



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

The knowledge of critical care nurses regarding legal liability issues

by

ELIZABETH MARIA CHARLOTTA HYDE

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

Magister Curationis (Clinical)

In the

**Department of Nursing Science
School of Healthcare Sciences
Faculty of Health Sciences
University of Pretoria**

Supervisor: Dr ADH Botha

JANUARY 2006

“I will sing of the mercies of the Lord for ever, with my mouth will I make known Thy faithfulness to all generations” (Psalms 89.1)

I would like to express my sincere appreciation toward the following people and institutions:

- ✚ My husband, Lennie, for his love, help, motivation, continuous support, understanding and prayers throughout this study;
- ✚ My children, Billy, Len, Michael and Nadia, for their love, motivation, constant support and understanding;
- ✚ Dr ADH Botha, my supervisor, for her excellent guidance, motivation, support, remarkable understanding, input and level of commitment - without her guidance and patience this would not have been possible;
- ✚ My father, for translating some of the work, and my mother, for all her prayers;
- ✚ My late parents-in-law, for emphasising the believe that one can achieve one's goals in life by focussing on the Lord;
- ✚ My family, Ouma Joey and late Oupa Arrie, Rina and Willie, and the rest of the Hyde, Hahn, Erasmus and Le Roux families, for their continuous motivation and support;
- ✚ My best friends, H Massyn and M Swart, for believing that I would reach my goal;
- ✚ Ms MME Todd, for being a role model throughout my nursing career;
- ✚ Mss Riada van Wyk and Erna Fourie, all other members of the management team, the nursing personnel of the unit and the rest of the personnel of the hospital where I am currently working, for their continuous motivation, understanding and support;
- ✚ Management, Central Region, of the specific private hospital group where phase one of the study was conducted, for their participation;
- ✚ Management Head Office and Tshwane Region of the specific private hospital group, for their assistance and support during this study;
- ✚ Ms H Liebenberg, for the professional editing of the study;
- ✚ All the critical care nurses/students who participated in this study, for their invaluable contribution.

Lizma Hyde



DECLARATION

Student number: 9824391

I, Elizabeth Maria Charlotta Hyde, hereby declare that '*The knowledge of critical care nurses regarding legal liability issues*' is my original work, and that it has not been submitted before for any degree or examination at any other institution. All the sources that have been used have been acknowledged by means of complete text references and a detailed bibliography.

EMC HYDE

DATE



The knowledge of critical care nurses regarding legal liability issues

STUDENT: EMC Hyde
DEGREE: Magister Curationis (Clinical)
University of Pretoria
SUPERVISOR: Dr ADH Botha

The aim of this study was to determine the knowledge of critical care nurses regarding forensic and liability issues in the critical care environment in order to design an education programme on the topic. A quantitative, descriptive, contextual research design was used and convenience sampling implemented. A survey, using a questionnaire as measuring instrument, was conducted among critical care nurses in selected private hospitals in South Africa. The response rate was 85%. Validity and reliability of the research was ensured. The total average percentage achieved by the group of 171 respondents was 38.46%, which was 21.54% below the set competency indicator of 60%. Only nine respondents achieved a percentage of or above 60%. Results proved that the respondents required intensive training on the topic. The outline of an education programme to address knowledge deficiencies regarding forensic and liability issues in the critical care environment was presented in PowerPoint presentation format.

Key terms:

Critical care nurse; critical care environment; living forensic patient; forensic and liability issues; competency indicator.

	PAGE
ACKNOWLEDGEMENTS	ii
DECLARATION	iii
ABSTRACT	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	xiii
LIST OF TABLES	xiv
LIST OF ANNEXURES	xvii
LIST OF ABBREVIATIONS	xviii

TABLE OF CONTENTS

CHAPTER 1: ORIENTATION TO THE STUDY

1.1	INTRODUCTION	1
1.2	LITERATURE REVIEW AND BACKGROUND TO THE PROBLEM	2
1.3	RESEARCH PROBLEM AND QUESTION	3
1.4	RESEARCH AIM AND OBJECTIVES	4
1.5	DEFINITIONS OF KEY CONCEPTS	5
1.6	OVERVIEW OF THE RESEARCH DESIGN AND METHODOLOGY	6
1.6.1	RESEARCH DESIGN	6
1.6.2	PHASE 1: RETROSPECTIVE AUDIT	6
1.6.3	PHASE 2: SURVEY	7
1.7	SCOPE AND LIMITATIONS OF THE STUDY	8
1.8	DATA ANALYSIS	8
1.9	ETHICAL CONSIDERATIONS	8
1.10	LAYOUT OF THE STUDY	8
1.11	CONCLUSION	9



CHAPTER 2: LITERATURE REVIEW

2.1	INTRODUCTION TO THE HISTORY OF FORENSIC NURSING	10
2.2	INTERACTION WITH PATIENTS WITH LEGAL LIABILITY ISSUES	11
2.3	THE CRITICAL CARE UNIT AS FORENSIC DOMAIN	14
2.4	RECOGNISING PATIENTS WITH LEGAL LIABILITY ISSUES	15
2.4.1	VICTIMS OF DOMESTIC VIOLENCE	16
2.4.1.1	DEFINITION OF DOMESTIC VIOLENCE	16
2.4.1.2	PHYSICAL MANIFESTATION OF DOMESTIC VIOLENCE	16
2.4.1.3	PSYCHOLOGICAL MANIFESTATION OF DOMESTIC VIOLENCE	16
2.4.2	VICTIMS OF CHILD ABUSE	17
2.4.2.1	DEFINITION OF CHILD ABUSE (GENERAL)	17
2.4.2.2	DEFINITION OF SEXUAL ABUSE OF A CHILD	17
2.4.2.3	DEFINITION OF PHYSICAL ABUSE OF A CHILD	18
2.4.2.4	DEFINITION OF CHILD NEGLECT	18
2.4.2.5	DEFINITION OF EMOTIONAL ABUSE OF A CHILD	18
2.4.2.6	DEFINITION OF CHILD ABUSE BY CHEMICAL SUBSTANCE	18
2.4.2.7	DEFINITION OF MÜNCHHAUSEN SYNDROME BY PROXY	19
2.4.2.8	SIGNS OF CHILD ABUSE	19
2.4.2.9	PHYSICAL INDICATORS OF CHILD ABUSE	20
2.4.3	VICTIMS OF ELDER ABUSE	21
2.4.3.1	DEFINITION OF ELDER ABUSE	21
2.4.3.2	CHARACTERISTICS OF ELDER ABUSE	22
2.5	WOUND CHARACTERISTICS	22
2.5.1	DEFINITION OF WOUNDING, INJURY AND TRAUMA	22
2.5.2	RECOGNITION OF WOUNDS AND WOUND CHARACTERISTICS	23
2.6	RECOGNITION OF EVIDENCE	24
2.7	EVIDENCE COLLECTION AND PRESERVATION	25
2.8	CHAIN OF CUSTODY	26
2.9	DOCUMENTING EVIDENCE	27



2.10	INTEGRATING ETHICAL AND MEDICO-LEGAL CONSIDERATIONS REGARDING THE LIVING FORENSIC PATIENT IN THE CRITICAL CARE ENVIRONMENT	29
2.11	NEGLIGENCE	29
2.12	MALPRACTICE	30
2.13	INFORMED CONSENT	30
2.14	LIVING WILLS AND 'DO NOT RESUSCITATE' ORDERS	31
2.15	THE CRITICAL CARE NURSE AS EXPERT WITNESS AND COURT PROCEDURES	32
2.16	CONCLUDING REMARKS	33

CHAPTER 3: RESEARCH METHODOLOGY

3.1	INTRODUCTION	34
3.2	THE RESEARCH DESIGN	35
3.2.1	INTRODUCTORY REMARKS	35
3.2.2	QUANTITATIVE RESEARCH	35
3.2.3	EXPLORATORY RESEARCH	36
3.3	RESEARCH METHODOLOGY FOR FIRST PHASE OF THE STUDY	36
3.3.1	INTRODUCTORY REMARKS	36
3.3.2	POPULATION AND SAMPLING	36
3.3.3	AUDIT INSTRUMENT LAYOUT	37
3.3.3.1	ITEM A: BRIEF BIOGRAPHY, PATIENT HISTORY, DIAGNOSIS AND CLINICAL CAUSE OF ADMISSION	37
3.3.3.2	ITEM B: SYSTEM ASSESSMENTS	39
3.3.3.3	ITEM C: CHAIN OF CUSTODY	39
3.3.4	VALIDITY AND RELIABILITY CONCERNING THE AUDIT INSTRUMENT (CHECKLIST)	40
3.3.4.1	CONTENT AND FACE VALIDITY	40
3.3.4.2	RELIABILITY	40
3.3.5	SUMMARY OF RESULTS OF THE FIRST PHASE OF THIS RESEARCH	41
3.3.5.1	INTRODUCTORY REMARKS	41



		PAGE
3.3.5.2	ITEM A: BRIEF BIOGRAPHY AND PATIENT HISTORY	41
3.3.5.3	ITEM B: SYSTEM ASSESSMENTS	41
3.3.5.4	ITEM C: CHAIN OF CUSTODY	42
3.3.5.5	IMPLICATIONS OF RESULTS OF THE FIRST PHASE (RETROSPECTIVE AUDIT) OF THE RESEARCH	42
3.4	RESEARCH METHODOLOGY FOR THE SECOND PHASE OF THE RESEARCH	43
3.4.1	INTRODUCTORY REMARKS	43
3.4.2	THE QUESTIONNAIRE	43
3.4.2.1	DEFINITION OF A QUESTIONNAIRE	43
3.4.2.2	ADVANTAGES AND DISADVANTAGES	44
3.4.2.3	LAYOUT OF THE QUESTIONNAIRE	44
3.4.2.4	REFINEMENT OF THE QUESTIONNAIRE	47
3.5	RESEARCH PROCEDURE	51
3.5.1	POPULATION	52
3.5.2	SAMPLING	52
3.6	VALIDITY OF THE RESEARCH PROCESS	53
3.6.1	INTRODUCTORY REMARKS	53
3.6.2	VALIDITY OF THE INSTRUMENT	53
3.6.2.1	CONTENT VALIDITY	53
3.6.2.2	FACE VALIDITY	54
3.6.2.3	CRITERION VALIDITY	54
3.6.2.4	CONSTRUCT VALIDITY	55
3.6.3	VALIDITY OF THE DATA COLLECTION PROCESS	55
3.7	RELIABILITY	55
3.7.1	STABILITY	55
3.7.2	EQUIVALENCE	56
3.7.3	INTERNAL CONSISTENCY	56
3.7.4	COMPETENCY INDICATOR	56
3.8	ETHICAL CONSIDERATIONS	57
3.9	LIMITATIONS	57
3.10	DATA ANALYSIS	57
3.11	CONCLUSION	58



CHAPTER 4: DATA ANALYSIS

4.1	INTRODUCTION	59
4.2	SECTION 1: BIOGRAPHICAL DATA	59
4.2.1	QUESTION 1: LEVEL OF QUALIFICATION	60
4.2.2	QUESTION 2: YEARS OF EXPERIENCE IN THE CRITICAL CARE ENVIRONMENT	60
4.2.3	QUESTION 3: APPOINTMENT STATUS	61
4.3	SECTION 2: KNOWLEDGE BASE	62
4.3.1	INTRODUCTION	62
4.3.2	KNOWLEDGE THEMES COVERED BY QUESTIONNAIRE	63
4.3.2.1	THEME 1	63
4.3.2.2	THEME 2	63
4.3.2.3	THEME 3	64
4.4	KNOWLEDGE BASE: RESULTS OF EACH ITEM FOR THE ENTIRE GROUP	64
4.4.1	SUBSECTION 1: QUESTION 1	64
4.4.2	SUBSECTION 1: QUESTION 2	65
4.4.3	SUBSECTION 1: QUESTION 3	65
4.4.4	SUBSECTION 1: QUESTION 4	65
4.4.5	SUBSECTION 1: QUESTION 5	66
4.4.6	SUBSECTION 1: QUESTION 6	66
4.4.7	SUBSECTION 1: QUESTION 7	67
4.4.8	SUBSECTION 1: QUESTION 8	67
4.4.9	SUBSECTION 1: QUESTION 9	67
4.4.10	SUBSECTION 2: QUESTION 1	68
4.4.11	SUBSECTION 2: QUESTION 2	68
4.4.12	SUBSECTION 2: QUESTION 3	69
4.4.13	SUBSECTION 3: QUESTION 1	69
4.4.14	SUBSECTION 3: QUESTION 2	70
4.4.15	SUBSECTION 3: QUESTION 3	70
4.4.16	SUBSECTION 3: QUESTION 4	70
4.4.17	SUBSECTION 3: QUESTION 5	71
4.4.18	SUBSECTION 4: QUESTION 1	71



		PAGE
4.4.19	SUBSECTION 4: QUESTION 2	72
4.4.20	SUBSECTION 4: QUESTION 3	72
4.4.21	SUBSECTION 4: QUESTION 4	72
4.4.22	SUBSECTION 4: QUESTION 5	73
4.4.23	SUBSECTION 4: QUESTION 6	73
4.4.24	SUBSECTION 4: QUESTION 7	74
4.4.25	SUBSECTION 4: QUESTION 8	74
4.5	SUMMARY OF SCORES OBTAINED BY THE ENTIRE GROUP OF RESPONDENTS FOR THE WHOLE QUESTIONNAIRE, INCLUDING THE THEMES IDENTIFIED	75
4.5.1	RESULTS OF QUESTIONNAIRE AS A WHOLE FOR THE ENTIRE GROUP OF RESPONDENTS	75
4.5.2	THEME 1: WOUNDS AND WOUND CHARACTERISTICS	75
4.5.3	THEME 2: EVIDENCE COLLECTION AND PRESERVATION	76
4.5.4	THEME 3: DOCUMENTATION	77
4.6	SCORES ATTAINED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO BIOGRAPHICAL SUBSECTIONS	77
4.6.1	SCORES ACHIEVED BY QUALIFICATION	77
4.6.2	SCORES ACHIEVED BY YEARS OF EXPERIENCE	79
4.6.3	SCORES ACHIEVED BY APPOINTMENT STATUS	80
4.7	COMPETENCY INDICATOR	81
4.7.1	ACHIEVEMENT OF THE ENTIRE GROUP	81
4.7.2	COMPETENCY BY QUALIFICATION	81
4.7.2.1	MASTER'S DEGREE	81
4.7.2.2	DEGREE	82
4.7.2.3	DIPLOMA	82
4.7.2.4	CERTIFICATE	82
4.7.2.5	EXPERIENCE	82
4.7.2.6	CRITICAL CARE NURSING STUDENT	82
4.7.2.7	UNSPECIFIED	83
4.7.2.8	SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO QUALIFICATION	83
4.7.3	COMPETENCY BY YEARS OF EXPERIENCE	84



		PAGE
4.7.3.1	<2 YEARS	84
4.7.3.2	2-5 YEARS	84
4.7.3.3	6-9 YEARS	84
4.7.3.4	≥10 YEARS	84
4.7.3.5	SUMMARY OF ACHIEVEMENTS OF RESPONDENTS GROUPED TOGETHER ACCORDING TO YEARS OF EXPERIENCE IN THE CRITICAL CARE ENVIRONMENT	84
4.7.4	COMPETENCY BY APPOINTMENT STATUS	85
4.7.4.1	UNSPECIFIED	85
4.7.4.2	PERMANENT STAFF	85
4.7.4.3	PART-TIME STAFF	85
4.7.4.4	AGENCY STAFF	85
4.7.4.5	SUMMARY OF ACHIEVEMENTS OF RESPONDENTS GROUPED TOGETHER ACCORDING TO APPOINTMENT STATUS	86
4.8	CONCLUSION	86

CHAPTER 5: CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS OF THE STUDY

5.1	INTRODUCTION	87
5.2	MAIN FINDINGS AND CONCLUSIONS	88
5.2.1	COMPETENCY BY BIOGRAPHICAL DATA	89
5.2.2	COMPETENCY OF DIFFERENT GROUPS FOR THE DIFFERENT THEMES	90
5.2.2.1	THEME 1: WOUNDS AND WOUND CHARACTERISTICS	90
5.2.2.2	THEME 2: EVIDENCE COLLECTION AND PRESERVATION	90
5.2.2.3	THEME 3: DOCUMENTATION	91
5.3	RECOMMENDATIONS	91
5.3.1	RECOMMENDATIONS FOR CRITICAL CARE NURSING PRACTICE	91
5.3.2	RECOMMENDATIONS FOR NURSING EDUCATION	92
5.3.3	RECOMMENDATIONS FOR NURSING ADMINISTRATION	92



		PAGE
5.3.4	RECOMMENDATIONS FOR NURSING RESEARCH	93
5.4	LIMITATIONS OF THE STUDY	95
5.5	REFLECTION ON THE STUDY	95
5.6	SUGGESTED EDUCATION PROGRAMME GUIDELINES	96
5.7	FINAL CONCLUSION	97
	BIBLIOGRAPHY	98-104



LIST OF FIGURES

		PAGE
FIGURE 4.1	COLUMN GRAPH ILLUSTRATING THE LEVEL OF QUALIFICATION OF RESPONDENTS	60
FIGURE 4.2	COLUMN GRAPH ILLUSTRATING THE YEARS OF EXPERIENCE OF RESPONDENTS WORKING IN THE CRITICAL CARE ENVIRONMENT	61
FIGURE 4.3	COLUMN GRAPH ILLUSTRATING THE APPOINTMENT STATUS OF THE RESPONDENTS WORKING IN THE CRITICAL CARE ENVIRONMENT	62



LIST OF TABLES

		PAGE
TABLE 3.1	ADVANTAGES AND DISADVANTAGES OF QUESTIONNAIRES	44
TABLE 3.2	LAYOUT OF QUESTIONNAIRE	45
TABLE 4.1	KNOWLEDGE REGARDING THE TERM 'CLINICAL FORENSIC NURSING'	64
TABLE 4.2	KNOWLEDGE REGARDING THE CORRECT DESCRIPTION OF A LIVING FORENSIC PATIENT	65
TABLE 4.3	KNOWLEDGE OF RESPONSIBILITIES WITH REFERENCE TO THE LIVING FORENSIC PATIENT AND THE CONVICTION OF AN ASSAILANT	65
TABLE 4.4	KNOWLEDGE OF SCIENCES TO BE INTEGRATED TO UNDERSTAND FORENSIC NURSING AND LEGAL LIABILITY ISSUES IN NURSING	66
TABLE 4.5	ASPECTS OF LIABILITY NURSES SHOULD BE FAMILIAR WITH	66
TABLE 4.6	KNOWLEDGE REGARDING ASPECTS THAT DETERMINE THE ASSOCIATION BETWEEN FORENSIC NURSING AND CRITICAL CARE NURSING	66
TABLE 4.7	ABILITY TO RECOGNISE A DESCRIPTION OF THE LIVING FORENSIC PATIENT IN THE CRITICAL CARE ENVIRONMENT	67
TABLE 4.8	ABILITY TO RECOGNISE THE CONCEPT 'CHAIN OF CUSTODY OF EVIDENCE'	67
TABLE 4.9	KNOWLEDGE REGARDING CASES WHERE EVIDENCE HAS TO BE COLLECTED	68
TABLE 4.10	KNOWING THE REASONS FOR DOING A MEDICO-LEGAL AUTOPSY	68
TABLE 4.11	KNOWLEDGE REGARDING CRITERIA FOR DIAGNOSING CLINICAL DEATH	68



TABLE 4.12	KNOWLEDGE REGARDING THE CORRECT PROCEDURES WHEN A PATIENT WITH LEGAL LIABILITY ISSUES IS PRONOUNCED BRAIN DEAD	69
TABLE 4.13	KNOWLEDGE REGARDING WOUND CHARACTERISTICS REPRESENTING SHARP TRAUMA	69
TABLE 4.14	KNOWLEDGE OF TYPE OF WOUND RESULTING FROM A CRUSHING IMPACT	70
TABLE 4.15	KNOWLEDGE REGARDING DICING INJURIES	70
TABLE 4.16	KNOWLEDGE REGARDING SELF-INFLICTED WOUNDS	71
TABLE 4.17	KNOWLEDGE REGARDING INJURIES CAUSED BY WEAPONS	71
TABLE 4.18	KNOWLEDGE REGARDING PRECAUTIONS DURING REMOVAL OF BLOODSTAINED CLOTHING	71
TABLE 4.19	KNOWLEDGE REGARDING STORAGE OF BLOODSTAINED CLOTHING	72
TABLE 4.20	KNOWLEDGE REGARDING IDENTIFICATION AND COLLECTION OF EVIDENCE IN HIT-AND-RUN ACCIDENT CASES	72
TABLE 4.21	KNOWLEDGE REGARDING DOCUMENTATION TO BE COMPLETED IN SUSPECTED RAPE CASE	73
TABLE 4.22	KNOWLEDGE REGARDING HIV TESTING OF VENTILATED, SEDATED AND UNCONSCIOUS PATIENT	73
TABLE 4.23	KNOWLEDGE REGARDING PROOF OF NURSE NEGLIGENCE	73
TABLE 4.24	KNOWLEDGE OF THE AGE LIMIT FOR CHILDREN TO CONSENT TO MEDICAL TREATMENT WITHOUT ASSISTANCE OF PARENTS OR GUARDIAN	74
TABLE 4.25	KNOWLEDGE ABOUT THE KIND OF INFORMATION THAT MAY BE GIVEN TO THE MEDIA BY A NURSE	74



TABLE 4.26	RESULTS OF THE QUESTIONNAIRE AS A WHOLE FOR THE ENTIRE GROUP OF RESPONDENTS	75
TABLE 4.27	RESULTS FOR THEME 1: WOUNDS AND WOUND CHARACTERISTICS	76
TABLE 4.28	RESULTS FOR THEME 2: EVIDENCE COLLECTION AND PRESERVATION	76
TABLE 4.29	RESULTS FOR THEME 3: DOCUMENTATION	77
TABLE 4.30	SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO QUALIFICATION	78
TABLE 4.31	SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO YEARS OF EXPERIENCE	79
TABLE 4.32	SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO APPOINTMENT STATUS	80
TABLE 4.33	SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO QUALIFICATION	83
TABLE 4.34	SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO YEARS OF EXPERIENCE	85
TABLE 4.35	SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO APPOINTMENT STATUS	86



LIST OF ANNEXURES

- | | |
|-------------------|---------------------------------------------------------------------------------------------------------|
| ANNEXURE A | APPROVAL FROM THE UP FACULTY
OF HEALTH SCIENCES RESEARCH
ETHICS COMMITTEE TO CONDUCT THE
STUDY |
| ANNEXURE B | PATIENT RECORD AUDIT INSTRUMENT
AND TABULATED DATA |
| ANNEXURE C | PARTICIPANT INFORMATION LEAFLET
AND INFORMED CONSENT DOCUMENT
ATTACHED TO QUESTIONNAIRE |
| ANNEXURE D | OUTLINE OF EDUCATION PROGRAMME IN
POWERPOINT PRESENTATION FORMAT |



LIST OF ABBREVIATIONS

AACN	American Association of Critical Care Nurses
<i>e.g.</i>	For example
HIV/Aids	Human immunodeficiency virus/acquired immunodeficiency syndrome
HPCSA	Health Professions Council of South Africa
IAFN	International Association of Forensic Nurses
<i>i.e.</i>	<i>id est</i> (that is to say)
MRC	Medical Research Council
MSBP	Münchhausen syndrome by proxy
SANC	South African Nursing Council
SBS	Shaken baby syndrome
UFS	University of the Free State
UP	University of Pretoria
USA	United States of America



CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Since the 21st century, expansive forensic knowledge is required of critical care nurses worldwide due to the increasing rate of unnatural deaths and the rise in the medico-legal patient population in the critical care setting. These patients are also referred to as living forensic patients (Barton 1995:3).

