); (2) adults learn from experiences, to reject adult experience is to reject the adult; (3) adults approach learning as a way to be more effective in problem solving; (4) adults learn best when the topic is of immediate value; and, (5) adults must be motivated in order for effective learning to transpire (Sullivan and Decker, 2004).

In order for this study to be adult and learner focused, the researcher incorporated Knowles adult learning principles during the workshops to help contribute to the successful implementation of the forensic educational package. It was observed in this study that during several of the practical workshop sessions, for example, some participants did not believe that collecting and preserving forensic evidence should be a nurse's responsibility. Instead participants believed that evidence collection was the duty of police or doctors only. However, once participants became involved in the practice sessions and discussions, opinions altered. Some participants quickly appreciated how quickly evidence could disappear, how simple collection activities were, and the impact that such incidences could have on their patient's or loved ones overall health and wellbeing.

In addition, the researcher ensured that all of the participants were informed why the workshop content was important to patient outcomes and how the information could be applied to their daily practice. In this study, for example, during workshop three, injury documentation activities highlighted the need of why participants need to

thorough and vigilant with their documentation skills. From these practice sessions, participants' identified the need to improve their medical terminology vocabulary and identified gaps in their current documentation practices. As a result, participants sought opportunities during their rostered shifts to reinforce and practice the documentation ideas discussed during the workshop.

The researcher also acknowledged previous learning from participants by encouraging participants to share forensic case studies. For example, one case study reinforced the need for nurses to always use good objective documentation. The case study involved a forensic patient who sought medical treatment in the ED for a work related injury. The lack of medical documentation jeopardised the patient's compensation claim and subsequently adversely affected the patient's recovery process. Realistic examples helped demonstrate and educate the participants about how important it was to utilise objective nursing documentation and it allowed the participants to discuss how forensic practice skills impact patient's lives.

Lastly, the researcher utilised multiple teaching strategies and discussed different problem solving techniques to help maximise learning. At the beginning of the forensic workshops in this study, most of the participants did not appreciate the variety or the volume of forensic patients that nursing staff cared for on a regular basis. Evidence of this knowledge gap was seen in the low score of pre-test question three – identifying possible forensic patients. Once learners became aware of the existence of 27 forensic patient categories, the importance for participants to accept the new knowledge and skills became more relevant.

The use of group discussions throughout the three workshops encouraged participants to highlight and share personal experiences they experienced while caring for forensic patients. Such real-life situations further increased the readiness for participants to accept and absorb the workshop information. All of the experiences shared by participants' added depth to the workshops discussions producing an environment where participants felt comfortable to freely express themselves.

The greatest improvements in HospC participant knowledge was seen in relation to questions where case scenarios were used (8, 15, 17, 18, 19, and 20). During the workshops, participants were interested in discussing forensic cases they had difficulty with and were involved with in the past. Participants wanted to get answers to their forensic questions to ensure that any mistakes made in the past were not repeated and that improvements could be made to patient care.

Nursing is a very practical profession and therefore, using case study scenarios to show forensic concepts and ideas proved to be an effective teaching strategy. Participants found that they were more likely to remember forensic principles if the information was related to real cases and patient situations. Utilizing a case study approach enabled the researcher to concentrate on specific instances or situations participants were likely to experience thus enhancing the cognitive skills of the participants (Caffarella, 2002). Similar success in healthcare education was discussed in McAllister (2000) and McAndrew and Samociuk (2003).

Both of the above healthcare education studies found that the use of case study succeeded in expanding knowledge, increased the use of clinical judgement, and encouraged critical thinking of participants. McAllister (2000) explored how the use of case studies affected the practical knowledge of psychiatric/mental health teaching. McAllister found that the use of case studies expanded inquiry by participants by clarifying aspects of mental health issues that participants had not fully appreciated before. Furthermore, McAllister found that case studies provide a better way to reconstruct ways of understanding the mental health experience.

McAndrew and Samociuk (2003) explored ways of providing mental health nurse education. Like this study, McAndrew and Samocuik found that the use of case studies to provide educational material allowed the researcher to concentrate on specific issues and situations. McAndrew and Samociuk further noted that participants tended to listen intently to each other whilst participants shared case studies. Furthermore, McAndrew and Samociuk noticed that interactions were frequent and spontaneous between participants.

A UK study by Hughes, Parker, Payne, Ingleton, and Noble (2006) examined the effectiveness of a palliative care educational programme for community nurses. The practice based educational programme was developed by nurses and participants were monitored for increases in knowledge and changes in practice behaviour. Similar to this study, a range of teaching methods were used (facilitated workshops, reflective practice exercises, and case studies). Hughes, et al., incorporated Knowles (1980) principles which advocate for the participants to be active rather than passive learners. In that study, participants were encouraged to participate in discussions and share professional experiences.

To evaluate the effectiveness of the educational programme Hughes, et al. (2006) used a pre and post-test design. The findings of this study were similar to those of Hughes, et al. in that the educational material was shown to have increased the knowledge and change the practice behaviour of participants. In addition, participants voiced their desire to have access to further education. Lastly, in both studies, participants reported liking the different teaching methods as they felt their preferred type of learning style had been included. As a result, the educational package in this study and that in the above study were noted as being effective in regards to achieving the study objectives.

Social cognitive theory

The incorporation of Bandura's SCT provided the researcher with a theoretical perspective of how best to deliver nursing education that would encourage the acceptance of new knowledge and promote change in nursing practice. Bandura (1977) reported that people learn new behaviours through direct experience or by observing others perform the behaviours. Furthermore, Bandura proposed that observational learning is more effective when the learner is informed in advance about the benefits of adopting certain behaviours. In other words, behaviour is learned through cognitive processes before the new behaviour is performed.

Therefore, the workshops in this study were arranged so that the first workshop was an introductory session that explained what forensic nursing was and how forensic nursing principles could be utilised in the ED practice setting. In order for participants to accept the new knowledge and be able to transmit such knowledge

into their nursing practice, participants had to have a clear idea about what was considered best forensic nursing practice and the parameters of forensic nursing practice this study was going to focus upon.

An article by Bahn (2001) examined the SCT and critically analysed its principles to assess its value and application to nursing education. In addition, Bahn examined the component processes (attention, retention, motor reproduction, and motivation) which Bandura suggests determines the outcomes of observed behaviour. Bahn stated that individuals involved in the field of education should incorporate psychological theories and learning factors that impact motivation, perception and memory. This analysis of Bandura's work supported the reason why the researcher believed that it was necessary to address the issues of nurse motivation and perception about education.

Bahn (2001) suggested that the integration of knowledge and practiced behaviour can be achieved when the two are combined into examples of real situations. During the workshops, every attempt was made by the researcher to integrate as much of the forensic information into real life context through the use of case studies and practical sessions. Participant's found this type of learning helpful as they could relate to the information and easily apply the forensic nursing concepts. Furthermore, participants believed that the practical sessions were necessary to provide a better understanding of the procedures discussed during the workshops. Bandura (1977) suggested that modelling events using meaningful verbal clues could be a very effective strategy for encouraging the retention of observed knowledge.

A study conducted in the USA investigated what were the best ways to provide education to community paediatricians about issues that relate to child health equity and social justice (DeWitt, 2003). According to DeWitt, such training would require paediatricians to think and practice differently. Before implementing such education, the challenge expressed by DeWitt, was for the participants to understand the educational processes required to motivate adult learners to accept knowledge, attitudes, and skills that did not encompass typical experiences and perceived professional needs. Similar challenges faced the researcher in this study because much of the content contained within the forensic educational package was new

information or practice skills not thought of as "typical" nursing responsibilities (Sekula, 2005). Therefore, like DeWitt, the issue of motivation was paramount for the researcher to address in order to achieve the study outcomes.

For this study, the researcher was challenged about how to motivate participants about changing their attitudes regarding recognition of forensic patients, about the type of roles and responsibilities nurse could undertake regarding forensic patient care, and about changes in practice that could affect a forensic patient's legal proceedings. DeWitt (2003) faced similar challenges in relation to trying to increase participants' knowledge about child advocacy issues and ensuring equity in child health. In order to encourage nurses in this study to accept new knowledge, change attitudes, and alter practice behaviour, participants needed to have internal motivation because many of the forensic nursing concepts and skills were not typically perceived to be regular nursing roles within the ED setting.

As with this study, DeWitt (2003) applied the principles of the SCT and Knowles (1980) adult learning principles in order to develop and implement a successful curriculum. DeWitt believed that SCT contained two essential concepts that assisted the uptake of educational material; motivation and modelling. Since the idea of forensic nursing is new to most ED nurses, the concepts of motivation and modelling were central to the success of this study. If the participants were not motivated to learn and accept the ideas presented during the three forensic workshops, then the likelihood that the knowledge and skills would be utilised in daily practice was greatly reduced.

Therefore, the researcher used a typical nursing modelling approach during the education sessions; in other words, see one, do one, teach one. During the workshops, the researcher provided time to teach and show participants how to complete new forensic skills. In addition, time was provided to participants to practice such skills in a supportive environment. Lastly, during workshop C, all participants were given time to discuss, problem solve and share ideas about the newly learned skills. The incorporation of the SCT concepts of modelling and motivation provided the participants with the opportunity to observe the modelled behaviour, understand its importance, and discuss its relevance to their patients.

DeWitt (2003) argued that such awareness provides motivation for the learners to incorporate the new knowledge, skills and principles into their daily practice.

Lastly, the researcher consulted nursing, forensic and management texts (Crisp and Taylor, 2005; Lynch, 2006; Hammer, Moynihan, and Pagliaro, 2006; Mays and Winfree, 2000; Goldsmith, Isreal, and Daly, 2006; Robbins, 2004; Sullivan and Decker, 2004) which included discussions about the importance of understanding SCT in relation to health teaching, explaining forensic events, improving the likeliness of behavioural change, and understanding trends in perpetrator behaviour. For example, Crisp and Taylor suggest that when SCT concepts are understood and incorporated into patient teaching, nurses and their patients' experienced enhanced learning and improved motivation. The resultant effects of such experiences include patients being more likely to adopt behavioural changes to help them succeed in achieving the desired outcomes.

According to Sullivan and Decker (2004, p365), there are three questions that should be considered while planning an educational program: (1) Can the learner do what is expected of them?; (2) How should the educational program be arranged to facilitate learning?, and (3) What can be done to ensure what is learned will be transferred to the job? In order to best answer such questions and therefore develop the most successful forensic educational package possible, the researcher consulted various research studies, theoretical perspectives and texts for guidance and support. From the available literature, the researcher found great support for the usage of the pre-test post-test research design accompanied by the support of SCT concepts and Knowles adult learning principles. Lastly, the concept of integration between and among constructs represented in Lynch's practice model also provided guidance during the development of the forensic educational package.

Ultimately, the development of the forensic educational package required more depth than could be provided by either Lynch's broad model constructs (fields of expertise, societal impact, and the healthcare system) or by any of the individually published research articles reviewed above. Therefore, the researcher found it necessary to create a model that incorporated topics within forensic nursing and education. Issues of interest within these two fields included the complex issues of forensic nursing,

aspects of effective teaching, and the development of functional educational material. Two of Lynch's broad constructs (fields of expertise and healthcare system) were used as an initial framework upon which the new model was based. A complete description of the constructs and all of the components associated with the model development will be discussed below.

Forensic Educational Model for the Enhancement of Clinical Nursing Practice

In this study, the fields of expertise and healthcare system constructs from Lynch's model and the symbolism associated with the interlocking circles was used during the development of the new forensic education model. The Forensic Educational Model for the Enhancement of Clinical Nursing Practice consists of four constructs including; Healthcare, Forensics, Community, and Education (see Figure 11).Each of the four constructs were essential during the development of the educational package. Associated with each of the four constructs were sub-components. The sub-components were specific elements that explained and assisted the researcher to clarify issues that arose under each main construct. For example, some of the issues the researcher confronted during the development of the educational package included:

1. Which professionals from the healthcare system would provide the greatest amount of insight about clinical forensic issues confronting RNs who work in the ED?
2. What level of forensic knowledge should be included?
3. Which forensic stakeholders should be consulted?
4. What teaching strategies were best to support best practice skills?
5. What were the most important legal issues to include?
6. What theoretical support would benefit this study the most?

Together the four constructs and associated sub-components help explain the people, the issues and topics that the researcher utilised during this study that enabled and guided the development of the educational package. The arrows located in the four corners were used to depict the interconnection that exists between and among the

Figure 11: Forensic Educational Model for the Enhancement of Clinical Nursing Practice

HEALTHCARE
Staff
Significant others
Forensic patient categories
Professional support
Supplies
Policy