Critical care and trauma units have become forensic domains. Critical care nurses have to deal with forensic patients who are admitted with life-threatening or acute haemodynamic instabilities. In recent years, critical care and trauma units have evolved into highly sophisticated and technologically advanced nursing areas. Specialised knowledge and skills (including forensic nursing knowledge and skills) are required of critical care nurses and other nursing personnel working with forensic patients. If holistic patient care is the common goal, legal aspects, nursing sciences and forensic knowledge should be integrated. The holistic care of a patient includes the protection of a patient's legal, civil and human rights.

As critical care nurses operate primarily within the protective walls of hospitals, they find themselves increasingly interacting with living forensic patients. The holistic approach to patient care involves aspects such as legal issues surrounding patient care in the critical care environment and the prevention of violence and crime (Lynch 1995:489). A new perspective to holistic patient care thus includes the mutual responsibility concepts that evolved from interacting with these patients. The critical care nurse needs advanced and specialised knowledge of critical care and forensic matters to be able to meet the demands

of caring for the living forensic patient and their loved ones, and in order to seek justice for the victim and serve society (Lynch 1995:489).

1.2 LITERATURE REVIEW AND BACKGROUND TO THE PROBLEM

Curricula of critical care nursing worldwide do not include forensic nursing as a study field. When the researcher was doing the final year of the clinical nursing degree in South Africa, a module on forensic nursing was added to the curriculum. It was an eye-opener to students. They found that forensic knowledge was widely applied in nursing science and practice.

Thus, forensic nursing, including legal liability issues, is a new and specialised, but unexplored field in South Africa. It is seen as a unique discipline. The focus, however, is on investigating cases of sexual abuse, and the manifestation of forensic nursing in trauma and critical care units is neglected. Because of the severity of their injuries, victims of assault and violence end up in the trauma and critical care units. For this reason, these units have become forensic domains.

The researcher has experienced not only a severe shortage of trained critical care personnel in critical care units, but also the employment of inexperienced nurses who are expected to care for critically ill patients. Insufficient knowledge can lead to patient neglect and malpractice, which in turn lead to medico-legal court cases. Because of negligence or malpractice, a patient can become a living forensic patient with legal liability issues, and nurses be placed in a position where they have to fend for themselves.

Furthermore, when a living forensic patient enters the trauma or critical care unit, the nurse is often the first person who recognises evidence of a crime. Identifying and gathering evidence correctly can lead to the conviction of an assailant and the prevention of crime.

The call worldwide is for health sectors to take responsibility and to become involved in crime investigation and prevention, as is reflected in the South African government's National Crime and Prevention Strategy that was discussed in Kimberley in 1998 (Els 2003).

When living forensic patients are nursed (and legal liability issues involved), factors of importance are: consistency (recognition of evidence and comprehensive data documentation); competency (proper collection and preservation of evidence); and credibility (performance as an expert witness and a member of a multi-disciplinary team).

The healthcare sector and the law often become entangled during critical moments when patient care supersedes the concern for social justice. With the focus on life-saving measures, crucial evidence can be destroyed. Usually, critical care nurses are the first people to see the patient, talk to the family, handle the patient's property and deal with laboratory specimens. These nurses must be proactive in recognising patients with liability related injuries (Lynch 1995:489). While upholding the principles of nursing care, the legal rights of the victim/patient remain important.

Collecting evidence is important but secondary to life, health and safety. Efforts made by nurses on a patient's behalf may affect the patient for the rest of his/her life. It sometimes takes years for a case to come to court. It is almost impossible for the critical care nurse to have total recall of the course of events. For these reasons, comprehensive documentation of all nursing observations and interventions is vital. Critical care nurses should also acquire knowledge about aspects of criminal justice and the law.

1.3 RESEARCH PROBLEM AND QUESTION

It is unknown whether critical care nurses working in critical care units have acquired adequate knowledge about legal liability issues in the critical care environment. This problem is the focus of this study and will be researched. In

order to obtain an answer to this research problem, the following research question is formulated:

What is the knowledge level of critical care nurses about legal liability issues in the critical care environment?

1.4 RESEARCH AIM AND OBJECTIVES

The aim of this study is to investigate the knowledge of critical care nurses about legal liability issues in the critical care environment.

The objectives of the study are threefold:

- The first objective is to develop a questionnaire based on literature and the findings of a retrospective patient record audit, which should point out legal liability issues encountered daily by critical care nurses in the critical care environment. Thus, data obtained from the audit, as well as available literature, will be used for the construction of a questionnaire as measuring instrument.
- The second objective is to measure critical care nurses' knowledge of legal liability issues in the critical care environment, using the questionnaire as measuring instrument.
- The third objective is to make recommendations based on the results of the study, including guidelines for an education programme, regarding legal liability issues relevant to critical care nursing.



1.5 DEFINITIONS OF KEY CONCEPTS

➤ *Critical care nurse*

A critical care nurse is registered with the South African Nursing Council (SANC) and works in a critical care environment. Working in this environment does not require the acquisition of a diploma or degree in critical care and surgical nursing. The terms 'critical care' and 'intensive care' are used interchangeably.

➤ *Critical care environment*

The critical care environment can be defined as highly sophisticated, modern and technologically advanced areas in a hospital where patients receive invasive and non-invasive nursing interventions under the best possible conditions. Patients, who experience actual or potential life-threatening health problems and require continuous monitoring and supervision, complex assessment, invasive and non-invasive interventions, as well as intensive and vigilant nursing care, are admitted to these areas. (AACN 2002; South African Society of Anesthesiologists 1999:16.)

➤ *Living forensic patient*

According to Cummings (1999:3), cited by Goll-McGee (1999:10), any patient admitted to a hospital has the potential to become a living forensic patient because of the interactive role of medicine and the law. Clearly identified living forensic patients are those with *legal liability issues*, such as patients involved in "...sexual assault, domestic violence, nonfatal assaults, physiological and psychological abuse, suspicious/unrecognized/unidentified trauma, substance abuse, automobile/pedestrian trauma, medical/nursing malpractice or negligence (avoidance), police/corrections custody, drug and food tampering, product liability, anatomical gifts, environmental hazards, illegal abortion practices, (and) supervised care injuries" (Goll-McGee 1999:11).



➤ *Competency indicator*

It is the level of knowledge that represents competency in an area of knowledge, in this case legal liability issues. A group of experts involved in the field of specialisation determine the competency indicator. It is usually set as a percentage, for example sixty per cent, and those who score at or above this level are considered competent.

1.6 OVERVIEW OF THE RESEARCH DESIGN AND METHODOLOGY

1.6.1 RESEARCH DESIGN

The research design refers to the researcher's overall research plan or structural framework. It spells out the strategies that the researcher plans to adopt to answer the research question and to develop information that is accurate and interpretable (Polit, Beck & Hungler 2001:167).

A quantitative, explorative, retrospective study will be conducted. Quantitative research is defined by Polit *et al.* (2001:469) as an investigation of a phenomenon, using precise measurement and a quantification-controlled design.

The study will be conducted in two phases.

1.6.2 PHASE 1: RETROSPECTIVE AUDIT

Patient records will be studied retrospectively to orientate the researcher as to specific scenarios of the living forensic patient in the South African context, and be used to develop similar case scenarios for inclusion in a questionnaire. Retrospective studies, according to Polit *et al.* (2001:183), capture events or behaviours occurring in the past.

Purposive sampling will be used in this phase of the research. Polit *et al.* (2001:239) state that purposive sampling is based on the assumption that the researcher's knowledge of the population can be used to handpick cases to be included in the sample. In this phase of the research, the population will consist of all patient records of patients that were admitted over an 18-month period to a specific critical care unit in the Free State province in South Africa. A sample will be purposively selected by using a forensic patient list. The cases sampled will be analysed by doing a patient record audit. The development of the questionnaire will be based on the findings of the audit.

1.6.3 PHASE 2: SURVEY

The aim of the second phase of the research study is to determine the knowledge of critical care nurses about the living forensic patient nursed in the critical care environment. Quantitative research methodology will be used and a survey be conducted.

A survey is conducted in order to collect information on the actions, knowledge and opinions of people (Polit *et al.* 2001:186). In this phase of the research, data will be collected by means of a self-administered questionnaire that will be distributed to coordinators in a specific private hospital group. The questionnaire will include questions about forensic case scenarios and be based on patient records studied retrospectively. It will be used to measure the knowledge of critical care nurses regarding legal liability issues in the critical care environment.

The population involved in this phase of the study will consist of registered nurses working in critical care units in hospitals of a specific private hospital group in South Africa. Convenience sampling, a non-probability sampling method, will be used.



1.7 SCOPE AND LIMITATIONS OF THE STUDY

The research project will be contextual, as it will be conducted within a specific hospital group in the private health sector. The findings will pertain to only critical care nurses working for this hospital group.

1.8 DATA ANALYSIS

In the second phase of the study, data will be analysed, using inferential as well as descriptive statistics. Polit *et al.* (2001:343) state that descriptive statistics is useful for summarising data. Inferential statistics, which is based on the laws of probability, provides a means for drawing conclusions about a population. The input of a statistician will be obtained.

1.9 ETHICAL CONSIDERATIONS

The researcher is bound to maintain the anonymity of participants. To protect the ethical rights of participants, the protocol will be reviewed by the Research Ethics Committee of the Faculty of Health Sciences at the University of Pretoria (UP).

A participant information leaflet will accompany the questionnaire and completion will be voluntary. Voluntary completion of the questionnaire by the participants will imply informed consent.

1.10 LAYOUT OF THE STUDY

Chapter 1: Orientation to the study:

This chapter introduces the topic of the study. The research question, as well as the aim and objectives of the study, is described.



Chapter 2: Literature review:

This chapter orientates the reader toward legal liability issues and forensic nursing.

Chapter 3: Research methodology:

The research design and method, population and sampling, the pilot study and the data collection process, the validity and reliability of the research and ethical considerations are addressed in this chapter.

Chapter 4: Data analysis:

The data are analysed in detail and the results are visually presented by means of figures and tables.

Chapter 5: Conclusions, recommendations and limitations of the study:

This chapter includes the conclusions drawn from the data analysis, the limitations of the study, as well as recommendations for further research and critical care practice. The researcher will also reflect on the aim of the study and the course of events during the research.

1.11 CONCLUSION

By investigating the level of knowledge of critical care nurses regarding legal liability issues and forensic nursing, the extent of a knowledge deficit, if any, can be identified. The results of the data analysis can be used for the development of an education programme on forensic nursing and liability management. Such a programme should integrate relevant aspects of nursing, law and forensic sciences. Competency in forensic nursing could assist critical care nurses in assessing and managing the living forensic patient.



CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION TO THE HISTORY OF FORENSIC NURSING

The International Association of Forensic Nurses (IAFN) was established in Minneapolis, Minnesota (United States of America - USA), in 1992 when 70 nurses gathered for the first national convention on sexual assault. The delegates' mission statement declared their willingness to devote their energy and resources to develop a forensic role that would have a great impact on the future of not only forensic science but also the healthcare profession.

By 1998, the association's New Jersey chapter alone has grown to 1,500 members. Worldwide members specialise and work in diverse fields of forensic nursing, such as domestic violence, child and elder abuse, as well as emergency, trauma, and critical care (Courson 2003:1).

In 1998, following a congress on the South African National Crime Prevention Strategy in Kimberley, Dr Els, a leading forensic pathologist from Bloemfontein, made contact with Virginia Lynch, leading forensic nurse consultant in Minnesota (USA). Virginia Lynch is one of the founders or architects of forensic nursing. With her assistance and input, a Sexual Assault Nurse Examiner short course was introduced in South Africa. In 2002, the University of the Free State (UFS) trained the first forty nursing students in forensic nursing. By 2003, nineteen of them were working as sexual assault nurse examiners (Els 2003).

2.2 INTERACTION WITH PATIENTS WITH LEGAL LIABILITY ISSUES

The South African nurse, who is working in a critical care environment, often interacts with patients with legal liability issues. Critical care nursing is that specialty within nursing that deals with human responses to life-threatening crises and problems. Worldwide trauma is recognised as a major public health problem. In rendering emergency and intensive care, critical care nurses have a unique opportunity to contribute to forensic science. With respect to both the living and deceased patient, the trauma and critical care nurse can play a significant role in the investigation of crime and in subsequent legal processes.

However, only if nurses were knowledgeable about intensive care nursing, traumatology and forensic matters, could they be part of the holistic approach and solution to liability related problems encountered in critical care units. A sudden admission due to violence is a common occurrence in the critical care unit. Patients with critical injuries end up in the critical care environment because of their acute state; therefore, the clinical goal is to save lives. When a patient dies, an investigation is conducted to rule out the possibility of an unnatural death. In such instances, critical care nurses are expected to integrate their knowledge of nursing science with their knowledge of forensics or legal liability issues.

A holistic approach to care is important and critical care nurses have to ensure that patients and their families receive optimal care (AACN 2002:1-3). As stated above, critically ill patients admitted to critical care units have life-threatening or potentially life-threatening health problems. These patients are vulnerable and unstable, and require continuing monitoring and supervision, complex assessment, vigilant intensive nursing care and technology intervention that is considerably sophisticated (South African Society of Anesthesiologists 1999:24, 25).

In order to care for traumatised, critically ill patients and their families in a highly mechanical and technological environment, critical care nurses need specialised knowledge, skill and experience. They have to demonstrate a high



level of independence, critical-thinking ability and problem-solving skill. They need specialised knowledge about managing clinical problems. Their abilities, knowledge and experience enable them to perform nursing tasks such as taking patient histories, doing risk appraisals, interpreting diagnostic tests, assessing patients, forming nursing diagnoses, planning and implementing nursing care and evaluating outcomes. These nurses should also be able to use sophisticated modern technology for invasive and high intensity interventions.

In addition, due to the vulnerability and instability of their patients (and feelings of vulnerability and insecurity experienced by family members), the critical care nurse has to act as patient advocate to promote the healing of the patient. As patient advocate, the critical care nurse respects the basic values, rights and beliefs of the patient. The nurse liaises with healthcare professionals within the multidisciplinary team and the patient's family on the patient's behalf (AACN 2002:1).

Against this background, forensic nursing has emerged as a nursing specialty that focuses on the forensic aspects of health care. Forensic nursing knowledge combines with the bio-psychosocial education of the registered nurse in the scientific investigation and/or treatment of victims and perpetrators of violence, criminal activity, and traumatic accidents (AACN 2002:1-3).

Nurses are challenged to share responsibility with the legal system to augment the resources available to patients with liability related injuries, crime victims, and perpetrators or suspects in police custody. This represents a new perspective in the holistic approach to liability issues surrounding patient care in the critical care environment (Lynch 1995:489). Through an integrative practice model, disciplines of nursing science, forensic science and criminal justice are united in the common goal of protecting the victim's legal, civil and human rights.

The scientific knowledge base of forensic nursing emerged from theories of nursing, forensic science, criminal justice, police science and legal studies. As a public service profession, nursing has a responsibility to maintain standards of



practice while caring for victims of human violence (Lynch 1995:491). According to the Scope of Practice of a registered nurse, there must be "... co-ordination of the health care regimens to provide for the patient by other categories of personnel" (South Africa 1978).

Critical care nurses operate primarily within the protective walls of the hospital. However, they find themselves increasingly interacting with unfiltered living forensic patients who enter the critical care unit. Critical care nurses' responsibilities have always included activities that may involve future court testimony, evidence collection, crisis intervention, death notification, and the pursuit of anatomical gifts or organ donation. Forensic nursing has added a new dimension to the nursing process that includes the involvement of nurses in public or legal proceedings. The possibility of public or legal proceedings should always be kept in mind when the nurse assesses the living forensic patient.

The 'suspiciousness factor', *i.e.* the 'what, how and why' or the mechanism of injury that necessitated the living forensic patient's admission to the critical care unit, must be considered. The nurse's clinical assessment of the patient and the patient's psychosocial and medical history may convince the critical care nurse to identify the patient as a 'forensic patient' and to activate the judicial system (Winfrey & Smith 1999:7).

While managing patients with legal liability issues (and the families of these patients), critical care nurses are in a position to act as patient advocate. The Scope of Practice of registered nurses states it is the responsibility of the nurse to provide effective patient advocacy so that the patient can obtain the health care that s/he needs (South Africa 1978). Critical care nurses have to consider ethical issues on a daily basis. Some of these are restraining orders, living wills and 'do not resuscitate' orders. These ethical considerations also constitute legal liability issues. Forensic and critical care nurses are driven by the obligation to protect the patient's civil, human, medical and legal rights.

The Scope of Practice further states that nurses should provide care for the dying patient, and take care of a recently deceased patient (South Africa 1978).



Forensic patients or patients with legal liability issues, due to their injuries, often die despite receiving specialist medical care in the unit. It is often the responsibility of the critical care nurse to inform the family that their loved one has died. In cases where forensics are involved, for example when a postmortem is requested, the critical care nurse plays a significant role in minimising emotional trauma.

2.3 THE CRITICAL CARE UNIT AS FORENSIC DOMAIN

Any clinical setting becomes a forensic area when a legal liability issue is at stake. The victim of a hit-and-run accident is an example of a living forensic patient, as this patient's medical records could serve as evidence before a court of law at a later stage.

Critical care nurses are responsible for keeping accurate records. According to a press release by the Medical Research Council (MRC) in South Africa, pedestrians accounted for nearly forty per cent (40%) of all transport related deaths in 2001. Two-thirds of these victims had consumed alcohol. Drivers accounted for fourteen per cent (14%) of all transport related deaths and had the next highest alcohol-relatedness. About half of them were under the influence of alcohol. (MRC 2003a.) When one of these patients enters the trauma unit in either a provincial or private hospital, a police officer may request a registered nurse to take a blood sample from the patient (Müller & Saayman 2003:42; South Africa 1977).

In South Africa, a high rate of domestic violence is found, as well as assault, child abuse, depression, retrenchments and unemployment, farm attacks (that are on the increase), attempted murder, attempted suicide, and substance abuse. Unnatural deaths, owing to homicide, firearm accidents and knife wounds, need to be investigated. According to an MRC press release, firearms were the leading cause of unnatural deaths in South Africa in 2001. Cape Town residents were fifteen per cent (15%) more likely to be victims of homicide in 2001 than in 1994. (MRC 2003b:1.)



According to the Domestic Violence Act (Act no. 116 of 1998), a registered nurse is legally obliged to report any suspected abuse or molestation in domestic violence cases (Suid-Afrika 1998). Section 42 of the Child Care Act, Act no. 74 of 1983, states that a registered nurse must report any child abuse or molestation in order to protect the child from maltreatment, neglect or abuse. A dentist, medical practitioner, nurse or social worker who contravenes this provision commits an offence. (South Africa 1983.)

Not only victims of crime but also victims of critical incidents in the hospital may become forensic patients. For example, if an anaesthesia-related death occurs in the critical care unit minutes after the patient has been received from the operating theatre, the hospital or individual health practitioners may be held liable. Preservation of evidence is vital in the case of any unexpected death of this kind. Careful documentation of circumstances surrounding the death and the patient's documented medical history may provide the basis for a decision on the cause of death. Nurses and nursing records serve as vital link between the victim, police and medical examiner (Lynch 1995:489).

Organ donation is a vital link to life and can transform a tragic loss into a positive outcome. Knowledge of the legal framework of organ donation and brain death criteria are essential. If a potential organ donor is declared brain dead, the critical care nurse may approach the patient's family about organ donation, but at the same time the nurse should provide emotional support (Lynch 1995:498).

2.4 RECOGNISING PATIENTS WITH LEGAL LIABILITY ISSUES

Victims of violence, including domestic violence, and victims of physical, sexual or emotional abuse, or neglect, whether they are children, adults or senior citizens, can be recognised as patients with legal liability issues.

2.4.1 VICTIMS OF DOMESTIC VIOLENCE

2.4.1.1 Definition of domestic violence

According to Ellis (1999:40), domestic violence can be defined as a pattern of coercive behaviour in an intimate relationship of the past or the present. The behaviour of one person is controlled through humiliation, intimidation, fear, and/or intentional physical, emotional, social, financial or sexual injury.

2.4.1.2 Physical manifestation of domestic violence

According to Walker, quoted by Hoyt (1999:27), four categories of physical injuries that reflect various mechanisms and degrees of injury severity in domestic violence are described. These categories are:

- Serious bleeding injuries, including wounds that require suturing;
- Bleeding and malfunctioning of internal organs caused by internal injuries;
- Skeletal damage, such as cracked ribs and vertebrae, skull fractures and pelvic fractures, as well as broken jaws, arms and legs; and
- Burn wounds inflicted by means of lit cigarettes, hot appliances, stoves, irons, acids, and scalding liquids.

The location of the injury may indicate whether the injury were intentional or unintentional. Physical findings that belie a statement on the cause of injury is one of the earliest indicators that abuse has occurred. The nurse should consider the cause to be domestic violence until proven otherwise.

2.4.1.3 Psychological manifestation of domestic violence

Battering syndrome due to domestic violence is marked by physical assault followed by increased general medical and emotional problems. Depression, anxiety, and drug and alcohol abuse are frequently associated with this syndrome. Victims of domestic violence are at risk of committing suicide. The

victim may exhibit signs of shame, embarrassment and fear, particularly if the abusive partner is present at the time of interviewing.

2.4.2 VICTIMS OF CHILD ABUSE

2.4.2.1 Definition of child abuse (general)

An abused child is any child who sustains non-accidental injuries because of acts or omissions on the part of the parents or guardians of which there is no 'reasonable' reason. Meadows, cited by Clark (1996:841), mentions that a child can be considered abused if s/he is treated in a way that is unacceptable in a given culture at a given time.

2.4.2.2 Definition of sexual abuse of a child

According to Knight (1997:128), the sexual abuse of a child can be defined as the involvement of a dependent, developmentally immature child or adolescent in sexual activities they do not truly comprehend, to which they are unable to give informed consent or which violate social taboos or family roles.

The sexual abuse of children are increasingly recognised as an area of concern in paediatric nursing care, and the paediatric critical care nurse is at a distinct advantage to recognise the sexually abused child. Due to the unique close relationship that often develops between the paediatric critical care nurse and the traumatised child, the nurse has the opportunity to act as patient advocate. Integration of nursing and forensic knowledge is a vital component of the holistic approach to patient care, and, as stated in Section 2.2 of the Scope of Practice of the registered nurse (South Africa 1978), this approach includes effective patient advocacy.

2.4.2.3 Definition of physical abuse of a child

The physical abuse of a child involves a physical injury that is purposefully or intentionally inflicted on a child by a person such as a parent, caretaker or stranger. Shaken baby syndrome (SBS) is caused by vigorous shaking of an infant held by the chest, shoulders or extremities. It can result in intracranial and intraocular haemorrhages, with no evidence of external trauma. A significant number of cases of head trauma in infants and young children are a direct result of SBS. Many SBS cases result in death and many go unrecognised because of the absence of external injuries. (Fulton 2000c:43-50.)

2.4.2.4 Definition of child neglect

Insufficient nourishment, supervision, medical care, clothing, shelter, comfort and stimulation, as well as abandonment of the child, are forms of child neglect by the parent or caregiver. Thus, child neglect can be defined as failure to provide the child with the necessities for the child's health and development. (Clark 1996:841.)

2.4.2.5 Definition of emotional abuse of a child

Emotional abuse of a child refers to the intentional use of language or attitudes or behaviours to damage the self-image of the child. It includes mental cruelty such as terrorising the child or rejection. This compares to emotional neglect, which occurs when the child does not receive affection or guidance from his or her parents. (Clark 1996:841.)

2.4.2.6 Definition of child abuse by chemical substance

Chemical substance abuse, also known as non-accidental poisoning, is applicable to cases of child poisoning. This involves the deliberate, concealed administration of a toxin to a child. (Clark 1996:854.)



2.4.2.7 Definition of Münchhausen syndrome by proxy

According to Fulton (2000b:35), Asher coined the term Münchhausen syndrome by proxy (MSBP) in 1951, to describe a disorder in which the patient presents with elaborate fictitious symptoms of an acute illness. In MSBP, the caregiver fabricates or induces illness in another younger individual. Children up to the age of two years are usually the victims. The perpetrator's behaviour is reckless and without regard for the child's welfare. Deliberate poisoning with drugs and even table salt can produce a broad spectrum of symptoms, including metabolic disturbance, lethargy and seizures. MSBP is mostly a disorder of parenting. It is an unusual form of child abuse. Early recognition is the key to decreasing the mortality and morbidity associated with this syndrome. (Fulton 2000b:35-42)

2.4.2.8 Signs of child abuse

The child may suddenly develop new anxieties, such as phobia of the dark, or of being alone or sleeping alone in a room. There may also be regression in terms of developmental milestones and feelings of insecurity related to family, friends or men. Other changes in behaviour are loss of appetite, irritability and sleep disorders. The child may refuse to stay with specific people or avoid going to once favourite places. Further changes in behaviour include masturbation, clinical depression and attempted suicide. (Müller 1997:30-39.)

Sexualised behaviour becomes obvious, including adult sexual act imitation, compulsive masturbation, knowledge of sex (beyond peer level) and seductive behaviour toward adults and peers (Clark 1996:841). Changes in the relationship with the parents may include overprotective behaviour by the child toward the parent on the one hand and threats to run away from home on the other.

Child abuse is a huge problem that requires intervention by medical and other experts. The findings of a physical examination form only a small part of the diagnosis, because physical findings can be minimal or absent (Knight 1997:128).



2.4.2.9 Physical indicators of child abuse

Although physical clinical indicators of child abuse can be minimal, they do form a vital part of the diagnosis of the sexually abused child. As it is important to avoid inflicting further psychological trauma on the child, the examination of the child has to be conducted by an experienced examiner. Physical indicators related to the renal and reproductive systems are urine tract symptoms, such as frequency or diuria, urgency, retention, and recurring urine tract infections. Vaginal discharges, bleeding, rectal bleeding and discomfort when walking or sitting are also some of the physical findings (Clark 1996:841).

Attention should also be given to skin injuries, such as bruises, burns and bite marks. The appearance of bruising on and/or laceration of the frenula, such as the frenulum of the upper lip, should be noted. Bruising is a cardinal sign and should always arouse suspicion among healthcare workers. Bruises, such as 'sixpence' bruises caused by fingers and multiple bruises of different ages, may also indicate child abuse.

Prominent human bite marks can also be present in the abused child. It is therefore important that proper history taking accompanies the physical examination of the child. Bites occurring in child abuse are often inflicted by the mother. Bites from other children or domestic pets must be excluded through bites differentiation.

Eye injuries can include retinal and subconjunctival bleeding or bleeding into the fluid in the eyeball, as well as retinal and lenticular detachments (Knight 1997:127).

Skeletal lesions often provide evidence of child abuse. Head injuries are the most frequent result of child abuse and, when non-fatal, may result in severe permanent neurological disability. In fatal child abuse, a skull fracture is often present. Cerebral oedema and diffuse axonal damage are often present, even when no meningeal haemorrhage exists. When the infant is thrown against a floor or hard surface, a skull fracture may occur. This is also the most common



cause of a skull fracture in a child (Knight 1997:127). Other fatalities occur as a result of SBS. Injuries resulting from the violent shaking of an infant include injuries of variable presentation, such as subdural and retinal haemorrhages (Knight 1997:126) and injuries to the intestine, mesentery and liver. The liver can rupture because of frontal blows or due to prodding by adult fingers.

Burn wounds caused by hot irons are often found on a child's hands, buttocks or legs. Cigarette burns are usually circular or triangular and appear pink or red when they are fresh. Burn wounds caused by hot water are sometimes indicated by a waterline.

Typical fractures resulting from child abuse are 'necklace' fractures of the ribs, greenstick fractures of the long bones, loosening of epiphyses and wedge-shaped fractures (Clark 1996:843).

The general aspects of child abuse are beyond the scope of this study. However, according to Knight (1997:127), the true parents or guardians of an abused child are mostly the culprits. Very often the offender is the male guardian, the mother's consort.

In chemical substance abuse, in an effort to gain the attention of her consort, it is often the mother who is trying to make the child ill. The initial diagnosis is very difficult, as the varying symptoms are non-specific. The condition of the child tends to improve with hospitalisation, but relapses can occur. These relapses are often associated with parental visits or discharge from hospital (Fulton 2000a:26-9).

2.4.3 VICTIMS OF ELDER ABUSE

2.4.3.1 Definition of elder abuse

White (2000:20) describes elder abuse as any intentional action or lack of action that will cause harm to elderly persons. The American Medical



Association estimates that one in four older persons have experienced some form of abuse or neglect.

The Older Americans Act recognises three categories of elder abuse, namely: physical, emotional and financial neglect. The National Center on Elder Abuse in the USA adds another three aspects: self-neglect, sexual abuse and miscellaneous.

Elder abuse is an underreported problem, not only from a medical perspective but also from the perspective of the victim. Alcohol and drug use, as well as financial and emotional dependence, seems to be leading causes of elder abuse.

2.4.3.2 Characteristics of elder abuse

Physical abuse caused by acts of violence can result in pain, injury, impairment or disease. Pushing, striking, slapping or smacking, force-feeding, incorrect positioning, improper use of restraints or medications, and sexual coercion or assault result in physical abuse.

Physical neglect of older people is characterised by failure of the caregiver to provide for optimal functioning or to avoid harm. Withholding health care, including adequate meals or hydration, physical therapy or hygiene, is also a characteristic of physical neglect. Other forms of abuse can also occur, such as psychological abuse, psychological neglect, financial abuse, and financial or material neglect (White 2000:20).

2.5 WOUND CHARACTERISTICS

2.5.1 DEFINITION OF WOUNDING, INJURY AND TRAUMA

In the medical environment, the terms 'wound', 'injury' and 'trauma' (meaning injury) are used synonymously, but in legal documents these terms have the



more exact definition of 'a wound'. A wound is damage to the tissues of the body caused by physical factors like mechanical injury, thermal injury, barotraumas, injury due to ionic beams and ultrasound injury. Chemical factors that cause a wound include factors like external contact, ingestion, inhalation or aspiration, as well as parenteral and rectal contact (Knight 1997:45).

Wounding capability refers to the quality of kinetic energy, the duration of the force and the behaviour of the object at the time of impact. Patterns of injury are recognised through observation. By reflecting on the injuries inflicted on a patient and by backtracking one's thoughts, one might be able to see a pattern and predict injuries.

Injuries are divided into two main groups, namely:

- Blunt trauma: Abrasions, contusions and lacerations.
- Sharp trauma: Incised wounds and stab wounds.

(Knight 1997:45.)

2.5.2 RECOGNITION OF WOUNDS AND WOUND CHARACTERISTICS

Wound characteristics may be the determining factor in an investigation of undiagnosed trauma, and the description and identification of wounds can lead to the conviction of the perpetrator/s in a court of law. Nurses, therefore, should be knowledgeable about the types of injury resulting in wounds in patients with legal liability issues and be familiar with the appropriate terminology. Failure of nurses to recognise and describe the injuries of victims benefits only the perpetrators who sometimes use lack of knowledge of nurses as a defence strategy in the courtroom. The nurse appears unprofessional and serious crime may go unpunished (Lynch 1995:495).

The responsibilities of the critical care nurse include recognising and preserving evidence, and maintaining the chain of custody of evidence (refer to 2.8). Injuries of patients must be properly assessed and documented, because



injuries that indicate abuse may only surface at a later stage during the patient's hospitalisation. Documentation about the assessment of the patient's injuries should be written and presented in such a manner that it would be acceptable in a court of law. Forensic photography will complement and add to the value of documentation that serves as evidence in a law court or legal case (Hoyt 1999:19; Lynch 1995:496).

Rules of the SANC, setting out acts or omissions in respect of which the council may take disciplinary steps, state that all registered nurses have to keep clear and accurate records of all actions which they perform in connection with a patient (SANC 1978). Meticulous documentation is therefore essential.

2.6 RECOGNITION OF EVIDENCE

Hoyt (1999:19) states that evidence recognition is important to the critical care nurse, as s/he nurses victims of violence and abuse in the critical care environment. From these patients, or their visitors, evidence can be collected. When this evidence is used in legal proceedings or when the evidence leads to the identification and conviction of the perpetrator/s, the cycle of violence may be interrupted. Evidence may be tangible or intangible, and includes what one hears, smells, sees, and touches. With proper evidence recognition, collection and preservation, the critical care nurse can be an outstanding patient advocate.

Mund in Knight (1977:44) presents the following working definition of evidence: "... anything that has been used, left, removed, altered or contaminated during the commission of a crime by either the suspect or victim." Physical evidence includes specimens of blood and body fluid, hair and fibre, debris, foreign bodies, fabrics and clothing, scratches, abrasions, bruises, contusions, tears, and lacerations.

Non-physical evidence recognition involves the skill of separating the injuries from the story through psychosocial history assessment.



Often the nurse is the only person ‘in the right place at the right time’. The nurse, who cares for the patient and interacts with the patient’s caretakers or ‘loved ones’, is often the only person who can note and document what is seen and heard. Evidence may not manifest itself until later during the patient’s hospital stay (Hoyt 1999:19).

Recognition of evidence is especially applicable in the following cases:

- Medico-legal cases: These are treatment situations with legal liabilities.
- Death cases: Death is suspicious or due to crime-related injuries.
- Accidents: It is not always possible to predict the medico-legal liabilities that will result from an accident. Almost all accidents result in some type of litigation, either civil or criminal (Lynch 1995:492).

2.7 EVIDENCE COLLECTION AND PRESERVATION

Law enforcement officers struggle to safeguard evidence during medical interventions. In a life-threatening situation, the primary clinical goal is to maintain haemodynamic stability. Thus, when the living forensic patient is in a life-threatening situation, the critical care nurse’s immediate concern is to stabilise the patient and not to save or collect evidence (Lynch 1995:495).

However, from the moment the living forensic patient enters the trauma or critical care unit, nurses have to document findings and nursing actions with great care. Documented data about injuries, assessment findings, vital data and the management of the patient can serve as evidence in a court of law.

Nurses are often unaware of the existence or potential value of evidence, and easily overlook or destroy valuable evidence while caring for the patient (Lynch 1995:493). Inappropriate collection of evidence in complex situations may



obscure important forensic evidence, complicate investigation and place the nurse at risk for liability (Müller & Saayman 2003:43).

Clothing often forms part of physical evidence and is seen as trace evidence. Critical care nurses should be knowledgeable about processing of the forensic patient's clothing and personal property, as their actions may affect the preservation of evidence. When defects in clothing are closely observed and examined, and compared to the wounds of the victim, they may provide insight into the weapon of wounding. Findings in this regard could lead to the conviction of the guilty person. Handling clothes with care avoids cross-contamination. Every piece of evidence must be recorded accurately, and be handed over to the attending law officer and not to family members (Hoyt 1999:19; Müller & Saayman 2003:45).

Non-physical evidence should be included in the assessment or psychosocial history of the patient.

2.8 CHAIN OF CUSTODY

The chain of custody of evidence refers to the identity of the individuals who have control or custody over evidentiary or potentially evidentiary material or the personal property of a victim or forensic patient. The integrity of all evidence should be protected, as this evidence could be used in a court of law. The chain of custody begins with the person who collects the evidence. It is important that nurses keep the chain of custody as short as possible, because all the custodians of an item (all 'links' in the chain of custody) may be required to testify in court. At a trial, the authenticity of the evidence, whether it is a bullet, medical record or photograph, is critical (Hoyt 1999:19). Failure to maintain the chain of custody renders potentially valuable evidence worthless because it may get lost or be damaged (Lynch 1995:492).



2.9 DOCUMENTING EVIDENCE

Every finding and every action by the critical care nurse should be documented. The patient's medical record should reflect all assessment findings and all nursing actions performed. Accurate documentation not only provides the critical care nurse protection against accusations and prosecution, but also favours the patient in a court case.

It is the responsibility of the critical care nurse to accurately record all interactions with the multidisciplinary team and patient, as well as the family and friends of the patient. Records should be kept throughout the patient's hospitalisation. With respect to the living forensic patient, considering the suspiciousness factor (the *what, how and why* of the traumatic event), investigating the problem and seeking solutions constitute a holistic approach to nursing care (Winfrey & Smith 1999:1). When a patient with legal liability issues is admitted to the critical care unit, the patient history should be obtained and a thorough physical examination be performed. The critical care nurse should document all findings.

In domestic violence cases, documentation should meet the following requirements:

- Attention should be given to detail, accuracy and objectivity.
- The exact words of the patient should be written down.
- Quotation marks should be used to indicate direct patient statements.
- An accurate narrative description of the appearance and size of wounds should be included.
- The correct wound terminology should be used.
- All injuries should be charted onto a body map.
- Consent should be obtained for photography, and appropriate photographs be taken.
- The written, graphical and photographic records should support one another.



In a court of law, the patient's medical record can be presented as hard evidence that a crime has/has not been committed. The outcome of a case may depend on the accurate and objective presentation of facts and events in the patient record. Justice for the victim is often determined by the contents of a medical record (Fulton 2000a:27). Scrupulous documentation protects the nurse, favours the patient and serves as testimony in a court of law (Goll-McGee 1999:13).

Beckman (1996:258) provides nurses with the following instructions on how to record nursing actions and patient data:

- Documenting nursing care is as important as providing the actual nursing care.
- Gaps in a patient record suggest patient neglect.
- The nurse records (and signs for) only the actual nursing care performed by the nurse.
- Nursing interventions should be recorded only after they had been performed.
- When a recording error is made, a single line should be drawn through it, and the word 'error' be recorded above this line. This should be initialled, and the correction be made.
- Any medical record alteration should include the date, time and reason for the alteration, as well as the signature and title of the person who made the alteration.
- Nursing notations should reveal what the nurse had seen, felt, heard and done.
- Any aspect of nursing that is omitted by the nurse, along with the reason for the omission, should be recorded.
- All telephonic conversations concerning the care of the patient should be recorded.
- Extra information can be added at a later stage if necessary, but it should be headed 'addendum/late entry', and the date and time of the entry should be given.



2.10 INTEGRATING ETHICAL AND MEDICO-LEGAL CONSIDERATIONS REGARDING THE LIVING FORENSIC PATIENT IN THE CRITICAL CARE ENVIRONMENT

When the critical care nurse assumes responsibility and accountability for individual nursing judgments and actions, the integration of medico-legal and ethical issues in the critical care environment becomes evident. Active patient advocacy reflects the nurse's responsibility and obligation toward the patient. It incorporates both personal and professional values and standards.

Critical care nurses are confronted with the potential risk of liability for malpractice on a daily basis. Sophisticated technological innovations in the critical care environment, the critical condition of the patient and the quick decision-making process in the unit prevent critical care nurses from gaining insight into the desires, values and feelings of their patients. This situation can lead to the violation of patients' rights.

Various tasks and procedures in the critical care environment, if not performed with the utmost care, could harm the patient. Because critical care nurses are the primary caregivers in the unit, they should take reasonable steps to minimise their chances of being named in a lawsuit (Oosthuizen 2003). Negligence and malpractice constitute liabilities that are complicated by ethical issues such as informed consent, living wills and 'do not resuscitate' orders. These liabilities and issues also highlight the relationship between medico-legal issues, ethical considerations and the living forensic patient. Each liability/issue will be discussed briefly.

2.11 NEGLIGENCE

Negligence is an unintentional tort, involving a breach of duty or failure (through an act or omission) to meet a standard of care and causing harm to a patient. The neglected patient may become critically ill, be admitted to intensive care and be classified as a living forensic patient.



2.12 MALPRACTICE

Malpractice is the careless or criminal behaviour by someone with a professional or official job (Macmillan English Dictionary 2002:867). Medical malpractice is a professional liability based on negligence. The defendant is held accountable for breach of duty of care involving special knowledge and skills. The critical care nurse's legal duty is to act in a reasonable and prudent manner, and the standard is that of a critical care nurse with special knowledge and skills. Evidence used by plaintiffs in negligence or malpractice litigation means 'the thing speaks for itself' and the burden shifts to the defendant to prove absence of negligence.

2.13 INFORMED CONSENT

Over many years, many people have voiced their concern over issues such as informed consent, authorisation for treatment, and the patient's right to accept or refuse medical treatment. *Schloendorff versus Society of New York Hospital, 1914*, was an epoch-making case in this regard. The ruling was an adult with a sound mind has the right to give consent for or refuse treatment. (Thelan, Davie, Urden & Lough 1998:43.) Valid consent must be voluntary, informed and obtained. Nurses should be familiar with the state's informed consent statute and the individual institution's policies and procedures for obtaining informed consent.

Necessity, as defined in medico-legal context, justifies medical interventions in emergencies. Necessity as defence strategy will be relevant in situations where the patient is incapable of consenting or where the intervention is performed in society's best interest. For example, it would be in the best interest of society if the public were informed (against a patient's wishes) of a person with a dangerous communicable disease and the possibility that this disease could affect a lot of people in a specific area.



In the case of the human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/Aids), the patient's right to confidentiality should be upheld. The Health Professions Council of South Africa's (HPCSA's) ethical guidelines specify (New Rules: Rule 12): "... (no practitioner may) divulge verbally or in writing any information which ought not to be divulged regarding the ailments of a patient except with the express consent of the patient" (Aids Law Project & Lawyers for Human Rights 1997). However, health practitioners are also guided by recent rulings in this regard and situations may arise where information has to be given. For example, if the partner of an HIV/Aids patient needs to know the status of the patient, and the patient is ventilated and sedated or unconscious (in which case the patient is unable to give consent), the divulgence of information is guided by decisions made in similar cases. In addition, patient confidentiality and privacy should be weighed against public safety and justice in a given situation (Cochran 1999:45).

2.14 LIVING WILLS AND 'DO NOT RESUSCITATE' ORDERS

A living will is a document made by a competent individual. It is directed to family members and medical personnel and stipulates the type of treatment the individual wishes to receive if a diagnosis of terminal illness were made. Such a will may contain a 'do not resuscitate' order.

'Do not resuscitate' orders present ethical and legal dilemmas, and should be considered before any decision is made. Hospitals have written policies in this regard and nurses should familiarise themselves with hospital policies and procedures. Policies about issues such as living wills and 'do not resuscitate orders' must be written within state laws and judicial opinions (Thelan *et al.* 1998:42).

Critical care nurses should avoid being implicated in lawsuits because of ethical dilemmas that occur during crisis situations. A clear understanding of hospital and state policies, early implementation of the scientific nursing process and a



holistic approach to patient care could prevent the involvement of critical care nurses in legal liability issues (Daly 1996a:15).

2.15 THE CRITICAL CARE NURSE AS EXPERT WITNESS AND COURT PROCEDURES

A nurse who meets the following requirements can act as expert witness in a court of law:

- Education and training in critical care nursing;
 - Knowledge of and experience in critical care nursing; and
 - Recognition as an expert in the field of critical care nursing.
- (Oosthuizen 2003:51).

The function of an expert witness is to guide the court. The court can be regarded as a non-specialist that needs the input of an expert in the field. Confidential information that the professional nurse has obtained during the examination or management of the patient is not regarded as privileged information. The expert witness can thus be forced to reveal this information in court. (Oosthuizen 2003:51,52.)

In a critical care unit, many patients with critical disorders or diseases are provided with the care required to sustain life. The rate at which these patients are admitted and discharged varies, but the pace of nursing only increases due to the high standard of nursing that is expected of nurses and new technological advances in the critical care unit. A court case can come even after several years and is often unsuspected. If the critical care nurse cannot recall the events that occurred, her/his only defence lies with the accurate and detailed hospital documentation.



2.16 CONCLUDING REMARKS

Critically ill patients are admitted to the critical care unit on a daily basis. The forensic status of some of these patients will be known, but many will be unfiltered patients with a chance of becoming a living forensic patient. The clinical goal in the critical care unit will always be to save lives by obtaining and maintaining haemodynamic stability and homeostasis in a patient. However, the critical care nurse has to adopt a holistic approach to nursing care, which, in the case of the forensic patient, includes determining the suspiciousness factor and, if necessary, activating the legal system. For this purpose, and in order to defend themselves when they are accused of negligence or malpractice, critical care nurses need an integrated knowledge of critical care nursing and forensic nursing. In-depth knowledge of legal liability issues in the critical care unit will enable the nurse to act as patient advocate and, ultimately, bring justice to the victim.



CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research design and methodology of this study is discussed. In Chapter 2, a thorough literature review regarding the central theme of this research was conducted.

The aim of this study was to investigate the knowledge of critical care nurses regarding legal liability issues in the critical care environment. It is important to determine this knowledge in order to be able to develop a training programme regarding legal liability issues for nurses working in the critical care environment. According to Polit *et al.* (2001:5), the development and utilisation of nursing knowledge is essential for continued improvement in patient care. Nurses are increasingly expected to adopt a research-based or evidence-based practice, based on research findings.

The following research objectives were identified:

- To develop a questionnaire as a measuring instrument based on literature and the findings of a patient record audit, which pointed out legal liability issues (phase one of the research);
- To measure critical care nurses' knowledge regarding legal liability issues, using a questionnaire; and
- To make recommendations based on the results of the study, including guidelines for an education programme, regarding legal liability issues relevant to critical care nursing.



3.2 THE RESEARCH DESIGN

3.2.1 INTRODUCTORY REMARKS

The research design refers to the researcher's overall research plan or structural framework. Mouton (2001:55) defines a research design as a plan or blueprint of how one intends to conduct the research. Polit *et al.* (2001:167) state that a research design spells out the strategies that the researcher plans to adopt in order to answer the research question and to develop information that is accurate and interpretable.

This study was exploratory in nature and quantitative methodology was used. The study was done in two phases, namely:

- Phase one consisted of a retrospective audit of critical care patient records. These records were studied in order to orientate the researcher regarding scenarios of patients involved in legal liability issues in the South African context. The audit and the literature review were used in the construction of the measuring instrument, namely the questionnaire.
- Phase two consisted of a survey, using a questionnaire as measuring instrument. The purpose of the questionnaire was to measure the knowledge of critical care nurses regarding legal liability issues in the critical care environment.

3.2.2 QUANTITATIVE RESEARCH

According to Polit *et al.* (2001:469), quantitative research can be defined as an investigation of a phenomenon, using precise measurement and quantification. De Vos, Strydom, Fouche and Delpont (2002:138) state that experiments and surveys can be used.