EDUCATION
Teaching strategies
Mentoring
Theory
Supplies

FORENSIC EDUCATIONAL PACKAGE

FORENSICS
Pathology
Police
Science
    laboratory
Legislation
Coroner

COMMUNITY
Referral agencies
Mental health
Home health
School
Cultural

247
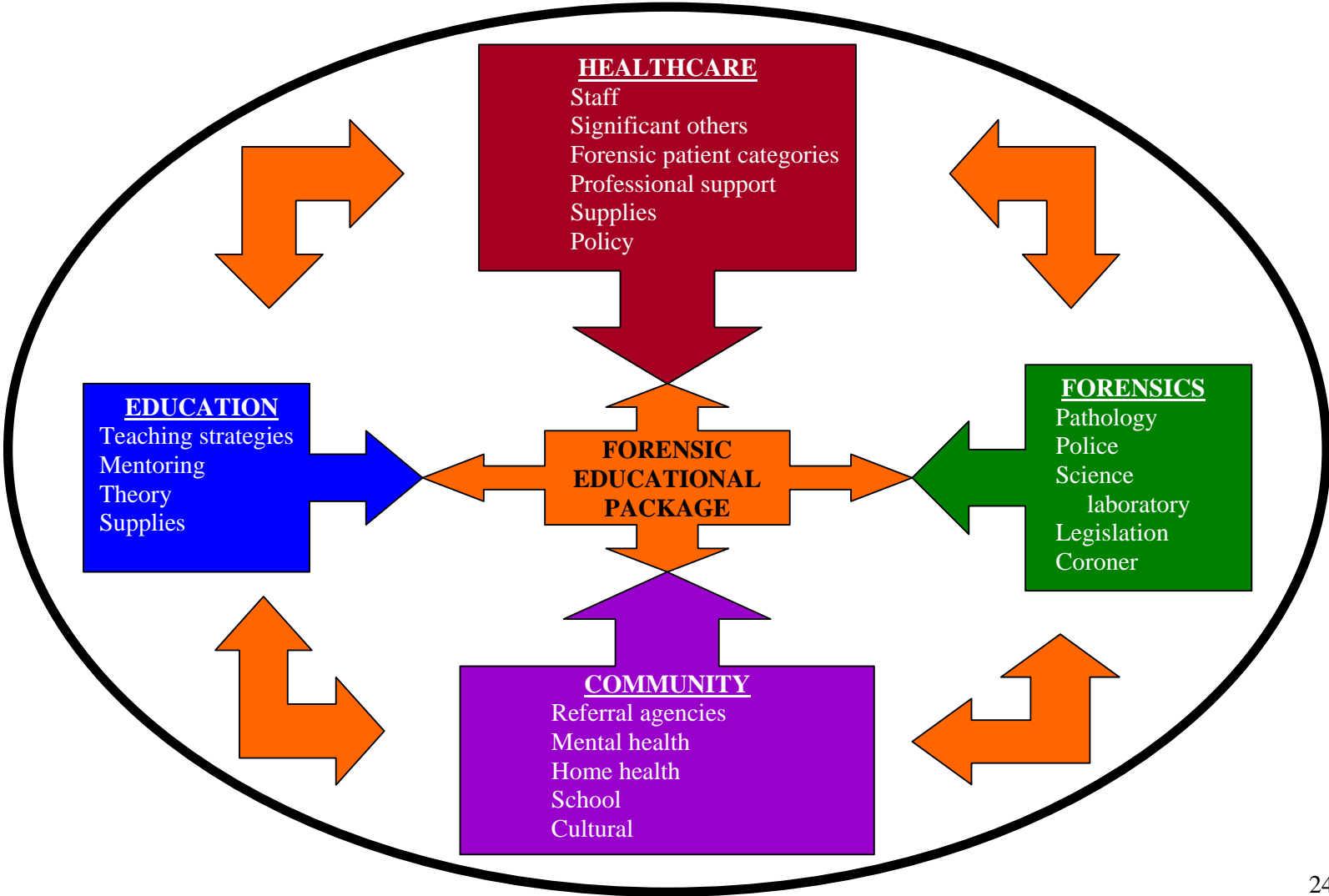
four constructs. The above questions and a complete description of the model will be discussed in greater detail below.

Healthcare

The three broad concepts (Victim and Significant Others, Forensic Nursing, and Health Care Institution) Lynch (2006) identified under the construct of Healthcare System provided the general framework for this theme. However, the researcher found that greater depth about how a forensic educational package would affect the clinical environment of an ED was required. To incorporate such details, the researcher was required to include topics not discussed or referred to in Lynch's model construct of Healthcare System. For example, the researcher had to consider how other hospital staff such as nurses not involved in the study, medical staff, clerical staff, medical records staff, social workers, and hospital management might be affected by the implementation workshops, and what role, if any, they would be called upon to undertake in this study.

Furthermore, the patient populations to be targeted by this study needed to be clarified as well as any issues that might affect the well being of the patient's family and/or significant others. In addition, issues of costs, medical supplies, and further workload for staff were a concern to hospital ED management. Such concerns are fairly universal due to the tight budgets that healthcare managers are restricted by in terms of staff and supply resources (Morrissey, 2002; Cohen, 2003). Lastly, the researcher needed to ensure that the study protocols were not in conflict with hospital policies or those from professional nursing bodies such as the Nurses and Midwives Board of Western Australia.

Forensics

In addition to the Healthcare construct, the Forensic construct had a significant influence upon the type of content contained within the educational package for this study. The four interconnected sub-components associated with the Forensic construct made reference to the professional areas of expertise where the stakeholders who contributed to this study worked. The speciality areas considered essential to consult during this study included: Forensic Pathology, Police Department, Science laboratory (biology and chemistry), and Legislation (Coroner,

Prosecutors and Defence Council). The contributions made by such experts had a direct impact on the relevance, accuracy, and currency of the forensic educational package content. Although Lynch's model does not name specific forensic experts, the model does include the construct identified as "Field of Expertise" in the outer circle of the model. The sub-components identified in this study's model were found to be a comprehensive list that provided the necessary and essential medico-legal support for this study.

Community

The main rationale for including the Community construct into the Forensic Educational Model was due to the disturbingly inadequate level of documentation about issues of discharge planning and patient education identified during the chart checking audits of this study. Items relating to such areas ranked the lowest out of the 15 items monitored in the pre and post chart check data for both treatment and control group participants.

Lynch (2006) included the construct of societal impact as well as society, culture and politics and sociology in the outer circle of her model but did not provide further details about each topic. The five sub-components (home health, referral agencies, mental health, school and culture) were included in the Forensic Educational Model to advocate and promote interagency cooperation and communication. Furthermore, the range of sub-components provide learners with guidance about what aspects of community involvement may be needed to assist forensic patients with their recovery. The inclusion of such agencies and community issues encourage participants to think about and consider what type of discharge information and specific education requirements their forensic patients may want or need.

Education

To optimise the outcomes of this study, it was essential that the educational strategies employed to deliver the educational material contained in this package were useful, practical and effective. The three sub-components the researcher identified to be most important were mentoring, theoretical support and teaching strategies. The outcomes of this study depended on how the information contained within the educational package was received by participants. The idea to include a variety of

teaching strategies was widely supported by the published literature so too was the issue of mentoring. Lastly, numerous healthcare studies discussed how including theoretical models could complement and positively affect research outcomes (DeWitt, 2003; Bahn, 2004). The researcher believed that the success of this study was greatly enhanced by the inclusion of Knowles adult learning principles and SCT which provided strength and cohesiveness to the concepts outlined in Lynch's model.

Overall, the Forensic Educational Model that resulted from this study outlines four essential constructs that provided the overall framework for the development of the forensic educational package. The various sub-components listed under each of the four constructs provide greater detail as to the professionals and associated issues that were vital to and directly linked with the successful outcomes of this study. The overall framework and the idea of the interlocking and interrelated concepts was carried over from Lynch's Forensic Nursing Integrated Practice Model and represented in this model by the large outer circle encasing all of the essential constructs and sub-components. The central forensic educational package is depicted to have been influenced by all four constructs by the double ended arrows which connect and interlock the construct boxes. On the whole, the Forensic Educational Model provides a more detailed description of the great variety of educational, healthcare and forensic issues that were confronted by the researcher during the development of the forensic educational package.

Comparison of Lynch's Forensic Model to the Educational Forensic Model

Lynch's theoretical framework speaks of the necessary aspects for the successful development of the specialist forensic nurse role. Lynch's model provides a conceptual framework and includes areas from which forensic nursing expertise is based including nursing science, forensic sciences and criminal justice (see Figure 2, Chapter 2). The model describes three main constructs (fields of expertise, societal impact, and the healthcare system) and emphasizes the importance of interagency coordination, cooperation, and communication (Lynch, 2006).

The three interlocking circles that lie underneath the construct of the "healthcare system" include; health care, forensic nursing, victim and significant others. The healthcare system construct represents the relationship of how health care, forensic nursing and victim and significant others interrelate and interact. Each of the four components are considered equally valuable as individual identities become strengthened when supported by the other two components. In other words, there is no one component seen to be more significant than another. Therefore, unless all three components under the health construct are given equal consideration the effectiveness of the healthcare system construct will not work to the optimum level. This type of interconnectedness within constructs is represented throughout Lynch's model with the symbolic interlocking circles.

Rooms (2004), as with this study, utilised Lynch's model as a general framework which provided guidance for his Masters research. The purpose of Room's research was to describe the forensic nurse's role in trauma centers across the United States. Room's utilised the single healthcare construct and based his investigations upon the relationship with forensic nursing practice. Room's utilised the symbolism of the interlocking circles under the healthcare construct to provide guidance about the aspects of the healthcare construct he would incorporate and have influence his study.

For this study, the two constructs from Lynch's model of primary interest were fields of expertise and healthcare system. Lynch does not elaborate about the three constructs other than to depict the areas from which knowledge is drawn (pictorially represented by interlocking circles). Therefore, the researcher found it necessary to develop a model that specifically addresses all of the issues confronted by the researcher during this study.

In this study, the forensic and healthcare stakeholders and the majority of participant nurses had no previous contact and little awareness about the scope and clinical practices involved with forensic nursing. Therefore, during this study, the researcher sought the advice from many individuals who provided care or professional services to forensic patients. Such input allowed the researcher to develop a comprehensive educational package.

To enable anybody within Western Australia or across Australia to replicate and utilise this educational package, a detailed description and pictorial representation of the Forensic Educational Model which provided the framework for the educational package was required. In comparison to the Lynch model, the Educational Model for the Enhancement of Clinical Forensic Nursing Practice is a detailed expansion of Lynch's model. It outlines clearly all of the professionals and environments that contributed to the package and must be included with its implementation. Like Lynch's model, there is no one construct or sub-component seen to be more significant than another. Therefore, unless all constructs and sub-components are given equal consideration the effectiveness of the educational material provided to nurses could prove to be ineffective and/or incomplete.

Limitations of the Study

The researcher identified three main limitations that impacted upon the reporting of study results or would impact on other researcher should any individual want to replicate any aspect of this study. The three limitations identified in this study will be discussed below.

Firstly, all nurse participants came from two large metropolitan hospitals. Nurses working in the rural and remote areas of Western Australia may have forensic issues that were not considered or addressed in this study. Without the representation of such populations, it is difficult to generalise the results of this study to nursing populations across Western Australia. Issues such as evidence collection, chain of custody, and evidence storage may present the greatest challenges due to incidents of isolation and possibly the lack of specially trained forensic personnel in regional Western Australia.

Secondly, the resource material was designed so that any hospital could easily personalise the generic forms by adding their specific hospital name. However, the referral agency phone number information sheet was designed specifically to cater for the community boundaries set by local shire parameters where HospC was located. Therefore, such information sheets would not necessarily be applicable to other facilities throughout Western Australia and therefore this resource list would

need to be tailored to each specific healthcare institution and nearby community agencies.

Thirdly, there was a large drop out rate of control group participants between collection of the first and second questionnaire (74%). Such an unfortunate occurrence prevented some statistical comparisons to be completed between control and treatment group data. Without greater representation of control group participants, the study data was not able to be compared to the treatment group.

Conclusion

Each year, more than 1.6 million people worldwide lose their lives to violence. For every individual who dies as a result of violence, many others suffer from a range of physical, sexual, reproductive and mental health problems (World Health Organisation, 2002). The World Health Organisation has recognized that violence is among the leading causes of death for people aged 15-44 years worldwide. Often the first point of contact for most crime victims is hospital emergency departments; therefore, healthcare agencies need to address the problem of violence in a comprehensive manner (World Health Organisation, 2002).

To achieve maximum patient outcomes and approach each forensic case in a holistic manner, forensic and healthcare professionals must work together in partnerships to develop effective responses to violence. According to Glittenberg, Lynch, and Sievers (2007), the purpose of forensic nursing science is to assist in the reduction and prevention of abuse and human violence throughout society. It is vital to have trained forensic healthcare professionals available in all hospital emergency departments to correctly identify and initiate appropriate care to all forensic patients who seek treatment. To achieve such a goal, all members of the healthcare team need to be provided with specialist forensic education.

Qualitative data uncovered during stakeholder interviews, workshop evaluations, focus group sessions, and follow-up participant interviews provided a rich description of perceptions regarding the type of forensic education considered necessary by experts and healthcare professionals. Furthermore, study feedback

indicated that nurses were generally interested in gaining forensic knowledge and improving the standards of care they provided to forensic patients. Overall, the study data indicated that there is a general lack of forensic knowledge held by most ED nurses. This study also highlighted inconsistencies regarding the knowledge healthcare, police and other forensic stakeholders have concerning roles and levels of expertise among and within healthcare and forensic professionals.

Healthcare and forensic stakeholders identified five key forensic issues that were used to guide the development of the forensic educational package (assessment of forensic patient, roles and responsibilities, evidence collection, legal issues, and communication). The educational package developed for this study proved to increase the knowledge of participants and produced some change to nursing practice. Due to the complexity and newness of clinical forensic nursing issues, changes in nursing practice may prove to be slow and difficult to notice initially. However, before any substantial changes can be expected to occur within nursing practice, regular and comprehensive forensic education must be made available to all Western Australia nurses. All nurses in Western Australia must be exposed to the concept of forensic nursing and understand the importance of incorporating forensic nursing principles into everyday practice. Only then will real change be noticed. This research study was developed as an initial step upon which to advance and expand forensic education throughout Western Australia.

<p align="center">*****</p>

Thomas remembered seeing the police that day. They had stood in the doorway while the doctor spoke to Thomas. They had spoken to the other hospital staff who came to Thomas' aid. What went wrong? It was so easy before when he had been in charge. It would have been all organised. Now it was all up to Thomas yet again. He needed to get things organised and move forward.

CHAPTER 7

IMPLICATIONS OF FINDINGS

Daniel was released from the hospital after two days without incident, which to Thomas, seemed so unfair. The police had described the attack as a "simple assault". To Thomas, it had been anything but simple. But now there was nothing the Police could do as Daniel had fled across State lines. To Thomas, justice had not prevailed. Thomas was left shaken and unsure. He decided that he had one choice. Accept what had happened and move forward.

Introduction

New forensic nursing concepts and practice ideas explored during this study in conjunction with the lack of published research and resources resulted in the emergence of numerous issues that require future exploration. The results of this study suggested that the introduction of regular forensic nursing education sessions would benefit nurses working within the Western Australia healthcare setting. In addition, the data clearly demonstrated that a nurse focused approach could be used as a strategy to address some of the complex issues forensic patients bring into our healthcare system. Furthermore, the study data revealed that participants increased their forensic knowledge and changed their nursing practice when a potential forensic patient was identified. With such encouraging results, the researcher has recognised several avenues in which this study could be elaborated upon in the future. The details of such ideas will be highlighted in the discussion below.

Recommendations for the Future

The actuality of all nurses in Western Australia possessing the skills required to identify and provide treatment specific care to all types of forensic patients is the researcher's ultimate objective. However, to achieve this goal, the findings of this study need to be expanded upon and further activities implemented throughout the Western Australia healthcare setting. The focus of such future activities firstly need to concentrate on current perceptions and nursing practices Western Australia nurses have regarding types of forensic patients and the care they require. Therefore, the researcher has proposed several recommendations for the future that target three different areas. The three areas of focus outlined below include education, practice

and research. Specific suggestions that relate to each area will be discussed under separate headings.

Education

1. The first recommendation involves the development of an endorsed forensic educational training package that could be accessed by all Western Australia nurses. The lack of any existing clinical forensic nursing resources was one issue of concern that surfaced during stakeholder interviews, workshop evaluations and focus group interviews with participant nurses. The development of a standardised forensic resource package could be made available to all healthcare professionals throughout Western Australia. Such a resource would increase the exposure healthcare professionals have to clinical forensic nursing information and encourage the concept of interagency and interdisciplinary collaboration.

2. As recognised from the study, there is a need to develop forensic specific educational information sheets that patients could be given at the time of discharge. According to Lynch (1997, p. 3), it is the responsibility of healthcare professionals to "provide the necessary leadership in routinely identifying, treating, and properly referring victims of violence to the appropriate authorities". Forensic specific information sheets provided to patients at the time of discharge may help clarify, improve, and standardise forensic patient care. Hospital A, B and C already provide patients with information sheets on topics such as; use of crutches, care of sutures, and head injury advice. Forensic specific sheets could provide patients with information about injuries, any required follow-up care, and contact details for organisations or specialty agencies that may be helpful during a patient's recovery. Information may enable nurses to be more comfortable and familiar with talking to patients about forensic discharge issues while providing them with written instructions that can be referred to at a later date and time.

3. The creation of a video/DVD which discusses forensic nursing issues and demonstrates basic evidence collection skills could be a valuable tool. The development of such a tool could provide a beneficial learning option for rural and remote Australian nurses. The availability of such a tool within the clinical setting or institutional library could provide continued reinforcement for all healthcare staff.

4. Lastly, to increase the awareness regarding forensic patient issues, educational interventions in the form of structured forensic courses at the University level may prove beneficial. For example, the availability of postgraduate forensic courses and providing undergraduate nurses with introductory forensic nursing concepts. The implementation of such programmes may increase the awareness and interest about forensic nursing. Providing early exposure to forensic nursing practices may facilitate nurses viewing forensic patient issues as the norm rather than as an unknown, uncommon or inconvenient after thought.

Any further development of forensic educational material could only benefit and assist Western Australia nurses with their every day clinical forensic practice issues. Some specific recommendations pertaining to clinical nursing practice are outlined in the discussion below.

Practice

1. This study was undertaken from the perspective of nurses' knowledge and their practice. It would be important to investigate the effects of the forensic educational package on forensic patients. Information from such a study could provide insight as to the kinds of issues that forensic patients deemed most important and beneficial, what areas were being addressed well and identify areas for improvement. Data from such a study could only enhance the quality of content contained within the forensic educational package thus improve forensic patient care standards.

2. To initiate nursing practice change, forensic patients need to be accurately identified during their initial nursing assessment (triage process). Development of an EDIS coding system could assist nursing staff by identifying forensic patients during the triage process. The inclusion of such a coding system could help to increase the rate at which forensic patients are identified. Results from this study indicated that forensic patient identification significantly improved after HospC participants attended all the forensic workshops. Therefore, if a computerized prompt could be included into the existing EDIS system, forensic patients could be identified early during triage. This could alert all ED employees (nurses, doctors, clerical staff, and managers) that forensic protocols may need to be implemented. With such heightened awareness, all healthcare professionals could

work together to ensure forensic patients receive a high standard of care specific to their needs. Similar EDIS prompts have been established in the past in connection with other research projects. Such information would provide important quality improvement data that could assist with forensic policy development at hospitals.

3. Lastly, to provide nurses and other healthcare staff with on-site clinical and educational support, the development of a forensic liaison nurse position within major Western Australia teaching hospitals would be important to consider. A clinical forensic liaison nurse could be responsible for the development of forensic policies and procedures, providing hospital staff with regular updated forensic workshops, and serve as a mentor. In addition, a clinical forensic liaison nurse could promote interagency communication among hospital staff and forensic stakeholders in the community. Such communication could increase the amount of feedback healthcare professionals received about forensic cases thus creating the opportunity for improvement in patient care standards. The lack of feedback was a prominent theme identified during the healthcare stakeholder interviews. Therefore providing an opportunity to increase the level of feedback could only prove beneficial to ED staff and forensic patient care.

To enable changes to occur in the practical setting, standards must be incorporated through the assessment of best practices standards. However, the body of knowledge in forensic nursing can only be increased through the availability of published research. Therefore, the discussion below highlights some of the recommendations that need to occur within the research domain to support and encourage this change.

Research

1. Any future replications of this study would need to explore methods that might increase the return rate of the post-test questionnaires from the control group participants. The low return rate of 26% prevented the researcher from fully exploring the pre and post-test questionnaire data in this study. For example, the first questionnaire was successfully completed and returned by participants when the option for participation was presented at a designated educational workshop. Perhaps, a second workshop designated to distribute and collect the post-test questionnaire may increase the return rate and reduce (1) the chance of

participants losing the questionnaire during their shift by setting it down on an ED work bench, (2) being unable to take time out of their shift to complete the questionnaire and thus being required to compete the questionnaire in their own time, and (3) feeling pressed for time thus providing quick responses that may not reflect their true beliefs and knowledge.

2. In this study, the researcher was unable to completely assess the extent of injury description during all of the chart check audits (item eight). The only documentation collected by the researcher was a "yes" or "no" response which reflected whether participants documented the presence of an injury. This type of recording method limited the amount and type of analysis that could be made regarding any improvement in injury documentation. In future research, more robust data upon which to base program evaluations could occur if a more extensive assessment guide was utilised during the evaluation of this question. For example, injury documentation could be based on a three point assessment tool. To obtain three marks, a participant's injury description would need to include; the type of injury (ie. bruise, cut, abrasion), colour of the injury, and location on the patient's body (James and Nordby, 2003; Lynch, 2006; Hammer, Moynihan, and Pagliaro, 2006).

3. There is a need to investigate the needs of rural and remote healthcare professionals. Due to practical and financial restrictions, this study was conducted within the metropolitan area. Western Australia has the largest land area of any Australian state or territory comprising a land area of about 2,529,880 square kilometres. However, Western Australia is home to just less than 10% of Australia's 20,808,064 population (Australian Bureau of Statistics, 2006). Because of the great land mass that Western Australia occupies, many nurses practice in rural and isolated environments. Therefore, it would be important for future research in this area to include rural and remote communities. It is unknown whether nurses working in these diverse environments face forensic issues not identified during this study.

4. Lastly, there has been no research that investigates the type of attitudes nurses hold about forensic nursing issues. Such research could provide great insight about how to improve the image of forensics to the general nursing population. Important insight may also be gained as to how best to structure educational material to increase interest and compliance with forensic nursing practices.

The researcher anticipates that the findings of this study will be presented at various conferences and published in a number of professional journals. In addition, the hospitals involved in the study have requested that the researcher present the research findings. It is hoped that these findings will continue to enlighten nurses about the special needs of forensic patients whilst promoting further research and expanding education. To further promote forensic nursing education in Western Australia and fully utilise the study findings, the researcher believed that a forensic nursing self-directed learning package (SDLP) was vital. Details of such a package are provided below.

A Forensic Nursing Self-Directed Learning Package

The development of a SDLP that focuses on clinical forensic issues was a logical progression after the findings from this study were finalised. Such a package would allow nurses across Western Australia to initiate some forensic learning independently. Additionally, material from the SDLP could be included in ward specific orientation manuals and be made available through hospital education departments. An outline that provides details of the contents of the forensic nursing SDLP can be seen below in Table 7.1. In keeping with the colour scheme initiated in this study, a more detailed version of the SDLP contents can be found in Appendix 27 on light orange paper.

The detailed version of the SDLP provides introductory level forensic nursing topics. The information contained within the SDLP was targeted for nurses who have little to no background knowledge in or about forensic nursing. Furthermore, it is anticipated that the SDLP will contain three cases studies which are each accompanied by case photographs and self-evaluation quizzes. One case study will address paediatric issues, one will address adult forensic issues and one will address the forensic concerns of the elderly and/or disabled patient populations. Such information will allow nurses to apply their knowledge obtained from the SDLP to practical nursing issues, practice their injury documentation and then evaluate their understanding of their reading. Lastly, it is the researcher's plan to place the entire SDLP package on a CD-ROM. Having the educational material available to nurses

through different learning modalities may increase the appeal of the learning package and thus reach more nurses overall.

Table 7.1: Table of Contents for a Forensic Nursing Self-Directed Learning Package

Forensic Nursing: Knowledge and Skills Required to Care for Forensic Patients
1. Background
2. Aim
3. Expected Learner Outcomes
4. What is Forensic Nursing?
5. Who are Forensic Patients?
6. Documentation – A Systematic Approach
7. Legal Issues
    a. Civil vs. Criminal
    b. Consent
    c. Mandate Laws
    d. Other State/Country Specific
    e. Existing Hospital Policy and Procedures
    f. Ethical Issues – Advocate or Informer
8. Practical skills
    a. Evidence Collection
    b. Evidence Protection
9. Discharge and Referral Agencies
10. Journal Articles
11. Practice Case Studies and Self-Evaluation Quiz
12. Glossary of Terms
13. References, Bibliography, Legislation Acts and Bills

Conclusion

The findings from this study indicate that providing forensic education to ED nurses increased knowledge and enhanced nursing practices. The effects of which could only result in better patient outcomes. Therefore, further research surrounding this topic is vital. However, it is imperative that future forensic nursing research focuses on clinical aspects of forensic patient care.

To achieve the goal of all nurses within Western Australia having regular access to forensic education, comprehensive forensic educational material must be endorsed, and supplied though multiple modalities. The use of multiple types of educational material and delivery modes will cater for the different learning preferences and styles of nurses thus providing the greatest opportunity of disseminating forensic education successfully to the greatest majority of Western Australia nurses.

POSTSCRIPT

Thomas was a she, she is me and this was my story. This experience significantly impacted my life and my nursing practice. It has intensified my desire to encourage and facilitate change. No other victim should be made to travel such a road alone. There must be procedures and education. All nurses must know what to do and be prepared. It is every nurse's job to know. Without knowledge, our care becomes compromised and our patients, their families, and the community suffer. We have the ability to make the changes. We must initiate and embrace such change.

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Civil Liability Act 2002

Coroners Act 1996

Criminal Investigation Bill 2005

Disability Services Act 1993

Family and Domestic Violence Act 2004

Guardianship and Administration Act 1990

Health Act 1911

Human Tissue and Transplant Act 1982

Human Tissue and Transplant Amendment Bill 2005

* *Industrial Chemicals (Notification and Assessment) Act 1989*

Mental Health Act 1996

* *National Health and Medical Research Council Act of 1992*

Occupational Safety and Health Act 1984

Prisons Act 1981

* *Privacy Act 1988*

Restraining Order Act 1997

* *Therapeutic Goods Act 1989*

WA Criminal Code 1996

Workers' Compensation and Injury Management Act 1981

* Identifies Federal Acts (rather than State Acts)

APPENDIX 1

Ethics Committee Approval Letters

There were four Ethics Committee approval letters that were acquired before any data collection was attempted for this study. Approval letters contained in Appendix A include those from the University of Notre Dame, Australia; HospA and Hosp B; and HospC. In order to protect the identity of the participating hospitals all identifying details have been removed.

The original Ethics Committee approval letters remain in the possession of the researcher and are securely stored according to the University of Notre Dame, Australia policy.

WANT to HELP ?

I NEED NURSES

Are you interested in participating in nursing research within the arena of

FORENSICS ?

My Ph.D. involves clinical interventions for the care of forensic patients who come to Western Australia emergency departments. I need Registered Nurses who work in the ED to participate. If you are interested and would like to participate, please contact me.

Christine Vecchi 0408933774

APPENDIX 3

Control Group Information Sheet

My Name is Christine Vecchi and I am a PhD student at Notre Dame University. I appreciate your interest in my research study. The complex issue of violence confronts healthcare professionals, especially ED nurses, every day. The aim of this study is to develop, implement and evaluate a clinical forensic nursing educational package in Western Australia emergency departments. My study will hopefully provide insight about how best to provide ED nurses with the clinical forensic education they require.

My study will be carried out in five phases; however, your involvement will require minimal commitment. You will be asked to complete two questionnaires. It is anticipated that each questionnaire will take you approximately 15 minutes to complete. The first questionnaire will be administered at the beginning of the study, and the second, two months later. Additionally, there will be three chart audits. At no time during the chart audits will you be contacted or required to complete any additional documentation. Your participation in this research is voluntary and you may withdraw from the study at any time.

There will be no cost or risks involved for you. You will be able to contact me during the study. At no time will your name appear on either of the questionnaires or data collected during the chart audits. If you feel you would like to participate in my study or have any questions, please contact me.

Your participation in this research will be invaluable to understanding forensic nursing practice in EDs in Perth, Western Australia.

<div align="center">

Thank you for considering to participate in my research.

Christine Vecchi, MSN, RN (0408933774)

</div>

APPENDIX 4

Treatment Group Information Sheet

My Name is Christine Vecchi and I am a PhD student at Notre Dame University. I appreciate your interest in my research study. This study will hopefully provide me information about how best to provide ED nurses with clinical forensic education. The aim of my study is to develop, implement and evaluate a clinical forensic nursing educational package in Western Australia emergency departments.

My study will be carried out in five phases; however, your involvement will only be required in three phases. You will be asked to complete two questionnaires (it is anticipated that each questionnaire will take you approximately 15 minutes to complete). One questionnaire will be administered at the beginning of the study, and the second, two months later.

During phase three, you will be asked to attend a forensic workshop. Workshop times will vary to accommodate hospital rosters. During the lecture, forensic issues and evidence collection procedures will be discussed and demonstrated. You will also be instructed on how to use all materials contained in a forensic evidence kit which will be located in your ED.

Throughout the study there will be three chart audits in which you will not be required to provide any additional paper work. In phase four, you will be asked to attend a post study discussion session. This discussion group is not compulsory. It is designed for you to provide me with feedback about your experiences of participating in this study. Your participation in this research is voluntary and you may withdraw from the study at any time.

There will be no cost or risks involved for you. You will be able to contact me 24 hours a day for any support and backup you feel you need or want during the study. At no time will your name appear on any data collected. If you feel you would like to participate in my study or have any questions, please contact me.

Thank you for considering to participate in my research.
Christine Vecchi, MSN, RN (0408933774)

APPENDIX 5

Research
Code:___

Pre-test Questionnaire

The purpose of this questionnaire is to find out the level of forensic knowledge participants have at the beginning of this study. This will help decide if additional content needs to be added to the forensic lecture.

Please read and answer each question as best you can. **Please** do not write your name on this questionnaire. The completed form will be collected in two weeks. If you need more space to write your answers, please use the blank page provided.