3.2.3 EXPLORATORY RESEARCH

Exploratory research is conducted in order to gain insight into a situation or phenomenon. The need for research of this kind could arise from a new area of interest or a lack of basic information (De Vos *et al.* 2002:169). The field of forensic nursing is a new subdiscipline of nursing, internationally. In South Africa, the number of nurses who are involved in legal cases is on the increase.

3.3 RESEARCH METHODOLOGY FOR THE FIRST PHASE OF THE STUDY

3.3.1 INTRODUCTORY REMARKS

This study was done in two phases. In trying to fully clarify the nature of the phenomenon, patient records were studied retrospectively (Polit *et al.* 2001:210). This was done in order to orientate the researcher regarding specific scenarios of patients involved in legal liability issues in a critical care unit in the South African context. After a pilot study was conducted, the patient records and available secondary literature sources were used to develop similar case scenarios for inclusion in the actual measuring instrument (the questionnaire).

3.3.2 POPULATION AND SAMPLING

According to De Vos *et al.* (2002:199), a population is the totality of persons, events, units, case records or other sampling units with which the research problem is concerned. A sample is a small portion of the total set of objects, events or persons. According to Polit *et al.* (2001:470), the process of selecting a portion of the population in order to represent the entire population, is called sampling.

Purposive sampling was used in this phase of the research. This is a non-probability sampling method, in which the researcher selects study objects or participants on the basis of personal judgment of which ones will be most



representative. Purposive sampling is based on the assumption that the researcher's knowledge of the population may be used to handpick the cases to be included in the sample. (Polit *et al.* 2001:468,239.)

Cases were purposively selected by using a list of patients that were admitted over an eighteen-month period in a private hospital in the Free State Province in South Africa, and were involved in legal liability issues. Fifteen records were selected and analysed by means of an audit.

Since the field of forensic nursing (that includes legal liability issues) is a new and unexplored field of interest, both worldwide and in South Africa, an audit instrument for this purpose could not be found. Therefore, after consulting literature that addressed forensic and legal liability issues as far as possible, the researcher developed an audit instrument, in the form of a checklist. Items included in the forensic audit instrument are presented in Annexure B. A discussion of the forensic audit instrument follows, including a discussion on the questions included in the questionnaire, and the reason that these questions were included.

3.3.3 AUDIT INSTRUMENT LAYOUT

3.3.3.1 Item A: Brief biography, patient history, diagnosis and clinical cause of admission

- **Description**

This item deals with important biographical data, which is divided into sub-items such as age, gender, date and time admitted, period of hospitalisation, primary admission diagnosis, the clinical cause of admission, and medical, surgical and social risk factors.

- **Motivation**

Patient history is important. This is especially true with physical evidence, which includes injuries such as bruises and abrasions, which are not always present at the time of admission, but only appear after a few



days. According to Knight (1997:47,48), bruises change with time and appear or become more prominent after a few hours or even days. Small bruises in young, fit adults were shown to vanish within seventy-two hours. Extensive bruises, even in children, take weeks to vanish. Elderly people may retain extensive bruises for months. It is therefore important to be able to distinguish between bruises sustained before and bruises sustained during hospitalisation.

The primary diagnosis usually reflects the reason for admission. However, in unnatural deaths, this might not necessarily be the cause of death. This is important, as, after death, the autopsy report might indicate a cause of death other than that of the primary admission diagnosis. The critical factor in sudden and unexpected death is whether the initiating cause is natural or unnatural. Physicians could incorrectly identify the cause of death, as a result of failure to differentiate between cause, manner and mechanism of death (Knight 1997:12).

The clinical cause of admission is of importance and should be an accurate description of factors that lead to admission. These factors form part of the forensic evidence recognition, preserving and documentation, and can help in the investigation and conviction of an assailant and protection of the victim. The patient's condition may change or deteriorate during the period of hospitalisation.

Medical, surgical and social risk factors are included in the checklist because the information obtained on these risk factors can help to form a baseline from where the patient's (lack of) progress can be followed. This is especially helpful in cases where the patient was deceased and the cause of death not obvious. (Lynch 1995:489.) Identification of possible contributing factors that could have lead to admission can assist in the forensic investigation. Nursing personnel who aim at holistic patient care need to be familiar with these factors. (Knight 1997:10,11.)



3.3.3.2 Item B: System assessments

- **Description**

This item includes the most used critical care assessments, namely assessments of the body systems. The sub-items are as follows: B1: Neurological; B2: Cardiovascular; B3: Respiratory; B4: Renal; B5: Gastrointestinal and B6: Other.

- **Motivation**

All these assessments are important, because, if they are properly recorded, they can assist in a court case years later when the registered nurse can no longer recall detailed factors and happenings (Knight 1997:7). Thus, admission assessments and findings are of special importance.

3.3.3.3 Item C: Chain of custody

- **Description**

Chain of custody is concerned with the meticulous documentation of evidence regarding a variety of aspects. These aspects are listed as sub-items: C1: Evidence; C2: Documentation of wounds; C3: Patient record. Under each of these sub-items, a number of categories related to the sub-item were listed.

- **Motivation**

All occurrences in the critical care unit, ranging from admission, contact with the multi-disciplinary team, any nursing interventions, the effects of these interventions and informed consent, should be recorded according to legal and hospital policy requirements. If a patient passes away, all aspects related to the death should be properly recorded.

In the critical care environment, emphasis is often placed on handling life-threatening situations. In legal cases, however, the nurse's ability to discover and collect evidence plays an important role. It can help in the



determination of the outcome of legal decisions or survivor benefits. Moreover, inappropriate collection of evidence in complex situations, such as criminal cases, may obscure the most important forensic evidence, complicate subsequent investigation and place the nurse at risk for liability (Goll-McGee 1999:11).

3.3.4 VALIDITY AND RELIABILITY CONCERNING THE AUDIT INSTRUMENT (CHECKLIST)

3.3.4.1 Content and face validity

Validity refers broadly to the degree to which an instrument is doing what it is intended to do. To obtain valid data for items used in the audit instrument, the researcher had to ensure that the content was representative and adequate. In order to do this, the orientation of the researcher regarding legal liability scenarios in the South African critical care environment was required. It is important to structure an instrument so that it not only accurately measures the attributes under consideration, but also appears to be a relevant measure of those attributes. (De Vos *et al.* 2002:166,167.) The study's audit instrument was tested in a pilot study on 30 patient records before being used in this study.

3.3.4.2 Reliability

According to De Vos *et al.* (2002:167), reliability refers to the accuracy and consistency of a measuring instrument. An instrument can be considered reliable if it yields similar results on separate occasions. The face validity and content validity of the audit instrument (checklist) were evaluated by a critical care nurse expert, and contributed to its reliability. The reliability of the research process was thus enhanced. Only one person, the researcher, was involved in the analysis of patient records, using the audit instrument, which thus enhanced its consistency.



3.3.5 SUMMARY OF RESULTS OF THE FIRST PHASE OF THIS RESEARCH

3.3.5.1 Introductory remarks

Doing an audit of patients' records, where legal liability issues were relevant, was not the main aim of this study. This was merely an objective, which was formulated in order to assist in the construction of the main measuring instrument, namely the questionnaire used in this research. Only a brief summary of the results is therefore provided here. A tabulated reflection of the data, as well as the audit instrument, is included as Annexure B.

3.3.5.2 Item A: Brief biography and patient history

Results regarding the accuracy of the brief patient biography did not appear to reflect any problems. A factor that contributes to the accuracy of this kind of data is that the patients' biographical data are necessary for admission to the hospital. The same accuracy was evident in the primary admission diagnoses.

However, data regarding patient history and clinical cause of admission were omitted, incomplete or irrelevant. Similar failure was met with the provision of data regarding risk factors.

3.3.5.3 Item B: System assessments

In this section, it was discovered that, in the neurological and renal system assessments, problems were not properly documented in patient records. Cardiovascular and respiratory systems assessments were documented relatively well. This could be attributed to the critical care routine of recording hourly observations.



3.3.5.4 Item C: Chain of custody

The audit of this item revealed that recording in this area could improve a great deal. Evidence was not documented properly and the preservation of material, such as clothing, personal belongings and other physical and chemical evidence, which could be evidence in a court of law, was not recorded. Failure to accurately describe wound characteristics, size, colour, foreign bodies, and treatment given was evident during the audit.

The audit on legal requirements regarding patient documentation showed that the recording of informed consent, nursing interventions and the effects of these interventions was very poor. Contact with the multi-disciplinary team was also not properly documented.

The audit of patient records where the patient was deceased indicated that identity problems were experienced. This included factors such as time of death that was not meticulously recorded, as well as a lack of complete documentation in cases of unnatural death. Information regarding the name of the police inspector and the appearance of the body of the deceased at the time of removal was also deficient. What type of documentation was given to the police and to whom it was given were not noted, along with the kind of family support given and the possibility of organ donation.

3.3.5.5 Implications of results of the first phase (retrospective audit) of the research

The results of the first phase (an audit using the checklist) contributed to the orientation of the researcher regarding specific scenarios in a critical care environment in a South African context. The audit emphasised situations and aspects that needed attention. Together with the literature review, the results of the audit were used to compile the questionnaire. A detailed description of phase two follows.



3.4 RESEARCH METHODOLOGY FOR THE SECOND PHASE OF THE RESEARCH

3.4.1 INTRODUCTORY REMARKS

Phase two consisted of a survey, using a questionnaire as measuring instrument. The questionnaire was built on information gathered during phase one of this research, namely determining typical South African forensic scenarios and data by doing a thorough literature review and a retrospective audit of patient records. The self-administered questionnaire was designed to measure the knowledge of critical care nurses regarding legal liability issues relevant to the critical care environment.

Self-administered questionnaires were used in this study because they promote anonymity. Anonymity is important, as it encourages participation and honesty. According to Polit *et al.* (2001:457), a questionnaire can protect the respondent in such a way that even the researcher cannot link any individual with the information provided. In this study, anonymity was of special importance, because individuals' lack of knowledge could make them feel threatened. Therefore, it was vital that the respondents' identities be protected.

3.4.2 THE QUESTIONNAIRE

3.4.2.1 Definition of a questionnaire

The New Dictionary of Social Work (1995:51), as quoted by De Vos *et al.* (2002:172), defines a questionnaire as a set of questions on a form that is completed by the respondent in respect of a research project. The questions can be in an open or closed format. The questionnaire is probably the most generally used research instrument (De Vos *et al.* 2002:172).



3.4.2.2 Advantages and disadvantages

According to Brink (1996:153), the advantages and disadvantages of questionnaires should be taken into consideration during the research process. The advantages and disadvantages of questionnaires are set out in Table 3.1.

TABLE 3.1: ADVANTAGES AND DISADVANTAGES OF QUESTIONNAIRES

<i>Advantages</i>	<i>Disadvantages</i>
1. Data can be quickly obtained from large groups of people.	1. The response rate may be low.
2. Reliability and validity can be easily established.	2. The respondents may omit to answer some of the items.
3. Anonymity is ensured, and for this reason honest answers can be expected.	3. Respondents may decide to provide answers that are socially acceptable.
4. Questionnaires are less expensive in terms of time and money.	4. Questionnaires afford respondents no opportunity to clarify items that are unclear or ambiguous.

3.4.2.3 Layout of the questionnaire

- **Cover page**

The Regional Nursing Services Manager, who formerly worked as a critical care nurse and currently is dealing with legal liability issues, suggested that a cover page, which introduces the theme of the study, as it is a field of study that would be unfamiliar to most of the respondents, be included with the questionnaire. The cover page had to catch the eye and gain the interest of the respondents (see Annexure C).

- **Information letter**

The information letter introduced the researcher and the research phenomenon under study to the respondents. It also served as information regarding voluntary anonymous participation and consent,



and explained how to complete the questionnaire through the use of set examples (see Annexure C).

- **Section A of the questionnaire (see Table 3.2)**

Section A of the questionnaire contained questions about the respondents' biographical data. These data were used to describe the sample and population, and are elaborated on in Table 3.2.

- **Section B of the questionnaire (see Table 3.2)**

Section B of the questionnaire contained questions that measured the knowledge of the respondents. It was divided into four subsections, namely general knowledge, patient scenarios, wounds and wound characteristics, and evidence collection and preservation.

A layout of the questionnaire, with an outline of Section A and B and the motivation for including the questions, follows in Table 3.2.

TABLE 3.2: LAYOUT OF QUESTIONNAIRE

Sections	Description
Section A Biographical data	Questions Questions 1, 2 and 3 dealt with the respondents' level of qualification, years of experience and appointment status. Motivation These data were used to describe the sample and population group and to establish relationships between the variables and the respondents' level of knowledge.
Section B Subsection 1 General knowledge	Questions Nine multiple-choice questions were formulated in this section. The respondents had to mark their choice of the correct combination of answers.



	<p>Motivation</p> <p>These questions were important because they tested the respondents' general knowledge regarding forensic and legal liability issues that are daily encountered in the critical care environment.</p>
<p>Subsection 2</p> <p>Patient scenarios</p>	<p>Questions</p> <p>Three multiple-choice questions were formulated in this section. The respondents had to mark their choice of the correct combination of answers.</p> <p>Motivation</p> <p>These questions were based on patient scenarios and were concerned with unnatural death pronouncement and relevant legal proceedings.</p>
<p>Subsection 3</p> <p>Wound and wound characteristics</p>	<p>Questions</p> <p>Five questions were formulated in this section. The respondents had to match the correct symbol from column A to the correct question number in column B.</p> <p>Motivation</p> <p>These questions were important because they determined the respondents' knowledge of the correct terminology and manner of documenting of wounds. Patient records, reflecting the correct terminology and manner of documenting wounds, can later serve as evidence in court and assist in bringing justice for the victim and their loved ones. They can also protect the nurse and company from the legal liability of negligence.</p>



<p>Subsection 4</p> <p>Evidence collection and preservation</p>	<p>Questions</p> <p>Eight multiple-choice combination questions were formulated in this section.</p> <p>Motivation</p> <p>These questions were important because during the audit of patient records, the area of evidence collection and preservation was identified as one in which critical care nurses lacked knowledge. Knowledge of evidence collection and preservation is crucial to the rights of the victim, and it could make a difference in the outcome of legal cases.</p>
------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The data analysis will focus on the respondents' knowledge regarding legal liability issues in the critical care environment. Data about the respondents' qualifications, years of experience and appointment status will be used to describe the sample and population group and establish relationships between these variables and the respondents' level of knowledge. Conclusions will be drawn about the respondents' competence in dealing with forensic issues in the field of nursing.

3.4.2.4 Refinement of the questionnaire

➤ Pilot study

A pilot study is a small-scale trial run of the study (Pilot & Hungler 2001:41). A pilot study was conducted a month prior to the scheduled data collection period in order to:

- Obtain information for improving the project or assessing its feasibility;



- Make revisions according to comments or criticisms from respondents and experts;
 - Ensure that the procedure is suitable, valid, reliable, and free from problems and errors; and to
 - Improve the success and effectiveness of the investigation.
- (De Vos *et al.* 2002:215).

For the pilot study, questionnaires were given to respondents employed in the fields of nursing science with the following various qualifications and numbers of years of experience:

- A person with a doctoral degree in critical care nursing;
- A person with an honours degree in nursing, who has been exposed to forensic and legal liability issues in the course of studying;
- A person with a critical care diploma and ten years of experience in various critical care disciplines over the years;
- A person with twenty years of experience in critical care nursing;
- A registered infection control nursing consultant, who is trained in critical care nursing, with several years of experience in various critical care units and who is currently being exposed to legal liability and forensic issues;
- The regional nursing services manager of the private hospital group where the research was done, who is also trained in critical care nursing;
- Three clinical tutors of the head office of the hospital group, who are trained in critical care nursing;
- A doctor who deals with forensic and legal liability issues and who is an expert; and
- The study supervisor.

The questionnaire was also given to a statistician and an editor, for refinement of the questionnaire.



➤ **Amendments**

The pilot study indicated that amendments had to be made to the questionnaire. Criticism and suggestions were considered and various changes made. These changes are listed below.

1. The criticism and comments of all respondents were that they felt that the questionnaire took too long to complete, as they were unfamiliar with the subject and concepts. They all stated that they encounter legal liability issues on a daily basis in the critical care environment and that there is a lack of knowledge and a need for further training. The number of questions was reduced from 30 to 25.
2. The respondents said that they felt exposed and embarrassed because they believed the researcher could identify the shortcomings in their knowledge level that the questionnaire uncovered. The information letter was refined to make it clear that participation was voluntary and that the respondents did not need to indicate their names. Participation remained anonymous so that even the researcher would not be able to track the respondent.
3. The second page of the information letter contained examples of how to complete the questionnaire. In example one, the instruction was to circle the answer, and in example two, to mark the answer with an X. This caused confusion when the respondents completed the rest of the questionnaire, as they circled some of the questions and marked others with an X. The example section was changed, and the instruction throughout the questionnaire was to mark the answer with an X.
4. The answer to Question 2 of Section A (biographical data) was changed by requesting the amount of experience working in the critical care environment in months and years, at the statistician's recommendation.



5. In Question 3 of Section A, another option was added to the multiple-choice answers of permanent or part-time staff member. This change was made to address the variables that may exist in employment options.
6. In Section B (knowledge section), an explanation of forensic nursing and knowledge was provided, as the concept is unknown or brings to mind only death cases and police investigations. Where applicable, the term 'forensic' was paraphrased, for example, 'forensic issues' would become 'legal liability issues'.
7. In Questions 3 and 8 of Subsection 1, the concept 'chain of custody of evidence' was explained in brackets in Afrikaans. This is not a well-known concept, and some of the respondents' first language was Afrikaans.
8. Question 9 of Subsection 1 was removed, because the pilot study participants regarded this question as too difficult for the average critical care nurse.
9. Questions 1, 4, 5 and 7 of Subsection 2 were removed because the pilot study participants regarded these questions as too difficult for the average critical care nurse. Answering these questions would result in the time allotted to complete the questionnaire exceeding twenty minutes. These were therefore obvious questions to eliminate.
10. Question 5 of Subsection 2 was removed. This question was concerned with the vital role that critical care nurses play in patient advocacy concerning organ donation and did not represent the focus area of the study.
11. Question 7 of Subsection 2 stressed the importance of a holistic approach to the family of the deceased patient, as well as proper

documentation. The pilot study participants also recommended that this question be eliminated.

12. Question 5 of Subsection 3 was related to the preservation of a gunshot bullet. This question was eliminated, because of the assumption that most gunshot bullets are removed in theatre and not in the critical care environment.
13. Question 7 of Subsection 2 was removed because it was related to physical symptom recognition of domestic violence and would have required an in-depth answer from critical care nurses who, on average, would not have received any formal forensic nursing training.
14. Questions 5 and 7 (Subsection 4) were slightly refined due to recommendations made by pilot study participants.
15. Question 10 of Subsection 4 was removed, because the knowledge required to answer the question was concerned with further training in legal liability and court procedures, which is currently not included in the critical care curriculum.
16. Question 7 (Subsection 4) was added after a nurse, who was an expert in legal liability issues, made certain comments. The question addresses the media and liability regarding patient information.

The refined questionnaire was finalised for coding in consultation with a statistician. The pilot study was repeated in order to ensure that 20 minutes would be sufficient to complete the questionnaire.

3.5 RESEARCH PROCEDURE

The questionnaires were distributed with the help of the different participatory hospitals. Included with the questionnaires was an instruction letter from the



researcher. The letter explained the distribution, collection and returning process to be followed within the involved units.

3.5.1 POPULATION

The population involved in this phase of the study consisted of registered nurses working in the critical care units of hospitals belonging to a private hospital group. Additionally, these nurses are either:

- Trained critical care nurses and registered with the SANC in this capacity;
- Not qualified as critical care nurses but working in critical care units and registered with the SANC in another capacity; or
- Students presently studying critical care nursing.

A letter was sent to the director of nursing of the private hospital group in order to determine the number of registered nurses and students working in the critical care units that were involved in this study. This number included agency personnel.

3.5.2 SAMPLING

In this study, a non-probability sampling method, namely convenient or accidental sampling, was used. Probability sampling is based on randomisation, while non-probability sampling is done without randomisation (De Vos *et al.* 2002:203). Convenient sampling was used because the respondents were conveniently available – they were in the right place at the right time, *i.e.* they were working or present in the units when the questionnaires were distributed (Burns & Grove 1996:375).

The questionnaires were distributed to coordinators of the private hospital group. The group's hospitals that are situated in the Tshwane, Northern, Free State and Cape regions of the Republic of South Africa were involved in the study. The coordinators assisted in the distribution and collection of the questionnaires. On any given day during a three-week data collection period,



the questionnaires would be distributed to registered nurses who were working in the specified critical care units and were willing to take part. After the period allotted for the distribution and collection of the questionnaires had run out, the questionnaires were returned to the researcher.

3.6 VALIDITY OF THE RESEARCH PROCESS

3.6.1 INTRODUCTORY REMARKS

According to De Vos *et al.* (2002:166), the definition of validity has two parts; the instrument's measuring of the concept in question, and the accurate measurement of the concept. This means that the instrument should measure or look at a specific construct on the one hand, but on the other hand that the research process should also allow consistent and accurate measurement.

3.6.2 VALIDITY OF THE INSTRUMENT

Validity is the degree to which an instrument measures what it is supposed to be measuring (Polit *et al.* 2001:308,309). Four types of validity can be established for questionnaires: content, face, criterion and construct validity.

3.6.2.1 Content validity

Content validity is concerned with the representativeness or sampling adequacy of the content of an instrument (De Vos *et al.* 2002:167). It is also concerned with the coverage of the content being measured. Content validity is particularly relevant for the testing of knowledge and refers to how representative the questions in a test are (Polit *et al.* 2001:309). The content validity of the questionnaire (used in phase two of the research) was promoted by using the information gathered during phase one of this research in the construction of the questionnaire.



The questions that were compiled dealt with legal liability and forensic issues that critical care nurses have to deal with while nursing patients in the critical care units, and in accordance with the results of phase one. Other literature, such as a forensic science textbook (Knight 1997) and the class notes of experts on the field of forensics in South Africa, was also consulted. A pilot study was done to rule out any possibility of ambiguity and to eliminate flaws previously overlooked by the researcher.

3.6.2.2 Face validity

According to De Vos *et al.* (2002:167), it is important to structure an instrument so that it not only accurately measures the attributes under consideration, but also appears to be a relevant measure of those attributes. De Vos *et al.* (2002:167) states that the terms 'face validity' and 'content validity' should not be thought of as synonymous, although they are often used interchangeably in research literature.

The researcher used a multi-response questionnaire, which reflected the results of the first phase of the study, to measure knowledge. In order to further promote face validity, professionals in the field of critical care nursing and legal liability issues were asked for feedback regarding the questionnaire and changes were made accordingly. A pilot study was also done (see 3.4.2.4).

3.6.2.3 Criterion validity

Criterion validity is based on the extent to which a new test is compared with an established external criterion measure. Thus, multiple measurements of different kinds of an identified construct promote criterion validity. With reference to the questionnaire used in this study as measuring instrument, criterion validity can be established in future by performing a patient record audit (as criterion measure), by scoring this measure and by comparing that with the average scores obtained in the questionnaire (De Vos *et al.* 2002:167).



3.6.2.4 Construct validity

According to De Vos *et al.* (2002:167), construct validity measures theoretical constructs. This was not applicable to this study, as knowledge in a well-defined area (legal liability issues in a critical care environment) was measured. That which needed to be clarified regarding the construct under study was clarified when ensuring content and face validity.