Please do not leave any question blank. If you do not know anything about the question could you please write that as your answer. Any additional comments are greatly appreciated. I value your input.

Some information about you

What is your age? (Please tick)

20-25
26-30
31-35
36-40
41 and over

What is your gender? (Please tick)

Female
Male

How many years have you been a RN? _____

How many years have you worked in ED? _____

Please list any advanced nursing courses/certificates/degrees you have completed

_____
_____
_____

1. Do you believe having updated forensic knowledge is crucial for your unit?
   Yes
   No
   Do not know

2. How would you define Forensic Nursing?

3. Which of the below patient types might you consider to be a forensic patient? (Please tick all that apply)

Abuse of the disabled

A patient who reports he was hit in a fight at a bar

A Child who burned both feet and leg on a floor heater

Suicide attempt

Patients in police custody

A patient hit by her defacto

Elder abuse and neglect

Firearm injuries

A patient put on forms and sent to Alma St

Gang violence

Human bites

Dog bite to a patients calf and upper arm

A patient who slipped on a wet floor in Target

Injuries sustained in a motor vehicle accident

Work-related injuries

Organ and tissue donation

A patient who dies suddenly in the ED

Sexual assault victim

Transcultural female circumcision

A patient who was exposed to toxic chemicals at work

Patients of catastrophic, mass destruction or acts of terrorism

Do Not Resuscitate orders

A suspected SARS patient

A patient who believes her drink was spiked

A Child who requires a blood transfusion but parents refuse on religious grounds

4. Who do you believe is responsible to address a patient's forensic needs? (Please tick all that apply)

Doctors

Nurses

Hospital/Administration

Police

Attorneys

First person to lend assistance to the individual

Each individual is responsible for their own needs

Other _____

5. Do you believe you have enough forensic knowledge to address your patients' needs? (Please tick one response)

        Yes

        No

6. Which of the following forensic patient needs do you believe are nursing responsibilities? (Please tick all that apply)

        Collection of forensic evidence

        Maintaining chain of custody

        Notification of appropriate authority (police, coroner, department of child welfare)

        Documenting of patient history

        Documenting of injuries

        Treatment of injuries

        Taking of photographs

        Ensuring patient safety upon discharge

        Ensuring proper patient identification

        Relative notification of patient's health status

        Provide crime victim compensation information upon discharge

        None of the above

7. Tick each category below that would be classified as a Coroner's case? (Please tick all that apply)

        Unknown cause of death

        The deceased person was not seen by a doctor within four months before death

        A person died within one year of an accident to which the cause of death may be attributed

        A person died while in police custody

        The person died within 24 hours of the administration of an anesthetic

        A person died a violent or unnatural death

        None of the above

8. Can a patient who becomes a coroner's case be left alone with relatives for any length of time? (Please tick one response)

        Yes

        No

        Do not know

9. List the types of patient problems and/or issues that healthcare workers are required to report to various authorities (ie. Police, Coroner, Department of Community Development).

10. Is educational material describing how to handle forensic evidence available on your unit? (Please tick one response)

    Yes

    No

    Do not know

11. What area(s), if any, would you like more forensic education about? (Please tick all that apply)

    Legal issues, please
    specify_____
    Forensic patient identification
    Documentation
    Evidence collection
    I am satisfied with my current level of forensic knowledge
    Other_____

12. Please match the most appropriate way for each article to be collected and/or stored. You may choose more than one item if applicable. (Place the letter from the right that **BEST** indicates how you believe each item on the left should be collected and/or stored)

Item		Answer selection
Clothes – shirt, shoes, socks, shorts		A. Envelope
Illegal drugs		B. Throw away
Knife		C. Plastic container
Bullet		D. All in same plastic bag
Saliva around wound		E. One item per plastic bag
Grass		F. Swab
Urine		G. Clean sheet of folded paper
Dried blood on skin (not near wound)		H. Urine specimen container
Hair		I. All in same paper bag
Bite mark		J. One item per paper bag
Damp jeans		K. Nothing listed appropriate
Glass		L. No action needed
Paint chips		M. Other (please specify)
Rope		
Shaved hair from wound site		

13. Who from the list below can collect forensic evidence? (Please tick all that apply)

        Doctors

        Nurses

        PCAs

        Police

        Coroners

        Patient relatives

        All of the above

        None of the above

        Do not know

14. What information must be placed on any forensic evidence collected?

15. Does the Privacy Act of 1988 prevent you calling the police if a patient admits to committing a crime? (Please tick one response)

        Yes

        No

        Do not know

16. If you found illegal drugs among a patient's personal effects, what actions would you take? (Please tick the response(**s**) that best describe what your action(s) would be)

        Leave the drugs there, they are not yours

        Throw them out

        Call the police

        Document their presence in your notes

        Tell the doctor

        My hospital provides a specific protocol

        Do not know

        Other

        _____

17. If a child tells you in confidence that they have been sexually assaulted, are you required by law to keep the child's secret? (Please tick one response)

        Yes

        No

        Do not know

18. If you believe a child will be in danger of abuse upon discharge from the ED can you report your concerns, without doctor backup, to the Department of Community Development (DCD)? (Please tick one response)

        Yes

        No

        Do not know

19. If you overhear a patient admit to lying about a workers compensation injury, are you obligated to document the patient's remarks in their nursing notes and notify other hospital personnel? (Please tick one response)

        Yes

        No

        Do not know

20. The police want to talk with one of your patients. They ask you to leave the room but the patient requests you stay. Are you required to leave if the patient asks you to stay? (Please tick one response)

        Yes

        No

        Do not know

Thank you for taking the time to complete this questionnaire

APPENDIX 6

Post-test Questionnaire

The purpose of this questionnaire is to assist in evaluating how effective the forensic educational package has been. A comparison of results from your first pre-lecture questionnaire will help decide if any information needs to be added to further forensic nursing education.

Please read and answer each question as best you can. **<u>Please</u>** do not write your name on this questionnaire. I will collect the completed form in two weeks. If you need more space to write your answers, please use the blank page provided.

<u>Please</u> do not leave any question blank. If you do not know anything about the question could you please write that as your answer. Any additional comments are greatly appreciated. I value your input.

1. How would you define Forensic Nursing?

2. Tick as many of the choices listed below that you would consider a forensic patient

    Abuse of the disabled

    A patient who reports they were in a fight at a bar

    Child who burned both feet on a floor heater

    Suicide attempt

    Patient in police custody

    A patient hit by her defacto

    Elder abuse and neglect

    Firearm injuries

    A patient put on forms and sent to Alma St

    Gang violence

    Human bites

    Dog bite to a patients calf and upper arm

    A patient who slipped on a wet floor in Target

    Injuries sustained in a motor vehicle accident

    Work-related injuries

    Organ and tissue donation

    A patient who dies suddenly in the ED

    Sexual assault victim

    Transcultural female circumcision

    A patient who was exposed to toxic chemicals at work

    Patients of catastrophic, mass destruction or acts of terrorism

    Do Not Resuscitate orders

    A suspected SARS patient

    A patient who believes her drink was spiked

    A child who requires a blood transfusion but parents refuse on religious grounds

3. Who do you believe is responsible to address a patient's forensic needs?
   (Please tick all that apply)

   Doctors

   Nurses

   Hospital/Administration

   Police

   Attorneys

   First person to lend assistance to the individual

   Each individual is responsible for their own needs

   Do not know

   Other _____

4. Do you believe you have enough forensic knowledge to address your
   patients' needs? (Please tick one response)

   Yes

   No

   Do not know

5. Which of the following forensic patient needs do you believe are nursing
   responsibilities? (Please tick all that apply)

   Collection of forensic evidence

   Maintaining chain of custody

   Notification of appropriate authority (ie. police, coroner,
   department of child welfare)

   Documenting of patient history

   Documenting of injuries

   Treatment of injuries

   Taking of photographs

   Ensuring patient safety upon discharge

   Ensuring proper patient identification

   Relative notification of patient's health status

   Provide crime victim compensation information upon discharge

   None of the above

6. Do you believe you have gained useful forensic knowledge during your
   involvement in this study which will help you to address your patients
   forensic needs in the future? (Please tick one response)

   Yes

   No

   Do not know

7. Tick each category below that would be classified as a Coroner's case? (Please tick all that apply)

Unknown cause of death

The deceased person was not seen by a doctor within four months before death

A person died within one year of an accident to which the cause of death may be attributed

A person died while in police custody

The person died within 24 hours of the administration of an anaesthetic

A person died a violent or unnatural death

None of the above

8. Can a patient who becomes a coroner's case be left alone with relatives for any length of time? (Please tick one response)

Yes

No

Do not know

9. List the types of patient problems and/or issues that healthcare workers are required to report to various authorities (ie. Police, Coroner, Department of Community Development).

10. What area(s), if any would you like more forensic education about? (Please tick all that apply)

Legal issues, please specify

_____

Forensic patient identification

Documentation

Evidence collection

I am satisfied with my current level of forensic knowledge

Other_____

11. Please match the most appropriate way for each article to be collected and/or stored. You may choose more than one item if applicable. (Place the letter from the right that **BEST** indicates how you believe each item on the left should be collected and/or stored).

Item		Answer selection
Clothes – shirt, shoes, socks, shorts		A. Envelope
Illegal drugs		B. Throw away
Knife		C. Plastic container
Bullet		D. All in same plastic bag
Saliva around wound		E. One item per plastic bag
Grass		F. Swab
Urine		G. Clean sheet of folded paper
Dried blood on skin (not near wound)		H. Urine specimen container
Hair		I. All in same paper bag
Bite mark		J. One item per paper bag
Damp jeans		K. Nothing listed appropriate
Glass		L. No action needed
Paint chips		M. Other (please specify)
Rope		
Shaved hair from wound site		

12. Who from the list below can collect forensic evidence? (Please tick all that apply)

       Doctors
       Nurses
       PCAs
       Police
       Coroners
       Patient relatives
       All of the above
       Do not know

13. What patient information must be placed on any forensic evidence collected?

14. What area(s), if any, do you feel your forensic knowledge have increased due to your involvement in this study? (Please tick all that apply)

Legal issues, please specify

_____

Forensic patient identification

Documentation

Evidence collection

Other_____

15. Does the Privacy Act of 1988 impact on a nurse calling the police if she/he suspects a crime has been committed? (Please tick one response)

Yes

No

Do not know

16. Are nurses permitted to call the police if a patient admits to committing a crime? (Please tick one response)

Yes

No

Do not know

17. If you found illegal drugs among a patient's personal effects, what actions would you take? (Please tick the response(s) that best describe what your action(s) would be)

Leave the drugs there, they are not yours

Throw them out

Call the police

Document their presence in your notes

Tell the doctor

Do not know

Other _____

18. If a child tells you in confidence that they have been sexually assaulted, are you required by law to keep the child's secret? (Please tick one response)

Yes

No

Do not know

19. If you believe a child is in danger of abuse upon discharge can you report your concerns without doctor backup to the Department of Child and Family Services? (Please tick one response)

   Yes

   No

   Do not know

20. If you overhear a patient admit to lying about a workers compensation injury, are you obligated to document the patient's remarks in their nursing notes and notify other hospital personnel? (Please tick one response)

   Yes

   No

   Do not know

21. The police want to talk with one of your patients. They ask you to leave the room but the patient requests you stay. Are you required to leave if the patient asks you to stay.
   (Please tick one response)

   Yes

   No

   Do not know

22. Do you have any comments relating to your involvement in this research study, the   educational package content, how the information provided has impacted your nursing practice, or suggestions/critiques for me to consider in the future? Your input is extremely valuable.

Thank you for taking the time to complete this questionnaire and participate in this study.

APPENDIX 7

Hospital Policy and Procedure Log

Hospital _____

(Treatment guidelines, clinical pathways, legal implications, referral agencies)

Policy Title/Forensic Category	Description/Characteristics

APPENDIX 8

Healthcare Stakeholders Interview Questions

1. Do you feel that you and your staff have much contact with forensic patients?

2. What type of forensic patient do you have most contact with? (before showing 27 forensic patient category list)

3. Who from the forensic community would you have contact with?
   - How often?

4. How do you see your current relationship with the forensic community?

5. Do you see that there are any gaps or barriers between hospital Eds and the forensic community?
   - If yes, what would be your top 3 priorities to bridging the gaps and/or mending the barriers?

6. Would you feel confident for nurses to have greater role as a liaison person with the forensic community if training was provided?

7. Do you believe that hospital policies and procedures address most types of forensic patient issues and needs?

8. Do you think you staff have received sufficient training to cope with the variety of forensic patients that visit the ED?

9. Do you feel that you receive sufficient support from the forensic community re: their expectations of your staff or their role in the forensic process?

10. What are your current needs and wants from the forensic community re: issues surrounding forensic evidence collection?

11. How much forensic associated education would you or your staff receive on a regular basis?

APPENDIX 9

Forensic Stakeholder Interview Questions

1. How would you describe the current relationship you have with the ED nursing staff?

2. Who do you have most contact with in the ED?
   - Nurses looking after patients
   - Nurse coordinator
   - ED manager

3. Which hospital personnel do you receive forensic evidence from most of the time?

4. Are nursing staff forth coming with forensic evidence, documentation and access to patients during your forensic inquiries?

5. Usually has it been your experience that when you go to the ED proper forensic evidence collection procedures been followed?

   If no, what have been the main problem areas

6. Do you feel there any gaps/problems in the flow of for evidence and information from the ED setting to the police?

7. If all nursing staff could receive some basic forensic training, could you describe your top five priority topics/issues you would want addressed in this educational session so that your forensic needs have a greater chance of being met more often?

8. Who do you see as the key ED players to promote, encourage and facilitate forensic policies and procedures within hospital ED's?

   Probe: Any reasons for not using nursing staff?

APPENDIX 10

Focus Group Interview Questions

1. Can you tell me what you thought of the lecture material?
   - Was it clear
   - Content – easy to understand, too much information at once
   - Helpful
   - Long enough
   - Confusing

2. Do you think the information presented has encouraged you to change your assessment/documentation/nursing practice behaviours?
   - How
   - Why
   - What areas

3. Do you now feel more comfortable collecting evidence and passing it on to police?
   - Yes/No   Why?

4. Do you think your knowledge regarding who is or might become a forensic patient has increased?
   - Yes/No   Why?

5. Do you think the forensic educational materials were helpful?
   - Kit, flow diagrams, posters, pocket q-card
   - Yes/No   Why?

6. Do you feel the information will be helpful for you to take care of your forensic patients?
   - Yes/No   Why?

7. Do you have any questions/ issues that did not get answered during the lecture or that arose out of the lecture that were not addressed and you think could be included in further forensic educational sessions?

APPENDIX 11

Follow-up Interview Questions

1. Did you use any of the documentation sheets available in the Forensic File?

<u>Yes</u> => go to question 2

<u>No</u> => (If no, were there any instances that you could have used the sheets and chose not to or was unable to? Could you talk more about these experiences and what prevented you from using the forms?

2. Do you recall which documentation sheets you utilized?
    A. Body diagrams
    B. Consent forms
    C. Chain of Custody forms
    D. Other _____

3. What did you do when you had completed the documentation sheet?

4. Do you recall using the documentation sheets more than one time?

5. Did you use only one type of documentation sheet or multiple forms?

6. Can you provide me with some feedback as to whether the form(s) you used guided your approach to patient care in a way that you may not have thought about prior to their introduction?

If **<u>yes</u>**, what aspects of the form(s) proved to be most beneficial to you that you might utilize in the future?

If **<u>no</u>**, was there any additional information that you needed (but was not available) that you feel would have been of assistance to you?

APPENDIX 12

Stakeholder Information Letter

My Name is Christine Vecchi and I am a PhD student at Notre Dame University. I appreciate your interest in my research study. The purpose of this study is to explore the effects of implementing a clinical forensic nursing educational package in three Western Australian emergency departments.

My study will be carried out in five phases however, your involvement will only be requested during Phase II. Your perceptions and experience are vital for me to develop a sound and applicable nursing forensic educational package. Your input will allow me to consider and incorporate your issues into the educational process. For there to be an effective and collaborative working relationship between the medicolegal communities, health and forensic issues must be explored and addressed. Therefore, your participation is vital for the effective development of a forensic nursing educational package.

Your involvement will involve participating in an interview that focuses on forensic and healthcare issues. It is anticipated that the interview will take approximately 45 minutes. A time and location for the interview to occur will be negotiated according to your availability. At no time will your name or employer be disclosed. All of your personal information will be de-identified for any reporting or publishing that may occur in connection with my study.

There will be no cost to you. You will be able to contact me regarding the research project at any time during the study. Your participate in this research is voluntary and you may withdraw from the study at any time should you choose to participate. If you feel you would like to participate in my study or have any questions, please contact me.

Thank you for your consideration and interest in my research.

Christine Vecchi, MSN, RN (0408933774)

APPENDIX 13

Participant Consent Form

Title: Implementing a Forensic Educational Package for Registered Nurses in West Australian Emergency Departments

Nurse Researcher: Christine Vecchi, MSN, RN
Supervisor: Dr. Selma Alliex

I confirm that I am over 18 years old and have read the information sheet. I understand the nature, value and purpose of the study and my involvement level. I volunteer to participate.

I understand that my name will not appear on any data collected or in any published results of this study. I am under no duress to participate.

I understand that access to all consent form information, tapes and data collection instrument information will be restricted to Christine Vecchi, MSN, RN and Dr. Selma Alliex.

I have received a copy of the consent form and information sheet for my records. I understand that I can withdraw my consent at any time without prejudice or penalty after signing this form.

I may contact the following person during office hours about my rights as a participant in the study or to verify any of the above information. Dr. Selma Alliex, Research Supervisor, Notre Dame University, (08) 9433 0784

Participants
Name_____

Signature of
Participant_____Date_____

I certify that I have explained this study and participation activities to the above volunteer and consider that the above individual understands their involvement level.

Researcher Christine Vecchi, 0408933774

Signature_____Date_____

Witness Name _____

Signature of
Witness_____Date_____

APPENDIX 14

Outline for Workshop Sessions

Lecture A

1. Welcome
    a. Thanks for coming
    b. Breaks & refreshments
    c. Outline for 3 workshops
        1. A = Intro, go over questionnaire/package
        2. B = Kit, supplies, bags, practical
        3. C = Legal, documentation, discharge, ?/ans
2. What chart checks, questionnaires & interviews found
    a. Identify & assess forensic patient pop (27 cat & study pop)
    b. Documentation & collection of evidence
    c. Communication
    d. Discharge info
    e. Legal requirements
3. Materials provided
    a. Personal opinions **- Please return today**
    b. Notebooks in department x 3
        1. Triage, Resus, desk
        2. Contents page
        3. Abstract
        4. Advantages/Challenges
    c. Hand out packs
        1. Pens for all
        2. Go through documents
        3. Toys
    d. Journal questions
    e. Workshop evaluations – C
    f. Posters in department
4. 27 Categories of forensic patients
    a. Nursing Pathway
    b. Checklist

Lecture B
1. Documentation
    a. History in quotes
    b. Injuries – describe, measure
    c. Body diagrams & names in file
2. Evidence collection (see notebook for guidelines)
    a. What is it – types
    b. How to handle it
    c. How to label it
    d. Chain of Custody
3. Practice with materials & photos

Lecture C

1. Law
    a. Mandate reporting
    b. Consent form (**orange**) & Patient pop for study
    c. Privacy Act
    d. Patient property
    e. Chain of Custody
    f. Notification of Police
    g. CC 236
    h. Legal Facts
        i. Child abuse
        ii. Leaving room
        iii. Coroners case
2. Agency referral list
3. Articles in back of notebooks
4. "I am on call 24/7"
5. Post Questionnaires
6. Feedback Sessions
7. Questions & Answers
8. Workshop Evaluations

APPENDIX 15

Pocket Prompt Card

Categories of Forensic Patients	
1. Substance abuse	14. Sharp force injuries
2. Occupation-related injuries	15. Elder abuse and neglect
3. Assault and battery	16. Firearm injuries
4. MVA/Transportation injury	17. Organ and tissue donation
5. Forensic psychiatric	18. Questioned death
6. Child abuse and neglect	19. Abuse of the disabled
7. Personal injury	20. Sexual assault
8. Control of communicable disease	21. Clients in police custody (CC236)
9. Human and animal bites	22. Burns over 5% BSA
10. Med Malpractice/Neg	23. Transcultural medical practices
11. Not for Resuscitation (NFR)	24. Victims of mass destruction
	25. Food and drug tampering
12. Domestic Violence	26. Product liability
13. Toxic exposure	27. Gang violence
	(Vecchi, 2004)

Evidence Collection

⇒ Always wear gloves
⇒ DOCUMENT history, Pt states "…"
⇒ Base x Height cm, describe on body diagram
⇒ Clothes into separate PAPER bags
⇒ Do not use alcohol wipe when blood sampling
⇒ Double swab technique
⇒ Chain of Custody form
⇒ Lock up or call Police
⇒ Need help, call me 0408933774

Labelling Evidence

⇒ Patients name
⇒ Hospital ID number
⇒ Date
⇒ Time
⇒ Type of specimen
⇒ Site of collection
⇒ Your Signature

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APPENDIX 16

Workshop Evaluation

	Very Satisfied			Very Unsatisfied	
	1	2	3	4	5

Please circle the answer that best fits your thoughts on the following questions

1. Please rate your satisfaction with the workshop;

    a. <u>Lecture:</u>   Content   1   2   3   4   5

                        Presentation   1   2   3   4   5

    Comments:

_____

_____

_____

_____

    b. <u>Practical Session:</u>   1   2   3   4   5

    Comments:

_____

_____

_____

_____

2. Were there aspects of the workshop that you feel need further explanation and/or demonstration?

_____

_____

_____

_____

_____

3. Any general comments?

_____

_____

_____

_____

_____

APPENDIX 17

Photo of Forensic Kit

APPENDIX 18

Forensic Kit Contents List

1.	Brown bags	(Sm, Med, Lg)
2.	Yellow specimen containers	(5)
3.	Plastic specimen collection bags	(10)
4.	Large plastic containers	(2)
5.	Envelopes	(10)
6.	Swabs	(20)
7.	Cotton buds	(5 packets)
8.	Razors	(5)
9.	Comb	(2)
10.	Slides	(5)
11.	Needles	(5)
12.	Vacutainer	(1)
13.	Blood tubes	(3 red, 3 grey top)
14.	Non-alcohol wipes	(10)
15.	Bandaids	(10)
16.	Tourniquet	(1)
17.	Sterile Water/Normal Saline	(5 each)
18.	Pencil	(1)
19.	Black ink pen	(2)
20.	Black permanent marker	(2)
21.	Foam swab holder	(1)

APPENDIX 19

**HospC
Health Campus**

Chain of Custody Form

List of Evidence/Items:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Total Number of Items/Evidence Bags Collected _____

Agency receiving
evidence:_____

Person given
evidence:_____

Signature of person receiving
evidence:_____

Date Evidence was
Released:_____

Time Evidence was
Released:_____

Hospital Staff
Collector:_____

Hospital Staff
Signature:_____

APPENDIX 20

Six Orange Laminated Information Sheets

The following six pages contain the information sheets that were laminated and then attached to the forensic kit by a metal ring. The information sheets included; a list of the 27 types of forensic patients, a forensic patient clinical pathway, examples of common types of evidence the nurses may encounter and how best to preserve and label any evidence collected, general forensic swabbing guidelines, guidelines on how to transfer collected evidence, and a list of various forensic resource agencies and corresponding phone numbers

27 Categories of Forensic Patients

1. Abuse of the disabled
2. Assault and battery
3. Burns over 5% BSA
4. Child abuse and neglect
5. Clients in police custody
6. Domestic Violence
7. Elder abuse and neglect
8. Firearm injuries
9. Food and drug tampering
10. Forensic psychiatric clients
11. Gang violence
12. Human and animal bites
13. Malpractice and/or negligence
14. Motor vehicle trauma
15. Occupation-related injuries
16. Organ and tissue donation
17. Personal injury
18. Product liability
19. Questioned death cases
20. Sexual assault
21. Sharp force injuries
22. Substance abuse
23. Transcultural medical practices
24. Toxic exposure
25. Victims of catastrophic, mass destruction or acts of terrorism
26. End of life decisions, Not for Resuscitation (NFR)
27. Control of communicable diseases

Forensic Nursing Pathway

Recognize

Does the patient fit into one of the 27 forensic categories?

Yes — **No**

No further Forensic actions required

Assessment
Does the patient have specific forensic needs?

No — **Yes**

Assessment and Collection process completed

Collection
Does your patient require you collect evidence?

No — **Yes** — **Yes**

Documentation
* Patient history in quotes
* Measure injuries
* Discharge referrals

Preserve
* Maintain Chain of Custody
*Lock up all evidence collected

Report
* Do you need to call the police?
* Does the patient require specific referral agency upon discharge?

<table>
<tr><td colspan="3" align="center">**Guidelines for Collection and Preservation of**
Physical Evidence</td></tr>
<tr><td align="center">**Specimen**</td><td align="center">**Examples**</td><td align="center">**Preservation Method**</td></tr>
<tr>
<td>Clothing</td>
<td>
• All garments (including cut & clothing pieces)
• Footwear
• Nappies
• Bed linens (ambulance, ED)
</td>
<td>
• Avoid cutting through holes, tears and rips
• One item per paper bag
</td>
</tr>
<tr>
<td>Body fluid</td>
<td>
• Blood
• Urine
• Saliva
• Vomitus
• Seminal fluid
</td>
<td>
• Fluids around wounds or wet body fluid stains should be collected with swabs
• Samples should be collected using a cotton swab moistened with sterile normal saline
• Allow swab to air-dry before placing in a paper envelope and labeling specimen with collection source
</td>
</tr>
<tr>
<td>Hair & Fibers</td>
<td>
• Hair- head or pubic
• Shaved or cut hair from around the wound site
• Carpet remnants
• String/rope/tape
</td>
<td>
• Collect sample and place in a folded piece of paper
• Place each sheet of paper in a separate envelope
</td>
</tr>
<tr>
<td>Debris</td>
<td>
• Glass
• Paint chips
• Wood splinters
• Animal/human teeth
• Fingernail clippings
• Cigarette fragments
• Soil, vegetable matter
</td>
<td>
• Collect and place each sample in a separate envelope
</td>
</tr>
<tr>
<td>Foreign bodies</td>
<td>
• Bullets
• Pellets
• Knives
</td>
<td>
• Handle each specimen as little as possible
• Do not mark on specimen
• Place in plastic bag
</td>
</tr>
</table>

(Adapted from Easter & Muro, 1995; Meserve, 1992; Wick, 2000)

*ALWAYS wear gloves when collecting evidence.
*Have you labeled each specimen?
*Complete a chain of custody form, original to police.
*After collecting objects in appropriate paper bags, any heavy saturated items can be placed in plastic bags to avoid leakage of fluids and contamination of other evidence.

General Forensic Swabbing Guidelines

Forensically significant amounts of saliva, blood and other body fluids can be deposited during breathing, biting, sucking, licking and direct body contact. Therefore it is vital to recover all possible trace DNA evidence as possible.

Supplies needed
1 pair of gloves

2 swabs for each site of sample collection
Sterile water
Tape

Double Swab Technique Guidelines

1. Wash hands thoroughly before starting this procedure.
2. Put on a new pair of gloves and avoid breathing directly over area of body to be swabbed.
3. Check that the seal on each swab is intact. If the seal has been broken discard the swab and get another sealed swab.
4. If at any time during the collection procedure the swab is dropped or comes in contact with another surface, do not use the swab.
5. The **first** swab tip is wet with sterile water to wet the cotton tip completely.
6. The tip of the swab is rolled over the surface of the skin using moderate pressure and in a circular motion. This allows maximum contact between the swab and the skin and heightens any chance of collecting any deposited DNA.
7. The swab is then dried or placed back in the plastic container.
8. The **second** swab is **not moistened.**
9. Roll the second dry swab over the skin using moderate pressure and in the same circular motion as the first swab. This motion allows the dry tip to recover the moisture remaining on the skin's surface from the previous swab.
10. Return the second swab to the plastic container provided or set to dry before placing in another container.
11. Each swab should be carefully labelled with the following:
    - Name of patient
    - Date of Birth of patient
    - Date and Time swab taken
    - Area of body swabbed
    - Your signature
12. Seal each swab with tape and sign and date the tape.
13. Document in the nurses notes that swabs have been taken, what area of the body each swab was collected from, and who the swabs were given to.
14. Complete a Chain of Custody form.