3.6.3 VALIDITY OF THE DATA COLLECTION PROCESS

The researcher gave clear guidelines to those who assisted in the distribution of the questionnaire regarding the procedure to be followed during its completion. This was done in order to ensure that all questionnaires were completed in the same way. The researcher attempted to create a non-threatening environment by allowing respondents to complete the questionnaire privately and anonymously. Anonymity was ensured as respondents were not required to state their name on the questionnaire and questions were to be answered in black pen, through drawing of an X next to the correct answer. The researcher was telephonically available to assist with any enquiries in connection with the questionnaire.

3.7 RELIABILITY

Reliability of an instrument refers to the consistency of the measuring instrument. According to Polit *et al.* (2001:305), an instrument is reliable if it accurately reflects the true measure of the attribute on separate occasions.

3.7.1 STABILITY

According to Polit *et al.* (2001:396), stability is concerned with the consistency of repeated measures of the same attribute with the same instrument and is also referred to as test-retest reliability. Test-retest reliability makes use of the assumption that the factor being measured has not changed between the



measurement points. Since this study was a measurement of knowledge and respondents could have studied or read up on the area of study between measurement points, determining the stability of this study was not feasible.

3.7.2 EQUIVALENCE

The focus of equivalence is on the comparison of results obtained through two different measuring instruments. According to Polit *et al.* (2001:397), this would mean to repeat measurement by using alternative measurement forms. It was not feasible for this study since no other kind of measuring instrument was available.

3.7.3 INTERNAL CONSISTENCY

Internal consistency or homogeneity is the correlation of various items within the instrument (Polit *et al.* 2001:398). This instruments' internal consistency was established statistically at a level of 0.5 using Cronbach's alpha. Polit *et al.* (2001:398) state that a Cronbach's alpha co-efficient of 0.8 to 0.9 indicates an instrument that will reflect the fine discriminations in the levels of the construct. However, the statistician involved in this study indicated that, for a new instrument, a level of close to 0.6 is acceptable (Sommerville 2005). In a follow-up study, attention should be paid to all items in the questionnaire that the item analysis indicated might be a problem.

3.7.4 COMPETENCY INDICATOR

At a consensus meeting, three experts in critical care nursing and legal liability issues within the critical care environment set the competency indicator at 60%. The competency indicator will be discussed in Chapter 4, during the data analysis.



3.8 ETHICAL CONSIDERATIONS

The Ethics Committee of the private hospital group that participated in this study reviewed the protocol and questionnaire. The group's director of nursing granted permission to conduct the study.

The UP Faculty of Health Sciences Ethics Committee also reviewed the protocol. Permission to conduct the study was granted. (See Annexure A.)

In order to protect the rights of the patients whose records were used in phase one of the study, only the researcher had access to the patient records used in the audit. The audit did not include the name of any patient.

The protection of the respondents in phase two of this study was ensured through anonymous and voluntary participation, under non-threatening conditions. The completed questionnaires only reflected correct or incorrect answers and were safely stored.

3.9 LIMITATIONS

The sample was drawn from a portion of only one private hospital group in South Africa. Since the research was limited to that specific hospital group, findings were valid only for that specific group.

3.10 DATA ANALYSIS

The researcher conducted the data analysis in conjunction with a statistician of the UP statistical support services (STATOMET). The results of the data analysis will be discussed in Chapter 4.



3.11 CONCLUSION

This study aimed to determine the knowledge of critical care nurses regarding legal liability issues in the critical care environment and was conducted in private hospitals belonging to a hospital group in South Africa. The researcher limited the study to voluntary participation by critical care nurses working in the critical care environment. The researcher made every effort to ensure validity and reliability in the study. The ethical rights of the respondents were protected in every way, and the study held no known risks for the respondents or hospital group.

This chapter dealt with the research design and methodology of this study, which could be described as a quantitative, exploratory and retrospective study. A forensic patient audit instrument, as well as a questionnaire as data collection instrument, was utilised to collect the data. The population and sample, the data collection process, the research instrument and relevant aspects such as validity, reliability, confidentiality and anonymity were discussed in detail. The layout of the audit instrument and questionnaire was given in table format and introductory remarks were made about the data analysis. The data analysis is presented in Chapter 4.



CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

In this chapter, the data analysis is discussed in detail. Data was collected by means of questionnaires that were distributed in the critical care units of a private hospital group over a period of three weeks. The questionnaires were completed and returned to the researcher. A participant information letter was attached to each questionnaire. Of the two hundred questionnaires distributed, 171 were received back. This represents a response rate of 85%, which in view of the discussion on this issue by Huysamen (1994:149,150) can be rated as very good.

Note:

- All percentage values are rounded off to the nearest two decimal places. This may influence the total that may reflect as 101%.
- The researcher considered unanswered questions as incorrect, as the assumption was made that the respondent could not decide on the correct answer.
- Unless indicated differently, $n = 171$ throughout the data analysis.

4.2 SECTION 1: BIOGRAPHICAL DATA

Section 1 of the questionnaire gathered the biographical data of the respondents.

4.2.1 QUESTION 1: LEVEL OF QUALIFICATION

Out of a total of 171 respondents, five (2.92%) respondents' qualifications were not specified. For the rest, the qualification status was as follows: Three (1.75%) respondents had a Master's degree in critical care nursing, one (0.58%) had a degree in critical care nursing, 64 (37.43%) had a diploma in this field of nursing, while eight (4.68%) had a critical care nursing certificate. Seventy-five (75) respondents (43.86%) had critical care nursing experience, while 15 respondents (8.77%) were critical care nursing students. The qualifications attained by the respondents (n=171) are illustrated in Figure 4.1.

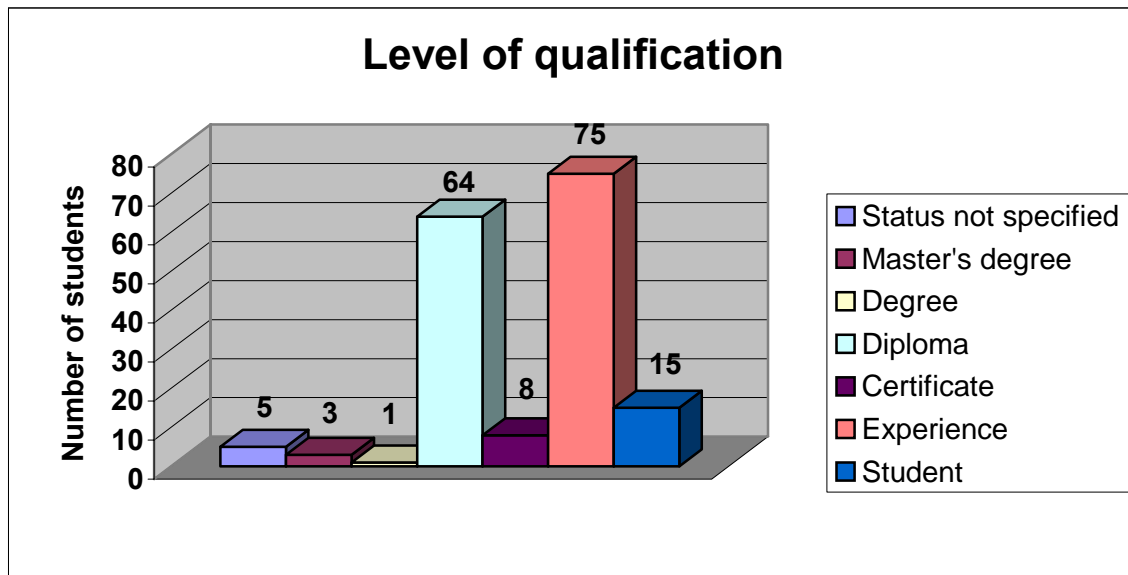


FIGURE 4.1: COLUMN GRAPH ILLUSTRATING THE LEVEL OF QUALIFICATION OF RESPONDENTS

The respondents whose status was indicated as 'unspecified' may be students taking the trauma course and obtaining practical experience while rotating in the critical care units.

4.2.2 QUESTION 2: YEARS OF EXPERIENCE IN THE CRITICAL CARE ENVIRONMENT

Out of a total of 171 respondents, 49 (28.65%) had been working for less than two years in a critical care unit, while 42 (24.56%) respondents had been

working between two and five years in this environment when the study was conducted. Twenty-six (15.2%) respondents had more than five but less than ten years of experience in the critical care environment, whereas 54 respondents (31.58%) had ten or more years of experience in this environment. These data are illustrated in Figure 4.2.

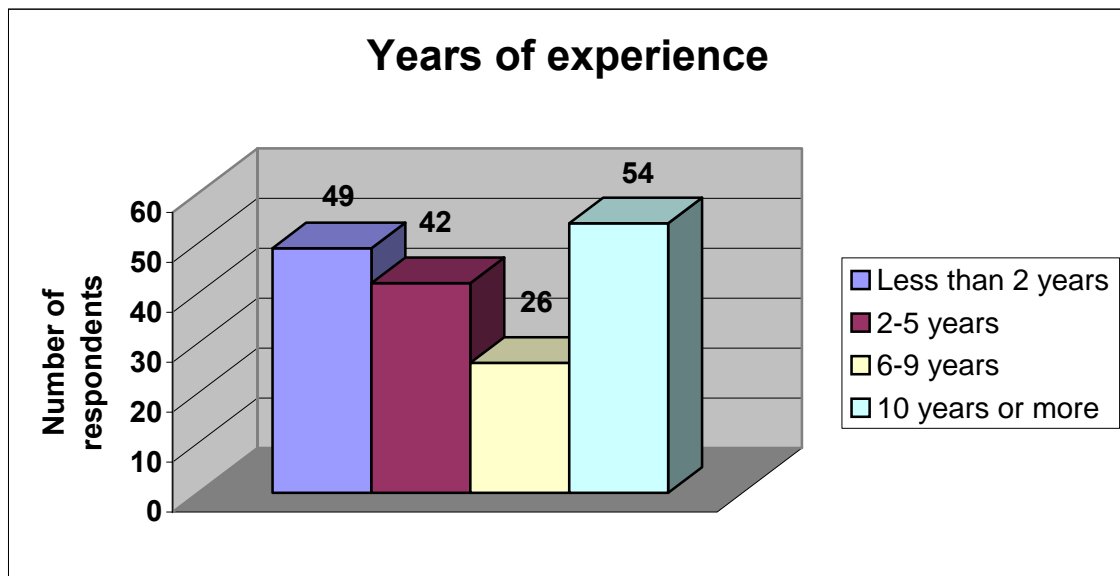


FIGURE 4.2: COLUMN GRAPH ILLUSTRATING THE YEARS OF EXPERIENCE OF RESPONDENTS WORKING IN THE CRITICAL CARE ENVIRONMENT

4.2.3 QUESTION 3: APPOINTMENT STATUS

Three respondents did not answer the question, thus n=168. Three of the six respondents (1.79%) who indicated their appointment status as 'other' did not specify their status, probably for the same reason mentioned in 4.2.1. The majority of the respondents, namely 145 (86.31%), were permanent staff members with employee's benefits, such as membership of a medical aid society and pension fund. These personnel were working 42 hours per week, and the researcher assumed they would be familiar with the critical care environment and knowledgeable about legal liability issues.

Sixteen (9.52%) of the respondents were part-time staff members, working 30 to 36 hours per week. Four (2.38%) respondents were agency staff or session

workers, who worked in the critical care units only when extra help was needed. The appointment status of the respondents (n=168) is illustrated in Figure 4.3.

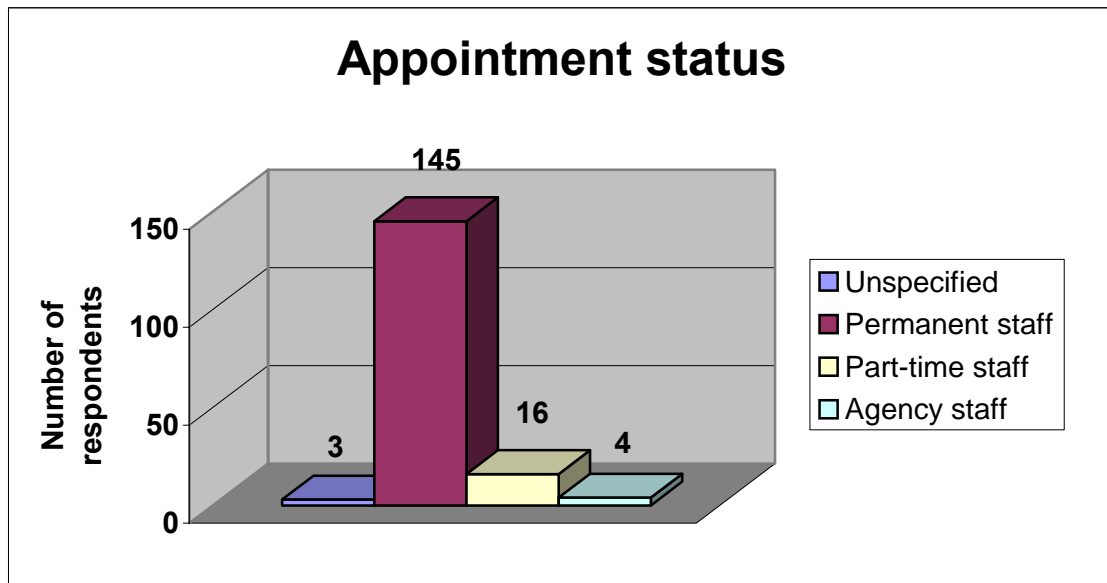


FIGURE 4.3: COLUMN GRAPH ILLUSTRATING THE APPOINTMENT STATUS OF THE RESPONDENTS WORKING IN THE CRITICAL CARE ENVIRONMENT

4.3 SECTION 2: KNOWLEDGE BASE

4.3.1 INTRODUCTION

Section 2 of the questionnaire, assessing the actual knowledge of the respondents regarding legal liability issues in the critical care environment, was the main focus of the study. The questionnaire was applied as measuring instrument in order to assess the knowledge level of critical care nurses regarding this topic. The respondents' knowledge was measured and their scores were compared to the competency indicator that was set at 60 out of 100 (*i.e.* 60%). According to experts, this was the standard or norm that critical care nurses should attain in order to be considered competent or knowledgeable about the subject. Respondents had to attain at least sixty per cent (60%) for the knowledge section of the questionnaire.



4.3.2 KNOWLEDGE THEMES COVERED BY THE QUESTIONNAIRE

The researcher identified three subsections or knowledge themes covered by the questionnaire. These three themes were as follows:

4.3.2.1 Theme 1

- Theme: Wound and wound characteristics
- Relevant questions: Subsection 3, Questions 1 to 5
- Motivation: Events such as violent crime and motor vehicle accidents cause injury or death to people. Accident victims and victims of violent or abusive behaviour sustain different kinds of wounds. The critical care nurse should be able to differentiate between the different types of wound, and should know how to accurately document wounds and wound characteristics. In the case of violent crime, accurate documentation could lead to the identification of the kind of weapon used and/or the conviction of an assailant. Patients who sustained injuries because of violent acts are always patients with legal liability issues. For these reasons, questions about wound and wound characteristics were included in the questionnaire.

4.3.2.2 Theme 2

- Theme: Evidence collection and preservation
- Relevant questions: Subsection 1, Questions 3,5,8,9; Subsection 2, Questions 1-3; Subsection 3, Questions 1-5; Subsection 4, Questions 1-3
- Motivation: The recognition, collection and preservation of evidence by critical care nurses constitutes an important link in the 'chain of custody of evidence'. Evidence recognition and preservation often leads to the conviction of an assailant. For these reasons, questions about evidence collection and preservation were included in the questionnaire.



4.3.2.3 Theme 3

- Theme: Documentation
- Relevant questions: Subsection 1, Questions 8,9; Subsection 2, Questions 1-3; Subsection 3, Questions 1-5; Subsection 4, Questions 1,2,4-8
- Motivation: Questions about documentation were included because the precise documentation of evidence supports the ‘chain of custody of evidence’. The documentation of evidence ensures the recognition and preservation of the victim’s human, civil and legal rights.

4.4 KNOWLEDGE BASE: RESULTS OF EACH ITEM FOR THE ENTIRE GROUP

The results of each item included in the questionnaire for the entire group of respondents are discussed and tabulated in 4.4.1 to 4.4.25.

4.4.1 SUBSECTION 1: QUESTION 1

This question determined whether the respondents could define the term ‘clinical forensic nursing’. The response was as follows:

TABLE 4.1: KNOWLEDGE REGARDING THE TERM ‘CLINICAL FORENSIC NURSING’

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	67	39.18
Incorrect	104	60.82

The majority of the participants (60.82%) answered incorrectly.



4.4.2 SUBSECTION 1: QUESTION 2

The aim of this question was to determine whether the correct description of a living forensic patient could be provided. The response was as follows:

TABLE 4.2: KNOWLEDGE REGARDING THE CORRECT DESCRIPTION OF A LIVING FORENSIC PATIENT

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	61	35.67
Incorrect	110	64.33

The majority of the participants (64.33%) answered incorrectly.

4.4.3 SUBSECTION 1: QUESTION 3

The aim of this question was to determine whether critical care nurses realised the extent of their responsibilities with respect to the living forensic patient and the conviction of an assailant. The response was as follows:

TABLE 4.3: KNOWLEDGE OF RESPONSIBILITIES WITH REFERENCE TO THE LIVING FORENSIC PATIENT AND THE CONVICTION OF AN ASSAILANT

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	19	11.11
Incorrect	152	88.89

The majority of the participants (88.89%) answered incorrectly.

4.4.4 SUBSECTION 1: QUESTION 4

In order to understand forensic nursing or legal liability issues in nursing, nursing science, forensic science and criminal justice have to be integrated. Question 4 (Subsection 1) determined whether the respondents knew which sciences/disciplines had to be integrated to understand forensic nursing or legal liability issues in nursing. The response is presented in Table 4.4.



TABLE 4.4: KNOWLEDGE OF SCIENCES TO BE INTEGRATED TO UNDERSTAND FORENSIC NURSING AND LEGAL LIABILITY ISSUES IN NURSING

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	74	43.27
Incorrect	97	56.73

The majority of the participants (56.73%) answered incorrectly.

4.4.5 SUBSECTION 1: QUESTION 5

The aim of this question was to determine whether the respondents were familiar with certain aspects of liability. The response was as follows:

TABLE 4.5: ASPECTS OF LIABILITY NURSES SHOULD BE FAMILIAR WITH

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	33	19.3
Incorrect	138	80.7

The majority of the participants (80.7%) answered incorrectly.

4.4.6 SUBSECTION 1: QUESTION 6

The aim of this question was to identify aspects that determine the association between forensic nursing and critical care nursing. The response was as follows:

TABLE 4.6: KNOWLEDGE REGARDING ASPECTS THAT DETERMINE THE ASSOCIATION BETWEEN FORENSIC NURSING AND CRITICAL CARE NURSING

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	98	57.31
Incorrect	73	42.69

The majority of the participants (57.31%) answered correctly.



4.4.7 SUBSECTION 1: QUESTION 7

This question was aimed at determining whether the participants could recognise a description of a living forensic patient in the critical care environment. The response was as follows:

TABLE 4.7: ABILITY TO RECOGNISE A DESCRIPTION OF THE LIVING FORENSIC PATIENT IN THE CRITICAL CARE ENVIRONMENT

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	115	67.25
Incorrect	56	32.75

The majority of the participants (67.25%) answered this question correctly.

4.4.8 SUBSECTION 1: QUESTION 8

The purpose of this question was to determine whether the participants could recognise the concept 'chain of custody of evidence'. The response is displayed in Table 4.8.

TABLE 4.8: ABILITY TO RECOGNISE THE CONCEPT 'CHAIN OF CUSTODY OF EVIDENCE'

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	33	19.30
Incorrect	138	80.70

The majority of the participants (80.70%) answered incorrectly.

4.4.9 SUBSECTION 1: QUESTION 9

In certain patient cases, evidence has to be collected and preserved. The aim of this question was to determine whether the respondents realised the need for evidence collection. The response is set out in Table 4.9.



TABLE 4.9: KNOWLEDGE REGARDING CASES WHERE EVIDENCE HAS TO BE COLLECTED

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	134	78.36
Incorrect	37	21.64

The majority of the participants (78.36%) answered correctly.

4.4.10 SUBSECTION 2: QUESTION 1

The aim of this question was to determine whether the respondents could identify the reasons for doing a medico-legal autopsy. The response was as follows:

TABLE 4.10: KNOWING THE REASONS FOR DOING A MEDICO-LEGAL AUTOPSY

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	33	19.30
Incorrect	138	80.70

The majority of the participants (80.70%) could not identify the reasons for performing a medico-legal autopsy.

4.4.11 SUBSECTION 2: QUESTION 2

This question aimed to determine whether the respondents were familiar with the criteria for diagnosing clinical death. The response is displayed in Table 4.11.

TABLE 4.11: KNOWLEDGE REGARDING CRITERIA FOR DIAGNOSING CLINICAL DEATH

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	67	39.18
Incorrect	104	60.82



The majority of the participants (60.82%) answered incorrectly, as they were unfamiliar with the criteria for diagnosing clinical death.

4.4.12 SUBSECTION 2: QUESTION 3

In cases where legal liability issues have been identified and brainstem death is pronounced, the correct procedures have to be followed. The aim of question 3 (Subsection 2) was to determine whether the respondents knew the correct procedures. The response is displayed in Table 4.12.

TABLE 4.12: KNOWLEDGE REGARDING THE CORRECT PROCEDURES WHEN A PATIENT WITH LEGAL LIABILITY ISSUES IS PRONOUNCED BRAIN DEAD

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	106	61.99
Incorrect	65	38.01

The majority of the participants (61.99%) knew the correct procedures.

4.4.13 SUBSECTION 3: QUESTION 1

This question determined whether the respondents, when given the wound characteristics, could identify the type of wound, e.g. incised wounds and stab wounds represent sharp trauma. The response was as follows:

TABLE 4.13: KNOWLEDGE OF WOUND CHARACTERISTICS REPRESENTING SHARP TRAUMA

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	97	56.73
Incorrect	74	43.27

The majority of the participants (56.73%) answered correctly.



4.4.14 SUBSECTION 3: QUESTION 2

This question determined whether the respondents, when given the wound characteristics, could identify the correct type of wound, *i.e.* a blunt injury is caused by a crushing impact. The response was as follows:

TABLE 4.14: KNOWLEDGE OF TYPE OF WOUND RESULTING FROM A CRUSHING IMPACT

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	104	60.82
Incorrect	67	39.18

The majority of the participants (60.82%) answered correctly.

4.4.15 SUBSECTION 3: QUESTION 3

This question determined whether the respondents, when given the wound characteristics, could identify the type of wound, namely dicing injury. Dicing injuries consist of multiple minute cuts and lacerations. The response was as follows:

TABLE 4.15: KNOWLEDGE REGARDING DICING INJURIES

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	53	30.99
Incorrect	118	69.01

The majority of the participants (69.01%) answered incorrectly.

4.4.16 SUBSECTION 3: QUESTION 4

This question determined whether the respondents, when given the wound characteristics, could identify the type of wound, namely hesitation wounds that are self-inflicted wounds. The response is displayed in Table 4.16.



TABLE 4.16: KNOWLEDGE REGARDING SELF-INFLICTED WOUNDS

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	109	63.74
Incorrect	62	36.26

The majority of the participants (63.74%) answered correctly.

4.4.17 SUBSECTION 3: QUESTION 5

This question determined whether the respondents could recognise the patterns of injuries caused by weapons, *i.e.* fast forced injuries. The response was as follows:

TABLE 4.17: KNOWLEDGE REGARDING INJURIES CAUSED BY WEAPONS

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	61	35.67
Incorrect	110	64.33

The majority of the participants (64.33%) answered incorrectly.