If you have **ANY** doubts, questions or feel unsure about any of the above procedures or the needs of your patient, please call **Christine Vecchi on 0408933774**

Labeling and Transferring Evidence

Guidelines

---

1. Each bag of evidence released to any agency needs to be labelled with the following information.
   - Patients complete name
   - Hospital number
   - Date
   - Time
   - Type of specimen collected
   - Site of collection (if applicable)
   - Signature of person collecting specimen and title (RN, MD)

2. Complete Chain of Custody Form and transfer evidence to law enforcement or place evidence in locked cabinet.

3. Document in patients chart
   - Items collected from patient
   - Date evidence collected
   - Time evidence collected
   - Name of individual receiving evidence
   - Agency of individual receiving evidence
   - Whether evidence was stored in locked cabinet or collected by law enforcement or another agency member
   - Copy of the chain of custody form to be placed in patient's file. Original chain of custody form to go with law enforcement.
   - Signature and title (RN, MD) of individual who collected evidence

Referral Agency Phone Numbers

Aboriginal Health Services – Derbarl Yerrigan	9421 3888
Alcohol & Drug Information 24 hours	9442 5000 or 1800 198 024
Alma Street	9431 3555
Child Abuse Police Investigation Unit (office hours)	9492 5444
Child Protection Unit – Princess Margaret Hospital	9340 8290
Citizens Advice Bureau Legal Service	9221 5711
Crime Victims Compensation	9261 6222 or TTY: 1800 241 216
Crisis Care	9223 1111 or 1800 199 008
Communicable Disease Control	9388 4878
(Urgent public health action needed from healthcare workers only 24 hrs	9328 0553
Coroner	9425 2900 or (after hours) 9420 5200
Coronial Counselling Service	21 2491 or (after hours) 0419 904 476
Domestic Violence Police Liaison Officer Joondalup	9400 0943
Elder Abuse Seniors' Interest Liaison Officer – WA Police Service	9356 0555
Family Help Line	9223 1100
Forensic Odontologist (Dr. Jenny Ball)	9386 1676 or 0419 044 549
Gay & Lesbian Community Services	9420 7201
Homicide Victims Support Group 24 hrs	0500 805 806
Infant Loss Support	1800 686 780
Joondalup Ranger	9400 4960
Kids' Help Line	1800 55 1800
Legal Aid WA	9261 6200 or 1800 809 616
Lifeline – includes trauma counselling/crisis/suicide 24 hrs	13 11 14
Men's Domestic Violence Helpline	9223 1199 or 1800 000 599
Mental Health Direct 24 hr advice line	1800 220 400
Multicultural Centre	9328 2699
NGALA Family Resource Centre	1 800 111 546
Organ Donation –Donate West	9346 3333
Parent Drug Information Line	9442 5050 or 1800 653 203
Parenting Line 24 hours	9272 1466 or 1800 654 432
Poison Center 24 hours	131126
Police Headquarters 24 hours	9222 1111
Police – Joondalup Station	9400 0888
Police Victims of Crime Unit	9356 0555 or 24 hr infoline 9356 0524
Psychiatric Emergency Team 24 hours	1800 676 822 or 9224 8888
Relationships Australia	1300 364 277
Salvos Careline	9227 8655
Samaritans 24 hours	9381 5555 or 1800 198 313
SARC 24 hrs	9340 1828 or 1800 199 888
SARC Counselling Line 24 hrs	9340 1899
SIDS Support Group	9474 3544 or 1800 199 466
State Child Development Centre	9481 2203
Translating & Interpreting Services 24 hours	13 14 50
Victims Support Service	9425 2850 or 1800 818 988
Women Domestic Violence Helpline	9223 1188 or 1800 007 339
Women Refuge Group	9420 7264
Youth Affairs Office	9476 2000

APPENDIX 21

Forensic Resource File Contents

1. Research Abstract

2. Research Project Advantages & Disadvantages

3. Forensic Patient Evidence Protocol

4. Forensic Patient Consent Form

5. 27 Categories of Forensic Patients

6. Forensic Nursing Pathway

7. Forensic Patient Checklist Form

8. Labeling and Transferring Evidence Guidelines

9. Labeling Evidence Bags/Items

10. Chain of Custody Form

11. Chain of Custody Information Sheet

12. General Forensic Swabbing Guidelines

13. Glossary of Common Forensic Medical Terms

14. Body Diagrams
    - ► Child body
    - ► Adult body
    - ► Head/Face
    - ► Arms
    - ► Hands
    - ► Feet
    - ► Female sexual organ
    - ► Male sexual organ

15. Referral Agency Phone Numbers

16. Forensic Kit Contents Sheet

17. Information Sheets
   - ► Mandated Reporting in Western Australia
   - ► Patient Property
   - ► Criminal Code 236
   - ► Privacy Act 1988
   - ► Legal Facts – Did you know?
   - ► Child Abuse Police Investigation Unit

18. Forensic Articles
   - ► Forensic Aspects of Health Care: New Roles, New Responsibilities
   By Virginia Lynch, MSN, RN, 1993

   - ► Forensics and the Critical Role of the ER Nurse
   By Lynda Benak, MSN, RN, 2001

APPENDIX 22

Forensic Patient Consent Form

HospC

Health Campus

| Name: _____ |
| Date: _____ |
| (Patient label) |

I, _____ , the patient, parent,
(person's name)

guardian, or custodian do willingly consent and authorize for the medical and/or

nursing staff in the emergency department at HospC to release, discuss or disclose

my personal

information or any collected personal property collected on

_____to the proper law enforcement agencies.
(date)

The confidentiality of such information will be guarded to prevent its

release to unauthorised individuals. This permission includes the taking

of photographs if such is indicated by the judgement of the above

mentioned healthcare professionals.

_____   _____

Signature of Patient, Parent, or Guardian   Date

_____   _____

Name of Witness   Signature of Witness

APPENDIX 23

Forensic Patient Protocol

There are a limited number of circumstances in which the forensic evidence collection protocol will be undertaken by staff in the emergency department at Joondalup Health Campus under the research project guidelines.

The researcher to contact should there be any questions is Christine Vecchi. She may be reached 24 hours a day on **0408933774**.

Due to the Privacy Act, research objectives and the hospital guidelines, the following circumstances must occur before any forensic evidence may be collected, bagged, authorities contacted and personal patient information released.

1. **Coroners Case**: If a patient is classified as a coroners case (see list of criteria), before any patient property and tubes can be removed or washing of the body can occur, the healthcare staff **MUST** contact the coroner and get approval to do so. This patient category falls under the Western Australia law for Mandatory reporting, regardless of family approval.

2. **Communicable Diseases:** If a patient has been diagnosed with a Mandatory notifiable disease (see Appendix W), the proper health authorities must be contacted and patient information may be released under law (without patient consent).

3. **Consenting Forensic Patient:** If the patient falls into one of the 27 forensic patient categories (see list provided), **AND** the patient gives their consent (staff to obtain a consent form first), the healthcare staff may contact the proper authorities (ie. Police) and collect forensic samples and property.

4. **Unconscious Patient:** If a patient comes into the emergency department unconscious/unresponsive is not able to provide any identifying details **AND** there is a serious and imminent threat to the individual's life, health or safety; or a serious threat to public health or public safety, the police or other appropriate authorities may be contacted. Contacting authorities (ie. Police) will be done to confirm identity and report health related concerns.

APPENDIX 24

Notifiable Diseases in Western Australia

There are certain communicable diseases that healthcare professionals are required to report by state law. The following are the diseases that must be reported:

Adverse event following immunisation	Melioidosis
Amoebiasis	Meningococcal infection
Amoebic meningitis	MRSA
Anthrax	Measles
Arboviral encephalitis	Mumps
Botulism	Paratyphoid fever
Brucellosis	Pertussis
Campylobacter infection	Plague
Cholera	Pneumococcal infection
Cryptosporidiosis	Poliomyelitis
Chancroid	Q fever
Chicken flu	Rabies
Chlamydia	Ross River Virus infection
Dengue fever	Rubella
Diphtheria	Salmonella infection
Giardiasis	Scarlet fever
Gonorrheae	Shiga toxin
Haemolytic influenza	Shigellosis
HIV/AIDS	SARS
Hepatitis A, B, C	Syphilis
Hydatid disease	Tetanus
Influenza	Tuberculosis
Legionella infection	Typhoid fever
Leprosy	Typhus
Leptospirosis	Viral haemorrhagic fevers (Crimean-
Listeriosis	Congo, Ebola, Lassa, Marbung)
Malaria	Yellow fever
Measles	Yersinia infection

The number for the reporting of any of the above diseases to the Communicable

Disease Control authorities is 9388 4878 or A/H emergency 9480 4960

APPENDIX 25

Healthcare Stakeholder Coded Interview Transcript

CM: Do you see that most of the hospital policies and procedures that are in place now address most types of forensic patient needs and issues?

HCS2: *They <u>usually are very basic</u>. Certainly from what I am used to and looking here, the policies are <u>very basic and generally say "yep you can do this, if you want to there is no hard and fast rule, if it is in your scope of practice". There is no structure to the nursing policies for forensics.</u> Even in as much as if you do something, what sort of support is the hospital going to give the person, there is nothing there. <u>So I don't think most organisations do that very well</u>.*

CM: And why do you think that is?

HCS2*: <u>It's that territory thing again. It's not in our territory</u>.*

CM: But yet you have forensic policies?

HCS2: *Only very minimal saying, acknowledging that it exists and you know, <u>your role in this is not expected</u> but if you take it on and it is in your scope of practice, you can take it on. <u>That's the basis of the policy.</u>*

CM: Do you see these policies as helpful and sufficient for your staff to follow and to be guided by and are comfortable with?

HCS2: *They have been sufficient whilst no-one has actually been taking forensic specimens, or looking or digging deeply into a forensic issue with a patient. <u>There is no education and no awareness, then they become obsolete, they are just not in line.</u> Most of the domestic violence polices would just say call "D'' with which ever government department it is, but it <u>doesn't actually help you deal with a patient in front of you.</u>*

CM: So when you said they are fine up to the point when you are taking forensic evidence, are people doing that? Are people being asked to do that?

HCS2: *<u>Not in this department, not in nursing. Our medical staff will, but not nursing staff.</u>*

CM: Before, you mentioned there was no education, do you had a wish list about the areas of forensic education that you would want or that would be useful?

HCS2: *I guess the* <u>*identification of somebody in front of you*</u>*, to learn how to ask the questions,* <u>*to have then the evidence that*</u> *"yes I have someone in front of me who has been a victim".* <u>*I think that has to be the biggest thing, the first step, because I don't think nurses know how to identify and I don't think they are comfortable asking the questions.*</u>

CM: What do you think they are uncomfortable about?

HCS2: *I think it is prying into personal questions, as* <u>*we are not very good with personal questions if it is not of a physical nature.*</u> *Or it* <u>*may be not knowing what to do with the answers,*</u> *I am not sure which one it is. I would lean more towards not being comfortable with asking personal questions.*

CM: Anything else that you could think of that would be helpful, as far as education?

HCS2: *That's the main ones I can think of at the moment*.

CM: Do you have input from the forensic community at the moment? And if you could get some feedback or had some communication with them would that be helpful?

HCS2: <u>*I don't think there is a great deal in my limited experience, I don't think there is a great deal. Certainly a greater liaison would be beneficial.*</u> *I don't think we have to break down barriers, just to provide, or to pick up the phone and say "hey can you* <u>*help us out with the procedure for this and this,*</u> *I don't know where to turn with this one".*

APPENDIX 26

HospC Policy on Child Maltreatment

D: Domestic Violence - CHILD ABUSE AND/OR NEGLECT (CC05.157)

PERSONNEL ABLE TO PERFORM
Medical Staff, Nursing Staff, Social Work Staff

OUTCOME

- Children deemed to be at risk are protected from potential or actual physical, sexual, emotional harm or injury or neglect.
- HospC and the Department for Community Development agree to work together to protect children and reduce the trauma associated with child abuse to achieve the best possible outcome for the child and his / her family. The emotional well being of the child will be considered a priority.
- Both agencies acknowledge and support the philosophy, objective, Principles, descriptors and definitions of the Reciprocal Child Protection Procedures October 2002. These specific procedures have been developed collaboratively and are based on the existing Procedures between the Department for Community Development and other State Government Agencies.

EQUIPMENT

- Reciprocal Child Protection October 2002, Addendum January 2006 **(HospC And The Department For Community Development)**
- For children under 1 year presenting to ED - DR to complete Injury Assessment HR (No. to be advised)

Procedures

1. Requests for information from HospC by the Department for Community Development (DCD).
2. Referrals to DCD from HospC.
3. Children who present to HospC with suspected non -accidental injuries.
4. Statutory powers
   - 4.1 Power to keep child under six year of age in hospital (all hospitals).
   - 4.2 Use of Power to keep child under six year of age in hospital
   - 4.3 Provisional protection and care of newborn babies and children

in Hospital
- 4.4 Procedures for provisional protection and care of a newborn
- 4.5 Health care and documentary procedures
- 4.6 Procedures for provisional protection and care of child

A folder containing the:

1. Reciprocal Child Protection Procedures - Addendum January 2006
2. Children and *Community Services Act 2004* (complete Act held in Executive Office and Social Work. Relevant extracts in all other files).
3. Reciprocal Child Protection Procedures
   These will be held in the following departments:
   - Social Work Department
   - Emergency Department
   - Paediatric Ward
   - Obs & Gynae
   - After Hours Managers Office
   - Executive - DON Office

References:
1. Reciprocal Child Protection Procedures, October 2002 – Addendum January 2006. HospC & DCD
2. Reciprocal Child Protection Procedures between:
- Western Australia Police Service, PMH, KEMH, DSC, Dpt. Education, Dpt. Justice, Dpt Of Health Western Australia, State Coroner, and DCD.
3. Children And Community Services Act 2004

Originally Compiled By:	Social Worker and Manager Paediatric Services, April 1999, Last Revised by Social Worker, May 2002
Revised, Confirmed Current & Authorised At:	April 2006 Senior Social Worker, CNC Quality, DON - Adjunct Associate Professor

APPENDIX 27

Forensic Nursing Self-Directed Learning Package

Clinical Forensic Nursing: What Knowledge and Skills are Required to Care for Forensic Patient Populations?

Background

Violence has been recognized as a global public health problem (WHO, 2002). As a result, the nursing profession is faced with new educational needs which involve the specialty field of forensics (McGillivray, 2004). Often, forensic patients encounter healthcare professionals within Australian hospitals prior to any contact with the police or other legal professionals (O'Brien, 2006). Therefore, many nurses are unknowingly caring for forensic patients on a daily basis.

Providing competent and effective care to forensic patients requires a Registered Nurse to have special skills and unique knowledge (Glittenberg, Lynch, and Sievers, 2007). A nurse must have a clear understanding of their professional scope of practice, State and Federal laws as well as understand forensic science principles (Hammer, Moynihan, and Pagliaro, 2006; Glittenberg, Lynch, and Sievers). These special skills and unique knowledge allow nurses to meet the demands of the diverse forensic patient needs (Benak, 2001).

The content of this SDLP is based on the findings of a PhD research project that explored forensic nursing issues as a preamble to developing a forensic educational package for ED nurses in Western Australia. This SDLP is directed at all Registered Nurses working is a variety of environments. It will introduce participants to issues that surround forensic nursing

Aim

The aim of this SDLP is to increase the awareness of Registered Nurses about who forensic patients are and provide clinical strategies that can be incorporated into everyday practice to enhance the outcomes for all forensic patients.

Expected Learner Outcomes

On completion of this SDLP, the Registered Nurse will be able to:

1. Identify who forensic patients are.
2. Define what forensic nursing is.
3. Have a greater awareness about the ethical and legal implications that are connected with forensic patient care.
4. Develop a basic understanding of the importance of evidence identification, collection and protection.
5. Be able to perform basic forensic evidence collection skills.

What is Forensic Nursing?

Forensic nursing, by definition, incorporates law and healthcare practices (Butterworths, 2003). According to Lynch (2006), forensic nursing involves merging the forensic aspects of healthcare with the bio/psycho/social/spiritual aspects of patient care.

Who are Forensic Patients?

A "forensic patient" refers to any individual who seeks treatment for complaints that interface with or have the potential to interact with the law (Pasqualone, 1998). Therefore, in everyday practice, all nurses regularly come in contact with forensic patients. In the literature (Pasqualone, 1998; Michel, 2007), there have been 27 different forensic patient categories identified. A complete list of the 27 categories of forensic patients are identified in the table below (Pasqualone, 1998; Michel, 2007).

1. Abuse of the disabled	15. Occupation-related injuries
2. Assault and battery	16. Organ and tissue donation
3. Burns > 5% body surface area	17. Personal injury
4. Child abuse and neglect	18. Product liability
5. Clients in police custody	19. Questioned death cases
6. Domestic Violence	20. Sexual assault
7. Elder abuse and neglect	21. Sharp force injuries
8. Firearm injuries	22. Substance abuse
9. Food and drug tampering	23. Transcultural medical practices
10. Forensic psychiatric clients	24. Toxic exposure
11. Gang violence	25. Victims of mass destruction/ terrorism
12. Human and animal bites	26. End of life decisions: Do Not Resuscitate (NFR)
13. Malpractice and/or negligence	
14. Motor vehicle trauma	27. Control of communicable diseases

Documentation – A Systematic Approach

In accordance with the Nursing Board of Western Australia guidelines (2004), documentation of patient care is a key requirement for every nurse. The recording of relevant history, interventions, observations, and results is an essential component of professional nursing practice. All documentation associated with patient care should be relevant, appropriate and accurate.

In many situations, forensic patients rely on medical notes as evidence to enable them to seek justice. Medical records can be used as evidence in court to determine events that may have contributed to a patient's injury or death. Any statement, record, testimony, or other things which tends to prove the existence of a fact can be used as evidence in court (Wallace, 2001). Therefore, it is vital all nurses are meticulous about the type and quality of documentation they employ.

The following are some useful points that may assist nurses in guiding their documentation style when caring for forensic patients.

- Write legibly and spell correctly. Incorrect spelling reflects upon your professionalism and increases the chance of misinterpretation.
- Notes should be concise, accurate, and relevant. Subjective descriptions and moral judgements are inappropriate and unprofessional.
- Use approved hospital abbreviations only.
- When taking a patient's medical history, put relevant patient history in "quotes". Documenting exact words can highlight why certain nursing interventions were initiated or not included in your nursing care plan.
- Know how to define everything you write and use professional language. For example, know that the word "cut" and "laceration" are different and are caused by two different types of injury mechanisms.
- All injuries should be described in the nursing notes. Descriptions should include: Anatomical location, size of injury (base X height in cm), colouring, and a brief description. For example: 2 x 2cm open laceration to bridge of nose oozing serosanguinous fluid. The use of body diagrams clarify observations.
- If a patient has no observable injuries after being subjected to or involved with a traumatic event then this too should be stated. For example: No physical injuries noted upon examination.
- Read what you wrote and make sure you understand what you are trying to convey because if you don't understand, NO ONE will.
- Make sure the patient's name is on every page of your nursing documentation.
- If you didn't do something explain why.

Lastly, there are some specific documentation items that can prove to be very important in forensic cases. Therefore, a make a final check that your documentation has addressed and included the following:

- Where was patient going upon discharge and with whom. Duty of care responsibilities continue until your patient has left the ward/facility.
- Document the time the patient left the ward/facility. If questions arise concerning the whereabouts of patients during their hospital admission, time lines can be created which identify and/or clarify any inconsistencies.
- Provide discharge instructions. Document what type of instructions you gave your patient and their reaction to such instructions. For example, "The patient was provided with a head injury advice sheet and the information on the sheet explained. The patient voiced their understanding of such discharge instructions".

- Ensure that the chain of custody form has been completed if applicable. It is vital to ensure the integrity of any specimens collected. The failure to maintain a proper chain of custody may render evidence inadmissible in court.

Legal Issues

There are many legal issues to consider when caring for forensic patients. However, in this SDLP, the main legal issues that will be addressed include civil vs. criminal acts, consent, Western Australia mandate reporting laws, existing hospital policy and procedures, and other State/Country specific legislation.

Civil vs. Criminal

Legal disputes arise when a person or body claims that another has done them wrong (Wallace, 2001). Forensic patient issues are dealt with through two main legal options; civil or criminal proceedings. Civil action is instigated by an individual when they believe that another individual has harmed them physically, mentally or economically and desires compensation for the actions (Wallace). In such cases, judges are responsible to act as a referee by determining the facts and interpreting the law. Criminal cases are initiated by the Crown through the police. In such cases, police claim that an individual has committed a wrong by committing a crime. In criminal cases, the Crown is only interested in punishing the offender. Therefore, a forensic patient may have to endure two legal proceedings if justice and compensation is desired.

In civil cases, the burden of proof is only that a doubt as to the validity of the case is present. An example of a forensic patient category that could lead to civil proceedings includes occupation-related injuries and malpractice and/or negligence issues. In criminal cases, the State is required to provide a much higher level of proof where the jury must believe that a person is guilty "beyond a reasonable doubt" before an accused person can be found guilty (Wallace, 2001). An example of a forensic patient category that could lead to criminal proceedings includes child abuse and neglect and sexual assault.

Consent

Obtaining consent from a patient prior to initiating any procedure is fundamental to nursing practice. Under law, all healthcare professional owe a duty of care to patients to consider the need for "informed consent" (Wallace, 2001). Therefore, to avoid the action of trespass (assault and battery) against a person or an action of negligence, informed consent must be obtained by healthcare professionals before providing care (if the individual is competent to provide such consent).

The issues of consent are exactly the same for all aspects of forensic patient care with one major exception. Under *Western Australia Criminal Code s236,* any patient who

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is in police custody and has been charged with an offence may have biological evidence (ie body swabs, blood) taken without consent. Nurses who collect such samples at the request of a police officer cannot be charged with assault. However, overall, any evidence collected from patients must be obtained with prior consent of the patient. In addition, under the *National Privacy Act*, before the police are called regarding any non-mandated reportable issue, consent to talk with police must first be obtained from the forensic patient.

Mandate laws

Statutes are the only pieces of legislature that regulate mandate reporting in the state of Western Australia. Currently, there are only **three** situations that healthcare professionals are mandated to report to Western Australian authorities.

The three situations that healthcare professionals are required to disclose to authorities include:
1. Patient condition/situations that qualify under the *Coroners Act 1996*.
2. Certain Communicable diseases.
3. A suspicion of child sexual abuse.

Definitions

Mandate   =Enforcing strict compliance, obligated, required by an official authoritative instruction, command or according to law.

Report   = the act of disclosing information, to give an account of, describe.

Statutes   =An act passed by Parliament. A written law that must be followed and over rules an individual's wishes.

1. Coroners Act of 1996

The following situations/conditions that healthcare professionals are required to report to the to the Coroner that are considered **"reportable deaths"** include:
1. The patient's death has an unknown cause.
2. Of a person whose identity is unknown.
3. A person has died while in, or temporarily absent from certain establishments that have been providing them with care, treatment, and assistance such as a hospital, residential centre, welfare facility or residential childcare centre.
4. A medical practitioner has not and will not issue a certificat**e** stating the cause of death.
5. The person was not attended by a medical practitioner within the period of 3 months immediately preceding his or her death or suspected death.
6. A person died within one year and one day of an accident to which the cause of death may be attributed.
7. A person died while in police custody.
8. That occurs during an anaesthetic or within 24 hours of the administration of an anaesthetic and is not due to natural causes.

9. A person died a violent or unnatural death or directly or indirectly from injury.
10. The number for the State Coroner is 9425 2900 or A/H 9420 5200.

<u>BEFORE</u> any tubes, medical devices, clothing or personal property on or of the patient may be removed, disposed of or given to relatives, you <u>MUST</u> have approval from the Coroner. Under section 29(1) of the *Coroners Act 1996*, the body is under the control of the coroner investigating the death and is subject to any directions the State Coroner may give. This includes any next of kin who wish to view or touch the body.

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2. Communicable Diseases

Under public health legislation, healthcare providers are required to report certain notifiable diseases to health authorities (*Health Act* 1911). Because Western Australia State law requires notifications to the Department of Health of certain communicable diseases, the notification of such diseases do not breach the *Privacy Act 1988* (National Privacy Principle 2.1 (g)). The following are the diseases that must be reported: Adverse event following immunization, Amoebiasis, Amoebic meningitis, Anthrax, Arboviral encephalitis, Botulism, Brucellosis, Campylobacter infection, Cholera, Cryptosporidiosis, Chancroid, Chicken flu, Chlamydia, Dengue fever, Diphtheria, Giardiasis, Gonorrheae, Haemolytic influenza, HIV/AIDS, Hepatitis A, B, C, Hydatid disease, Influenza, Legionella infection, Leprosy, Leptospirosis, Listeriosis, Malaria, Measles, Melioidosis, Meningococcal infection, MRSA, Measles, Mumps, Paratyphoid fever, Pertussis, Plague, Pneumococcal infection, Poliomyelitis, Q fever, Rabies, Ross River Virus infection, Rubella, Salmonella infection, Scarlet fever, Shiga toxin, Shigellosis, SARS, Syphilis, Tetanus, Tuberculosis, Typhoid fever, Typhus, Viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa, Marbung), Yellow fever, and Yersinia infection.

3. Suspected Child Sexual Abuse

On 7 March, 2007, Western Australia Premier Alan Carpenter, announced that Western Australia would require doctors, nurses, teachers and police to report evidence of child sexual abuse as part of the Government's response to the Ford Review of Western Australia's child protection system. Prior to this, the groups of people mandated to notify their concerns or suspicions to the child protection authority was limited to court personnel, counselors and mediators; licensed providers of child care, and outside school hours care services.

Existing hospital policy and procedures

The amount and type of existing hospital policies pertaining to forensic patient care is extremely varied. It is imperative that nurses work within their scope of practice outlined by the Nurses Board of Western Australia, but also abide by their hospital policies. Therefore, all RNs should know what type of policies that exist in their hospitals and how they apply and affect their nursing practice.

Privacy Act of 1988

The *Privacy Act* sets out 10 National Privacy Principles (NPP) under Schedule 3 which are legally binding about how organizations must handle personal information.

A summary of NNP obligations that are applicable to this SDLP include:

- Use fair and lawful ways to collect personal information.
- Get consent to collect sensitive information unless specified exemptions apply.
- At the time you collect personal information or as soon as practicable afterwards, take reasonable steps to make an individual aware of;
  - * Why you are collecting information about them
  - * Who else you might give it to; and
  - * Other specified matters.

There are three NNPs from Schedule 3 that will be outlined below as they relate specifically to forensic patient care. These include:

1. **NNP 1**   Collection
2. **NNP 2**   Use and disclosure
3. **NNP 6**   Access and correction

1. **NNP 1 Collection**

1.1. An organization must not collect personal information unless the information is necessary for one or more of its functions or activities.
1.2. An organization must collect personal information only by lawful and fair means and not in an unreasonably intrusive was.

2. **NNP 2 Use and disclosure**

2.1 Primary and related purposes means that an organization can only collect and use the personal information collected directly from the individual that correlates to the particular purpose.

> Any use and disclosure of personal information for a secondary purpose is not allowed except where such use falls within the exceptions listed below.

2.2 If personal information is to be used for a secondary purpose, there must be something that arises in the context of the primary purpose within reasonable expectations. **Reasonable expectation** is understood to be what an individual with no special knowledge of the industry or activity involved would expect.

> Personal information for a secondary purpose may be disclosed if it has the individual's consent.

2.3 Personal information for a secondary purpose may be disclosed in emergency situations where there is a serious threat to health and safety and using or disclosing personal information will help reduce that threat.

Serious threat = a threat of bodily injury, mental health, illness or death.

2.4 If an organization is **<u>required</u>** by law to use or disclose personal information it has no choice and it must do so. If and organization is **<u>authorized</u>** by law to use or disclose personal information it means the organization can decide whether to do so or not.

2.5 An organization may use or disclose personal information where it reasonably believes this is reasonably necessary for a range of functions or activities carried out by, or on behalf of, an enforcement body.

2.6 A provider of a health service may disclose health information in some circumstances where the individual is unable to give consent and where the disclosure is not contrary to any known wish of the individual. Such a disclosure is only permitted to ensure the individual receives appropriate care or treatment or where it is necessary for compassionate reasons – for example a guardian, close relative or friend.

3. NNP 6 Access and correction

6.1 Where health information is involved, an organisation would be able to deny access where there is a serious threat. The serious threat does not have to be imminent. It could happen at any time.

6.2 If an organisation is required by a law to refuse access it has not choice. If an organisation is authorised by law to refuse access the organisation can decide whether to do so or not.

6.3 Organisations are not required to provide access to personal information where unlawful activity is reasonably suspected, for example fraud or theft, and access would prejudice investigations into that activity.

Criminal Code - Section 236

When a person is in lawful custody upon a charge of committing any offence of such a nature and alleged to have been committed under such circumstances that there are reasonable grounds for believing that a sample of any matter on the person's body will afford evidence as to the commission of the offence, it is lawful for;

(a) a legally qualified medical practitioner; or
(b) a nurse as defined in the *Nurses Act 1992* ,

acting at the request of a police officer, and for any person acting in good faith in aid of, and under the direction of, the person acting at the request of the police officer, to take the sample from the person so in custody and to use such force as is reasonably necessary for that purpose.