4.4.18 SUBSECTION 4: QUESTION 1

This question determined whether the respondents knew the precautions that should be taken when the bloodstained clothing of the patient with legal liability issues is removed. The response was as follows:

TABLE 4.18: KNOWLEDGE REGARDING PRECAUTIONS DURING REMOVAL OF BLOODSTAINED CLOTHING

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	59	34.50
Incorrect	112	65.50

The majority of the participants (65.50%) answered incorrectly.



4.4.19 SUBSECTION 4: QUESTION 2

This question determined whether the participants knew how to store bloodstained clothing. The response was as follows:

TABLE 4.19: KNOWLEDGE REGARDING STORAGE OF BLOODSTAINED CLOTHING

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	18	10.53
Incorrect	153	89.47

The majority of the participants (89.47%) answered incorrectly.

4.4.20 SUBSECTION 4: QUESTION 3

This question determined whether the participants knew what evidence should be collected in the case of a patient involved in a hit-and-run accident. The response was as follows:

TABLE 4.20: KNOWLEDGE REGARDING IDENTIFICATION AND COLLECTION OF EVIDENCE IN HIT-AND-RUN ACCIDENT CASES

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	66	38.60
Incorrect	105	61.40

The majority of the participants (61.40%) did not know the correct answer.

4.4.21 SUBSECTION 4: QUESTION 4

This question determined whether the respondents could identify the document that should be completed in a suspected rape case. The response is displayed in Table 4.21.



TABLE 4.21: KNOWLEDGE REGARDING DOCUMENTATION TO BE COMPLETED IN SUSPECTED RAPE CASE

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	24	14.04
Incorrect	147	85.96

The majority of the participants (85.96%) could not identify the relevant documentation.

4.4.22 SUBSECTION 4: QUESTION 5

This question determined the respondents' knowledge regarding HIV testing. Respondents had to indicate whether or not a ventilated, sedated and unconscious patient could be tested for HIV without written informed consent. The response was as follows:

TABLE 4.22: KNOWLEDGE REGARDING HIV TESTING OF VENTILATED, SEDATED AND UNCONSCIOUS PATIENT

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	16	9.36
Incorrect	155	90.64

A considerable majority (90.64%) answered incorrectly.

4.4.23 SUBSECTION 4: QUESTION 6

This question dealt with the test that applies when, according to the South African law, proof of negligence by a nurse is to be established. The response to this question was as follows:

TABLE 4.23: KNOWLEDGE REGARDING PROOF OF NURSE NEGLIGENCE

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	26	15.20
Incorrect	145	84.80

The majority of the participants (84.80%) answered incorrectly.



4.4.24 SUBSECTION 4: QUESTION 7

This question determined whether the respondents were knowledgeable about the age limit set by the Child Care Act, Act no. 74 of 1983, with respect to children consenting to medical treatment without the assistance of parents or guardians (South Africa 1983). The response was as follows:

TABLE 4.24: KNOWLEDGE OF THE AGE LIMIT FOR CHILDREN TO CONSENT TO MEDICAL TREATMENT WITHOUT ASSISTANCE OF PARENTS OR GUARDIAN

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	12	7.02
Incorrect	159	92.98

Only twelve respondents (7.02%) knew the answer to this question. A substantial majority (92.98%) answered incorrectly.

4.4.25 SUBSECTION 4: QUESTION 8

This question determined whether the respondents knew what kind of information could be given to the media by a critical care nurse. The response was as follows:

TABLE 4.25: KNOWLEDGE ABOUT THE KIND OF INFORMATION THAT MAY BE GIVEN TO THE MEDIA BY A NURSE

<i>Response</i>	<i>Frequency</i>	<i>Percentage</i>
Correct	159	92.98
Incorrect	12	7.02

The majority of the participants (92.98%) were well-informed about the kind of information that could be given to the media by a nurse. Only twelve respondents (7.02%) did not know the answer to the question.



4.5 SUMMARY OF SCORES ATTAINED BY THE ENTIRE GROUP OF RESPONDENTS FOR THE WHOLE QUESTIONNAIRE, INCLUDING THE THEMES IDENTIFIED

4.5.1 RESULTS OF QUESTIONNAIRE AS A WHOLE FOR THE ENTIRE GROUP OF RESPONDENTS

The results of the questionnaire as a whole (25 questions) for the entire group of respondents (n=171) are presented in Table 4.26.

TABLE 4.26: RESULTS OF THE QUESTIONNAIRE AS A WHOLE FOR THE ENTIRE GROUP OF RESPONDENTS

Number of resp. (n = 171)	Total no. of questions	Mean score		Standard deviation		Minimum		Maximum	
		RS	%	RS	%	RS	%	RS	%
171	25	9.61	38.46	2.98	11.93	3	12	18	72
RS= Raw Scores Resp = Respondents									

The mean score attained by the group of respondents (n=171) was 9.61 out of 25 or 38.46%. The performance of the entire group of respondents with respect to each theme identified will also be tabulated and discussed. Scores attained by respondents when grouped together according to biographical subcategories will also be presented in table format.

4.5.2 THEME 1: WOUNDS AND WOUND CHARACTERISTICS

Subsection 3, questions 1-5, dealt with wounds and wound characteristics. The scores attained by the entire group of respondents for theme 1 are presented in Table 4.27.



TABLE 4.27: RESULTS FOR THEME 1: WOUNDS AND WOUND CHARACTERISTICS

Number of resp. (n = 171)	Total no. of questions	Mean score		Standard deviation		Minimum		Maximum	
		RS	%	RS	%	RS	%	RS	%
171	5	2.47	49.59	1.53	30.78	0	0	5	100
RS= Raw Scores Resp = Respondents									

The mean score attained by the entire group of respondents (n=171) for the theme ‘wounds and wound characteristics’ was 2.47 out of 5; thus 49.59%.

4.5.3 THEME 2: EVIDENCE COLLECTION AND PRESERVATION

Subsection 1, questions 3,5,8,9; Subsection 2, questions 1-3; Subsection 3, questions 1-5 and Subsection 4, questions 1-3, dealt with evidence collection and preservation. The scores attained by the entire group of respondents for theme 2 are presented in Table 4.28.

TABLE 4.28: RESULTS FOR THEME 2: EVIDENCE COLLECTION AND PRESERVATION

Number of resp. (n = 171)	Total no. of questions	Mean score		Standard deviation		Minimum		Maximum	
		RS	%	RS	%	RS	%	RS	%
171	15	5.80	38.67	2.23	14.91	0	0	12.00	80.00
RS= Raw Scores Resp = Respondents									

The mean percentage attained by the entire group of respondents for the second theme ‘evidence collection and preservation’ was 38.67 (or 5.80 out of 15).



4.5.4 THEME 3: DOCUMENTATION

Subsection 1, questions 8-9; Subsection 2, questions 1-3; Subsection 3, questions 1-5 and Subsection 4, questions 1,2,4-8, dealt with documentation. The scores attained by the entire group of respondents for theme 3 are presented in Table 4.29.

TABLE 4.29: RESULTS FOR THEME 3: DOCUMENTATION

Number of resp. (n = 171)	Total no. of questions	Mean score		Standard deviation		Minimum		Maximum	
		RS	%	RS	%	RS	%	RS	%
171	17	6.49	38.21	2.38	14.04	1.00	5.88	12.00	70.58
RS= Raw Scores Resp = Respondents									

The mean score attained by the entire group of respondents for the third theme 'documentation' was 38.21%.

4.6 SCORES ATTAINED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO BIOGRAPHICAL SUBSECTIONS

The researcher realised that some groups within the study population might require more or less training than others. Therefore, the results of respondents grouped together according to biographical data are tabulated and discussed.

4.6.1 SCORES ACHIEVED BY QUALIFICATION

The scores of respondents grouped together according to qualification (Master's degree to critical care nursing student) are presented in columns 1-6 in Table 4.30. Scores included the mean, minimum and maximum percentages attained by each group for the questionnaire as a whole, as well as for each identified



theme. n=166, as the highest qualifications of five respondents were not specified.

TABLE 4.30: SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO QUALIFICATION

Qualification						Total number of respondents (n=166)	MEAN PERCENTAGES FOR QUESTIONNAIRE AS A WHOLE AND IDENTIFIED THEMES	
Master's degree	Degree	Diploma	Certificate	Experience	Student			
3	1	64	8	75	15	Total for questionnaire as a whole		
45.33	44.00	39.62	40.00	36.58	39.73	Theme		
44.66	20.00	52.50	60.00	46.13	54.66			1
44.44	33.33	40.72	43.33	36.08	39.11			2
45.09	29.41	40.34	41.91	35.76	40.00	3		
36.00	04.00	12.00	32.00	12.00	16.00	Total for questionnaire as a whole		
0	0	0	40.00	0	0	Theme		
33.33	0	06.66	33.33	0	20.00			1
29.41	0	11.76	20.41	05.88	17.64		2	
56.00	44.00	64.00	48.00	72.00	60.00	3		
80.00	02.00	100.0	80.00	100	100.0	Total for questionnaire as a whole		
60.00	53.33	73.33	53.33	80.00	60.00	Theme		
58.82	29.41	70.58	52.94	70.58	70.58		1	
						2		
						3		

Total mean percentages attained by respondents grouped together according to qualification varied from 36.58 to 45.33.



4.6.2 SCORES ACHIEVED BY YEARS OF EXPERIENCE

The scores of respondents grouped together according to years of experience are presented for the questionnaire as a whole as well as for each identified theme. Refer to Table 4.31.

TABLE 4.31: SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO YEARS OF EXPERIENCE

≥10 years	6-9 years	2- 5 years	<2 years	Years of experience			
54	26	42	49	Total number of respondents (n=171)			
40.00	38.46	39.04	35.18	Total for questionnaire as a whole	MEAN PERCENTAGES FOR QUESTIONNAIRE AS A WHOLE AND IDENTIFIED THEMES		
52.59	50.76	56.19	40.00	1			Themes
41.11	40.51	39.36	34.42	2			
40.52	38.23	39.21	34.81	3			
12.00	16.00	12.00	12.00	Total for questionnaire as a whole	MINIMUM SCORE (%)		
0	0	0	0	1			Themes
13.33	02.00	0	06.66	2			
11.76	05.88	05.88	11.76	3			
64.00	56.00	72.00	60.00	Total for questionnaire as a whole	MAXIMUM SCORE (%)		
100.0	100.0	100.0	100.0	1			Themes
66.66	60.00	80.00	60.00	2			
70.58	64.70	70.58	70.58	3			

Total mean percentages attained by respondents grouped together according to years of experience varied from 35.18 to 40.00.



4.6.3 SCORES ACHIEVED BY APPOINTMENT STATUS

The scores of respondents grouped together according to appointment status are presented for the questionnaire as a whole, as well as for each of the themes identified. Refer to Table 4.32.

TABLE 4.32: SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO APPOINTMENT STATUS

Permanent	Part-time	Agency	Appointment Status				
			Total number of respondents (n = 165)				
145	16	4	Total number of respondents (n = 165)				
38.80	33.00	41.00	Total for questionnaire as a whole	MEAN PERCENTAGES FOR QUESTIONNAIRE AS A WHOLE AND IDENTIFIED THEMES			
52.27	31.25	40.00	1				Themes
39.77	29.58	35.00	2				
38.94	31.98	44.11	3				
12.00	16.00	12.00	Total for questionnaire as a whole	MINIMUM SCORE (%)			
0	0	0	1				Themes
06.66	0	06.66	2				
05.88	11.76	11.76	3				
72.00	52.00	60.00	Total for questionnaire as a whole	MAXIMUM SCORE (%)			
100.00	80.00	80.00	1				Themes
80.00	53.33	53.33	2				
70.59	52.94	70.59	3				

Total mean percentages attained for the questionnaire as a whole by the respondents grouped together according to appointment status varied from



33.00 to 41.00. Three respondents did not answer the question, and three of the six respondents who marked off the category 'other' did not specify their appointment status, therefore n=165.

4.7 COMPETENCY INDICATOR

4.7.1 ACHIEVEMENT OF THE ENTIRE GROUP

The competency indicator for this questionnaire was set at 60%. (Refer to 4.3.1.) The total average percentage achieved by the group of 171 respondents was 38.46, which was 21.54% below the competency indicator. It could thus be concluded that the knowledge of the respondents regarding legal liability issues in the critical care environment was far below standard. The lowest total average score obtained by a respondent was twelve per cent (12%) and the highest was seventy-two per cent (72%). Only nine (9) respondents (5.26% of all participants) achieved a percentage on or above the competency indicator. Thus, 162 respondents (94.74%) could not achieve 60% - a performance standard that should be attainable by every competent, knowledgeable critical care nurse.

The level of competency of respondents grouped according to biographical data (qualification, years of experience, and appointment status) was also assessed. The competency level of each separate group will be discussed briefly.

4.7.2 COMPETENCY BY QUALIFICATION

4.7.2.1 Master's degree

Three (3) respondents (100%) with a master's degree in critical care nursing were found incompetent.



4.7.2.2 Degree

One (1) respondent (100%) with a degree in critical care nursing was found incompetent.

4.7.2.3 Diploma

Sixty-four (64) respondents had a diploma in critical care nursing. The majority of these respondents, namely 60 (93.75%), were found incompetent, while four (6.25%) achieved a percentage on or above the set competency indicator and were thus found competent.

4.7.2.4 Certificate

Eight (8) respondents (100%) reported that they had a certificate in critical care nursing. All were found incompetent.

4.7.2.5 Experience

Seventy-five (75) respondents reported experience in critical care nursing as highest qualification. Three of these respondents (4%) achieved a mean percentage of 60% or above and were found to be competent, while 72 respondents with critical care nursing experience (96%) were found incompetent.

4.7.2.6 Critical care nursing student

Fifteen (15) respondents were critical care nursing students. Fourteen of these students (93.33%) were found incompetent, while one student scored on or above the competency indicator of 60% and was found competent.



4.7.2.7 Unspecified

Five respondents did not specify their highest qualification. Only one of these respondents (20%) achieved a percentage on or above the set competence indicator and was found competent.

4.7.2.8 Summary of scores achieved by respondents grouped together according to qualification

The mean percentages for the questionnaire as a whole achieved by respondents grouped together according to qualification, as well as the minimum and maximum scores, are set out in Table 4.33. These scores could be compared to the set competency indicator.

TABLE 4.33: SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO QUALIFICATION

Qualification	Number of Respondents	Mean %	Minimum Score (%)	Maximum Score (%)	Standard Deviation
Master's Degree	3	45.33	36	56	10.06
Degree	1	44.00	44	44	Only one resp
Diploma	64	39.63	12	64	11.38
Certificate	8	40.00	32	48	04.79
Experience	75	36.49	12	72	12.97
Student	15	44.00	16	60	10.96



4.7.3 COMPETENCY BY YEARS OF EXPERIENCE

4.7.3.1 < 2 years

Forty-nine (49) respondents had less than two years experience in critical care nursing. Forty-six (46) of them (93.88%) were found incompetent, while three (6.12%) achieved mean percentages on or above the set competency indicator, and were therefore found competent.

4.7.3.2 2-5 years

Forty-two (42) respondents had two to five years of experience in critical care nursing. Thirty-nine (39) of these respondents (92.86%) were found incompetent, while three (7.14%) scored 60% or above, and were therefore found to be competent.

4.7.3.3 6-9 years

Twenty-six (26) respondents had six to nine years of experience in critical care nursing. All (100%) were found incompetent.

4.7.3.4 ≥ 10 years

Fifty-four (54) respondents had ten or more years of experience in critical care nursing. Three (5.56%) were found to be competent, while 51 (94.44%) were found incompetent.

4.7.3.5 Summary of achievements of respondents grouped together according to years of experience in the critical care environment

The achievements of the respondents grouped together according to years of experience as described above are summarised in Table 4.34.



TABLE 4.34: SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO YEARS OF EXPERIENCE

Years of experience	Number of respondents	Mean %	Minimum score (%)	Maximum score (%)	Standard deviation
<2	49	35.20	12	60	12
2-5	42	39.04	12	72	13.63
6-9	26	38.47	16	64	11.32
≥10	54	40.97	12	64	10.31

4.7.4 COMPETENCY BY APPOINTMENT STATUS

4.7.4.1 Unspecified

All three (3) the respondents (n=168) who did not specify their appointment status were found incompetent.

4.7.4.2 Permanent staff

One hundred and forty-five (145) respondents (representing 86.31% of all participants) were permanent staff members. Eight of these respondents (5.52%) were found competent, while 137 (94.48%) were found incompetent.

4.7.4.3 Part-time staff

Sixteen respondents (9.52%) were part-time employees. All were found incompetent.

4.7.4.4 Agency staff

Four respondents (2.38%) were agency staff members. Three of them (75%) were found incompetent, while one (25%) achieved a mean percentage on or above the set competency indicator.



4.7.4.5 Summary of achievements of respondents grouped together according to appointment status

The achievements described above are summarised in Table 4.35.

TABLE 4.35: SUMMARY OF SCORES ACHIEVED BY RESPONDENTS GROUPED TOGETHER ACCORDING TO APPOINTMENT STATUS

Appointment status	Number of respondents	Mean %	Minimum score (%)	Maximum score (%)	Standard deviation
Permanent	145	38.84	12	72	11.85
Part-time	16	33.00	16	52	9.41
Agency	4	41.00	12	60	22.00

4.8 CONCLUSION

Findings discussed in this chapter will be grouped in order to draw conclusions regarding critical care nurses' knowledge of legal liability issues in the critical care environment. These conclusions as well as recommendations for further research will be discussed in detail in Chapter 5. The limitations of the study and the recommendations for nursing practice, nursing education and nursing management will also be discussed. The outline of an education programme aimed at bettering the knowledge of critical care nurses regarding legal liability issues in the critical care environment will be discussed briefly, as it will be included as Annexure D.



CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS OF THE STUDY

5.1 INTRODUCTION

In this chapter, the conclusions and recommendations of the study are discussed.

The aim of this study was to determine the knowledge of critical care nurses regarding legal liability issues in the critical care environment. The objectives were threefold:

- The first objective of the study was to conduct a patient record audit in order to determine the legal liability issues that are encountered on a daily basis by critical care nurses in the South African context. Data obtained from the audit, as well as available literature, had to be used for the construction of a questionnaire. This objective was met through the development a forensic patient record audit instrument in the form of a checklist and by doing a retrospective patient record audit (phase one of the research). After phase one, the questionnaire was developed by incorporating the data obtained during the phase-one research, as well as literature.
- The second objective of the study was to determine critical care nurses' level of knowledge regarding legal liability issues in the critical care environment. This objective was met by conducting a survey among critical care nurses working in a private hospital group, using the questionnaire as measuring instrument. The data obtained from the survey was analysed and presented in table format.



- The third objective of this study was to make recommendations for the design of an education programme dealing with the topic of this study. In this chapter, the outline of an education programme is presented.

5.2 MAIN FINDINGS AND CONCLUSIONS

A questionnaire was used as the data collection instrument. The questionnaire measured the knowledge that critical care nurses, who work in a private hospital group in South Africa, have regarding legal liability issues.

Two hundred (200) questionnaires were distributed to critical care nurses at twelve hospitals of a specific private hospital group in South Africa. A total of 171 questionnaires were returned, a response rate of 85%. All the returned questionnaires were used in the study. Therefore, 171 respondents participated in the survey.

The data was processed with the assistance of a professional statistician. Descriptive statistics were used for the data analysis. In Chapter 4, the research findings were presented and described.

The results of the data analysis (refer to Chapter 4) are interpreted and discussed.

The total average percentage achieved by the entire group of respondents (n=171) was 38.45. This is 21.55% below the set competency indicator of 60%. It can be concluded that the respondents' level of knowledge regarding legal liability issues in the critical care environment is below standard.

The lowest total average score by a respondent was 12%, whereas the highest was 72%. Only nine respondents achieved a percentage on or above the competency indicator of 60% – the level of knowledge deemed necessary and acceptable in order to ensure a safe performance practice standard for critical

care nurses in the critical care environment. This performance standard should be attainable by every nurse working in a critical care unit.

5.2.1 COMPETENCY BY BIOGRAPHICAL DATA

When the respondents were grouped together *according to qualifications*, the group with only experience in critical care nursing was represented best, with 75 (43.86%) respondents. Out of this group, 72 (96%) were found to be incompetent. Of those whose highest qualification was a diploma in critical care nursing (n=64, representing 37.43% of all respondents), 60 (93.75%) were found to be incompetent.

There is no significant difference between the scores of these two groups and the assumption can be made that the majority of nurses working in critical care units are in need of a training programme dealing with legal liability issues.

When grouped together *according to years of experience*, the group with ten years of experience or more was represented best, with 54 respondents (31,58%). Out of this group, 51 (94.44%) respondents were found incompetent. Of the group with less than two years of experience (n=49, representing 28.65% of the respondents), 46 respondents (93.85%) were found incompetent.

Once again, there was no significant difference between the scores achieved by these two groups. Both groups (totalling 103 respondents and representing 60.23% of the entire group) demonstrated a lack of knowledge in legal liability issues in the critical care environment.

Respondents that had between two and ten years of experience attained a mean percentage of less than 40%, a score that is below the competency indicator of 60% and thus below standard. This indicates that training is necessary for all the groups within this biographical subsection.



When the respondents were regrouped *according to appointment status*, those appointed as permanent staff (n=145 or 83,31%) were represented best. Out of this group, 137 respondents (94.48%) were found to be incompetent.

The results of part-time and agency personnel, as analysed in Chapter 4, were also below the competency indicator of 60% and thus below standard. Again, this was an indication that no group needed less training on this topic than another.

5.2.2 COMPETENCY OF DIFFERENT GROUPS FOR THE DIFFERENT THEMES

In this section, the results of the different themes as pointed out in Chapter 4 will be interpreted.

5.2.2.1 Theme 1: Wounds and wound characteristics

The mean percentage obtained by the entire group for this theme was 49.59. This was the highest mean percentage obtained for any of the three themes. Since critical care nurses handle patients with a variety of wounds on a daily basis and a number of patients suffering from wounds become involved with legal liability issues, these findings are discouraging. The highest score obtained here was 100%, whereas the lowest score was zero. This theme should be included in a training programme dealing with the topic of the study.

5.2.2.2 Theme 2: Evidence collection and preservation

This theme was concerned with evidence recognition, collection and preservation. The mean obtained for this theme by the entire group was 38.67%, 21.33% below the competency indicator and therefore below standard. Knowledge regarding this theme is of utmost importance, since the 'chain of custody of evidence' starts with evidence recognition and collection. Again, this is an indication that this theme should be included in a training programme.



5.2.2.3 Theme 3: Documentation

This theme was concerned with the precise documentation of all relevant information. The mean percentage obtained by the whole group for this theme was 38.21, which is 21.79% below the competency indicator and therefore below standard. This theme should also be included in an education programme.

5.3 RECOMMENDATIONS

Recommendations, based on the findings of this study, are made for critical care nursing practice, nursing education, nursing management and nursing research.

5.3.1 RECOMMENDATIONS FOR CRITICAL CARE NURSING PRACTICE

- Critical care nurses working in the critical care environment should be made more aware of medico-legal liability issues and of increasing financial claims against their practice and employers. They should also be made aware of the effects that these claims could have on their patients and their patients' families, as well as on their own career and family life.
- The findings and recommendations of this study should be brought to the attention of all critical care nursing personnel working in the critical care environment. Legal liability issues in the critical care environment add a new dimension to the science and should be added to their knowledge. This could improve the care of the patient and the legibility of the nursing care rendered.
- In the critical care environment, more emphasis should be placed on assistance for the victims of crimes and on convictions of assailants.

- A secure environment should be created for patients with legal liability issues. The environment should contribute to an improved holistic nursing approach toward these patients and their loved ones.

5.3.2 RECOMMENDATIONS FOR NURSING EDUCATION

- Adequate knowledge regarding legal liability issues in the critical care environment will enable nurses to recognise the living forensic patient (a patient with potential or definite legal liability issues). Therefore, these issues should be added to their knowledge base.
- The guidelines for an education programme developed in this study should be instituted in the private hospital group where the study took place (Refer to Annexure D).
- Negotiations could be held with other hospital groups regarding the guidelines for the education programme developed in this study in order to allow for their use within these hospital groups.
- Forensic nursing and legal liability issues should be included in the training programme for critical care students.
- The practical component of critical care students should be broadened so that competent forensic nurses can be entered into the critical care practice, thereby contributing to a more secure critical care environment. Critical care students could even be rotated to different forensic and legal departments. As these environments are not open for the public, it is recommended that nurses be assisted in this regard.

5.3.3 RECOMMENDATIONS FOR NURSING ADMINISTRATION

- It is important that nursing administrations make provision for the in-service training of critical care personnel in forensic nursing and legal

liability issues. Provision can be made in terms of financial support, on-duty time for courses, and the availability of additional staff whenever critical care nurses attend relevant courses.

- When candidates are considered for employment in the critical care environment, great caution should be taken to appoint nurses with the relevant academic background, as well as practical experience. The critical care environment is a dynamic, sophisticated clinical set-up, and competent, knowledgeable, specially trained nurses should be responsible for the quality care of patients.
- The critical care unit should be well staffed by an adequate supply of competent, knowledgeable and skilled nurses in order to ensure that the nursing care rendered to patients with legal liability issues is conducted in a holistic manner.
- Nursing care rendered to patients with legal liability issues must contribute toward an Integrated Practice Model of Forensic Nursing, which unites the disciplines of nursing science, forensic science and criminal justice (Lynch 1995:490).

5.3.4 RECOMMENDATIONS FOR NURSING RESEARCH

- Since nursing is a public profession, it has a responsibility to maintain certain standards of practice, while taking care of victims of human violence. The need for setting guidelines and standards for a Practice Model of Forensic Nursing is clearly identified in this study and should therefore be thoroughly researched in further studies.
- This study could be replicated in order to compare the knowledge levels of staff employed in other private and academic hospitals.

- The study could be replicated in order to test the level of knowledge regarding other components of legal liability issues in the critical care environment, such as organ donation, 'do not resuscitate' orders, living wills and relevant laws (including the constitution).
- Since nursing practice is built on evidence-based research, the interface and interplay of research, theory and practice will provide the advancement and evolution of forensic nursing (Clements & Sekula 2005:1-3). This could lay the foundation for advances in the care of offenders and survivors of interpersonal violence, crime, traumatic death, and the continuously increasing medico-legal liability issues experienced in the critical care environment today.
- Further avenues of research in clinical forensic nursing (legal liability management) are as follows:
 - Health education and prevention as an antiviolence strategy for nurses
 - Forensic photography in nursing
 - The use of surveillance cameras in the critical care environment
 - The role and impact of modern technology in the privacy and confidentiality of patients (victims)
 - The role of the suspiciousness factor in nursing
 - The role of the clinical forensic nurse consultant
 - The role of the clinical legal nurse consultant
 - Nursing and legal risk identification, preventative management and evaluation
 - Legal management of HIV patients in the critical care environment
 - Forensic psychiatric nursing and the impact of unnatural injury, wounding, violence and death on victims and their family
 - The critical care nurse as an expert witness
 - The rights of the critical care nurse regarding agency (moonlighting) staff members and the labour law

- The critical care nurse as a shift leader, with responsibility, accountability and liability regarding legal issues in the critical care environment
- Forensic auditing of living or deceased forensic patients' documentation
- Forensics quality improvement programmes for the critical care environment
- The critical care nurse (permanent, part-time and agency) and legal accountability for additional tasks in the critical care environment

5.4 LIMITATIONS OF THE STUDY

- Only one private hospital group was involved in this study. Therefore, the study findings cannot be generalised beyond this hospital group.
- Since the field of forensic nursing and legal liability issues is a new field in nursing, the researcher had to minimise the questions to familiar legal liability issues. The questionnaire addressed only part of the theory regarding legal liability issues and the vast majority of the practical and theoretical evaluations required were not included in the content of this study.
- Because the questionnaires were self-administrative, the respondents could not ask the researcher for clarification on questions that they did not understand. However, the researcher was available telephonically twenty-four hours a day for their assistance.

5.5 REFLECTION ON THE STUDY

After the distribution and collection of the questionnaires, the researcher received a number of enquiries from critical care nurses regarding the field and topic of the study. The most general comment was that the questions asked in

the questionnaire provoked thought regarding these issues and revealed to the respondents that their level of knowledge was inadequate. The nursing personnel of the hospital group where the researcher was employed also made enquiries about the possibility of introducing an education programme dealing with the topic as part of in-service training. The researcher also received enquiries from other units in this hospital group about the possibility of an intranet, long distance education programme on specific forensic and legal liability issues, not only for the critical care nurses, but also for emergency departments, as suggested by clinical and development consultants and clinical tutors.

Enquiries about an educational training programme and information about the topic of the study were also received by critical care nurses of two other hospital groups, through agency personnel members who had participated in the study.

This study provoked critical care nurses to acknowledge their experience of a lack of knowledge regarding legal liability issues and of the newness of the forensic nursing field. Most of the comments made were of an experienced increase in legal liability cases in the critical care environment and a willingness to add knowledge regarding legal liability issues and forensic nursing to the existing critical care base of knowledge in order to ensure safe patient care and the protection of their qualification.

5.6 SUGGESTED EDUCATION PROGRAMME GUIDELINES

The aim of an education programme dealing with forensic nursing and legal liability issues in the South African critical care environment would be to provide the critical care student/registered nurse with adequate knowledge and skill to manage patients with legal liability issues. The programme should include comprehensive theory, practical skills and research aspects.

As the researcher was employed in a specific hospital group, the education programme guidelines of this study were developed according to a standard

format, and are not necessarily comprehensive. (Refer to Annexure D for Education Programme Guidelines outline in Microsoft PowerPoint Presentation format).

5.7 FINAL CONCLUSION

The objectives of this study, as discussed at the beginning of this chapter, were achieved. A shift in thought among critical care nurses regarding legal liability issues was identified. This shift can only be beneficial to the discipline of critical care nursing, as forensic nursing promotes the legal, civil and human rights of patients with legal liability issues (Lynch 1995:490). In the future, forensic nursing, with its foundation in critical care nursing, will be required to move toward an evidence-based approach. As this research has identified, forensic nursing is the cutting edge issue in nursing education, practice and research and will be a critical issue in the 21st century. (Clements & Sekula 2005:1-3.)



BIBLIOGRAPHY

AACN. 2002. See AMERICAN ASSOCIATION OF CRITICAL CARE NURSES. 2002.

AIDS LAW PROJECT & LAWYERS FOR HUMAN RIGHTS. 1997. HIV/AIDS and the law - A resource manual. Photostat copy.

AMERICAN ASSOCIATION OF CRITICAL CARE NURSES. 2002. *About critical care nursing* [Online]. Available: <http://www.aacn.org> [Accessed: 31 May 2003].

BAK, N. 2004. *Completing your thesis: A practical guide*. Pretoria: Van Schaik.

BARTON, S. 1995. Investigating forensic nursing. *Kansas Nurse*, 70(6), Jun/Jul: 3-4 [Online]. Available: <http://gateway2.ovid.com/ovidweb.cgi> [Accessed: 23 April 2003].

BRINK, H. 1996. *Fundamentals of research methodology for health care professionals*. Cape Town: Juta.

BURNS, N & GROVE, SK. 1996. *The practice of nursing research*. 4th Edition. Philadelphia: Saunders.

CLARK, M. 1996. *Nursing in the community*. 2nd Edition. Stamford, USA: Appleton & Lange.

CLEMENTS, P & SEKULA, K. 2005. Toward advancement and evolution of forensic nursing: The interface and interplay of research, theory, and practice. *Journal of Forensic Nursing*, 1(1): 1-3.



COCHRAN, M. 1999. The real meaning of patient-nurse confidentiality. *Critical Care Nurse Quarterly*, 22(1): 42-51.

COURSON, S. 2003. *The investigative speciality of forensic nursing*. Pennsylvania State Nurses Association [Online]. Available: <http://www.psna.org/Career/forensic.htm> [Accessed: 3 January 2003].

DALY, BJ. 1996a. Ethics in critical care. *In*: McCloskey, JC & Bulechek, GM. *Nursing interventions classifications (NIC)*. 3rd Edition. St Louis: Mosby: 15-23.

DALY, BJ. 1996b. Legal issues in critical care. *In*: McCloskey, JC & Bulechek, GM. *Nursing interventions classifications (NIC)*. 3rd Edition. St Louis: Mosby: 32-33.

DE VOS, AS (ed.), STRYDOM, H, FOUICHE, CB & DELPORT, CSL. 2002. *Research at grass roots*. 2nd Edition. Pretoria: Van Schaik.

DUMA, S & OGUNBANJO, G. 2004. Forensic documentation of intimate partner violence in primary health care. *South African Family Practice*, 46(4): 37-40.

ELLIS, JM. 1999. Barriers to effective screening for domestic violence by registered nurses in the emergency department. *Critical Care Nurse Quarterly*, 22(1): 27-41.

ELS, T. 2003. Telephonic interview with Dr T Els, private pathologist, Bloemfontein, 1 June.

FULTON, DR. 2000a. Recognition and documentation of domestic violence in the clinical setting. *Critical Care Nurse Quarterly*, 23(2): 26-34.

FULTON, DR. 2000b. Early recognition of Münchhausen syndrome by proxy. *Critical Care Nurse Quarterly*, 23(2): 35-42.



FULTON, DR. 2000c. Shaken baby syndrome. *Critical Care Nurse Quarterly*, 23(2): 43-50.

GOLL-McGEE, B. 1999. The role of the clinical forensic nurse in critical care. *Critical Care Nurse Quarterly*, 22(1): 8-17.

HENNING, E, GRAVETT, S & VAN RENSBURG, W. 2002. *Finding your way in academic writing*. 2nd Edition. Pretoria: Van Schaik.

HOWARTH, G. 2003a. Futility – caveat lector. *South African Family Practice*, 45(8): 48-9.

HOWARTH, G. 2003b. Private and confidential. *South African Family Practice*, 45(4): 50-1.

HOYT, CA. 1999. Evidence recognition and collection in the clinical setting. *Critical Care Nurse Quarterly*, 22(1): 19-26.

HUYSAMEN, GK. 1994. *Methodology for the social and behavioural sciences*. Halfway House: Southern Book Publishers.

KNIGHT, B. 1997. *Simpson's forensic medicine*. 11th Edition. Oxford: Oxford University Press.

KOTZE, WJ, FINDLAY, HM, SEARLE, C & VENTER, I. 1992. *Policy on ethical considerations in nursing*. Pretoria: South African Nursing Council.

LAWSON, L. 1998. Forensic nursing council established. *Arkansas Nurse News*, 15(1): 18 [Online]. Available: <http://gateway2.ovid.com/ovidweb.cgi> [Accessed: 23 April 2003].

LYNCH, V. 1995. Clinical forensic nursing. A new perspective in the management of crime victims from trauma to trial: *Critical Care Nursing Clinics of North America*, 7(3), September: 489-505.



MACMILLAN ENGLISH DICTIONARY FOR ADVANCED LEARNERS. 2002. Oxford: Macmillan Education.

MEDICAL RESEARCH COUNCIL. 2003a. Boozy pedestrians most likely to die on South African roads. *MRC Publications, Press releases, April* [Online]. Available: <http://www.mrc.ac.za>. [Accessed: 6 October 2003].

MEDICAL RESEARCH COUNCIL. 2003b. Firearms the leading cause of non-natural death. *MRC Publications, Press releases, April* [Online]. Available: <http://www.mrc.ac.za>. [Accessed: 2 April 2003].

MELLISH, JM & BRINK, H. 1996. *Teaching the practice of nursing*. 3rd Edition. Sandton: Heinemann Higher and Further Education.

MOUTON, J. 2001. *How to succeed in your master's and doctoral studies: A South African guide and resource book*. Pretoria: Van Schaik.

MRC. 2003a. See MEDICAL RESEARCH COUNCIL. 2003a.

MRC. 2003b. See MEDICAL RESEARCH COUNCIL. 2003b.

MÜLLER, K. 2002. *Sexual assault and child abuse: Course material: Continuing Medical Education Programme*. University of Pretoria Faculty of Medicine.

MÜLLER, K. 1997. *Child sexual abuse: Principles and practical points. Course material: Continuing Medical Education Programme*. University of Pretoria Faculty of Medicine.

MÜLLER, K & SAAYMAN, G. 2003. Forensic science in medicine: What every doctor in SA should know. *South African Family Practice*, 46(6): 41-5.



NURSING expands into emerging arena forensics. 1998. *Pennsylvania Nurse*, 53(4), April: 17 [Online]. Available: <http://gateway2.ovid.com/ovidweb.cgi> [Accessed: 23 April 2003].

OOSTHUIZEN, H. 2003. *Health care and the law. GRV 122: course material*. Bloemfontein: University of the Free State.

OOSTHUIZEN, H. 2001. Violence against and sexual abuse of women in South Africa. *Journal for Juridical Science*, 26(1): 51-67.

OOSTHUIZEN, H. 2000. Child abuse, neglect and sexual misuse in South Africa. *Journal for Juridical Science*, 25(3): 110-131.

PASQUALONE, GA & FITZGERALD, MS. 1999. Münchhausen by proxy syndrome: The forensic challenge of recognition, diagnosis, and reporting. *Critical Care Nurse Quarterly*, 22(1): 52-64.

PHIPPS, SM. 1999. *Medical and surgical nursing*. 6th Edition. St Louis: Mosby.

POLIT, DF, BECK, CT & HUNGLER, BP. 2001. *Essentials of nursing research: Methods, appraisal, and utilization*. 5th Edition. Philadelphia: Lippincott.

REILLEY, JL. 2000. *Curriculum proposal: Master of Science in Forensic Nursing*. Widener University [Online]. Available: <http://www.newfoundations.com/CurrProjects/ForeN.html> [Accessed: 27 April 2003].

ROSSOUW, D (ed.). 2003. *Intellectual tools: Skills for the human sciences*. 2nd Edition. Pretoria: Van Schaik.

SANC. 1978. See SOUTH AFRICAN NURSING COUNCIL. 1978.

SHERIDAN, DJ. 2002. Forensic nursing: Mixing the law with science. *Nursing Spectrum (Washington, DC/Baltimore Metro Edition)*, June, 12(12): 12-13.

SILVIA, AJ. 1999. Mechanism of injury in gunshot wounds: Myths and reality. *Critical Care Nurse Quarterly*, 22(1): 69-74.

SOMMERVILLE, J. 2005. Personal communication from J Sommerville, Statistician, Departement of Statistics, University of Pretoria, 24 October.

SOUTH AFRICA. 2003. *National Health Act, Act no. 61 of 2003*. Pretoria: Government Printer.

SOUTH AFRICA. 1996. *The Constitution of the Republic of South Africa, 108 of 1996*. Pretoria: Government Printer.

SOUTH AFRICA. 1983. *Child Care Act, Act no. 74 of 1983*. Pretoria: Government Printer.

SOUTH AFRICA. 1978. *Regulations relating to the Scope of Practice of persons who are registered under the Nursing Act*. Regulation R.2598, in terms of the Nursing Act, 1978 (Act no. 50, 1978, as amended). Pretoria: Government Printer.

SOUTH AFRICA. 1977. *Criminal Procedure Act, Act no. 51 of 1977*. Pretoria: Government Printer.

SOUTH AFRICAN NURSING COUNCIL. 1978. *Rules setting out acts or omissions in respect of which the council may take disciplinary steps. (Based on Regulation R.387, 1985, as amended)*. Pretoria: SANC.

SOUTH AFRICAN SOCIETY OF ANESTHESIOLOGISTS. 1999. Guidelines for intensive care in South Africa. Document VII: Guidelines for Practice. Photostat copy.

SUID-AFRIKA. 1998. *Wet op Gesinsgeweld, Nr. 116 van 1998*. Pretoria: Staatsdrukker.

SYKES, JB. 1983. *The Concise Oxford Dictionary*. 7th Edition. Oxford: Oxford University Press.

THELAN, LA, DAVIE, JK, URDEN, LD & LOUGH, ME. 1998. *Critical care nursing*. 3rd Edition. St Louis: Mosby.

UNIVERSITY OF PRETORIA. DEPARTMENT OF NURSING SCIENCE. 2003. *Employee health benefit course. Part 5: Medico-legal considerations (Course material: Forensic nursing module: BCur III)*. Pretoria.

WHITE, SW. 2000. Elder abuse: Critical care nurse role in detection. *Critical Care Nurse Quarterly*, 23(2): 20-5.

WINFREY, ME & SMITH, AR. 1999. The suspiciousness factor: Critical care nursing and forensics. *Critical Care Nurse Quarterly*, 22(1): 1-7.



ANNEXURE B

PATIENT RECORD AUDIT

ITEMS	Yes - was done	No – wasn't done	Not applicable	TOTAL
A. PATIENT HISTORY - BRIEF BIOGRAPHY				
Age	15	0	0	15/15
Gender	15	0	0	15/15
Date admitted	15	0	0	15/15
Time admitted	15	0	0	15/15
Period hospitalised	15	0	0	15/15
PRIMARY ADMISSION DIAGNOSIS	15	0	0	15/15
CLINICAL CAUSE OF ADMISSION	10	5	0	10/15
RISK FACTORS				
• Medical	9	6	0	9/15
• Surgical	9	6	0	9/15
• Social	8	7	0	8/15
B. SYSTEM ASSESSMENT				
1. NEUROLOGICAL				
Neurological abnormalities	11	4	0	11/15
Assist devices	1	0	14	1/1
Medication	5	0	10	5/10
Diagnostic procedures	5	0	10	5/15
Abnormalities recorded	5	2	8	5/7
2. CARDIOVASCULAR				
Haemodynamic parameters Blood pressure, pulse, Central venous pressure (CVP)	15	0	0	15/15
Invasive structures and devices	14	1	1	13/14
Period in situ	14	0	1	14/14
Medication	13	0	2	13/13
Diagnostic procedures recorded	13	0	2	13/13
Abnormalities recorded	14	0	1	14/14



ITEMS	Yes - was done	No – wasn't done	Not applicable	TOTAL
3. RESPIRATORY				
Abnormalities	13	1	1	13/14
Assist devise	11	0	4	11/11
Period in situ	11	0	4	11/11
Mode of ventilation	13	0	4	11/11
Supplemental oxygen	14	0	0	14/14
Arterial blood gas results	13	1	1	13/14
Medication	14	0	1	14/14
Diagnostic procedures	14	0	1	14/14
Abnormalities recorded	13	1	1	13/14
4. RENAL				
Abnormalities recorded	10	5	0	10/15
Assist structures	14	0	1	14/15
Type	14	0	1	14/14
Size	14	0	1	14/14
Period in situ	14	0	1	14/14
Medication	11	0	4	11/11
Diagnostic procedure	12	0	3	12/12
Abnormalities recorded	11	3	1	11/14
5. GASTRO- INTESTINAL(GI)				
GI abnormalities	14	1	0	14/15
Assist structures	14	1	0	14/15
Nutrition	14	0	1	14/14
Type	15	15	15	15/15
Medication	12	0	3	12/12
Diagnostic procedures recorded	12	0	3	12/12
Abnormalities recorded	12	0	3	12/12
6. OTHERS				
Electrolytes	15	0	0	15/15
Abnormalities recorded	15	0	0	15/15
C. CHAIN OF CUSTODY				
1. EVIDENCE: DOCUMENTATION OF PHYSICAL EVIDENCE				
FIRST CONTACT WITH EVIDENCE RECORDED				
• Admission ward	7	5	3	7/12
• Casualty	8	6	1	8/14
• Critical care unit	11	4	0	11/15
• Operating theatre	7	0	8	7/7
• Police	0	10	5	0/10
• Family	4	10	1	4/10
• Ambulance	3	10	2	3/13
• Witness	1	13	1	1/14



ITEMS	Yes - was done	No – wasn't done	Not applicable	TOTAL
1.2 PHYSICAL EVIDENCE RECORDED				
• Type	2	11	2	2/13
• Removed by	2	11	2	2/13
• Handed over to	0	13	2	0/13
• Preservation	0	13	2	0/13
1.3 PROCESSING OF CLOTHING RECORDED				
• Type	0	11	4	0/11
• Removed by?	0	11	4	0/11
• Handed over to?	0	11	4	0/11
• Preservation	0	11	4	0/11
• Type	0	13	2	0/13
• Removed by?	0	13	2	0/13
• Handed over to?	0	13	2	0/13
1.4 DOCUMENTATION: CHEMICAL EVIDENCE	3	5	7	3/8
• Type	3	5	7	3/8
• Date	3	5	7	3/8
• Results	3	5	7	3/8
• Abnormalities	3	5	7	3/8
2. DOCUMENTATION OF WOUNDS				
2.1 PHYSICAL FACTORS				
• Mechanical injury	0	11	4	0/11
• Thermal injury	1	11	3	0/11
• Barotraumas	0	11	4	0/11
• Injury due to ionic beams	0	11	4	0/11
• Ultrasound injury	0	11	4	0/11
2.2 CHEMICAL FACTORS				
• External contact	2	4	9	2/4
• Ingestion	0	4	9	0/4
• Inhalation	2	4	9	0/4
• Aspiration	1	4	9	1/4
• Parenteral	0	4	9	0/4
• Rectal	0	4	9	0/4
2.3 WOUND CHARACTERISTICS				
• Sharp injuries	0	13	2	0/13
• Blunt injuries	0	13	2	0/13
• Dicing injuries	0	13	2	0/13
• Bite injuries	0	13	2	0/13
• Patterned injuries	0	13	2	0/13
• Defense wounds	0	13	2	0/13
• Hesitation wounds	0	13	2	0/13
• Fast force injuries	0	11	4	0/11



ITEMS	Yes - was done	No – wasn't done	Not applicable	TOTAL
2.4 DOCUMENTATION OF:				
• Size/cm	0	12	3	0/12
• Colour				
• Foreign body (glass, bullets etc.)	0	12	3	0/12
• Treatment	1	11	3	1/12
2.5 QUESTIONS ASKED TO?				
• Patient	5	5	5	5/10
• Family	9	4	2	9/13
• Friends	4	6	5	4/10
• Investigator/police	0	11	4	0/11
• Ambulance personnel	1	10	4	1/10
• Witness	2	11	2	2/11
3. PATIENT RECORD				
3.1 LEGAL REQUIREMENTS				
• Date	15	0	0	15/15
• Time/applicable	14	1	0	14/15
• Signature	14	1	0	14/15
• All documentation identified/policy	14	1	0	14/15
• Nursing interventions recorded	8	7	0	8/15
• Effects of nursing interventions recorded	6	9	0	6/15
• Multi-disciplinary team-contact recorded	11	4	0	11/15
• Informed consent	10	4	1	10/14
3.2 DECEASED: LEGAL ASPECTS				
• Date	8	0	7	8/8
• Time	8	0	7	8/8
• Record complete - factors at time of death	10	5	0	10/15
• Lines in situ	1	7	7	1/8
• Condition of deceased when taken by state/police	6	6	3	6/12
• Date taken	6	1	8	6/8
• Time taken	6	1	8	6/8
• Name of inspector	0	8	7	0/8



ITEMS	Yes - was done	No – wasn't done	Not applicable	TOTAL
• Documentation re. investigation Results handed over to police	0	7	8	0/7
• By whom?	0	7	8	0/7
• To whom?	0	7	8	0/7
• Family present at death	2	6	7	2/6
• Family supported by whom?	3	5	7	3/8
• Organ donation?	2	5	8	2/7



WANT TO LOSE YOUR EPAULETTE?