Ethical Issues – advocate or informer

Healthcare professionals are often confronted with difficult legal and ethical dilemmas when providing care to forensic patients. According to Wallace (2001, p.627), ethics is the "study of rational processes for determining the course of action, in the face of conflicting choices". There are several codes of ethics which nurses can consult when faced with difficult decisions (Nurses Board of Western Australia Code

of Ethics, International Council for Nurses, National Health and Medical Research Council, Hospital Codes of Ethics).

While such codes provide principles to guide actions, the variety of statements can often be general and confusing. Therefore, before acting on an unfamiliar or confusing situation, nurses should may sure they have a firm grasp of all the facts. Facts to consider could include the nature of an individual's diagnosis, the patient's prognosis, what the patient has been told previously, and what the patient's perception of the issue is. After considering all the facts, nurses should then review the law. Sometimes there are legal requirements that are attached to a situation that will provide guidance and make clear the course of action that must be followed. Should these avenues provide no clear cut pathway to follow, often the best choice of action is obtain through group consultation amongst colleagues and facility management.

Practical skills

There are a few basic skills that all nurses should have to enable them to provide comprehensive care to forensic patients. Such clinical skills centre on forensic evidence collection. The discussion that follows will focus on what nurses need to know about how to collect common types of physical evidence.

Evidence collection

Evidence can be defined as:
> Any statement, record, testimony, or other things, apart from legal submissions, which tends to prove the existence of a fact in issue (Butterworths, 1998).

When a healthcare worker comes into contact with a client's property, when it is given to them for safekeeping and when they have to handle it on other occasions, there are two types of situations in which Western Australia law is interested.
1. The wrongful interference with a person's goods
2. The careless or negligent treatment of a person's goods when they have been given for safekeeping.

A patient's person property should only be given to someone else other than the patient if the patient has been asked and authorized the third party to take their property. Under Western Australia law, the patient must give consent for a third party to take control of their property. The only exception is with a minor child. The parents of the minor child are able to legally take possession of the minor child's property (Wallace, 2001).

The following is a checklist of items you may want to consider when dealing with a patient's personal property.
1. Have I informed the patient about what hospital policy is regarding collection of personal property?
2. Have I listed each object by type and condition?

3. Have I secured the patient's consent to take their belongings?
4. Have I secured another healthcare professional as a witness, if possible, before taking the personal property?
5. Have I given the patient or their family members a copy/receipt for any personal property taken?
6. Have I and do I need to complete a chain of custody form?
7. Have I documented in the nursing notes what I have done with all personal property taken from the patient?

Some guidelines for collection and preservation of physical evidence is listed below:

1. Before collecting any item **ALWAYS** don gloves.
2. All garments (ie. clothing, footwear, nappies, bed linen) should be placed in paper bags (one item per paper bag if possible).
3. Body fluids such as blood, urine, saliva, vomitus should be placed directly in a specimen container (a small yellow top urine container is sufficient) and sealed. Tape should be place around the lid to seal the container thus minimizing the ability of the item to be tampered with or damaged.
4. Hair, fibers (ie. carpet remnants, string, rope, tape), debris (glass, soil, vegetable matter, cigarette fragments) can be collected and placed in a specimen container or in an envelop and sealed.
5. All items should be handled as little as possible.
6. Items should be described accurately and objectively. For example, do not describe a ring as "gold" but rather as "yellow metal". This will minimize confusion and any misunderstandings of what products the valuables are composed of and who is to blame if the valuables returned do not match the noted description or what the patient interprets the description to mean.
7. Each item should be sealed with tape and hand labeled with a black or blue pen. Information that should be placed on each item include:
   ► Patient's name (do not affix a patient label as they can be removed).
   ► Medical record number
   ► Date of birth
   ► Description of article (ie. one short sleeve red t-shirt).
   ► Date and time item was packaged
   ► Collectors signature and designation
8. Complete a chain of custody form and maintain contact with collected items until secured in a locked cabinet or handed over to authorities.

Evidence Protection

"Chain of Custody" can also be referred to as "chain of evidence". Either term can be defined as the identity of individuals having control or custody of evidence, potentially evidence or other property (Lynch, 1995).All evidence to be cited as proof in a court of law at trial is subject to a number of tests to establish its admissibility and relevance. To ensure the integrity of any article/item/specimen collected, the where abouts of such items must be able to be traced. Failure to maintain such a chain of custody can render potentially evidence worthless in a court of law.

Regardless of its importance to a case, any evidence lost, damaged, or unaccounted for prior to its arrival in court can be ruled inadmissible by the judge. Aside from the potential harm to the case, such a loss reflects poorly upon the professionalism of the responsible healthcare professional and the agency.

The following are some guidelines for ensuring that a chain of custody is maintained.

1. Legal chain of custody should be maintained on all specimens/articles/items collected from a forensic patient (established or potential).
2. Complete the designated chain of custody form before releasing any specimens/articles/items to the care of another professional (ie. police, hospital).
3. Keep the original form in the patient notes and give a photo copy to the individual from the collecting agency.
4. Document in the nursing notes that you have collected evidence, that the chain of custody form was completed, and what agency took position of the evidence or that you locked the evidence up. Date, time, and your signature should accompany this statement. You can have the person collecting the evidence (ie. police, coroner) sign your nursing notes to support your documentation.
5. Try to eliminate the number of times any evidence must be handled or transferred. Fewer mistakes will be made.

Discharge and Referral Agencies

One of a nurse's main responsibilities is to ensure continuity of care for all patients. That is especially important to forensic patients who have often been exposed to or involved in traumatic events. Appropriate discharge planning often requires a multidisciplinary and coordinated process (Crisp and Taylor, 2005). The process of discharging a forensic patient may not always mean that the patient will be leaving the healthcare facility to go to their home environment. Some forensic patients may need to be transferred within the same facility to another ward or be transferred to another specialized facility to begin a rehabilitation process. Therefore, it is imperative that good verbal communication occurs between all healthcare professionals, patients, and family members.

Sometimes, due to the situational circumstances, forensic patients require referrals upon discharge. Referral requirements could be formal such as specified follow-up appointments with medical specialists (fracture clinics or post-op surgical consultations). However, many forensic patients could require the name and details of an organization such as; Police, Family Help Line, Legal Aid Western Australia, Victims Support Service, Alcohol & Drug Information, Women Refuge Group. Being provided with names and telephone details of such agencies could assist forensic patients' gain access to applicable treatment opportunities thus increasing the likelihood of successful and long-term health benefits.

Journal Articles

The following journal articles will be included within the SDLP.

1. Assid, P. (2003). Evidence collection and documentation; Are you prepared to be a medical detective? *Topics in Emergency Medicine,* 27(1), 15 21.
2. Goll-McGee. B. (1999). The role of the clinical forensic nurse in critical care. *Critical Care Nursing Quarterly*, 22(1), 8-18.
3. McCracken, L. (2001). The Forensic ABCs of Trauma Care. *Canadian Nurse*, 97(3), 30-33.
4. Saunders, l. (2000). Forensic Nursing; formalizing a new role or recognizing existing practice? *Australian Nursing Journal*, 8(3), 49-50.

Case Studies

There will be three case study examples included within this SDLP. One case study will address pediatric issues, one will address adult forensic issues and one will address the forensic concerns of the elderly and/or disabled patient populations. Each case study will contain a case history, case photographs, and a short quiz at the end. The learner will be asked to apply their understanding of forensic issues presented in this SDLP to answer the case study questions. In addition, the case photos will allow the learner the opportunity to practice their injury documentation. The quiz at the end of each case study will allow the learner to self evaluate their understanding of the various forensic issues provided within this SDLP.

Glossary of Terms

A list of commonly used forensic related words will be included within the SDLP to help learners clarify terms, enhance documentation, and assist with learning. Below are some common terms utilized regularly in forensic cases.

1. **Abnormal**: Deviating from a standard, not average, typical or usual.
2. **Abrasion**: An area of skin or mucous membrane removed by some mechanical process ("a scrape").
3. **Asphyxia**: Death caused by lack of oxygen to the brain.
4. **Atrophy**: Wasting away of tissue.
5. **Blunt trauma**: Injury inflicted by an object or surface that is not sharp.
6. **Bruise**: An injury that does not break the skin but causes ruptures of small underlying vessels with resultant discoloration of tissues. Also called **contusions**, **ecchymosis**.
7. **Buccal swab**: A swabbing collected from the inside surface of the cheek.
8. **Burn**: An injury produced by mechanical means – by heat, cold, electricity, or chemicals.
   * 1st degree: redness and tender skin – ie. Sunburn
   * 2nd degree: blisters – ie. Scald burn
   * 3rd degree: involves deeper layers of tissues (no pain) – ie. Fat muscle
9. **Cause of death**: The immediate reason for a death; the action or injury that most directly caused a person to die. ie. A stab wound to the chest.

10. **Chain of Custody**: Procedures and documentation used to ensure the integrity of evidence from collection to courtroom presentation to the final destruction of evidence.
11. **Concussion**: An impact or injury usually refers to loss of conscious following a blow to the head. A fracture may or may not be present.
12. **Congenital**: Refers to conditions that are present at birth, regardless of their causation.
13. **Contusion**: See bruise
14. **Cut**: To open up or incise with a sharp edge or instrument.
15. **Defendant**: The accused in a criminal proceeding; in a civil case, the person or party being sued.
16. **Defence wounds**: Wounds found on a body or living person that resulted from defensive actions taken during a struggle.
17. **Diaphoresis**: A profuse perspiration.
18. **Erythema**: An intense redness of the skin due to excess blood in the dilated superficial capillaries.
19. **Forensic Nursing**: The application of nursing skills to legal matters and law enforcement.
20. **Forensic Patient**: Any patient whose presenting symptoms and/or discharge diagnosis have legal implications.
21. **Hematoma**: The swelling caused by collection of blood in a space such as under the skin or under the skull
22. **Haemorrhage**: The escape of blood from vessels.
23. **Incised wound**: A wound created by cutting with an object such as a knife or scissors.
24. **Laceration**: A wound which is characterized by being torn or having ragged-edged.
25. **Latent prints (fingerprints)**: Left at a scene on an object that are not visible, barely visible, and/or potentially visible.
26. **Lividity (livor mortis)**: The settling of blood that occurs in a body after the heart stops beating.
27. **Manner of death**: The classification of a death as accidental, homicidal, indeterminate, natural, or suicidal.
28. **Mechanism of death**: The specific medical, biochemical, and/or physiological process or failure that causes death eg. In a stabbing, blood loss can lead to shock, ad often this shock is the mechanism of death.
29. **Modus operandi (MO)**: The methods, techniques, and approaches that a criminal uses to commit a crime. A person's MO can change over time.
30. **Mongolian spot**: Common blue-black area at the sacrum or buttocks; variation of hyper-pigmentation of the skin; often in Native American, Latin and Asian newborns that fades during the 1st year. Can be confused with child abuse injuries.
31. **Mottling**: A lace-like pattern of dilated cutaneous vessels.
32. **Nevus**: A large, flat macular patch covering the scalp or face; dark red, bluish or purplish in colour and intensifies with crying, exertion, or exposure to heat or cold (also called a Port-Wine Stain).
33. **Non-accidental injury**: An injury which occurs other than by chance. Legally this refers to an injury which is inconsistent with the stated cause.
34. **Oedema**: The presence of increased fluid in the tissues of the body.

35. **Pattern injury**: a bruise or wound whose shape suggest the instrument or weapon that caused it ie. Belt buckle, broomstick, burning cigarette, pinch marks, bite marks.
36. **Paralysis**: Complete or partial loss of function involving usually motor function in a part of the body.
37. **Peri mortem**: Occurring at the time of death or very near to it.
38. **Petechiae**: Small pin-point hemorrhages of the skin which do not blanch (whiten) on pressure.
39. **Proximal**: Nearest; closer to the point of reference.
40. **Purpura**: Bleeding into the skin which is a large bruise or ecchymosis.
41. **Pus**: Turbid fluid.
42. **Putrefaction**: A stage of decomposition that begins with a greening of the skin along with a surge in microbial degradation leading to bloating and purging of gases and fluids from the body.
43. **Rigor mortis**: The stiffening of a body that occurs shortly after death, usually within 2-6 hours after death.
44. **Scar**: The flat, raised or depressed area of dense fibrous tissue that is left by the healing of injured tissue.
45. **Strawberry mark (Immature hemangioma)**: A raised bright red area with a well-defined borders about 2-3 cm in diameter; does not blanch with pressure and is present at birth; usually disappears between ages 5-7 years.
46. **Swelling**: Abnormal enlargement or increase in volume, associated with accumulation in the tissue of a protein-containing exudate.
47. **Tear**: To separate or pull apart by force.
48. **Tenderness**: A state of unusual sensitivity to touch or pressure.
49. **Trauma**: Referring to an injury.
50. **Vesicle**: Circumscribed, elevated lesion <1 cm in diameter and containing clear serious fluid ie. Blisters of herpes simplex.
51. **Welt**: A lump on the skin of the body which is usually the result of blood in the tissue as well as oedema fluid from injured blood vessels.
52. **Wheal**: Superficial, raised, transient and erythematous; slightly irregular shape due to oedema ie. Mosquito bite, allergic reaction.

The above definitions came from the below cited references.

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2. *Concise Collins Dictionary* (1989). London: William Collins Sons & Co. Ltd.
3. Jarvis, C. (1996). *Physical examination and health assessment.* Philadelphia: W.B. Saunders Company.

References and Bibliography

All of the references cited in the SDLP excluding the references cited under the glossary of terms and relevant journal article headings are listed below.

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4. Glittenberg, J., Lynch, V., & Sievers, V. (2007). Forensic Nursing: A Healthcare response to the epidemic of violence. *Colorado Nurse,* 107(1), 1, 4-5.
5. Hammer, R., Moynthan, B., and Pagliaro, E. (2006). *Forensic Nursing; A handbook for practice*. Boston: Jones and Bartlett Publishers.
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12. Nursing Board of Western Australia, (2004). Management of patient information and documentation guidelines. Western Australia: Australian Nursing Council.
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14. World Health Organisation (WHO). (2002). *World report on violence and health: summary*. Geneva: WHO.

Legislation Acts and Bills

Coroners Act 1996
Health Act 1911
Nurses Act 1992
Privacy Act 1988
Western Australia Criminal Code 1996