Yes or No?

Choose wisely!

If you choose Yes...

Ignore the questionnaire



If you choose **NO** . . .

Complete the questionnaire and help to identify shortcomings in critical care nurses' knowledge regarding legal liability issues in the critical care environment

PLEASE TAKE NOTE THAT PARTICIPATION IN THIS SURVEY IS VOLUNTARY



Dear Respondent

RESEARCH: CRITICAL CARE NURSES' KNOWLEDGE REGARDING LEGAL LIABILITY ISSUES IN THE CRITICAL CARE ENVIRONMENT

I am in the process of completing the MCur (Clinical) degree at the University of Pretoria (UP). In order to fulfil the requirements for the degree I have to do a research study, and I plan to conduct research on the above-mentioned topic.

The purpose of my study is to determine the knowledge of critical care nurses about legal liability issues in the critical care environment, which includes the living forensic patient. Since the field of forensic nursing is still very new in the South African nursing context, your voluntary participation in this study is important. If data obtained during the study stresses the need for a training programme on forensic nursing, recommendations in this regard will be made.

The study protocol was submitted to the UP Faculty of Health Sciences' Research Ethics Committee. Written approval has been granted. Permission to conduct the study was also given by the relevant authorities of the Medi-Clinic Hospital Group.

This letter will help you decide if you would like to participate in the survey. You will be asked to complete a questionnaire. Completion will take about twenty (20) minutes. As your input is very important, you will be asked to answer **all** the questions. After completion, the questionnaire has to be deposited in the box provided by the coordinator. Your participation will be anonymous and therefore you will be required not to write your name on the questionnaire.

Any question you may have and which is not fully dealt with in this letter can be referred to the researcher. You may refuse to participate, or withdraw at any time, without stating any reason.

However, the implication of completing the questionnaire is that informed consent has been obtained from you. Data obtained from the questionnaires will be treated as strictly confidential. Findings from the research study that may be reported in scientific journals will not include any data that can identify you or any other participant in the study. The information given by you will not be traceable and you will therefore not be able to recall your consent.

The questionnaire should be completed by marking the appropriate boxes as indicated in the following examples. Please use a **black pen**, and ignore all the boxes in the column marked "for office use only".



Example 1: Read the item below, choose your correct response and **mark it with an X in the applicable box.**

1.	Your level of qualification/experience in the critical care environment is:
A	Master's degree in advanced medical and surgical critical care
B	Degree in advanced medical and surgical critical care
C X	Diploma in medical and surgical critical care
D	Certificate in medical and surgical critical care
E	Critical care experience
F	Currently a critical care nursing student

Example 2: Regarding the following question, choose **the correct combination** of answers, and **mark it with an X** in the applicable box.

Which of the following statements are true with reference to diabetes mellitus?

- A: Patients experience breathing problems
- B: Fasting blood glucose levels exceed 6.2 mmol/L
- C: Symptoms of increased urine output, increased fluid intake, fruity-smelling urine and general tiredness often occur
- D: Delayed healing of wounds

1.	A, B, C
2. X	B, C, D
3.	A, C, D
4.	A, B, C, D
5.	A, D

Thank you for deciding to participate in the study. Because of your cooperation, recommendations will be made about the development of a forensic nursing training programme aimed at the critical care environment.

Lizma Hyde
(Researcher)



QUESTIONNAIRE

CRITICAL CARE NURSES' KNOWLEDGE REGARDING LEGAL LIABILITY ISSUES IN THE CRITICAL CARE ENVIRONMENT

For office use only

SECTION A – BIOGRAPHICAL DATA

Read each item and mark your choice of the correct response with an **X** in the applicable box.

**V1
Number**

1	2	3	4

1.	Your highest level of qualification/experience in the critical care environment is: (Please note: In this instance, your basic qualification is not relevant.)
A	Master's degree in advanced medical and surgical critical care
B	Degree in advanced medical and surgical critical care
C	Diploma in medical and surgical critical care
D	Certificate in medical and surgical critical care
E	Critical care experience
F	Currently a critical care nursing student

V2

5

2.	As a staff member, how long have you been working in the critical care environment?
	If less than one year, state months
	One year or more, state years only

V3

6	7

V4

8	9

3.	As a staff member, you are:
A	A permanent staff member
B	A part-time staff member
C	Other
D	Specify other:

V5

10



SECTION B – KNOWLEDGE BASE

Since the turn of the century, forensic knowledge (knowledge about matters relating to the law or legal liability issues) is increasingly required of critical care nurses worldwide because the rate of medico-legal patients in the critical care setting is rising, and so is the rate of unnatural deaths. Critical care nurses have to deal with patients who are admitted with life-threatening conditions and acute haemodynamic instabilities. Critical care units are becoming forensic domains and therefore specialised knowledge and skills are required of critical care nurses. Critical care nurses are therefore in need of forensic knowledge and skills. Holistic patient care is important, in order to seek justice for the victims, to support their loved ones and to serve society. To best determine the knowledge of critical care nurses regarding this topic, it is important that you answer **all** the questions to the best of your ability and avoid leaving questions open or unanswered.

SUBSECTION 1: GENERAL KNOWLEDGE

WITH REGARD TO LEGAL LIABILITY ISSUES, PLEASE ANSWER THE FOLLOWING QUESTIONS. MARK YOUR CHOICE OF THE CORRECT ANSWER WITH AN X IN THE APPLICABLE BOX.

Question 1:

In your opinion, which combination of the following statements defines the term clinical forensic nursing best?

Forensic nursing is the:

- A. Application of the nursing process to public and legal proceedings
- B. Application of clinical nursing practice in general
- C. Performance of an autopsy to determine the cause of death
- D. Application of forensic aspects of health care to the scientific investigation

1.	A, B
2.	B, C, D
3.	A, D
4.	A, C, D

V6

11



Question 2:

Which combination of the following statements describes a living forensic patient best?

The living forensic patient is a patient:

- A. With medico-legal concerns
- B. With uncontrolled seizures
- C. With legal liability-related trauma/injuries
- D. Whose patient history was misinterpreted, or not obtained and recorded

1.	A, B
2.	C, D
3.	A, C
4.	A, C, D

Question 3:

Which combination of the following responsibilities of critical care nurses regarding the living forensic patient relates to the conviction of an assailant?

- A. Identify unrecognised, or as yet unidentified, injuries
- B. Maintain the chain of custody of evidence (*behou die ketting van bewysstukbewaring*)
- C. Stabilise the living forensic patient
- D. Preserve evidence

1.	A, C, D
2.	B, D
3.	B, C
4.	A, B, D

For office use only

V7

--

10

V8

--

11



Question 4:

Holistic patient care is the common goal for all of us. In your opinion, which of the following sciences should be integrated in order to understand forensic nursing?

- A. Forensic science
- B. Criminal law
- C. Critical care
- D. General nursing science

1.	A, C
2.	B, C
3.	C, D
4.	A, B

Question 5:

Often, critical care units are forensic domains. Therefore, the critical care nurse should be more knowledgeable about and more skilled in:

- A. Court testimony
- B. Patients with the human immunodeficiency virus/ acquired immunodeficiency syndrome (HIV/Aids)
- C. Collection of forensic evidence
- D. Suspiciousness factor

1.	A, B, C,
2.	A, C
3.	B, D
4.	A, D

For office use only

V9

12

V10

13



Question 6:

Which one of the following aspects drives the association between forensic nursing and critical care?

- A. Protection of patients' rights
- B. Protection of nurses' rights
- C. Protection of the patients' civil, medical, human and legal rights
- D. The Nursing Act provision that patients should be nursed according to the Scope of Practice

1.	B
2.	A
3.	D
4.	C

Question 7:

Which of the following patients in the critical care environment can be described as a living forensic patient?

- A. A patient with full-blown Aids who is acutely ill
- B. A patient who is a victim of medical malpractice
- C. A patient who is a victim of domestic violence
- D. A patient with legal liability-related injuries

1.	C, D
2.	A, C
3.	A, B
4.	A, B, C, D

For office use only

V11

14

V12

15



Question 8:

In your opinion, which one of the following statements reflects the concept 'chain of custody of evidence' (*ketting van bewysstukbewaring*) most accurately?

- A. Documentation, diagrams, photographs - collect and preserve evidence
- B. Awareness and recognition of evidence
- C. The chain of custody begins with the person who first comes into contact with the living forensic patient
- D. The chain of custody begins with the person who collects the evidence and controls evidential material or the personal property of the victim

1.	A
2.	B
3.	C
4.	D

Question 9:

In which of the following cases should the critical care nurse collect evidence?

- A. Any traumatised patient admitted to a critical care unit
- B. Medico-legal cases
- C. Accident cases
- D. Patients with suspicious injuries

1.	A, B, D
2.	B, C
3.	A, C
4.	A, B, C, D

For office use only

V13

16

V14

17



SUBSECTION 2: PATIENT SCENARIO

For office use only

PLEASE READ THE FOLLOWING SCENARIO AND ANSWER THE QUESTIONS THAT FOLLOW. MARK YOUR CHOICE OF THE CORRECT ANSWER WITH AN X IN THE APPLICABLE BOX.

PATIENT SCENARIO

After a motorcycle accident, 20-year-old Melissa was rushed to the multi-disciplinary unit. She was first intubated by ambulance personnel at the scene of the accident. Her parents were questioned about the accident. According to them, she was sitting at the back of the driver of the motorbike, when a motor vehicle turned in front of them. She did not wear a crash helmet. She was thrown over the motor vehicle and fell with the back of her head hitting the road. She was immediately unconscious and unresponsive. Within minutes, ambulance personnel were at the scene of the accident and they intubated her shortly afterwards. On arrival at the unit, she was admitted to theatre for boreholes and insertion of an intracranial pressure monitor. Her vital statistics were as follows: Blood pressure 170/65 mmHg; pulse rate 52 per minute. She was mechanically ventilated - synchronised intermittent mandatory ventilation (SIMV) without positive end-expiratory pressure (PEEP). Within the next six days, intracranial pressures rose to 110 mmHg at stages. After six days in the intensive care unit, life-supporting equipment was disconnected and she was pronounced dead. In a special investigation into the cause of death, brain damage was discovered.

Question 1:

The reason for doing a medico-legal autopsy is to:

- A. Interpret injuries
- B. Confirm the diagnosis
- C. Determine the cause of death
- D. Interpret unnatural conditions associated with surgical or medical procedures

1.	B, C
2.	A, D
3.	A, C, D
4.	A, B, C, D

V15

18



Question 2:

In cases of brain damage, the criteria for diagnosing clinical death are as follows:

- A. Coma
- B. Hypothermia
- C. Brainstem test, positive
- D. No breathing response

1.	A, B, C
2.	C
3.	A, C, D
4.	A

Question 3:

Which procedures have to be taken by the critical care nurse in connection with the forensic patient after the patient is pronounced brainstem dead and ventilation is stopped?

- A. In the case of a medico-legal autopsy, emotional assistance should be given to the family.
- B. The critical care nurse should help wash and cover the body.
- C. All the lines should be removed before the deceased is collected by police investigators.
- D. All the lines should be left intact and the police undertakers should be called.

1.	A, D
2.	D
3.	A, B, C
4.	C

For office use only

V16

19

V17

20



SUBSECTION 3: WOUNDS AND WOUND CHARACTERISTICS

For office use only

Question 1-5:

Often, on admission of a patient, the critical care nurse records: *'New patient with multiple injuries and wounds admitted to the unit'*. Detailed documentation on the appearance of wounds can help determine the type of weapon used to inflict injury and serve as evidence to convict an assailant.

PAIR EACH DESCRIPTION OF WOUND CHARACTERISTICS IN COLUMN B WITH THE CORRECT TERM IN COLUMN A AND WRITE THE CORRECT SYMBOL FROM COLUMN A NEXT TO THE APPLICABLE QUESTION NUMBER. EACH QUESTION HAS ONLY ONE CORRECT ANSWER.

	A Wounds/ Injuries	B Wound characteristics	Question Number	Write symbol from A
A	Hesitation wound	Wounds resulting from penetration or cuts	1.	
B	Fast, forced injuries	Injuries resulting from crushing impact	2.	
C	Dicing injuries	Injuries consisting of multiple, minute cuts and lacerations	3.	
D	Sharp injuries	Self-inflicted wounds	4.	
E	Blunt injuries	Nurses should be knowledgeable about the mechanisms of firearms to recognise the patterns of injuries caused by these weapons	5.	
F	Defense wounds			

V18

21

V19

22

V20

23

V21

24

V22

25



SUBSECTION 4: EVIDENCE COLLECTION AND PRESERVATION

For office use only

ANSWER THE FOLLOWING QUESTIONS BY MARKING YOUR CHOICE OF THE CORRECT ANSWER WITH AN X IN THE APPLICABLE BOX. EACH QUESTION HAS ONLY ONE CORRECT ANSWER.

Question 1:

What should be avoided when the bloodstained clothing of a patient is removed?	
A.	To cut through tears, rips and holes
B.	To keep the clothes in a plastic bag
C.	To wash contaminated clothing
D.	To return the clothes to the family

V23

26

Question 2:

In which container should the bloodstained clothing be stored?	
A.	In a yellow plastic bag
B.	In a red plastic bag
C.	In a paper bag
D.	In the patient's locker in order to return it to the family

V24

27

Question 3:

On receiving a hit-and-run accident victim in the ICU, what evidence should be collected?	
A.	Cell phone, ID document, and other personal belongings
B.	Hairs, and fiber fragments of paint and glass
C.	History of accident

V25

28



Question 4:

In a suspected rape case, which document must be completed?	
A.	JQ 88
B.	Rape report document of the state hospital
C.	Document received by the police
D.	J 88

For office use only

V26

29

Question 5:

In the case of an accidental prick with a contaminated needle that was used for a ventilated, sedated and unconscious patient in the ICU, can the patient be tested for HIV without written informed consent?	
A.	No – under no circumstances
B.	Family may consent
C.	Doctor may consent
D.	Yes - unconditionally

V27

30

Question 6:

According to the South African law, the following test is applied to prove negligence by a nurse:	
A.	The fault test
B.	Negligence test
C.	Professional liability test
D.	Reasonable nurse test

V28

31



Question 7:

Section 39(4) of the Child Care Act, Act 74 of 1983, provides that children above the age of can give informed consent to medical treatment without the assistance of parents or guardians.	
A.	7 years
B.	12 years
C.	14 years
D.	16 years

For office use only

V29

32

Question 8:

What kind of information may be given by a critical care nurse to the media?	
A.	Patient progress
B.	Patient diagnosis
C.	None of the above

V30

33

THANK YOU FOR YOUR PARTICIPATION



EDUCATION PROGRAMME GUIDELINES

REGARDING

LEGAL LIABILITY

ISSUES

IN THE

CRITICAL

CARE

ENVIRONMENT



CONTACT DETAILS

- AUTHOR: Sr Lizma Hyde
- Office: 012 4400329
- Cell: 083 256 2459
- Telephone: 012 4400329
- Email: lizmahyde@absamail.co.za
- Copyright reserved: Sr Lizma Hyde



Overview

Introduction to the course and motivation

- Welcoming speech
- Nurses are challenged to share responsibilities with legal system
- Patients with liability related injuries, victims of crime, perpetrators, suspects
- Public service - need to maintain standards of practice
- Need to be more aware of the living forensic patient
- Patient with legal liability issues



AIM

- Aimed at critical care nurses/students working in the critical care environment
- To add a new dimension to the existing critical care knowledge base
- The management of legal liability issues in the critical care unit through integration of forensic science and nursing science



CRITICAL OUTCOMES

- Identifying the forensic patient or patient with legal liability issues
- Assisting the patient with legal liability issues & family
- Protecting these patients' civil, legal & human rights
- Assisting victims of human violence, negligence & malpractice - seek justice - legal system



Critical Outcomes

- Managing legal liability claims – effective employee
- Act as mentor - critical care nurses/students -
Forensic nursing - Legal liability course



Module 1

Forensic Nursing

FORENSIC NURSING DEFINED AS:

- “APPLICATION OF THE NURSING PROCESS TO
PUBLIC OR LEGAL PROCEEDINGS”

- “ APPLICATION OF FORENSIC ASPECTS OF
HEALTH CARE TO THE SCIENTIFIC INVESTIGATION
OF TRAUMA”



THE HISTORY OF FORENSIC NURSING

- INTERNATIONAL ASSOCIATION OF FORENSIC NURSES – MINNEAPOLIS, MINNESOTA 1992
- 1998 - NEW JERSEY CHAPTER – 1500 MEMBERS
- DIVERSE FIELDS, SUCH AS DOMESTIC VIOLENCE, CHILD ABUSE, ELDER ABUSE, TRAUMA, CRITICAL CARE



FORENSIC NURSING - SA

- FIRST TIME IN SOUTH AFRICA - 1998
- KIMBERLEY- NATIONAL CRIME AND PREVENTION STRATEGY CONGRESS
- INCREASED CRIME, RATE OF DOMESTIC VIOLENCE AND MEDICO-LEGAL RELATED PROBLEMS

A decorative graphic consisting of overlapping yellow, red, and blue squares with a black crosshair.

FORENSIC NURSING COURSE: SA

- DR ELS- LEADING SA PATHOLOGIST - IN CONTACT WITH VIRGINIA LYNCH - LEADING FORENSIC NURSE IN USA
- UNIVERSITY OF THE FREE STATE: COURSE IN:
- SEXUAL ASSUALT NURSING
- 2002 THE FIRST 40 STUDENTS- FORENSIC NURSING



SA Critical Care Nurse in ICU interacting with patients with legal liability issues

- Increase in number of unfiltered living forensic patients
- Forensic nursing and critical care nursing
- Protection of patients' civil, human, medical and legal rights

A decorative graphic consisting of overlapping yellow, red, and blue squares with a black crosshair.

The Critical Care Unit as Forensic Domain

- Any clinical setting a forensic area – legal liability issues are at stake
- Any patient with liability related injuries should be considered a living forensic patient
- SA - Increase in domestic violence, assault, child abuse, depression, retrenchments, attempted murder, murder



Module 2

Recognition of the patient with legal liability issues

- **Domestic Violence**
- **Definition of domestic violence**
- Pattern of controlling behaviour through:
 1. Humiliation
 2. Intimidation
 3. Fear
 4. Intentional physical, emotional, social, financial or sexual injury



Child Abuse



1. Child abuse (general)
2. Sexual child abuse
3. Physical child abuse
4. Child neglect
5. Emotional child abuse
6. Substance abuse
7. Munchhausen syndrome by proxy



Signs of Child Abuse (1)

- The child develops changes in behaviour
- Changed relationships
 - Phobias
 - Sexual behaviour
 - Clinical findings:
 1. Skin injuries: bruises, burns, bite marks
 2. Eye injuries: subconjunctival bleeding ect.
 3. Head injuries: Skull fractures



Signs of child abuse (2)

4. Abdominal injuries
5. Orthopaedic injuries
6. Chemical substance abuse
7. According to the Child Care Act, nurses should report all suspected child abuse cases



Elder Abuse

- Any intentional action or inaction that causes harm to the elderly

- Different types of elder abuse:
 - Physical abuse
 - Neglect
 - Psychological abuse
 - Psychological neglect
 - Financial, material abuse



Module 3

Recognition of Wound Characteristics and Trauma

➤ **Wound characteristics:**

Nurses should have a sound knowledge of types of injury

Nurses should be familiar with appropriate terminology

Nurses who cannot recognise types of injury appear unprofessional and serious crime goes unpunished



Wound characteristics

Wounding is damage to tissue caused by:

- Physical factors - mechanical injury
- Chemical factors - inhalation/aspiration/burns
- Wounding capability - area of application
- Patterns of injury – Observe, reflect, predict

- Injuries: Blunt trauma - Abrasions, contusions, lacerations
 Sharp trauma - Incised wounds, stab wounds



Recognition, collection and preservation of evidence

- The critical care nurse should be able to recognise, collect and preserve evidence
- Evidence may manifest only later during hospitalisation
- Proper admission assessment
- Proper documentation of injuries



Maintaining the “chain of custody of evidence” (ketting van bewysstukbewaring)

- The chain of custody begins with the person who collects the evidence
- Keeping records and preserving evidence – nurses’ actions ensure conviction of assailant - link
- Failure to maintain the chain of custody renders potential evidence worthless



MODULE 4

FORENSIC DOCUMENTATION AND SPECIFIC ETHICAL/MEDICO-LEGAL CONSIDERATIONS

- Narrative forensic documentation - WHY?
- Patient records used in court cases
- Narrative forensic documentation – ‘snapshots’ of HOW the victim presented in the health setting
- Nurses are the eyes and ears of the jury – patient advocate. Court case years after the incident.



INTEGRATION OF MEDICO-LEGAL AND ETHICAL ISSUES

- The integration of medico-legal and ethical issues in the critical care environment - nurses assume responsibility
- Critical care nurses are in unique position to act as patient advocate
- Advocacy incorporates values and standards
- Nurses should minimise their chances of being named in a lawsuit



Negligence and Malpractice

- **Negligence: definition**

Failure to meet a standard of care

- Causing harm to the patient

- Scope of Practice and acts and omissions (R.2598 & R.387)

- **Malpractice: definition**

Type of professional liability based on negligence

- Defendant held accountable - care involves specialised knowledge and skill



Informed Consent

- Areas where informed consent is needed for medical and surgical treatment – concerns are valid
- The term 'necessity' is relevant
- Intervention – if in society's best interest
- Privacy – respecting the autonomy of patients
- Confidentiality – should be maintained during patient care



Living wills and 'Do not resuscitate' orders

- Issues with ethical and legal implications
- Hospitals should have written policies on these issues
- Critical care nurses should be familiar with these policies



Module 5

The critical care nurse as an expert witness

- A nurse who is trained in critical care and forensic nursing science
- A critical care nurse with relevant experience
- A knowledgeable and competent critical care nurse who is recognised by others as an expert in the field
- Medical records of patients are comparable to records of flight data - they are evidential



Conclusion

- ' Wherever he steps, whatever he touches, whatever he leaves, even unconsciously, will serve as a silent witness against him. Not only his fingerprints or his footprints, but his hair, fibers from his clothes, the glass he breaks. The tool mark he leaves, the paint he scratches, the blood or semen he deposits or collects. All of these and more, bear mute witness against him. This is evidence that does not forget. It is not confused by the excitement of the moment. It is not absent because human witnesses are. It is factual evidence. Physical evidence cannot be wrong, it cannot perjure itself, it cannot be wholly absent. Only its interpretation can err. Only human failure to find it, study and understand it, can diminish its value.'

Professor Edmond Locard (1877-1966)
SA Farm Pract 2003,45(6):41-5